

UNITED STATES DEPARTMENT OF THE INTERIOR

HAROLD L. ICKES, Secretary

GEOLOGICAL SURVEY

W. C. MENDENHALL, Director

Water-Supply Paper 802

SURFACE WATER SUPPLY  
*of the* UNITED STATES

1936

PART 2

SOUTH ATLANTIC SLOPE AND  
EASTERN GULF OF MEXICO BASINS

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ALABAMA, FLORIDA, MISSISSIPPI, NORTH CAROLINA  
SOUTH CAROLINA, AND VIRGINIA



UNITED STATES

GOVERNMENT PRINTING OFFICE

WASHINGTON : 1938

# CONTENTS

	Page
Scope of work.....	1
Definition of terms.....	1
Explanation of data.....	1
Accuracy of field data and computed results.....	2
Publications.....	3
Records of discharge collected by agencies other than the Geological Survey.....	7
Cooperation.....	7
Division of work.....	7
Gaging-station records.....	8
James River Basin.....	8
Jackson River at Falling Spring, Va.....	8
James River at Lick Run, Va.....	9
James River at Buchanan, Va.....	10
James River at Holcombs Rock, Va.....	11
James River at Bent Creek, Va.....	12
James River at Scottsville, Va.....	13
James River at Cartersville, Va.....	14
James River near Richmond, Va.....	15
Warm Spring at Warm Springs, Va.....	16
Dunlap Creek near Covington, Va.....	17
Potts Creek near Covington, Va.....	18
Cowpasture River near Clifton Forge, Va.....	19
Craig Creek at Parr, Va.....	20
Meadow Creek at Newcastle, Va.....	21
Johns Creek at Newcastle, Va.....	22
Catawba Creek near Fincastle, Va.....	23
Calfpasture River at Goshen, Va.....	24
North River at Rockbridge Baths, Va.....	25
North River near Lexington, Va.....	26
Kerrs Creek near Lexington, Va.....	27
Tye River at Roseland, Va.....	28
Hardware River near Scottsville, Va.....	29
Slate River near Arvonion, Va.....	30
Rivanna River at Palmyra, Va.....	31
Appomattox River at Farmville, Va.....	32
Appomattox River at Mattoax, Va.....	33
Appomattox River near Petersburg, Va.....	34
Dismal Swamp Basin.....	35
Lake Drummond in Dismal Swamp, Va.....	35
Chowan River Basin.....	36
Nottoway River near Stony Creek, Va.....	36
Meherrrin River near Lawrenceville, Va.....	37
Roanoke River Basin.....	38
Roanoke River at Roanoke, Va.....	38
Roanoke River at Niagara, Va.....	39
Roanoke River near Toshes, Va.....	40
Roanoke River at Altavista, Va.....	41
Roanoke River at Brookneal, Va.....	42
Roanoke River near Clover, Va.....	43
Roanoke River at Clarksville, Va.....	44
Roanoke River at Roanoke Rapids, N. C.....	45
Blackwater River near Union Hall, Va.....	46
Pigg River near Toshes, Va.....	47
Snow Creek at Sago, Va.....	48
Goose Creek near Huddleston, Va.....	49
Otter River near Altavista, Va.....	50
Falling River near Brookneal, Va.....	51
Dan River near Francisco, N. C.....	52
Dan River at Leaksville, N. C.....	53
Dan River at Danville, Va.....	54
Dan River at South Boston, Va.....	55
Mayo River near Price, N. C.....	56
North Mayo River near Spencer, Va.....	57
Smith River at Martinsville, Va.....	58
Sandy River near Danville, Va.....	59
Banister River at Halifax, Va.....	60
Hyco River near Omega, Va.....	61
Tar River Basin.....	62
Tar River near Nashville, N. C.....	62
Tar River at Tarboro, N. C.....	63
Tar River at Greenville, N. C.....	64
Fishing Creek near Enfield, N. C.....	65
Neuse River Basin.....	66
Eno River at Hillsboro, N. C.....	66
Neuse River near Northside, N. C.....	67
Neuse River near Clayton, N. C.....	68
Neuse River near Goldsboro, N. C.....	69
Neuse River at Kinston, N. C.....	70
Flat River at Bahama, N. C.....	71
Flat River at dam near Bahama, N. C.....	72

## Gaging-station records--Continued.

	Page
Neuse River Basin--Continued.	
Dial Creek near Bahama, N. C.	74
Little River near Princeton, N. C.	75
Contentnea Creek near Wilson, N. C.	76
Contentnea Creek at Hookerton, N. C.	77
Cape Fear River Basin.	78
Haw River near Benaja, N. C.	78
Haw River at Haw River, N. C.	79
Haw River near Pittsboro, N. C.	80
Cape Fear River at Lillington, N. C.	81
Cape Fear River at Fayetteville, N. C.	82
Reedy Fork near Gibsonville, N. C.	83
Horsepen Creek at Battle Ground, N. C.	84
Buffalo Creek near Greensboro, N. C.	85
North Buffalo Creek near Greensboro, N. C.	86
West Fork of Deep River near High Point, N. C.	87
Deep River near Randleman, N. C.	88
Deep River at Ramseur, N. C.	89
East Fork of Deep River near High Point, N. C.	90
Muddy Creek near Archdale, N. C.	91
Lower Little River at Linden, N. C.	92
Pee Dee River Basin.	93
Yadkin River at Wilkesboro, N. C.	93
Yadkin River at Yadkin College, N. C.	94
Pee Dee River near Rockingham, N. C.	95
Fisher River near Copeland, N. C.	96
South Yadkin River at Cooleemee, N. C.	97
Uharie River near Trinity, N. C.	98
Rocky River near Norwood, N. C.	99
Little Brown Creek near Polkton, N. C.	100
North Fork of Jones Creek near Wadesboro, N. C.	102
Lynches River at Effingham, S. C.	104
Lumber River at Boardman, N. C.	105
Black River at Kingstree, S. C.	106
Santee River Basin.	107
Catawba River at Catawba, N. C.	107
Wateree River near Camden, S. C.	108
Santee River at Ferguson, S. C.	109
Linville River at Branch, N. C.	110
Little Sugar Creek near Charlotte, N. C.	111
Broad River near Chimney Rock, N. C.	112
Broad River near Boiling Springs, N. C.	113
Broad River at Richtex, S. C.	114
Second Broad River at Cliffsides, N. C.	115
North Pacolet River at Fingerville, S. C.	116
Pacolet River near Fingerville, S. C.	117
South Pacolet River Reservoir near Fingerville, S. C.	118
North Tyger River near Moore, S. C.	119
Tyger River near Woodruff, S. C.	120
South Tyger River near Redville, S. C.	121
South Tyger River near Woodruff, S. C.	122
Enoree River near Enoree, S. C.	123
Saluda River near Pelzer, S. C.	124
Saluda River at Chappells, S. C.	125
Saluda River near Silverstreet, S. C.	126
Lake Murray near Columbia, S. C.	127
Saluda River near Columbia, S. C.	128
Edisto River Basin.	129
South Fork of Edisto River near Denmark, S. C.	129
Savannah River Basin.	130
Seneca River near Anderson, S. C.	130
Augusta Canal near Augusta, Ga.	131
Altamaha River Basin.	132
Ocmulgee River at Macon, Ga.	132
Altamaha River at Doctortown, Ga.	133
Oconee River at Dublin, Ga.	134
Satilla River Basin.	135
Satilla River at Atkinson, Ga.	135
St. Marys River Basin.	136
St. Marys River near Macclenny, Fla.	136
St. Johns River Basin.	137
St. Johns River near Christmas, Fla.	137
St. Johns River near De Land, Fla.	138
Econlockhatchee River near Chuluota, Fla.	139
Wekiva River near Sanford, Fla.	140
Blue Spring near Orange City, Fla.	140
Oklawaha River near Ocala, Fla.	141
Oklawaha River near Connor, Fla.	142
Oklawaha River near Orange Springs, Fla.	143
North Fork of Black Creek near Middleburg, Fla.	144
Lake Okeechobee Basin.	145
Lake Okeechobee at St. Lucie Canal, Fla.	145
Kissimmee River below Lake Kissimmee, Fla.	146
Kissimmee River near Okeechobee, Fla.	147
Istokpoga Canal near Cornwell, Fla.	148
St. Lucie Canal at Lock 1, at Lake Okeechobee, Fla.	149
Fisheating Creek at Palmdale, Fla.	150
Caloosahatchee River Basin.	151
Caloosahatchee River near Citrus Center, Fla.	151

## Gaging-station records--Continued.

	Page
Peace Creek Basin.....	152
Peace Creek at Zolfo Springs, Fla.....	152
Peace Creek at Arcadia, Fla.....	153
Kissengen Spring near Bartow, Fla.....	154
Alafia River Basin.....	155
Alafia River at Lithia, Fla.....	155
Hillsboro River Basin.....	156
Hillsboro River near Harney, Fla.....	156
Crystal Springs near Zephyrhills, Fla.....	157
Weekiwachee River Basin.....	157
Weekiwachee Spring near Brooksville, Fla.....	157
Withlacoochee River Basin.....	158
Withlacoochee River at Trilby, Fla.....	158
Withlacoochee River near Holder, Fla.....	159
Blue Springs near Dunnellon, Fla.....	160
Suwannee River Basin.....	161
Suwannee River at White Springs, Fla.....	161
Suwannee River at Ellaville, Fla.....	162
Suwannee River at Luraville, Fla.....	163
Suwannee River at Branford, Fla.....	164
Suwannee River near Bell, Fla.....	165
Alapaha River at Statenville, Ga.....	166
Withlacoochee River near Pinetta, Fla.....	167
Santa Fe River at Worthington, Fla.....	168
Santa Fe River near High Springs, Fla.....	169
Santa Fe River near Fort White, Fla.....	170
Ichatucknee Springs near Hildreth, Fla.....	171
Ochlockonee River Basin.....	172
Ochlockonee River near Havana, Fla.....	172
Ochlockonee River near Bloxham, Fla.....	173
Apalachicola River Basin.....	174
Chattahoochee River at West Point, Ga.....	174
Chattahoochee River at Columbus, Ga.....	175
Chattahoochee River at Columbia, Ala.....	176
Apalachicola River near River Junction, Fla.....	177
Flint River at Montezuma, Ga.....	178
Flint River at Oakfield, Ga.....	179
Flint River at Albany, Ga.....	180
Flint River at Bainbridge, Ga.....	181
Mosquito Creek at Chattahoochee, Fla.....	182
Bear Creek Basin.....	183
Econfina Creek near Bennett, Fla.....	183
Choctawhatchee River Basin.....	184
Choctawhatchee River near Newton, Ala.....	184
Choctawhatchee River at Caryville, Fla.....	185
Choctawhatchee River near Bruce, Fla.....	186
Pea River near Samson, Ala.....	187
Yellow River Basin.....	188
Yellow River near Holt, Fla.....	188
Escambia River Basin.....	189
Conecuh River near Andalusia, Ala.....	189
Conecuh River near Brooklyn, Ala.....	190
Escambia River near Century, Fla.....	191
Mobile River Basin.....	192
Coosa River at Gadsden, Ala.....	192
Coosa River at Childersburg, Ala.....	193
Coosa River at Lock 18, near Wetumpka, Ala.....	194
Alabama River near Montgomery, Ala.....	195
Alabama River at Selma, Ala.....	196
Alabama River at Claiborne, Ala.....	197
Little River near Jamestown, Ala.....	198
Choccolocco Creek near Jenifer, Ala.....	199
Tallapoosa River at Wadley, Ala.....	200
Tallapoosa River below Tallassee, Ala.....	201
Cahaba River at Centerville, Ala.....	202
East Fork of Tombigbee River near Fulton, Miss.....	203
Tombigbee River at Aberdeen, Miss.....	204
Tombigbee River at Columbus, Miss.....	205
Tombigbee River near Coatopa, Ala.....	206
Tombigbee River near Leroy, Ala.....	207
Mulberry Fork of Black Warrior River near Garden City, Ala.....	208
Black Warrior River at Lock 17, near Bessemer, Ala.....	209
Black Warrior River at Tuscaloosa, Ala.....	210
Black Warrior River near Eutaw, Ala.....	211
Sipsey Fork of Mulberry Fork of Black Warrior River near Sipsey, Ala.....	212
Locust Fork of Black Warrior River at Trafford, Ala.....	213
Fivemile Creek at Tarrant City, Ala.....	214
Village Creek at Ensley, Ala.....	215
Valley Creek near Bessemer, Ala.....	216
Valley Creek near Oak Grove, Ala.....	216
Pascagoula River Basin.....	217
Pascagoula River at Merrill, Miss.....	217
Pearl River Basin.....	218
Pearl River at Edinburg, Miss.....	218
Pearl River at Jackson, Miss.....	219
Pearl River near Columbia, Miss.....	220
Strong River at Dio, Miss.....	221

	Page
Miscellaneous discharge measurements.....	222
Index.....	225

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ILLUSTRATION

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	Page
Plate 1. Typical river-measurement stations.....	2

#### SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of flow made on streams in the United States during the year ending September 30, 1936. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of stream flow have been made at about 7,200 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July 1936, 3,160 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 7.

#### 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-foot" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of water flowing in a channel when the cross-sectional area is 1 square foot and the average velocity is 1 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 run-off is distributed uniformly both as regards time and area.

"Run-off in inches" is the depth to which an area would be covered if all the water flowing from it in a given period were uniformly distributed on the surface. It is used for comparing run-off with rainfall, which is usually expressed in inches,

An "acre-foot", equivalent to 43,560 cubic feet, is the quantity required to cover an acre to the depth of 1 foot. The term is commonly used in connection with storage for irrigation.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours.

"Stage-discharge relation" is an abbreviation for the term "relation of gage height to discharge."

"Control" is a term used to designate the natural section or reach of the channel or artificial structure below the gage which determines the stage-discharge relation at the gage.

#### EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either

from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Typical gaging stations, equipped with water-stage recorder and measuring cable and car, are shown on plate 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily gage height to these rating tables gives the daily discharge from which the monthly and yearly mean discharge is computed.

The data presented for each gaging station in the area covered by this report usually comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off. Skeleton rating tables are published except for those stations whose daily discharge for the greater part of the year was determined by shifting-control method or by use of slope or other special methods.

The description of the station gives the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Information under "Extremes" gives the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation, and also the minimum discharge if useful; and the minimum gage height except when it is of no importance. Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum represents the lowest discharge unless otherwise qualified.

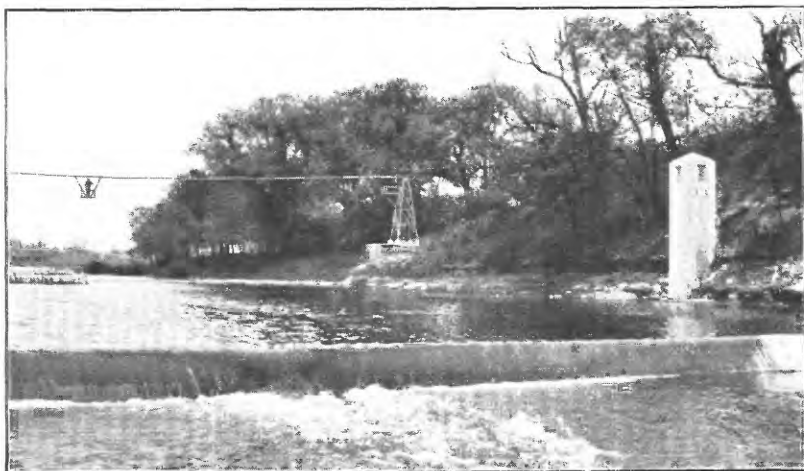
The table of daily discharge gives, for stations equipped with nonrecording gages, the discharge in second-feet corresponding to once-daily or the mean of twice-daily readings of the gage. For stations equipped with water-stage recorders the table gives the discharge corresponding to the mean daily gage height except for stations on streams subject to sudden or rapid fluctuation. For stations subject to such fluctuation the mean daily gage height may not indicate the true mean daily discharge, which must be obtained by averaging the discharge for intervals of the day or by using the discharge integrator, an instrument for obtaining the mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the discharge given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge and not the discharge when the water surface was at crest height. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" is the average flow in cubic feet per second during the month.

#### ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily (1) on the permanency of the stage-discharge relation and (2) on the accuracy of observation of stage, measurements of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the daily records are accurate within



A. ARTIFICIAL CONTROL, RECORDER HOUSE, AND MEASURING CABLE ON OLENTANGY RIVER, DELAWARE, OHIO.



B. RECORDER HOUSE AND MEASURING CABLE ON KAWEAH RIVER, THREE RIVERS, CALIF.

TYPICAL RIVER-MEASUREMENT STATIONS.



5 percent; "good", within 10 percent; "fair", within 15 percent; and "po.r", within 20 percent or more.

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and depth in inches may be subject to gross errors caused by the inclusion of large noncontributing districts in the measured drainage area, by lack of information concerning water diverted for irrigation or other use, or by inability to interpret the effect of artificial regulation of the flow of the river above the station. "Second-feet per square mile" and "run-off in inches" are therefore not computed if such errors appear probable. The computations are also omitted for stations on streams draining areas in which the annual rainfall is less than 20 inches.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and the discharge recorded does not show the water supply available for further development, as prior appropriations below the station must first be satisfied.

The table of monthly discharge gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published, and that greater degrees of refinement in computations and records may be warranted with increased data and use of improved equipment.

#### PUBLICATIONS

The results of stream-flow measurements are now published annually in 14 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

- Part 1. North Atlantic slope basins (St. John River to York River).  
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).  
3. Ohio River Basin.  
4. St. Lawrence River Basin.  
5. Hudson Bay and upper Mississippi River basins.  
6. Missouri River Basin.  
7. Lower Mississippi River Basin.  
8. Western Gulf of Mexico basins.  
9. Colorado River Basin.  
10. The Great Basin.  
11. Pacific slope basins in California.  
12. Pacific slope basins in Washington and upper Columbia River Basin.  
13. Snake River Basin.  
14. Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the Geological Survey containing data in regard to the water resources of the United States may be obtained or consulted as indicated below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.

2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.

3. Sets are available for consultation in the local offices of the water-resources branch of the Geological Survey as follows:

Augusta, Maine, Statehouse.  
Boston, Mass., 945 Post Office Building.  
Hartford, Conn., 203 Federal Building.  
Albany, N. Y., 526 Federal Building.  
Trenton, N. J., 228 Federal Building.

Harrisburg, Pa., 490 Education Building.  
 Charlottesville, Va., University of Virginia.  
 South Charleston, W. Va., Naval Ordnance Plant.  
 Asheville, N. C., 220 Post Office Building.  
 Columbia, S. C., 119 United States Courthouse.  
 Atlanta, Ga., Georgia School of Technology.  
 Ocala, Fla., Post Office Building.  
 Montgomery, Ala., Post Office Building.  
 Chattanooga, Tenn., 442 Post Office Building.  
 Columbus, Ohio, Engineering Experiment Station, Ohio State University.  
 Indianapolis, Ind., 319 Federal Building.  
 Urbana, Ill., 14 Post Office Annex.  
 Madison, Wis., 337N State Capitol.  
 St. Paul, Minn., 808 New Post Office Building.  
 Iowa City, Iowa, 402 Hydraulic Laboratory, University of Iowa.  
 St. Louis, Mo., 906 Customhouse, 1114 Market Street.  
 Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines  
 and Metallurgy.  
 Topeka, Kans., 305 Federal Building.  
 Fort Smith, Ark., Post Office Building.  
 Austin, Tex., State Highway Building.  
 Santa Fe, N. Mex., 3 United States Courthouse.  
 Tucson, Ariz., 210 Post Office Building.  
 Denver, Colo., 230 Customhouse.  
 Salt Lake City, Utah, 303 Federal Building.  
 Idaho Falls, Idaho, 228 Federal Building.  
 Boise, Idaho, 429 Federal Building.  
 Helena, Mont., 412 Federal Building.  
 Tacoma, Wash., 406 Federal Building.  
 Portland, Oreg., 606 Post Office Building.  
 San Francisco, Calif., 208 Federal Office Building.  
 Los Angeles, Calif., 512 Eighth and Figueroa Building.  
 Honolulu, Hawaii, 225 Federal Building.

A list of the Geological Survey publications may be obtained by applying to the  
 Director, Geological Survey, Washington, D. C.

Records of flow of streams in the United States have been published in the reports  
 tabulated as follows:

Stream-flow data in reports of the Geological Survey  
 (A = Annual Report; B = Bulletin; W = Water-Supply Paper)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.....	
11th A, pt. 2	Monthly discharge and descriptive information	1884 to Sept. 1890.
12th A, pt. 2	.....do.....	1884 to June 30, 1891.
13th A, pt. 3	.....do.....	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93).....	1888 to Dec. 31, 1893.
B 131.....	Descriptions, measurements, gage heights, and ratings.	1893-94.
16th A, pt. 2	Descriptive information only.....	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years)	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.
W 15.....	Descriptions, measurements, and gage heights, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte Rivers, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28.....	Measurements, ratings, and gage heights, Arkansas River and western United States.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years).	1898.
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.	1900.
22d A, pt. 4.	Monthly discharge.....	1900.
W 55, 56.....	Descriptions, measurements, gage heights, and ratings.	1901.
W 75.....	Monthly discharge.....	1901.

Note.— The reports which contain records after 1901 are given in the table on page 6.

The records at most of the stations discussed in these reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year and are published under "Miscellaneous discharge measurements" at the end of each report in the same relative order as the regular gaging stations. An index of the reports containing records obtained prior to 1904 has been published in Water-Supply Paper 119.

The following table gives, by years and drainage basins, the numbers of the papers on surface-water supply published from 1899 to 1936. The data for any particular station will, in general, be found in the reports covering the years during which the station was maintained. For example, data from 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 383, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years. Special papers containing compilation of records previously published and also records not contained in the annual series of water-supply papers have been published for some States and drainage basins. For example, stream-flow records for the New-Kanawha River Basin in part 3 from 1895 to 1920 are contained in Water-Supply Paper 536.

Numbers of water-supply papers containing results of stream measurements, 1899-1936  
(For basins included see p. 3)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a....	35	35	36	36	36	36	37	37	d 37, 39	39, e 39	38, f 39	39	39	38
1900 g....	47, h 48	48	48	49	49	49	50	50	50	51	51	51	51	51
1901 i....	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1903....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1904....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1905....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1906....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1907-B....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1908....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1909....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1910....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1911....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1912....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1913....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1914....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1915....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1916....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1917....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1918....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1919-20....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1921....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1922....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1923....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1924....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1925....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1926....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1927....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1928....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1929....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1930....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1931....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1932....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1933....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1934....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1935....	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1936....	85	85	85	85	85	85	85	85	85	85	85	85	85	85

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.  
b James River only.  
c Gallatin River.  
d Green and Gunnison Rivers and Colorado River above Gunnison River.  
e King and Kern Rivers and South Pacific alone basins.  
f Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52.  
g Monthly discharge for 1900 in 22d Annual Report, part 4.  
h Wiasahickon and Schuykill Rivers to James River.  
i Scioto River.  
j Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.  
k Tributaries of Mississippi River from east.  
l Lake Ontario and tributaries to St. Lawrence River proper.  
m Hudson Bay only.  
n New England rivers only.  
o Hudson River to Delaware River.  
p Platte and Kansas Rivers.  
q The Great Basin in California, except Truckee and Carson River Basins.  
r Below Junction with Gila River.  
s Rogue, Umbqua, and Siletz Rivers only.

## RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations in the area covered by this report at which records of discharge were collected during the year ending September 30, 1936, by agencies other than the Geological Survey. The records for these stations are not contained in publications of the Geological Survey.

Records of discharge collected by agencies other than the Geological Survey

River	Location	Period	Operated by	Remarks
Savannah River.....	Augusta, Ga., at 13th Street Bridge.	1932-36	Corps of Engineers, U. S. Army.	Unpublished.

## COOPERATION

The work in the several States was done under cooperative agreements as follows: In Alabama, with the Alabama Geological Survey, Walter B. Jones, State geologist; in Florida, with the State Road Department, C. B. Treadway, chairman, the Board of Commissioners of State Institutions, J. P. Newell, secretary, the Okeechobee Flood-Control District, A. W. Young, executive secretary, the city of Jacksonville, E. E. Anders, succeeded by T. C. Imeson, chairman of city commission, and the city of Tampa, J. S. Long, superintendent of water department; in Mississippi, with the Mississippi Geological Survey, W. C. Morse, director; in North Carolina, with the North Carolina Department of Conservation and Development, R. Bruce Etheridge, director; in South Carolina, with the South Carolina State Highway Department, Ben M. Sawyer, chief highway commissioner, and the city of Spartanburg, L. McD. Kennedy, chairman of board of public works; and in Virginia, with the State Commission on Conservation and Development, W. C. Hall, chairman.

Acknowledgment is due also to the Corps of Engineers, United States Army, to the United States Soil Conservation Service, and to the United States Weather Bureau for financial assistance in collecting records published herein.

Assistance in collecting records was also rendered by the following municipalities, organizations, corporations, and individuals: In Alabama, by the Alabama Power Co.; in Florida, by the Florida Power Corporation; in Georgia, by the city council of Augusta, the Georgia Power Co., and the Crisp County Power Commission; in North Carolina, by the cities of Durham and Charlotte; in South Carolina, by the Columbia Railway & Navigation Co., Lexington Water Power Co., and South Carolina Electric & Gas Co.; in Virginia, by the Appalachian Electric Power Co., Virginia Electric & Power Co., and Virginia Public Service Co.

## DIVISION OF WORK

The data for stations in the several States were collected and prepared for publication under supervision of district engineers as follows: In Alabama, Mississippi, and for the Apalachicola River Basin in Georgia, by D. H. Barber; in Florida, and for the Altamaha, Satilla, St. Marys, and Suwannee River Basins in Georgia, by D. S. Wallace; in North Carolina, by E. D. Burchard; in South Carolina, and for the Savannah River Basin in Georgia, by A. E. Johnson; and in Virginia, by J. J. Dirzulaitis.

## GAGING-STATION RECORDS

## JAMES RIVER BASIN

Jackson River at Falling Spring, Va.

Location.- Water-stage recorder, lat. 37°52'36", long. 79°58'39", at Smiths highway bridge 1 mile from Falling Spring, Alleghany County, and 1½ miles below Falling Spring Creek. Zero of gage is 1,333.49 feet above mean sea level.

Drainage area.- 409 square miles.

Records available.- April 1925 to September 1936.

Average discharge.- 11 years, 472 second-feet.

Extremes.- Maximum discharge during year, 14,100 second-feet Mar. 17 (gage height, 14.74 feet), from rating curve extended above 3,500 second-feet on basis of velocity-area studies; minimum, 80 second-feet Sept. 29 (gage height, 2.95 feet).

1925-36: Maximum discharge, that of Mar. 17, 1936; minimum, 58 second-feet at times during September and October 1930 (gage height, 2.90 feet).

Remarks.- Records excellent except those for Nov. 25-28, Dec. 12 to Jan. 2, Jan. 27-30 and those for period of ice effect, Jan. 24-28, which are fair and were computed on basis of gage heights, weather records, and records for Cowpasture River near Clifton Forge.

Rating table, water year 1935-36 except period of ice effect  
(gage height, in feet, and discharge, in second-feet)

2.9	74	5.0	778
3.0	86	5.5	1,050
3.2	116	6.0	1,360
3.4	161	7.0	2,150
3.6	218	8.0	3,200
3.8	280	9.0	4,420
4.0	348	10.0	5,830
4.3	462	12.0	9,050
4.6	590		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	111	525	260	321	1,230	1,050	314	180	122	116	102
2	105	103	426	450	307	1,050	1,080	304	172	132	111	100
3	105	100	341	2,980	304	912	1,140	297	164	136	108	108
4	103	99	297	2,440	331	804	968	304	174	132	105	114
5	103	97	254	1,600	446	728	858	287	177	130	102	113
6	105	96	230	1,290	370	728	3,170	274	156	337	116	103
7	106	110	212	1,230	324	680	3,200	261	156	287	122	99
8	103	144	297	1,290	290	612	1,920	254	191	212	110	97
9	103	144	850	1,640	300	568	1,570	248	218	172	103	96
10	100	122	850	2,200	280	533	2,390	242	245	151	103	99
11	99	134	728	1,680	280	559	1,970	254	224	169	106	93
12	99	430	560	1,320	277	704	1,640	307	324	156	161	90
13	97	1,400	720	1,200	297	728	1,400	462	491	191	144	90
14	97	885	1,900	1,170	4,010	657	1,200	430	341	254	116	89
15	100	538	1,400	1,110	4,290	657	1,050	352	264	194	116	89
16	97	392	1,200	1,500	2,980	753	940	321	218	166	132	89
17	96	331	1,000	1,320	2,100	8,110	804	297	197	148	172	87
18	94	290	800	1,110	3,200	8,030	728	280	194	132	122	85
19	92	258	640	2,090	2,200	3,550	657	341	194	126	108	84
20	93	236	520	2,150	1,540	2,980	612	422	174	130	106	84
21	93	215	440	1,430	1,170	3,430	555	394	158	120	113	85
22	93	200	340	1,140	940	2,490	512	338	146	114	124	84
23	94	197	380	940	728	2,240	475	300	138	113	128	84
24	94	191	350	650	657	2,240	442	274	136	120	148	84
25	93	180	290	590	830	2,100	414	258	138	114	180	84
26	92	180	240	550	2,340	1,680	392	242	132	172	138	84
27	89	180	220	480	2,980	1,920	377	230	124	136	130	82
28	92	300	280	400	2,200	2,290	355	221	122	148	126	82
29	146	778	290	370	1,640	1,880	341	203	120	154	116	82
30	148	657	290	420	-	1,500	324	191	118	156	113	102
31	122	-	230	345	-	1,230	-	185	-	128	108	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square foot		Run-off in inches			
October.....	3,161			148	89	102	0.249		0.29			
November.....	9,098			1,400	96	303	.741		.83			
December.....	17,060			1,900	212	550	1.34		1.64			
Calendar year 1935.....	220,780			7,380	89	605	1.48		20.06			
January.....	37,345			2,980	260	1,205	2.95		3.40			
February.....	37,832			4,290	277	1,305	3.19		3.44			
March.....	57,573			8,110	533	1,857	4.54		5.23			
April.....	32,534			3,200	324	1,084	2.65		2.96			
May.....	9,077			462	185	293	.718		.83			
June.....	5,766			491	118	193	.472		.53			
July.....	4,952			337	113	160	.391		.45			
August.....	3,805			180	102	123	.301		.35			
September.....	2,764			114	82	92.1	.225		.25			
Water year 1935-36.....	220,987			8,110	82	604	1.48		20.10			

## James River at Lick Run, Va.

Location.— Water-stage recorder, lat.  $37^{\circ}47'$ , long.  $79^{\circ}47'$ , at highway bridge at Lick Run, Botetourt County, three-quarters of a mile below confluence of Cowpasture and Jackson Rivers. Zero of gage is 978.30 feet above mean sea level.

Drainage area.— 1,369 square miles.

Records available.— April 1925 to September 1936.

Average discharge.— 11 years, 1,570 second-feet.

Extremes.— Maximum discharge during year, 51,600 second-feet Mar. 18 (gage height, 25.65 feet), from rating curve extended above 30,000 second-feet on basis of velocity-area studies; minimum, 214 second-feet Sept. 29 (gage height, 1.51 feet).

1925-36: Maximum discharge, that of Mar. 18, 1936; minimum, 153 second-feet Oct. 11, 1930 (gage height, 1.51 feet).

Maximum stage known, 29.1 feet, from floodmarks, in November (revised) 1877 (discharge, about 65,800 second-feet).

Maximum stage during March 1913 flood, 27.2 feet, from floodmarks (discharge, about 57,700 second-feet).

Remarks.— Records good. Discharge for period of ice effect, Dec. 26 to Jan. 1, computed on basis of gage heights, weather records, and records for station at Buchanan and stations on tributary streams above Lick Run.

Rating tables, water year 1935-36 except period of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 18				Mar. 19 to Sept. 30			
1.6	216	3.5	1,420	12.0	15,900	1.4	175
1.8	302	4.0	1,940	15.0	22,900	1.6	250
2.0	396	5.0	3,150	18.0	30,200	1.8	340
2.3	552	6.0	4,520	21.0	37,800	2.0	440
2.6	730	8.0	7,700	24.0	46,200	2.3	600
3.0	1,000	10.0	11,600			4.0	1,940

Note.— Same as previous table  
above 4.0 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	348	436	2,050	800	1,120	3,960	3,540	1,060	523	326	318	290
2	348	382	1,670	1,460	1,240	3,410	3,680	1,020	501	350	286	277
3	339	358	1,380	10,200	1,200	3,020	5,120	1,020	475	375	277	286
4	334	343	1,160	11,700	1,280	2,700	3,820	1,090	480	370	277	300
5	320	339	1,040	6,520	1,620	2,520	3,280	1,090	556	360	264	308
6	339	330	916	5,120	1,520	2,460	8,500	985	501	405	282	300
7	339	416	854	5,570	1,330	2,540	12,200	950	480	758	290	268
8	339	840	867	5,880	1,120	2,150	6,680	890	528	556	290	259
9	334	750	1,880	7,680	1,200	1,940	5,120	890	550	435	268	259
10	325	610	2,580	10,600	1,160	1,830	7,700	860	622	400	284	254
11	320	598	2,280	6,850	1,040	1,830	6,360	1,140	606	420	338	254
12	320	1,110	1,880	5,270	965	1,880	5,270	1,430	920	540	308	246
13	320	6,850	2,210	4,380	1,160	2,160	4,520	1,340	1,060	688	336	238
14	320	4,970	6,360	4,100	11,800	2,280	3,820	1,380	1,170	584	331	238
15	320	2,640	5,880	3,960	18,000	2,280	3,410	1,170	800	518	290	238
16	339	1,830	4,970	5,570	12,800	2,280	3,220	1,060	655	405	308	234
17	320	1,520	4,240	4,970	7,880	22,500	2,820	950	562	360	460	230
18	307	1,470	3,280	4,100	11,000	30,100	2,460	920	562	326	355	226
19	302	1,380	2,400	8,260	8,790	14,400	2,160	920	594	331	308	238
20	298	1,280	2,160	10,600	5,720	10,400	1,940	985	523	350	262	234
21	302	1,160	1,720	6,040	4,240	13,700	1,830	1,020	480	331	282	222
22	302	1,040	1,250	4,520	3,410	9,550	1,670	890	425	308	295	230
23	307	1,000	1,420	3,680	2,760	7,700	1,570	830	395	290	295	230
24	311	923	1,420	2,760	2,460	7,360	1,430	770	390	286	336	234
25	302	828	1,160	2,400	2,520	6,680	1,340	722	390	308	385	226
26	293	782	900	2,340	5,880	5,570	1,300	688	385	370	365	222
27	293	776	850	2,000	8,790	5,880	1,250	655	365	365	326	226
28	289	965	900	1,620	7,360	7,700	1,170	628	345	350	475	226
29	652	2,520	900	1,470	4,970	6,360	1,130	589	331	545	470	230
30	840	2,640	850	1,570	-	6,120	1,090	550	522	390	345	428
31	575	-	750	1,350	-	4,240	-	540	-	370	308	-
Month	Second-foot-days		Maximum	Minimum	Mean	Per square mile	Run-off in inches					
October.....	10,997		840	289	355	0.259	0.30					
November.....	41,086		6,850	330	1,370	1.00	1.12					
December.....	62,207		6,360	750	2,007	1.47	1.70					
Calendar year 1935.....	784,075		35,300	262	2,148	1.57	21.31					
January.....	153,370		11,700	800	4,947	3.61	4.16					
February.....	134,335		18,000	955	4,632	3.38	3.64					
March.....	205,310		39,100	1,830	6,623	4.84	5.58					
April.....	109,400		12,200	1,090	3,647	2.66	2.97					
May.....	29,032		1,430	540	937	.684	.79					
June.....	16,496		1,170	322	550	.402	.44					
July.....	12,770		758	266	412	.301	.35					
August.....	10,034		475	264	324	.237	.27					
September.....	7,651		418	222	255	.186	.21					
Water year 1935-36.....	792,688		39,100	222	2,166	1.58	21.54					

## James River at Buchanan, Va.

Location.- Water-stage recorder, lat. 37°31'50", long. 79°40'45", at highway bridge near Chesapeake & Ohio Railway station, Buchanan, Botetourt County. Zero of gage is 802.56 feet above mean sea level.

Drainage area.- 2,084 square miles.

Records available.- August 1895 to September 1936.

Average discharge.- 37 years (1896-1912, 1913-36), 2,530 second-feet.

Extremes.- Maximum discharge during year, about 76,400 second-feet Mar. 18 (gage height, 28.80 feet), from rating curve extended above 32,000 second-feet on basis of velocity-area studies and determination of peak flow over dam at Balcony Falls; minimum, 330 second-feet Sept. 28 (gage height, 1.75 feet).

1895-1936: Maximum discharge, about 92,200 second-feet Mar. 27, 1913 (gage height, 31 feet, from floodmarks); minimum, 255 second-feet several days in September 1932 (gage height, 1.60 feet).

Remarks.- Records excellent except those for period of ice effect, Dec. 26 to Jan. 1, which are fair and were computed on basis of gage heights, weather records and records for stations at Lick Run and Holcombs Rock. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	453	762	2,760	1,100	1,620	5,300	5,610	1,500	728	491	479	455
2	453	654	2,220	1,920	1,740	4,380	5,300	1,420	713	497	438	428
3	442	592	1,880	16,600	1,890	3,800	7,290	1,410	699	534	428	438
4	436	569	1,620	20,700	2,010	3,530	6,360	1,520	720	554	411	554
5	431	540	1,400	11,500	2,160	3,180	5,200	1,700	713	534	444	528
6	442	534	1,240	9,020	2,220	3,010	7,330	1,520	744	541	428	515
7	453	612	1,130	10,400	1,880	2,920	20,400	1,400	706	622	422	461
8	448	894	1,120	10,400	1,560	2,760	11,800	1,330	768	768	416	416
9	442	1,180	1,490	13,300	1,660	2,440	6,010	1,280	768	622	416	400
10	436	946	2,680	19,100	1,810	2,300	10,600	1,220	776	587	406	406
11	431	846	2,600	12,400	1,540	2,300	10,600	1,520	832	678	438	400
12	431	919	2,220	8,760	1,370	2,600	8,610	3,120	1,000	597	467	411
13	431	5,460	2,810	6,600	1,790	3,100	7,060	2,610	1,160	699	438	386
14	426	8,510	9,020	5,940	15,600	3,100	5,940	2,300	1,360	744	479	411
15	426	4,280	9,810	5,510	30,100	2,920	5,090	1,960	1,080	678	528	411
16	426	2,760	7,530	7,530	22,300	2,840	4,670	1,640	856	594	522	370
17	442	2,160	6,160	7,530	13,600	22,400	4,070	1,470	752	534	615	365
18	426	2,010	4,780	6,160	14,800	66,700	3,580	1,350	792	497	567	355
19	410	1,880	3,800	13,300	15,400	26,600	3,120	1,290	926	491	473	342
20	406	1,680	3,100	21,300	9,540	16,600	2,860	1,290	744	528	438	360
21	410	1,560	2,520	10,900	6,330	22,300	2,610	1,340	678	497	416	355
22	406	1,430	1,940	7,770	5,510	17,200	2,450	1,220	636	473	400	342
23	410	1,390	1,740	6,160	4,260	12,100	2,300	1,110	601	438	422	342
24	410	1,300	1,880	4,380	3,620	10,900	2,160	1,030	580	416	428	342
25	410	1,190	1,680	3,620	3,350	9,810	1,960	970	574	416	473	342
26	406	1,090	1,150	3,440	4,980	8,260	1,690	916	567	433	503	338
27	400	1,060	1,100	3,100	9,540	7,770	1,820	872	554	479	491	334
28	400	1,120	1,150	2,370	10,100	11,200	1,700	848	534	473	509	336
29	561	2,440	1,200	2,010	7,060	10,600	1,640	816	503	554	792	338
30	1,080	3,440	1,100	2,500	-	8,260	1,580	768	485	594	650	668
31	991	-	1,000	2,080	-	6,600	-	744	-	509	509	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				14,572	1,080	400	470	0.226	0.26			
November.....				53,768	8,510	534	1,792	0.860	.96			
December.....				85,820	9,810	1,000	2,768	1.33	1.53			
Calendar year 1935.....				1,207,348	54,900	400	3,308	1.59	21.56			
January.....				267,100	21,300	1,100	8,294	3.98	4.59			
February.....				199,860	30,100	1,370	6,892	3.31	3.57			
March.....				307,680	66,700	2,300	9,926	4.76	5.49			
April.....				165,450	20,400	1,580	5,448	2.61	2.91			
May.....				43,484	3,120	744	1,403	0.673	.78			
June.....				22,558	1,380	485	752	0.361	.40			
July.....				17,062	768	416	550	0.264	.30			
August.....				14,846	792	400	479	0.230	.27			
September.....				12,150	668	334	405	0.194	.22			
Water year 1935-36.....				1,192,330	66,700	334	3,258	1.56	21.28			



James River at Holcombs Rock, Va.

Location.— Water-stage recorder, lat. 37°30', long. 79°15', at Holcombs Rock, Bedford County, half a mile below Pedlar River. Zero of gage is 548.53 feet above mean sea level.

Drainage area.— 3,250 square miles.

Records available.— August 1931 to September 1936. January 1900 to September 1915 (gage heights only).

Extremes.— Maximum discharge during year, 98,000 second-feet Mar. 18 (gage height, 30.78 feet), from rating curve extended above 41,000 second-feet on basis of computation of peak flow over Reusens Dam; minimum, 139 second-feet Sept. 21 (gage height, 3.36 feet); minimum daily discharge, 422 second-feet Sept. 29.

1931-36: Maximum discharge, that of Mar. 18, 1936; minimum, 120 second-feet July 20, 1934 (gage height, 3.30 feet); minimum daily discharge, 288 second-feet Sept. 9, 1932.

Flood of March 1913 reached a stage of about 31.3 feet (revised), from floodmarks, on present gage (discharge, about 100,000 second-feet).

Remarks.— Records excellent except those for Dec. 17 to Jan. 10, Feb. 27 to Mar. 2, Apr. 27-29, May 1-5, which are fair and were computed on basis of recorder charts, weather records, and records for stations at Buchanan and Bent Creek. Flow partly regulated by power plants above station.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

3.8	340	7.0	5,150	20.0	47,700
4.0	472	8.0	7,250	22.0	56,700
4.3	724	10.0	11,800	24.0	65,900
4.6	1,030	12.0	17,000	27.0	80,000
5.0	1,510	14.0	23,500	30.8	98,000
5.5	2,250	16.0	31,000		
6.0	3,120	18.0	39,100		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	825	1,340	4,660	1,700	2,830	8,500	8,820	2,600	1,250	735	750	732
2	879	964	3,920	3,100	2,960	7,000	8,140	2,600	1,270	860	806	678
3	672	1,040	3,250	24,000	3,090	5,820	10,900	2,500	1,220	985	71.0	639
4	819	969	2,800	32,000	3,320	5,500	10,200	2,700	1,300	834	628	644
5	739	628	2,500	19,000	4,080	4,980	8,500	3,100	1,620	976	714	770
6	819	802	2,270	15,000	3,410	4,680	12,000	2,630	1,370	848	628	846
7	853	1,200	2,810	16,000	3,190	4,320	25,500	2,420	1,320	899	774	655
8	816	1,520	1,950	15,000	2,600	4,200	17,500	2,360	1,470	968	71.0	757
9	848	1,470	2,040	18,000	2,640	3,990	12,400	2,300	1,540	1,190	666	621
10	881	1,570	3,320	24,000	3,060	3,580	14,400	2,150	1,470	922	661	576
11	800	1,440	3,660	19,500	2,500	3,920	15,600	2,020	1,580	1,030	662	744
12	826	1,270	3,360	13,500	2,240	4,620	13,000	3,940	2,650	1,250	672	670
13	765	6,320	4,050	10,700	2,620	5,630	11,400	4,020	3,420	1,400	670	592
14	785	12,900	11,900	9,020	16,300	5,470	9,680	3,300	2,000	1,540	605	855
15	711	6,980	14,400	8,240	38,700	5,270	8,280	2,960	2,100	1,000	748	757
16	723	4,440	11,300	9,600	32,300	5,260	7,540	2,640	1,550	985	730	640
17	781	3,830	9,400	11,000	19,800	32,100	6,690	2,440	1,460	928	1,210	610
18	792	4,480	7,600	9,280	20,700	94,400	5,920	2,020	1,340	777	874	618
19	746	3,770	6,200	21,100	21,500	48,200	5,100	2,180	1,600	738	800	593
20	746	3,260	5,200	31,000	14,300	25,600	5,110	2,050	1,580	796	752	444
21	770	2,880	4,200	18,400	10,600	29,800	4,360	2,000	1,240	824	655	448
22	690	2,650	3,600	12,600	8,460	26,800	4,020	2,020	1,080	850	1,070	542
23	678	2,390	2,800	10,000	6,920	18,800	3,870	1,810	1,170	814	772	504
24	703	2,660	2,900	7,640	5,930	15,900	3,560	1,840	1,160	714	730	535
25	746	1,970	2,600	6,360	6,180	14,400	3,440	1,690	946	706	676	560
26	638	2,110	1,800	5,800	7,140	12,500	2,990	1,420	1,080	798	644	503
27	642	1,900	1,700	5,460	12,000	11,300	3,300	1,670	1,000	722	717	459
28	730	2,270	1,800	4,350	14,000	14,300	2,900	1,270	981	918	1,150	456
29	1,320	3,910	1,900	3,720	11,000	15,300	3,000	1,380	839	966	935	422
30	1,530	5,610	1,700	3,650	-	12,600	2,630	1,400	965	942	1,120	1,130
31	1,720	-	1,600	3,510	-	10,500	-	1,130	-	956	891	-
Month	Second-foot-days		Maximum	Minimum	Mean	Per square mile	Run-off in inches					
October.....	25,993		1,720	638	838	0.258	0.30					
November.....	88,543		12,900	628	2,951	.908	1.01					
December.....	152,590		14,400	1,600	4,277	1.32	1.52					
Calendar year 1935.....	1,720,459		70,600	628	4,714	1.45	19.67					
January.....	392,230		32,000	1,700	12,650	3.89	4.48					
February.....	284,370		38,700	2,240	9,806	3.02	3.26					
March.....	465,240		94,400	3,580	15,010	4.62	5.33					
April.....	250,750		25,500	2,630	8,358	2.57	2.87					
May.....	70,560		4,020	1,130	2,276	.700	.81					
June.....	45,331		3,420	839	1,446	.445	.50					
July.....	26,621		1,400	706	926	.285	.33					
August.....	24,130		1,210	606	778	.239	.28					
September.....	18,982		1,130	422	633	.195	.22					
Water year 1935-36.....	1,825,470		94,400	422	4,988	1.53	20.91					

## James River at Bent Creek, Va.

Location.- Water-stage recorder, lat.  $37^{\circ}32'$ , long.  $78^{\circ}50'$ , at highway bridge at Bent Creek, Appomattox County, 150 feet below Bent Creek and 1 mile below Gladstone. Zero of gage is 380.67 feet above mean sea level.

Drainage area.- 3,671 square miles.

Records available.- March 1925 to September 1936.

Average discharge.- 11 years, 4,100 second-feet.

Extremes.- Maximum discharge during year, 103,000 second-feet Mar. 18 (gage height, 23.02 feet), from rating curve extended above 30,000 second-feet on basis of velocity-area studies and determination of flow over Reusens Dam; minimum, 480 second-feet Sept. 21 (gage height, 2.45 feet); minimum daily discharge, 613 second-feet Sept. 21.

1925-36: Maximum discharge, that of Mar. 18, 1936; minimum, 222 second-feet Oct. 13, 1930 (gage height, 2.21 feet); minimum daily discharge, 222 second-feet Oct. 13, 1930.

Remarks.- Records good except those for period of ice effect, Dec. 25 to Jan. 2, computed on basis of recorder charts, weather records, and records for stations at Holcombs Rock and Scottsville, those for Feb. 12-14, Apr. 10-14, May 22-26, and those below 5,000 second-feet, which are fair. Flow regulated by power plants above station.

Rating table, water year 1935-36 except period of ice effect  
(gage height, in feet, and discharge, in second-feet)

2.4	450	4.5	4,210	10.0	23,000
2.6	660	5.0	5,450	12.0	32,600
2.8	910	5.5	6,810	14.0	45,800
3.0	1,200	6.0	8,290	16.0	55,500
3.3	1,710	7.0	11,500	18.0	68,500
3.6	2,270	8.0	15,000	20.0	82,000
4.0	3,090	9.0	18,800	23.0	103,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,470	2,210	5,780	2,200	4,200	9,820	10,600	3,330	1,560	1,430	1,190	1,140
2	1,040	1,550	5,100	3,500	3,840	8,090	9,580	3,480	2,010	1,130	1,140	1,040
3	1,070	1,100	3,950	25,000	3,840	7,210	11,400	3,190	1,740	1,310	1,050	968
4	1,080	1,500	3,470	34,700	4,600	6,650	11,700	3,380	1,620	1,500	1,070	972
5	1,060	1,080	3,040	23,400	5,540	6,080	9,600	4,080	1,820	1,220	982	936
6	1,090	1,150	2,860	17,100	4,490	5,560	12,800	3,730	1,780	1,290	1,020	942
7	1,070	1,120	2,430	16,700	4,260	5,420	24,500	3,150	1,810	1,370	1,670	1,120
8	1,100	1,940	2,600	16,400	4,260	4,860	21,200	3,120	2,280	1,100	1,900	1,010
9	1,150	1,920	2,370	19,100	3,890	4,980	13,900	3,100	2,210	1,390	1,050	931
10	1,230	1,860	2,700	25,600	3,800	4,280	15,000	3,120	1,840	1,500	1,000	946
11	1,120	1,780	4,020	23,500	3,920	4,680	17,000	2,700	1,840	1,190	984	872
12	1,180	1,680	3,920	16,800	3,100	5,680	15,000	3,520	2,940	1,810	1,010	920
13	1,080	3,580	4,340	13,100	3,400	6,360	13,000	5,370	6,380	1,990	978	1,040
14	1,130	12,600	9,270	10,800	14,000	6,490	11,000	4,270	3,280	1,940	968	1,480
15	1,010	9,220	14,200	9,520	39,400	6,020	9,520	4,220	2,300	1,700	954	1,600
16	1,050	5,940	12,400	9,950	38,800	5,700	8,960	3,500	2,440	1,310	1,130	860
17	1,210	4,930	10,500	12,000	24,000	23,900	7,960	2,980	1,840	1,350	1,950	850
18	976	5,150	9,780	11,000	20,800	95,700	7,220	3,140	2,110	1,320	1,780	954
19	1,060	4,320	7,320	26,500	23,700	70,700	6,380	2,880	2,660	1,060	1,030	910
20	1,080	4,300	6,340	35,200	17,300	29,000	5,710	2,720	2,200	1,130	1,070	883
21	1,090	3,600	5,120	24,300	12,800	28,600	5,520	2,860	1,940	1,120	1,140	613
22	1,130	3,330	4,620	16,200	10,100	31,000	5,410	2,400	1,870	1,140	1,260	830
23	1,070	2,830	3,170	12,700	8,180	21,200	5,130	2,200	1,420	1,200	1,430	850
24	1,090	3,000	3,320	9,670	7,220	18,100	4,380	2,300	1,710	1,190	992	746
25	1,040	2,820	3,100	7,720	6,880	16,700	4,440	2,000	1,680	1,140	977	736
26	986	2,710	2,400	7,160	7,440	15,000	4,320	1,800	1,230	1,090	1,000	895
27	994	2,300	2,200	6,760	12,000	13,400	4,220	1,980	1,520	1,100	954	728
28	926	2,400	2,300	5,930	15,200	15,600	3,560	2,140	1,340	1,050	1,200	685
29	1,760	4,900	2,300	5,400	12,800	17,100	3,880	1,940	1,420	1,170	1,720	770
30	2,260	5,930	2,100	4,670	-	14,900	3,500	1,680	1,180	1,440	1,190	1,280
31	1,790	-	2,000	5,000	-	12,900	-	1,630	-	1,220	1,330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	36,394	2,260	926	1,174	0.320	0.37
November.....	103,230	12,600	1,080	3,441	.937	1.05
December.....	148,020	14,200	2,000	4,775	1.30	1.50
Calendar year 1935.....	2,014,033	72,300	926	5,518	1.50	20.41
January.....	457,580	35,200	2,200	14,760	4.02	4.64
February.....	323,760	39,400	3,100	11,160	3.04	3.23
March.....	521,660	95,700	4,280	16,630	4.58	5.23
April.....	286,390	24,500	3,500	9,546	2.60	2.90
May.....	91,910	5,370	1,630	2,965	.808	.93
June.....	61,860	6,380	1,180	2,062	.562	.63
July.....	40,900	1,990	1,050	1,319	.359	.41
August.....	37,119	1,950	954	1,197	.325	.38
September.....	28,497	1,600	613	950	.259	.29
Water year 1935-36.....	2,137,320	95,700	613	5,840	1.59	21.66

## James River at Scottsville, Va.

Location.- Water-stage recorder, lat. 37°48', long. 78°30', at highway bridge at Scottsville, Albemarle County, 7 miles above Hardware River. Zero of gage is 253.39 feet above mean sea level.

Drainage area.- 4,571 square miles.

Records available.- February 1925 to September 1936.

Average discharge.- 11 years, 5,030 second-feet.

Extremes.- Maximum discharge during year, 112,000 second-feet Mar. 19 (gage height, 25.46 feet, from floodmarks), from rating curve extended above 80,000 second-feet on basis of velocity-area studies; minimum, 562 second-feet Sept. 26 (gage height, 1.89 feet); minimum daily discharge, 704 second-feet Sept. 26.

1, 1925-36: Maximum discharge, that of Mar. 19, 1936; minimum, 302 second-feet Oct. 1, 1930 (gage height, 1.46 feet); minimum daily discharge, 307 second-feet Oct. 15, 1930.

Maximum stage during flood of March 1913, 25.16 feet, from floodmarks (discharge, about 110,000 second-feet).

Remarks.- Records excellent. Flow regulated by power plants above station.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used Oct. 1 to Nov. 28)

2.0	650	4.0	3,190	12.0	26,700
2.2	840	5.0	4,880	14.0	36,500
2.4	1,050	6.0	6,790	16.0	45,400
2.6	1,270	7.0	9,110	18.0	57,000
2.8	1,510	8.0	12,000	20.0	70,500
3.0	1,760	9.0	15,300	22.0	85,200
3.5	2,440	10.0	18,900	24.0	100,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,760	2,730	7,650	3,440	5,790	12,300	12,600	4,640	2,170	1,540	1,360	1,380
2	1,700	2,240	6,340	4,290	5,260	10,600	12,000	4,430	2,180	1,840	1,270	1,220
3	1,410	2,030	5,760	35,900	4,900	8,200	12,900	4,650	2,760	1,760	1,210	1,150
4	1,450	1,660	4,880	43,800	5,430	8,020	14,200	4,560	2,040	1,840	1,120	1,120
5	1,420	1,900	4,080	35,600	6,470	7,410	12,300	5,110	2,220	1,880	1,240	1,220
6	1,440	1,560	4,080	22,300	6,970	7,040	15,500	4,880	2,480	1,620	1,280	1,040
7	1,500	1,580	3,280	22,700	5,520	6,350	25,000	4,570	2,520	1,640	1,180	1,020
8	1,500	2,600	3,460	20,000	5,180	6,350	29,700	4,300	3,000	1,670	2,320	1,220
9	1,520	2,540	3,580	23,100	4,980	5,920	19,500	4,170	3,060	1,420	1,540	1,080
10	1,520	2,570	3,310	29,700	5,100	5,640	17,800	4,080	2,860	1,650	1,150	1,120
11	1,660	2,590	4,530	30,100	5,380	6,560	20,700	3,920	2,510	1,760	1,110	1,190
12	1,540	2,420	4,860	21,500	4,510	7,960	19,100	3,540	2,440	1,490	1,140	1,020
13	1,490	3,180	5,130	16,200	4,680	8,700	16,400	5,660	5,340	2,360	1,140	1,000
14	1,520	11,800	9,500	13,000	12,300	8,590	14,100	5,470	5,180	2,210	1,070	1,190
15	1,480	13,500	17,000	11,400	38,100	8,160	12,300	5,020	3,460	2,160	1,270	1,580
16	1,360	7,950	16,700	11,400	46,300	7,220	11,100	4,510	2,900	1,910	1,280	1,720
17	1,400	7,230	13,000	12,800	32,600	25,300	10,000	4,000	2,750	1,480	1,440	1,020
18	1,500	7,430	10,800	13,200	25,200	98,200	9,130	4,100	2,400	1,550	2,320	911
19	1,350	6,590	8,730	32,000	27,700	99,400	8,480	3,450	3,270	1,460	1,720	1,020
20	1,400	5,860	7,660	47,600	23,700	42,200	7,540	3,860	3,200	1,240	1,170	975
21	1,420	5,270	6,300	33,600	16,700	32,800	7,030	3,580	2,680	1,300	1,820	957
22	1,450	4,650	5,480	21,100	13,000	37,100	6,970	3,430	2,480	1,300	1,480	760
23	1,460	3,810	4,530	15,700	10,600	27,700	6,660	3,220	2,210	1,300	1,500	798
24	1,400	3,750	4,520	12,400	9,080	21,600	6,460	3,440	2,100	1,350	1,560	894
25	1,380	3,660	4,360	9,960	8,420	19,200	5,720	2,620	2,290	1,340	1,090	834
26	1,320	3,180	3,900	9,120	8,960	17,400	5,540	2,750	2,040	1,280	1,100	704
27	1,290	3,640	3,460	8,140	11,100	15,700	5,430	2,960	1,720	1,240	1,150	933
28	1,290	3,360	3,500	7,780	16,900	17,000	5,140	2,600	1,920	1,230	1,220	800
29	2,170	7,150	3,100	6,700	15,900	20,100	4,710	2,690	1,790	1,180	1,580	723
30	3,770	6,550	3,160	6,190	-	18,100	4,800	2,400	1,740	1,370	1,920	970
31	2,660	-	3,080	6,120	-	15,200	-	2,190	-	1,540	1,310	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	49,490	3,770	1,290	1,596	0.349	0.40
November.....	135,080	13,300	1,560	4,503	.985	1.10
December.....	189,830	17,000	3,080	6,124	1.34	1.54
Calendar year 1935.....	2,549,050	84,400	1,290	6,984	1.53	20.73
January.....	584,840	47,600	3,440	18,870	4.13	4.76
February.....	386,730	46,300	4,510	13,340	2.92	3.15
March.....	630,020	99,400	5,640	20,320	4.45	5.13
April.....	358,910	29,700	4,710	11,960	2.62	2.92
May.....	121,000	5,660	2,190	3,903	.854	.98
June.....	79,510	5,340	1,720	2,650	.580	.65
July.....	48,950	2,360	1,180	1,579	.345	.40
August.....	45,080	2,320	1,070	1,589	.304	.35
September.....	31,669	1,880	704	1,062	.232	.26
Water year 1935-36.....	2,658,929	99,400	704	7,265	1.59	21.64

\*Discharge computed on basis of recorder charts, weather records, and records for stations at Bent Creek and Cartersville.

## James River at Cartersville, Va.

Location.- Water-stage recorder, lat. 37°40', long. 78°05', at highway bridge between Pemberton and Cartersville, Cumberland County, 1 mile below Willis River. Zero of gage is 161.57 feet above mean sea level.

Drainage area.- 6,242 square miles.

Records available.- January 1899 to September 1936.

Average discharge.- 36 years (1899-1904, 1905-36), 7,250 second-feet.

Extremes.- Maximum discharge during year, 149,000 second-feet Mar. 19 (gage height, 28.77 feet, from floodmarks), from rating curve extended above 90,000 second-feet on basis of velocity-area studies; minimum discharge not determined; minimum daily discharge (estimated), 1,000 second-feet Sept. 26, 27, 29.

1899-1936: Maximum discharge, that of Mar. 19, 1936; minimum, 320 second-feet Sept. 22, 1932 (gage height, 0.11 foot); minimum daily discharge, 348 second-feet Oct. 5, 1930.

Remarks.- Records good except those for Mar. 18-25 (computed from stage graph based on partial recorder graph and floodmarks and from records for stations at Scottsville and Richmond) and those for Mar. 26 to Apr. 1, Apr. 5-8, Sept. 22-30, (computed on basis of recorder charts, weather records, and records for stations at Scottsville and Richmond), which are fair. Flow regulated by power plants above station.

## Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 19

Mar. 20 to Sept. 30

1.0	1,520	6.0	10,900	18.0	60,000	0.6	1,260	2.5	4,360
1.3	1,980	7.0	15,600	20.0	70,000	0.8	1,540	3.0	5,280
1.6	2,460	8.0	16,600	22.0	81,500	1.0	1,840	4.0	7,100
2.0	3,140	9.0	20,000	24.0	95,000	1.3	2,320	5.0	9,020
2.5	4,010	10.0	23,600	26.0	113,000	1.6	2,820	6.0	11,100
3.0	4,910	12.0	31,600	28.8	149,000	2.0	3,600	7.0	13,600
4.0	6,780	14.0	40,600						
5.0	8,740	16.0	50,100						

Note.- Same as previous table above 7.0 feet.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,040	3,240	9,160	6,340	6,980	15,900	15,300	6,180	2,860	2,240	1,940	1,660
2	2,310	3,330	8,140	7,440	6,260	12,700	15,000	6,080	2,840	2,240	1,760	1,600
3	2,020	2,570	7,240	44,300	6,230	10,900	16,300	5,720	2,820	2,510	1,660	1,520
4	1,900	2,280	5,880	75,900	6,700	10,000	16,700	6,420	3,280	2,520	1,600	1,450
5	1,900	2,310	5,540	54,200	10,400	9,530	15,400	6,570	2,760	2,460	1,620	1,480
6	1,860	2,160	4,820	34,000	9,220	8,730	19,600	6,620	2,680	2,340	4,300	1,550
7	1,970	2,100	4,660	32,900	6,460	8,240	27,800	6,100	3,150	2,200	2,250	1,430
8	2,040	2,380	4,100	26,500	6,220	7,860	30,000	5,700	3,010	2,120	1,980	1,420
9	2,010	3,680	4,400	30,600	6,640	7,440	26,500	5,480	4,160	2,090	2,860	1,520
10	2,040	3,140	4,310	43,000	7,130	7,360	25,000	5,340	3,900	1,950	1,850	2,240
11	2,000	3,020	4,200	39,300	6,800	7,910	25,100	5,210	3,410	2,260	1,620	1,700
12	2,080	3,160	5,470	29,500	6,320	12,600	25,000	5,020	3,080	2,340	1,600	1,540
13	2,000	3,360	6,030	20,500	6,080	16,000	20,800	5,200	3,740	2,260	1,600	1,450
14	1,880	10,200	16,200	16,100	14,400	12,800	17,600	6,870	7,390	3,240	1,580	1,640
15	1,980	17,000	21,700	15,900	47,600	11,100	15,100	6,060	4,680	2,600	1,560	3,220
16	1,860	11,100	22,200	14,700	60,400	9,990	13,400	5,720	3,460	2,460	1,800	2,720
17	1,780	9,800	18,800	14,400	49,600	20,300	12,100	5,620	2,240	2,240	1,950	1,760
18	1,900	12,100	13,300	15,400	35,300	11,100	4,800	2,940	1,880	2,180	2,180	1,380
19	1,830	9,300	11,000	41,300	36,400	143,000	10,300	5,010	3,070	1,920	2,640	1,340
20	1,760	8,020	9,480	76,600	31,500	94,900	9,620	4,690	4,310	1,820	1,960	1,360
21	1,800	6,740	7,960	53,100	21,500	43,700	8,780	4,440	3,560	1,700	1,680	1,340
22	1,840	5,940	6,450	31,700	16,300	39,300	8,580	4,320	3,510	1,760	2,540	1,200
23	1,860	5,400	6,200	21,000	13,300	36,400	8,830	4,100	3,000	1,740	1,880	1,100
24	1,810	4,880	5,100	16,400	11,400	26,300	8,240	4,120	2,760	1,920	1,970	1,200
25	1,800	4,690	5,310	12,300	11,000	22,400	7,580	4,110	2,980	2,700	1,870	1,200
26	1,770	4,450	4,840	10,900	11,900	19,600	7,380	3,540	2,880	1,920	1,520	1,000
27	1,710	4,090	4,160	10,300	12,900	19,000	7,240	3,520	2,450	1,760	1,520	1,000
28	1,710	4,060	4,150	9,430	17,500	20,600	6,820	3,580	2,360	1,680	1,540	1,100
29	2,160	9,090	4,020	8,150	19,300	22,000	6,500	3,360	2,320	1,680	1,680	1,000
30	5,860	9,770	3,360	7,740	-	20,500	6,440	3,260	2,290	1,650	2,020	1,200
31	4,670	-	4,670	7,240	-	17,600	-	3,060	-	1,990	2,060	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	66,150	5,860	1,710	2,134	0.342	0.39
November.....	173,350	17,000	2,100	5,778	.926	1.03
December.....	240,850	22,200	3,360	7,769	1.24	1.43
Calendar year 1935.....	3,356,250	110,000	1,710	9,195	1.47	19.99
January.....	820,740	76,600	6,340	25,480	4.24	4.89
February.....	500,740	60,400	6,380	17,270	2.77	2.99
March.....	808,760	143,000	7,360	26,090	4.18	4.82
April.....	442,010	30,000	6,440	14,730	2.36	2.63
May.....	155,510	6,870	3,060	5,016	.804	.93
June.....	99,370	7,390	2,290	3,312	.551	.59
July.....	66,190	3,240	1,650	2,135	.342	.39
August.....	60,490	4,300	1,620	1,951	.315	.36
September.....	45,430	5,220	1,000	1,614	.243	.27
Water year 1935-36.....	3,479,590	143,000	1,000	9,507	1.52	20.72

## James River near Richmond, Va.

Location.— Water-stage recorder, lat.  $37^{\circ}34'$ , long.  $77^{\circ}32'$ , at Westham highway bridge 3 miles west of city limits of Richmond, Henrico County. Zero of gage is 98.82 feet above mean sea level.

Drainage area.— 8,757 square miles.

Records available.— October 1934 to September 1936.

Extremes.— Maximum discharge during year, 158,000 second-feet Mar. 19 (gage height, 23.42 feet), from rating curve extended above 90,000 second-feet on basis of velocity-area studies; minimum, 208 second-feet Sept. 25 (gage height, 2.74 feet); minimum daily discharge, 274 second-feet Sept. 25.

1934-36: Maximum discharge, that of Mar. 19, 1936; minimum, that of Sept. 25, 1936; minimum daily discharge, that of Sept. 25, 1936.

Remarks.— Records excellent except those below 1,000 second-feet, those for Oct. 13-23, and those for periods of ice effect, Dec. 30 to Jan. 1, Jan. 24 to Feb. 13 (computed on basis of recorder charts, weather records, and records for station at Cartersville), which are fair. Flow regulated by power plants above station. Gage-height record collected in cooperation with the U. S. Weather Bureau. Records do not include flow of James River & Kanawha Canal which diverts above station. Discharge measurements of canal flow are listed below.

Discharge measurements, in second-feet, of James River & Kanawha Canal near Richmond, Va., 1935-36

At Westham Bridge

Oct. 23 692  
Dec. 19 814

Aug. 26 767  
Sept. 24 737  
28 725

At Bosher Dam

Sept. 28 730  
29 720

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

2.8	250	4.0	2,250	7.0	12,300	14.0	55,000	20.0	114,000
3.0	430	4.5	3,550	8.0	16,600	16.0	71,100	22.0	140,000
3.3	810	5.0	5,010	10.0	27,100	18.0	90,300		
3.6	1,350	6.0	8,360	12.0	40,300				

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,960	3,840	9,340	5,000	7,000	17,700	16,800	5,920	2,220	1,570	1,270	1,100
2	1,670	2,860	9,180	6,000	6,500	14,100	14,900	5,550	2,120	1,540	1,100	893
3	1,950	3,440	7,500	30,400	6,100	12,100	16,000	5,580	2,080	1,720	958	824
4	1,560	2,150	6,720	71,900	6,500	10,900	17,100	5,810	2,350	1,900	894	764
5	1,450	1,720	5,540	59,600	8,500	10,000	17,100	6,290	2,350	1,740	850	736
6	1,450	1,980	4,680	41,300	10,000	9,390	14,900	6,410	2,120	1,860	2,730	854
7	1,410	1,740	4,540	33,400	7,800	8,920	25,900	5,250	2,300	1,550	4,000	804
8	1,520	1,780	4,100	29,500	6,200	8,050	32,900	5,460	2,370	1,480	1,860	732
9	1,570	2,600	3,870	28,900	6,500	7,910	30,600	5,080	2,870	1,370	1,640	682
10	1,540	3,560	4,170	38,900	6,800	7,460	24,000	4,860	3,370	1,260	1,880	680
11	1,590	2,800	3,830	38,200	6,900	8,180	25,300	4,680	2,980	1,290	1,070	1,570
12	1,560	2,680	4,590	32,100	6,400	12,500	25,800	4,520	2,620	2,110	877	1,640
13	1,500	2,930	5,460	22,600	6,000	16,900	22,200	4,200	2,540	1,390	589	1,400
14	1,500	5,310	9,780	17,500	12,600	15,100	18,900	5,960	5,700	1,880	890	740
15	1,500	15,300	20,500	15,300	41,600	12,700	16,400	6,020	5,590	2,260	824	1,590
16	1,400	14,000	22,600	16,200	56,500	11,400	14,500	5,460	3,690	1,790	920	2,330
17	1,400	10,200	19,000	15,700	55,900	10,600	13,300	5,250	2,670	1,620	1,200	1,880
18	1,500	12,300	14,800	15,700	39,200	55,100	11,900	4,560	2,720	1,420	1,160	994
19	1,490	10,900	12,300	29,500	34,900	135,000	11,000	4,280	2,120	1,120	1,720	654
20	1,400	8,920	10,400	56,200	31,900	136,000	10,300	3,880	2,820	1,180	1,780	1,030
21	1,400	7,230	8,970	70,900	24,000	66,900	9,240	4,080	3,710	1,000	1,140	697
22	1,400	6,390	7,400	39,800	18,000	41,700	8,780	3,620	2,970	915	1,170	600
23	1,400	5,520	6,140	23,400	14,600	40,300	9,000	3,580	2,630	984	1,810	580
24	1,400	5,040	5,480	19,000	12,600	28,600	8,400	3,700	2,420	1,040	1,080	397
25	1,340	4,210	5,100	14,000	11,700	23,600	7,900	3,400	2,180	1,600	1,260	274
26	1,310	4,370	4,580	12,000	12,100	21,300	7,220	3,060	2,400	1,710	986	472
27	1,420	3,750	4,180	11,000	13,300	19,800	7,110	2,690	2,110	1,170	760	870
28	1,220	4,090	3,110	10,000	16,000	20,100	6,820	2,880	1,670	1,000	728	316
29	1,350	5,660	4,180	8,800	19,400	23,100	6,490	2,590	1,760	946	740	477
30	3,280	11,400	3,500	7,900	-	23,100	5,990	2,600	1,530	918	910	517
31	5,850	-	4,000	7,400	-	19,900	-	2,600	-	916	1,330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	52,330	5,850	1,220	1,688	0.250	0.29
November.....	168,730	15,300	1,720	5,624	.832	.93
December.....	239,540	22,600	3,110	7,727	1.14	1.31
Calendar year 1935.....	3,396,650	116,000	1,220	9,306	1.38	18.71
January.....	847,300	71,900	5,000	27,330	4.04	4.66
February.....	504,000	55,300	6,000	17,380	2.57	2.77
March.....	845,410	135,000	7,450	27,370	4.05	4.67
April.....	456,750	32,900	5,990	15,220	2.25	2.51
May.....	140,200	6,410	2,590	4,523	.663	.77
June.....	81,010	5,700	1,530	2,700	.400	.45
July.....	44,249	2,260	915	1,427	.211	.24
August.....	40,126	4,000	589	1,294	.192	.22
September.....	27,077	2,330	274	903	.134	.15
Water year 1935-36.....	3,449,722	136,000	274	9,425	1.39	18.97

## Warm Spring at Warm Springs, Va.

Location.- Water-stage recorder, lat. 38°03'11", long. 79°46'52", just above V-shaped well about 200 feet below Warm Spring, at Warm Springs, Bath County.

Records available.- June 1928 to September 1936.

Extremes.- Maximum daily discharge during year, 3.47 second-feet Apr. 6; minimum, 2.21 second-feet Nov. 2.

1928-36: Maximum daily discharge, 5.45 second-feet Nov. 18, 1929 (flow probably increased somewhat by local surface run-off); minimum, 1.35 second-feet Feb. 25, 26, 1931.

Remarks.- Records fair. Discharge for estimated periods based on weather records and recorder charts.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.0	0.93
1.1	1.32
1.2	1.79
1.3	2.35
1.4	3.00
1.5	3.76

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.35	2.23	2.32	2.37	*2.60	2.78	2.99	3.04	2.95	2.79	2.57	2.66
2	2.30	2.21	2.31	*2.35	*2.60	2.77	3.08	3.04	2.90	2.74	2.67	2.67
3	2.31	2.24	2.36	*2.35	*2.60	2.77	3.08	3.05	2.81	2.68	2.64	2.65
4	2.35	2.30	*2.40	*2.35	*2.60	2.82	3.12	3.05	2.90	2.65	2.73	2.60
5	2.37	2.29	*2.40	*2.35	*2.60	2.80	3.22	3.02	2.85	2.69	2.78	2.56
6	2.30	2.26	2.38	2.35	*2.60	2.81	3.47	*3.00	2.77	2.64	2.62	2.48
7	2.33	2.24	2.32	*2.35	*2.60	2.82	3.36	*3.00	2.94	2.55	2.60	2.49
8	2.28	2.25	2.42	*2.35	*2.65	2.80	3.22	*3.00	2.86	2.66	2.70	2.46
9	2.30	2.22	2.42	*2.35	*2.65	2.72	3.21	*3.00	2.78	2.65	2.68	2.43
10	2.35	2.22	2.34	*2.35	*2.65	2.76	3.22	*3.00	2.76	2.75	2.75	2.43
11	2.34	2.26	2.30	*2.35	*2.65	2.74	3.18	*3.00	2.86	2.74	2.94	2.42
12	2.31	2.39	2.32	*2.37	*2.65	2.74	3.18	3.01	2.98	2.70	2.69	2.36
13	2.31	2.34	2.33	*2.35	*2.65	2.74	3.22	2.97	2.74	2.65	2.60	2.46
14	2.30	2.32	2.40	*2.40	*2.65	2.74	3.10	2.96	2.76	2.60	2.58	2.38
15	2.26	2.33	2.34	*2.40	*2.65	2.72	3.08	2.96	2.83	2.62	2.63	2.38
16	2.26	2.29	2.30	*2.45	*2.65	2.70	3.05	2.99	2.82	2.70	2.62	2.40
17	2.34	2.31	2.30	*2.45	*2.65	*2.80	3.09	3.02	2.85	*2.65	2.54	2.41
18	2.30	2.24	2.28	2.46	*2.65	*2.90	*3.10	3.01	2.91	*2.65	2.57	2.42
19	*2.30	2.24	2.31	*2.60	2.70	3.00	*3.15	2.98	2.82	*2.65	2.61	2.38
20	*2.30	2.27	2.32	*2.50	2.69	3.03	3.18	2.96	2.93	*2.65	2.67	2.56
21	*2.30	2.28	2.32	*2.60	2.68	3.22	3.19	2.99	2.88	2.68	2.68	2.64
22	*2.30	2.28	2.32	2.52	2.68	3.10	3.12	2.95	2.75	2.63	2.50	2.64
23	*2.30	2.34	2.32	2.52	2.68	3.06	3.10	2.98	2.87	2.64	2.46	2.34
24	*2.30	2.35	2.33	2.54	2.68	3.06	3.09	3.01	2.96	2.66	2.55	2.30
25	2.25	2.32	2.33	2.54	*2.70	3.05	3.10	3.02	2.90	2.65	2.42	2.29
26	2.24	2.32	2.33	2.56	*2.70	3.01	3.12	3.02	2.75	2.66	2.48	2.33
27	2.26	2.31	2.34	*2.60	*2.70	3.03	3.09	3.00	2.78	2.56	2.44	2.31
28	2.23	2.35	2.31	*2.60	2.74	*3.00	3.10	3.00	2.80	2.59	2.48	2.29
29	2.28	2.40	2.33	*2.60	2.74	*2.95	3.04	2.92	2.82	2.62	2.56	2.32
30	2.24	2.38	2.33	*2.60	-	2.93	2.94	2.94	2.82	2.59	2.65	2.34
31	2.24	-	2.36	*2.60	-	2.97	-	3.01	-	2.62	2.60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	71.20	2.37	2.23	2.30		
November.....	68.75	2.40	2.21	2.29		
December.....	72.50	2.42	2.28	2.34		
Calendar year 1935.....	917.15	3.12	1.90	2.51		
January.....	75.95	2.60	2.35	2.45		
February.....	77.02	2.74	2.60	2.66		
March.....	89.34	3.22	2.70	2.98		
April.....	94.19	3.47	2.94	3.14		
May.....	92.90	3.05	2.92	3.00		
June.....	85.35	2.98	2.74	2.84		
July.....	82.37	2.79	2.56	2.66		
August.....	90.98	2.94	2.42	2.61		
September.....	75.43	2.68	2.29	2.45		
Water year 1935-36.....	963.98	3.47	2.21	2.63		

\*Estimated.

## Dunlap Creek near Covington, Va.

Location.- Chain gage, lat. 37°48', long. 80°03', at highway bridge 2 miles below Ogle Creek and 3 miles west of Covington, Alleghany County. Zero of gage is 1,294.21 feet above mean sea level.

Drainage area.- 166 square miles.

Records available.- December 1928 to September 1936.

Extremes.- Maximum discharge during year, 8,370 second-feet Mar. 17 (gage height, 10.52 feet, from floodmarks), from rating curve extended above 4,500 second-feet on basis of velocity-area studies; minimum, 15 second-feet Sept. 17 (gage height, 0.99 foot). 1928-36: Maximum discharge, that of Mar. 17, 1936; minimum, 8 second-feet Aug. 27, 28, 30, 1932 (gage height, 0.88 foot).

Remarks.- Records good except those for Oct. 30 to Nov. 3 and those for periods of ice effect, Dec. 22-31, Jan. 28 to Feb. 4, Feb. 7-13, which are fair and were computed on basis of observer's notes, weather records, and records for Potts Creek near Covington. Discharge for period Mar. 8-25 computed from stage graph based on twice-daily gage readings, floodmarks, and stage graphs for nearby stations. Gage read twice daily.

Rating tables, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 17

Mar. 18 to Sept. 30

1.1	15	3.0	502	1.0	16	2.6	340
1.2	23	3.5	752	1.2	36	3.0	504
1.4	45	4.0	1,040	1.4	61	3.5	752
1.6	73	5.0	1,760	1.6	90	4.0	1,040
1.8	107	6.0	2,670	1.8	124	5.0	1,760
2.0	148	7.0	3,780	2.0	166	6.0	2,670
2.3	230	8.0	5,000	2.3	244		
2.6	333	9.0	6,300				

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	32	107	62	70	262	306	75	34	23	21	20
2	25	35	96	279	60	215	377	74	32	25	20	21
3	25	35	84	3,310	50	200	504	72	30	25	20	22
4	23	31	79	1,160	100	173	377	75	34	25	20	27
5	21	29	73	862	262	163	323	72	32	23	23	22
6	25	28	66	752	186	158	1,160	67	32	23	21	22
7	23	57	67	980	130	148	1,040	64	33	21	20	20
8	21	148	87	1,040	100	133	550	64	34	20	20	20
9	23	94	262	1,520	90	124	460	61	34	20	18	20
10	21	72	279	1,520	80	119	920	60	33	20	19	20
11	21	100	230	806	70	124	648	69	78	23	33	20
12	21	596	168	525	60	144	482	72	61	21	23	20
13	21	2,670	186	436	100	165	377	69	38	51	21	18
14	21	621	1,100	372	3,900	178	306	67	36	30	19	18
15	30	314	806	352	2,980	204	259	64	33	25	20	20
16	27	215	502	962	1,440	229	230	58	29	23	25	16
17	25	173	333	572	920	6,070	203	56	28	22	24	16
18	26	148	246	414	2,010	2,630	178	53	33	24	20	68
19	27	126	200	1,520	920	1,060	155	53	29	27	20	27
20	27	115	186	1,230	548	1,040	144	56	29	23	19	21
21	27	103	130	646	393	1,810	128	51	27	22	20	20
22	27	94	110	480	279	1,150	122	48	25	21	20	19
23	29	83	100	333	215	1,170	113	43	27	20	20	19
24	28	76	90	314	200	1,140	103	42	26	19	20	20
25	27	72	80	230	200	770	96	38	25	18	21	20
26	27	68	70	200	436	527	95	41	23	17	18	20
27	26	67	65	158	480	862	90	38	23	18	20	18
28	27	67	60	120	414	1,300	86	36	22	20	35	16
29	130	96	60	100	314	752	82	36	21	25	32	16
30	90	111	60	90	-	504	80	35	22	25	24	37
31	50	-	55	80	-	377	-	36	-	22	20	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October.....				966	130	21	31.2	0.188		0.22		
November.....				6,476	2,670	28	216	1.30		1.45		
December.....				6,037	1,100	55	195	1.17		1.35		
Calendar year 1935.....				94,690	5,260	21	259	1.56		21.23		
January.....				21,325	3,310	62	688	4.14		4.77		
February.....				17,007	3,900	50	586	3.53		3.81		
March.....				23,901	6,070	119	771	4.64		5.35		
April.....				9,994	1,160	80	333	2.01		2.24		
May.....				1,745	75	35	56.3	.539		.59		
June.....				963	78	21	32.1	.193		.22		
July.....				721	51	17	23.3	.140		.16		
August.....				676	35	18	21.8	.131		.15		
September.....				667	68	16	22.2	.134		.15		
Water year 1935-36.....				90,478	6,070	16	247	1.49		20.26		

## Potts Creek near Covington, Va.

**Location.**- Chain gage, lat.  $37^{\circ}44'$ , long.  $80^{\circ}02'$ , at highway bridge a quarter of a mile above Hays Creek and 3 miles southwest of Covington, Alleghany County. Zero of gage is 1,257.61 feet above mean sea level.

**Drainage area.**- 158 square miles.

**Records available.**- December 1928 to September 1936.

**Extremes.**- Maximum discharge during year, about 8,570 second-feet Mar. 17 (gage height, 9.52 feet, from floodmarks), from rating curve extended above 4,000 second-feet on basis of velocity-area studies; minimum, 23 second-feet July 26, Aug. 22 (gage height, 1.46 feet).

1928-36: Maximum discharge observed, about 9,710 second-feet Jan. 23, 1935 (gage height, 10.10 feet); minimum, 13 second-feet Nov. 29, 1930 (gage height, 1.30 feet).

**Remarks.**- Records fair. Discharge for Oct. 29-31, May 14-17, Mar. 31 and for periods of ice effect, Dec. 21-31, Jan. 31 to Feb. 4, Feb. 7-12, computed on basis of observer's notes, weather records, and records for Dunlap Creek near Covington. Discharge for period Mar. 8-25 computed from stage graph based on twice-daily gage readings, floodmarks, and stage graphs for nearby stations. Gage read twice daily.

Rating table, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

1.4	18	2.6	398	6.0	3,270
1.6	39	3.0	680	7.0	4,460
1.8	72	3.5	1,070	8.0	5,960
2.0	118	4.0	1,470		
2.3	252	5.0	2,320		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	34	140	82	110	288	464	108	54	38	31	34
2	29	37	124	177	100	277	464	108	52	42	27	32
3	28	37	113	1,630	90	267	461	121	48	44	27	31
4	27	35	113	1,230	130	247	439	150	50	45	26	35
5	32	35	106	910	165	223	444	147	54	42	25	39
6	33	35	98	792	154	210	1,030	134	54	40	26	38
7	37	82	103	755	140	201	1,310	116	54	34	27	32
8	34	180	113	830	130	188	718	103	51	34	27	27
9	34	108	110	1,310	120	180	680	100	51	32	25	26
10	34	76	173	1,630	110	173	830	110	50	32	25	25
11	32	150	201	990	100	169	643	192	51	32	32	25
12	32	310	242	643	120	161	606	380	54	33	32	27
13	33	1,470	431	457	214	184	534	228	51	46	29	27
14	34	680	1,030	272	1,960	183	411	170	48	40	28	27
15	35	380	718	368	2,500	186	386	140	48	29	27	26
16	38	277	534	643	1,230	188	332	120	46	31	39	25
17	38	242	451	570	1,030	4,710	299	110	44	32	40	26
18	37	201	350	451	950	2,660	252	100	40	34	31	28
19	37	161	272	1,310	680	1,370	228	96	40	33	31	31
20	35	144	232	1,310	643	1,270	210	93	39	31	27	27
21	34	140	170	910	606	1,680	188	91	38	29	25	25
22	34	128	140	643	570	1,320	184	82	37	28	24	25
23	33	100	130	499	374	1,180	169	78	37	27	27	26
24	32	93	120	380	299	978	154	72	35	26	28	27
25	32	96	100	356	282	978	140	68	34	25	27	27
26	31	98	90	327	293	870	134	65	34	23	27	26
27	31	98	85	272	327	910	128	65	33	28	32	27
28	33	108	80	223	321	910	118	61	32	29	161	27
29	140	150	80	188	299	870	113	58	31	35	93	27
30	100	154	80	150	-	755	108	54	28	38	40	58
31	60	-	80	130	-	550	-	54	-	33	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	1,230	140	27	39.7	0.251	0.29
November.....	5,839	1,470	34	195	1.23	1.37
December.....	6,789	1,030	80	219	1.39	1.60
Calendar year 1935.....	93,472	7,300	25	256	1.62	22.00
January.....	20,438	1,630	82	659	4.17	4.81
February.....	14,047	2,500	90	494	3.06	3.30
March.....	24,336	4,710	161	785	4.97	5.73
April.....	12,166	1,310	108	406	2.57	2.87
May.....	3,574	380	54	115	.728	.84
June.....	1,518	54	28	43.9	.278	.31
July.....	1,045	46	23	33.7	.213	.25
August.....	1,105	161	24	35.6	.225	.26
September.....	883	58	25	29.4	.186	.21
Water year 1935-36.....	92,770	4,710	23	253	1.60	21.84



## Cowpasture River near Clifton Forge, Va.

Location.- Water-stage recorder, lat. 37°48', long. 79°46', at iron highway bridge 1½ miles above junction with Jackson River and 4 miles southeast of Clifton Forge, Alleghany County. Zero of gage is 1,006.93 feet above mean sea level.

Drainage area.- 456 square miles.

Records available.- May 1907 to August 1908, March 1925 to September 1936.

Average discharge.- 11 years (1925-36), 486 second-feet.

Extremes.- Maximum discharge during year, about 22,400 second-feet Mar. 18 (gage height, 18.82 feet), from rating curve extended above 3,500 second-feet on basis of velocity-area studies; minimum, 53 second-feet Sept. 19 (gage height, 1.81 feet).

1907-8, 1925-36: Maximum discharge, that of Mar. 18, 1936; minimum, 38 second-feet Sept. 2, 1932 (gage height, 1.70 feet).

Maximum stage known, 20.8 feet, from floodmarks, in March 1913 (discharge, about 26,800 second-feet).

Remarks.- Records good except those above 6,000 second-feet, those for periods of ice effect, Jan. 24-27, 30, (computed on basis of recorder charts, weather records, and records for Jackson River at Barber) and those for Sept. 19-30, which are fair.

Rating tables, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 18

Mar. 19 to Sept. 30

2.0	79	4.5	1,360	1.8	61	4.0	1,040
2.2	128	5.0	1,740	2.0	100	4.5	1,360
2.4	190	6.0	2,660	2.2	156	5.0	1,740
2.6	262	7.0	3,730	2.4	222	6.0	2,660
2.8	344	8.0	4,950	2.6	300	7.0	3,770
3.0	438	10.0	7,670	2.8	388	8.0	4,950
3.3	594	12.0	10,700	3.0	482		
3.6	770	14.0	14,000	3.3	636		
4.0	1,020	16.0	17,600	3.6	802		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	112	669	290	290	1,290	890	288	141	110	98	87
2	92	97	614	500	278	1,090	1,040	276	138	118	87	85
3	90	92	404	2,970	262	960	1,460	276	135	118	87	89
4	88	90	336	3,500	315	830	1,010	308	138	113	87	87
5	86	90	294	1,700	400	800	860	321	156	110	82	86
6	88	88	251	1,320	395	900	3,370	276	147	172	85	85
7	92	125	236	1,400	251	746	3,860	260	135	215	87	75
8	92	184	258	1,580	255	658	1,860	249	147	150	89	73
9	90	152	589	2,280	274	583	1,500	241	156	129	87	76
10	88	137	646	3,030	298	551	2,560	230	175	118	76	75
11	86	128	540	1,910	255	551	1,910	230	162	159	85	73
12	86	249	463	1,400	232	710	1,500	241	215	243	80	71
13	86	1,640	668	1,190	255	800	1,330	280	284	344	85	70
14	86	1,460	2,040	1,120	1,820	746	1,100	304	411	188	93	75
15	86	669	1,600	1,090	3,850	658	950	272	260	147	85	75
16	86	448	1,320	1,580	3,100	606	830	241	205	121	87	73
17	81	376	1,160	1,360	1,960	7,370	740	233	175	108	103	76
18	77	395	895	1,120	2,980	15,600	668	219	178	100	91	71
19	79	395	710	2,910	2,370	4,610	594	226	185	105	82	68
20	83	344	583	2,920	1,500	3,180	542	237	166	116	78	68
21	77	306	488	1,580	1,090	3,730	502	237	153	118	89	68
22	83	274	381	1,160	862	2,560	453	212	138	100	96	68
23	81	278	424	928	698	1,860	434	191	129	93	86	68
24	86	270	390	640	629	1,660	406	182	126	105	110	68
25	83	240	327	580	734	1,540	379	172	132	110	132	68
26	79	229	266	540	2,410	1,290	360	169	129	121	103	68
27	77	218	240	460	3,620	1,400	342	162	118	103	100	66
28	77	349	310	376	2,760	2,000	329	159	113	121	123	66
29	137	1,190	327	353	1,660	1,820	313	153	108	132	108	66
30	149	960	319	400	-	1,500	300	147	108	116	98	82
31	146	-	255	310	-	1,070	-	144	-	116	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	2,811	149	77	90.7	0.199	0.23
November.....	11,463	1,540	88	382	.838	.94
December.....	17,803	2,040	236	574	1.26	1.45
Calendar year 1935.....	227,926	12,100	77	624	1.37	18.60
January.....	42,497	3,500	290	1,371	3.01	3.47
February.....	35,803	3,850	232	1,235	2.71	2.92
March.....	63,069	15,600	581	2,034	4.46	5.14
April.....	32,382	3,850	500	1,079	2.37	2.64
May.....	7,136	321	144	230	.504	.58
June.....	5,063	411	108	169	.371	.41
July.....	4,219	344	93	136	.298	.34
August.....	2,869	132	66	92.5	.203	.23
September.....	2,225	89	66	74.2	.163	.18
Water year 1935-36.....	227,340	15,600	66	621	1.36	18.53

## Craig Creek at Parr, Va.

**Location.**- Chain gage, lat. 37°39'55", long. 79°54'40", at Chesapeake & Ohio Railway bridge 600 feet from Parr, Botetourt County, and 12 miles above mouth. Zero of gage is 992.50 feet above mean sea level.

**Drainage area.**- 331 square miles.

**Records available.**- April 1925 to September 1936.

**Records discharge.**- 11 years, 365 second-feet.

**Extremes.**- Maximum discharge during year, 17,000 second-feet Mar. 18 (gage height, 14.26 feet, from floodmarks); minimum, 41 second-feet Sept. 28, 29 (gage height, 3.49 feet). 1925-36: Maximum discharge observed, 21,500 second-feet Jan. 23, 1935 (gage height, 15.65 feet), from rating curve extended above 6,000 second-feet; minimum, 29 second-feet Oct. 1, 5, 1930 (gage height, 3.42 feet).

**Remarks.**- Records good except those for periods of ice effect, Dec. 25 to Jan. 1, Feb. 7-13, which are fair and were computed on basis of weather records and records for Catawba Creek near Fincastle and Johns Creek at Newcastle. Discharge for period Mar. 8-25 computed from stage graph based on twice-daily gage readings, floodmarks, and stage graphs for nearby stations. Gage read twice daily.

Rating table, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

3.4	35	6.0	1,180
3.6	51	6.5	1,650
3.8	76	7.0	2,190
4.0	115	8.0	3,470
4.3	189	9.0	4,990
4.6	300	10.0	6,800
5.0	488	12.0	11,100
5.5	790		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	103	300	160	260	412	688	220	88	54	46	60
2	58	90	260	245	342	388	790	206	86	58	47	52
3	58	81	230	4,610	280	365	1,580	199	83	61	46	62
4	58	76	206	3,350	300	365	960	280	91	65	44	103
5	58	70	183	1,750	365	321	790	342	99	63	44	109
6	60	68	166	1,360	342	300	1,360	280	91	61	44	79
7	60	86	155	2,930	320	280	2,550	242	83	58	43	65
8	60	172	158	3,190	280	272	1,360	227	93	58	44	59
9	60	189	174	3,060	260	253	1,100	213	128	53	46	55
10	58	135	196	3,750	240	262	2,430	206	103	49	47	76
11	58	124	139	1,970	220	249	1,360	396	95	49	49	79
12	60	135	183	1,270	260	306	1,100	902	95	47	47	60
13	60	321	300	940	400	362	902	790	105	79	49	53
14	58	865	3,060	755	3,750	349	755	488	93	60	54	51
15	58	514	1,550	688	6,420	323	625	388	81	54	55	49
16	65	365	1,020	1,180	2,800	303	568	321	73	51	68	47
17	60	321	755	1,020	1,860	5,500	514	280	89	49	51	47
18	62	300	568	865	2,080	11,800	436	242	89	49	47	46
19	58	253	488	2,430	1,650	3,040	412	220	86	54	47	44
20	58	230	398	4,510	1,180	2,210	365	203	66	52	46	42
21	58	213	300	1,750	865	4,710	342	180	69	49	44	42
22	60	192	245	1,270	688	2,470	321	158	68	48	46	42
23	62	189	280	902	568	1,680	342	145	63	46	47	42
24	60	177	260	688	488	1,390	300	133	61	45	50	42
25	58	160	227	625	462	1,200	280	126	59	42	46	42
26	56	155	210	568	436	980	260	122	59	42	44	42
27	56	158	190	436	462	1,100	280	115	59	44	44	43
28	58	166	190	300	488	1,650	256	109	55	43	183	41
29	160	238	180	342	436	1,450	242	99	52	44	166	42
30	280	342	170	388	-	1,100	227	95	52	47	97	99
31	145	-	160	321	-	865	-	90	-	46	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	2,240	280	56	72.3	0.218	0.25
November.....	6,488	865	68	216	.653	.73
December.....	12,941	3,060	155	417	1.26	1.45
Calendar year 1935.....	184,615	16,200	46	506	1.53	20.75
January.....	47,503	4,510	160	1,532	4.63	5.34
February.....	28,502	6,420	220	983	2.97	3.20
March.....	46,245	11,800	249	1,492	4.51	5.20
April.....	23,275	2,550	227	776	2.34	2.61
May.....	8,009	902	90	255	.779	.90
June.....	2,354	128	52	78.5	.237	.26
July.....	1,618	63	42	52.2	.158	.18
August.....	1,804	183	43	58.2	.176	.20
September.....	1,714	109	41	57.1	.173	.19
Water year 1935-36.....	162,693	11,800	41	499	1.51	20.51

## Meadow Creek at Newcastle, Va.

Location.- Water-stage recorder, lat. 37°29'35", long. 80°06'55", 500 feet above Newcastle-Salem highway bridge and just outside town limits of Newcastle, Craig County.

Drainage area.- 13.8 square miles.

Records available.- September 1929 to September 1936.

Extremes.- Maximum discharge during year, 218 second-feet Mar. 17 (gage height, 3.65 feet), from rating curve extended above 30 second-feet; minimum, 1.7 second-feet Aug. 24, 26 (gage height, 1.01 feet).  
1929-36: Maximum discharge, 242 second-feet Oct. 2, 1929 (gage height, 3.64 feet); minimum, 0.8 second-foot Sept. 4, 1930 (gage height, 0.91 foot).

Remarks.- Records poor. Discharge for periods of ice effect, Dec. 26, 27, 29-31, computed on basis of recorder charts, weather records, and records for Craig Creek at Parr, Johns Creek at Newcastle, and Catawba Creek near Fincastle.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	6.4	14	8.2	12	20	30	15	8.9	5.7	2.8	3.0
2	5.9	5.7	12	16	11	19	38	15	8.2	4.8	3.2	2.8
3	5.7	5.2	11	87	10	18	36	19	7.9	6.2	3.0	3.4
4	5.4	5.0	10	67	14	17	30	24	8.2	5.4	3.0	5.2
5	5.2	4.8	9.2	38	13	15	28	20	7.6	5.4	3.4	3.8
6	5.0	4.5	8.4	38	10	14	63	18	7.4	6.6	3.4	3.8
7	4.8	8.3	7.6	49	9.7	14	68	17	8.4	5.0	3.6	3.4
8	4.3	8.9	9.2	53	9.2	15	47	15	8.2	4.3	3.4	3.0
9	4.1	7.2	9.4	71	9.2	14	41	14	8.2	4.1	3.2	4.7
10	3.8	6.4	8.7	80	9.2	14	47	16	7.2	3.2	4.7	5.0
11	3.4	6.2	8.2	54	9.4	18	43	26	6.6	6.8	5.4	3.2
12	3.4	7.2	7.9	37	9.2	20	38	36	7.6	19	3.4	2.6
13	3.4	24	21	30	13	20	32	33	6.9	18	2.8	2.8
14	3.8	18	56	24	127	18	26	26	6.6	12	8.1	2.8
15	3.6	14	47	26	146	18	24	22	5.9	7.6	4.5	2.8
16	4.8	12	35	33	84	18	22	19	5.9	5.4	3.0	2.8
17	4.1	12	26	29	62	167	20	18	5.4	8.4	5.0	2.6
18	4.8	11	21	26	62	194	20	17	5.4	5.4	3.2	2.6
19	5.0	10	18	90	47	127	19	16	5.7	5.4	3.0	2.6
20	5.2	9.7	15	88	37	96	18	15	5.2	4.5	2.8	2.8
21	5.4	9.2	13	59	32	110	17	15	5.0	4.3	3.0	2.8
22	5.4	8.9	11	39	26	85	18	14	4.8	3.8	3.4	2.3
23	5.7	9.2	11	27	24	71	18	14	5.0	3.2	3.4	2.1
24	5.4	8.4	10	21	23	53	16	13	5.7	3.0	3.4	2.6
25	5.2	7.9	9.2	18	22	43	16	12	5.2	3.2	3.2	2.3
26	5.2	7.9	8.0	17	22	37	17	12	4.5	3.4	3.0	1.9
27	5.4	7.9	8.0	15	22	40	16	11	4.5	3.0	8.8	2.1
28	5.7	11	7.4	15	21	54	16	10	4.5	2.3	14	2.8
29	17	16	7.0	14	20	50	16	9.2	4.1	4.1	5.7	3.6
30	8.4	15	7.0	12	-	41	15	8.7	4.1	3.4	4.8	41
31	6.9	-	7.0	12	-	36	-	9.2	-	3.0	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	167.8	17	3.4	5.41	0.392	0.45
November.....	287.9	24	4.5	9.60	.696	.78
December.....	453.2	56	7.0	14.6	1.06	1.22
Calendar year 1935.....	6,100.6	188	-	16.7	1.21	16.42
January.....	1,193.2	90	8.2	38.5	2.79	3.22
February.....	915.9	146	9.2	31.6	2.29	2.47
March.....	1,476	194	14	47.6	3.45	3.98
April.....	855	68	15	28.5	2.07	2.31
May.....	529.1	36	8.7	17.1	1.24	1.43
June.....	188.8	8.9	4.1	6.29	.456	.61
July.....	179.9	19	2.3	5.50	.420	.48
August.....	131.6	14	2.8	4.25	.308	.36
September.....	129.2	41	1.9	4.31	.312	.35
Water year 1935-36.....	6,507.6	194	1.9	17.8	1.29	17.56

## Johns Creek at Newcastle, Va.

Location.- Chain gage, lat. 37°30', long. 80°06', at highway bridge 500 feet east of town limits of Newcastle, Craig County, and a quarter of a mile above mouth.

Drainage area.- 106 square miles.

Records available.- April 1926 to September 1936.

Average discharge.- 10 years, 126 second-feet.

Extremes.- Maximum discharge during year, 4,340 second-feet Mar. 17 (gage height, 9.7 feet, from graph based on gage readings); minimum, 10 second-feet numerous days in July, August, and September.

1926-36: Maximum discharge observed, 6,000 second-feet Jan. 23, 1935 (gage height, 10.80 feet), from rating curve extended above 3,200 second-feet on basis of velocity-area studies; minimum, 7 second-feet Aug. 11, Sept. 3, 6, 7, 1930 (gage height, 2.26 feet).

Remarks.- Records fair. Discharge for Jan. 24 and for periods of ice effect, Dec. 21 to Jan. 1, Jan. 27-31, Feb. 10-12, computed on basis of observer's notes, weather records, and records for Craig Creek at Parr. Discharge for Mar. 8-25 computed from stage graph based on twice-daily gage readings, floodmarks, and stage graphs for nearby stations. Gage read twice daily.

Rating tables, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 17

Mar. 18 to Sept. 30

2.6	12	5.5	455	2.4	8	4.5	215
2.8	19	6.0	650	2.6	13	5.0	317
3.0	28	6.5	900	2.8	20	5.5	455
3.3	49	7.0	1,230	3.0	31	6.0	650
3.6	77	7.5	1,650	3.3	52	6.5	900
4.0	131	8.0	2,150	3.6	60	7.0	1,250
4.5	215	9.0	3,370	4.0	131	7.5	1,650
5.0	317						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	22	55	50	146	131	254	66	22	15	12	14
2	13	20	41	162	69	124	317	66	21	15	12	17
3	14	19	55	1,940	109	131	390	66	20	18	11	22
4	13	19	51	740	109	116	317	170	43	17	11	56
5	13	18	52	605	124	102	274	97	32	16	11	32
6	14	17	53	420	96	96	650	80	30	19	11	22
7	14	54	44	650	77	89	695	75	22	18	11	17
8	14	96	49	740	72	81	455	80	24	16	11	16
9	14	66	57	1,090	89	77	790	70	31	13	11	27
10	14	53	66	1,090	80	77	565	66	33	12	12	21
11	14	32	62	490	70	88	390	131	26	13	13	17
12	14	224	57	365	60	99	340	244	24	14	14	14
13	14	390	215	274	72	96	295	154	30	13	12	14
14	14	188	605	116	2,370	91	254	103	24	13	13	13
15	14	170	317	365	1,840	88	224	91	21	12	12	12
16	17	131	254	390	790	98	188	80	16	12	11	13
17	17	124	206	317	740	2,560	162	70	15	12	12	12
18	14	102	179	295	845	1,400	146	66	20	14	13	12
19	12	96	138	1,020	605	758	131	70	28	13	10	11
20	13	66	109	790	365	907	116	54	26	12	10	11
21	14	53	100	455	295	1,190	110	47	30	12	11	11
22	15	54	90	340	224	742	116	42	25	11	18	11
23	15	57	120	274	215	600	116	39	15	11	11	10
24	15	50	100	235	162	449	91	37	15	10	13	12
25	14	47	120	197	162	389	86	35	15	10	11	12
26	15	47	100	170	162	340	86	32	15	11	11	11
27	14	46	90	140	179	525	86	29	15	10	11	11
28	17	49	80	110	170	605	75	25	14	12	75	11
29	96	72	70	100	146	420	70	24	12	13	37	11
30	51	66	60	90	-	317	70	24	11	14	24	131
31	29	-	50	100	-	274	-	24	-	15	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	574	96	12	18.5	0.175	0.20
November.....	2,421	390	17	80.7	.761	.85
December.....	3,645	605	41	118	1.11	1.28
Calendar year 1935.....	59,837	3,500	12	164	1.55	20.98
January.....	14,120	1,940	50	455	4.29	4.95
February.....	10,463	2,370	60	361	3.41	3.68
March.....	13,060	2,560	77	421	3.97	4.58
April.....	7,859	790	70	262	2.47	2.76
May.....	2,257	244	24	72.8	.687	.79
June.....	675	43	11	22.5	.212	.24
July.....	415	19	10	13.4	.126	.15
August.....	472	75	10	15.2	.143	.16
September.....	604	131	10	20.1	.190	.21
Water year 1935-36.....	56,565	2,560	10	155	1.46	19.85

## Catawba Creek near Fincastle, Va.

Location.- Chain gage, lat. 37°33'0", long. 79°50'5", at highway bridge at Kyles Mills, 4 miles northeast of Fincastle, Botetourt County. Zero of gage is 994.05 feet above mean sea level.

Drainage area.- 104 square miles.

Records available.- December 1928 to September 1936.

Extremes.- Maximum discharge during year, 3,300 second-feet Mar. 17 (gage height, 14.27 feet, from floodmarks); minimum, 11 second-feet July 18, Sept. 14, 15, 17, 23, 1928-36. Maximum discharge observed, about 6,000 second-feet, Jan. 23, 1935 (gage height, 18.02 feet), from rating curve extended above 2,000 second-feet on basis of velocity-area studies; minimum, 4 second-feet Sept. 30, Oct. 4-10, 24, 25, 1933.

Remarks.- Records poor. Discharge for period of ice effect, Dec. 22 to Jan. 1, and for Feb. 8, 15, Aug. 11-15, Sept. 30, 31 computed on basis of observer's notes, weather records, and records for Craig Creek at Parr and Johns Creek at Newcastle. Discharge for period Mar. 8-25 computed from stage graph based on twice-daily gage readings, floodmarks, and stage graphs for nearby stations. Gage read twice daily.

Rating tables, water year 1935-36 except period of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 17				Mar. 18 to Sept. 30			
1.7	17	3.5	177	1.6	9	4.0	240
1.8	21	4.0	242	1.8	16	5.0	381
2.0	31	5.0	381	2.0	26	6.0	544
2.2	44	6.0	544	2.3	47	8.0	930
2.4	60	8.0	930	2.6	73	9.0	1,150
2.6	78	9.0	1,150	3.0	115	10.0	1,420
2.8	98	10.0	1,420	3.5	175		
3.0	119	11.0	1,720				

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	22	43	30	95	119	188	78	38	24	15	17
2	22	22	42	190	93	108	295	68	39	26	17	21
3	22	17	40	1,360	93	108	281	73	42	26	17	36
4	20	18	35	580	103	98	227	78	38	29	17	27
5	19	21	36	352	93	98	442	73	38	20	18	22
6	21	19	35	770	83	93	426	64	38	20	19	16
7	20	74	93	544	93	83	381	59	37	21	18	14
8	22	32	56	710	90	73	267	54	38	20	18	14
9	21	29	42	1,250	83	56	267	60	38	20	18	12
10	22	26	35	598	78	50	309	240	35	20	18	14
11	22	24	32	310	93	64	309	188	34	33	18	14
12	19	20	35	282	103	99	295	139	46	38	18	13
13	20	136	490	229	338	103	267	98	48	24	21	14
14	21	88	490	216	1,480	89	214	62	40	24	21	11
15	22	44	153	268	1,690	79	188	58	30	18	21	13
16	22	78	153	282	1,220	255	163	54	27	16	20	12
17	21	48	153	216	411	1,750	133	38	24	16	18	12
18	22	40	130	130	474	1,320	127	53	24	13	16	12
19	22	36	98	1,150	352	584	127	55	27	13	16	13
20	24	30	98	770	324	260	115	59	27	22	17	12
21	22	25	88	580	310	520	110	58	26	18	18	13
22	24	23	70	508	216	530	110	57	25	18	18	12
23	21	23	60	381	153	390	110	53	36	17	16	12
24	20	22	60	216	130	310	98	38	25	16	18	12
25	21	22	50	153	136	261	381	38	25	16	17	12
26	22	22	50	141	141	227	188	38	25	17	14	12
27	22	22	40	130	147	267	93	38	25	16	15	12
28	22	34	40	119	136	337	78	38	26	15	20	13
29	153	33	40	124	124	323	78	38	27	27	24	13
30	52	21	30	103	-	267	78	38	46	22	20	337
31	31	-	30	98	-	227	-	38	-	17	18	-
Month				Second-foot-days		Maximum	Minimum	Mean		Per square mile		Run-off in inches
October.....				837		153	19	27.0		0.260		0.30
November.....				1,071		136	17	35.7		.343		.38
December.....				2,847		490	30	91.8		.883		1.02
Calendar year 1935.....				48,992		3,890	15	134		1.29		17.49
January.....				12,790		1,360	30	413		3.97		4.58
February.....				8,885		1,690	78	306		2.94		3.17
March.....				9,148		1,750	50	295		2.84		3.27
April.....				6,345		442	78	212		2.04		2.25
May.....				2,123		240	38	68.5		.659		.76
June.....				994		48	24	33.1		.318		.35
July.....				642		38	13	20.7		.199		.23
August.....				559		24	14	18.0		.173		.20
September.....				767		337	11	25.6		.246		.27
Water year 1935-36.....				47,008		1,750	11	128		1.23		16.81

## Calfpasture River at Goshen, Va.

Location.- Chain gage, lat. 37°59'10", long. 79°29'33", at highway bridge at Goshen, Rockbridge County, 500 feet below mouth of Mill Creek. Zero of gage is 1,381.69 feet above mean sea level.

Drainage area.- 190 square miles.

Records available.- March 1925 to September 1936.

Average discharge.- 11 years, 212 second-feet.

Extremes.- Maximum discharge during year, about 12,200 second-feet Mar. 17 (gage height, 11.71 feet, from floodmarks), from rating curve extended above 2,000 second-feet on basis of velocity-area studies; minimum, 11 second-feet Sept. 10, 28, 29 (gage height, 1.76 feet).

1925-36: Maximum discharge, that of Mar. 17, 1936; minimum, 8 second-feet July 22, 1926, and numerous days in September and October 1930, September and October 1932, and July 1934.

Remarks.- Records fair. Discharge for periods of ice effect, Dec. 21-24, 26-31, Jan. 24-30, Feb. 9-12, computed on basis of observer's notes, weather records, and records for station at Rockbridge Baths. Discharge for period Mar. 8-25 computed from stage graph based on twice-daily gage readings, floodmarks, and stage graphs for nearby stations. Gage read twice daily.

Rating tables, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 17

Mar. 18 to Sept. 30

1.6	11	3.5	810	1.8	13	3.5	410
1.8	30	4.0	1,150	2.0	26	4.0	690
2.0	66	5.0	1,930	2.2	43	5.0	1,460
2.2	124	6.0	2,920	2.4	64	6.0	2,530
2.4	202	7.0	4,080	2.6	95	7.0	3,830
2.6	297	8.0	5,430	2.8	139	8.0	5,320
2.8	400	9.0	6,980	3.0	200	9.0	6,980
3.0	510						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	27	322	92	169	690	360	76	37	20	23	16
2	17	25	239	151	142	540	460	74	35	22	20	55
3	17	21	186	2,020	87	455	460	72	32	22	19	18
4	16	20	154	1,680	108	374	360	86	32	22	18	17
5	16	19	128	870	142	338	316	74	44	23	18	15
6	19	19	114	600	114	322	1,850	71	37	34	17	14
7	18	27	102	600	74	297	1,550	56	33	34	20	13
8	17	43	135	690	128	272	890	64	41	30	19	12
9	17	35	234	1,080	100	249	690	62	40	26	18	12
10	17	30	245	1,440	80	229	1,280	61	36	22	16	11
11	16	36	230	940	60	308	960	60	52	35	15	20
12	16	48	198	660	60	568	750	435	55	180	17	15
13	16	3,140	292	540	76	578	630	207	60	64	16	14
14	16	1,010	1,010	455	239	477	515	184	92	34	14	14
15	14	455	1,010	455	1,290	388	410	132	65	27	15	12
16	16	287	810	810	2,020	348	360	111	51	24	15	12
17	14	272	870	230	1,220	6,560	95	44	21	15	14	14
18	14	428	400	510	1,290	6,490	240	86	43	22	14	12
19	14	338	302	1,440	1,600	1,890	207	97	43	21	13	12
20	16	272	230	1,440	1,010	1,710	180	89	41	52	14	12
21	16	220	150	870	630	1,910	156	75	33	24	14	12
22	16	182	120	540	455	1,320	142	70	30	19	25	12
23	17	186	130	312	338	1,080	129	65	29	18	18	12
24	16	139	120	240	292	971	115	61	31	54	18	12
25	16	124	114	160	322	802	107	55	29	31	17	15
26	16	114	110	140	780	630	101	51	27	28	15	12
27	16	108	110	130	1,600	690	97	49	25	33	13	12
28	16	114	100	130	1,440	960	90	46	22	26	16	12
29	48	630	90	130	1,010	750	83	42	21	25	18	11
30	41	455	90	140	-	570	80	40	19	30	19	34
31	28	-	80	128	-	460	-	38	-	29	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	571	48	14	18.4	0.097	0.11
November.....	8,822	3,140	19	294	1.55	1.73
December.....	8,123	1,010	80	262	1.38	1.59
Calendar year 1935.....	104,939	5,290	14	288	1.52	20.57
January.....	20,003	2,020	92	645	3.39	3.91
February.....	16,876	2,020	60	582	3.06	3.30
March.....	30,016	6,490	229	1,065	5.61	6.47
April.....	13,963	1,850	80	465	2.45	2.73
May.....	2,791	435	38	90.0	.474	.55
June.....	1,179	92	19	39.3	.207	.23
July.....	1,051	180	18	33.9	.178	.21
August.....	527	25	13	17.0	.089	.10
September.....	462	55	11	15.4	.081	.09
Water year 1935-36.....	107,384	6,490	11	293	1.54	21.02

## JAMES RIVER BASIN

North River near Lexington, Va.

Location.- Water-stage recorder, lat. 37°48'49", long. 79°26'42", 300 yards above Lime Kiln highway bridge and 2½ miles above Lexington, Rockbridge County. Zero of gage is 906.56 feet above mean sea level.

Drainage area.- 487 square miles.

Records available.- August 1925 to September 1936.

Extremes.- Maximum discharge during year, about 30,100 second-feet Mar. 18 (gage height, 23.58 feet, from floodmarks), from rating curve extended above 9,000 second-feet on basis of velocity-area studies; minimum, 65 second-feet Sept. 27 (gage height, 2.18 feet).

1925-36: Maximum discharge, that of Mar. 18, 1936; minimum, 34 second-feet Sept. 6, 1930, and Sept. 18, 1932.

Remarks.- Records good except those for Mar. 16 to Apr. 7, June 8-21, July 22-26, July 28 to Aug. 2, Aug. 4-6 and those for periods of ice effect, Dec. 21-31, Jan. 23-31, which are fair and were computed on basis of recorder charts, weather records, floodmarks, and records for stations at Goshen and Rockbridge Baths.

Rating tables, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 18				Mar. 19 to Sept. 30			
2.2	84	5.0	1,360	2.2	68	3.3	388
2.4	126	5.5	1,750	2.4	106	3.6	520
2.6	176	6.0	2,210	2.6	153	4.0	724
2.8	236	7.0	3,290	2.8	209	4.5	1,020
3.0	305	8.0	4,610	3.0	274	5.0	1,360
3.3	424	10.0	7,200	Note.- Same as previous table above 5.0 feet.			
3.6	556	12.0	10,200				
4.0	750	15.0	15,000				
4.5	1,030	18.0	20,100				

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	136	136	775	236	368	1,180	1,000	325	161	119	120	86
2	133	126	602	670	384	970	1,300	314	156	119	100	86
3	131	122	497	5,600	356	882	1,500	329	158	117	96	94
4	128	115	432	3,660	551	800	1,100	443	169	117	90	100
5	126	115	372	2,410	561	725	1,000	333	169	117	90	86
6	124	115	333	2,020	392	700	4,500	299	158	124	90	82
7	131	138	308	2,060	372	650	3,800	281	153	121	92	79
8	131	190	372	2,160	310	684	1,880	274	170	119	94	75
9	126	166	626	3,410	356	547	1,760	267	180	117	86	75
10	124	145	584	3,380	317	519	2,730	257	160	120	86	160
11	124	140	533	2,360	288	574	2,110	310	350	203	81	86
12	122	297	466	1,800	321	940	1,760	977	900	273	81	84
13	122	3,560	1,140	1,360	344	1,030	1,560	502	280	359	82	79
14	119	2,280	2,160	1,150	2,430	882	1,290	452	290	166	79	86
15	117	952	2,160	1,180	4,510	750	1,120	352	220	153	77	115
16	119	673	1,630	1,670	3,600	692	1,020	310	200	117	82	92
17	119	792	1,180	1,360	2,460	8,320	930	285	180	110	90	82
18	117	1,180	910	1,150	3,890	20,000	840	274	170	104	82	75
19	116	940	750	3,860	2,620	5,000	752	337	200	110	79	72
20	115	700	626	3,250	1,800	4,360	686	281	170	156	77	70
21	117	570	390	2,160	1,290	4,630	623	250	150	133	219	72
22	117	479	300	1,630	970	3,060	568	231	136	100	220	70
23	119	501	330	960	775	2,340	515	221	130	90	130	70
24	119	437	310	650	886	2,000	479	209	133	260	100	72
25	119	384	300	420	1,370	1,750	443	200	133	160	98	72
26	117	356	270	370	2,160	1,300	417	192	128	130	92	68
27	115	329	280	330	2,840	1,500	392	189	121	153	86	68
28	113	413	270	330	2,160	1,900	372	183	117	120	212	66
29	215	1,100	240	340	1,470	1,600	360	172	115	120	115	66
30	221	1,000	220	370	-	1,300	344	166	113	140	98	201
31	163	-	200	340	-	1,100	-	164	-	140	90	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	4,004		221		113		129		0.265		0.31	
November.....	18,441		3,550		115		615		1.26		1.41	
December.....	19,664		2,160		200		631		1.30		1.50	
Calendar year 1935.....	253,447		10,000		92		694		1.43		19.37	
January.....	52,636		5,600		236		1,698		3.49		4.02	
February.....	40,151		4,610		288		1,385		2.84		3.06	
March.....	72,565		20,000		519		2,341		4.81		5.54	
April.....	37,131		4,500		344		1,238		2.54		2.83	
May.....	9,379		977		164		303		.622		.72	
June.....	5,870		359		113		196		.402		.45	
July.....	4,457		220		90		144		.296		.34	
August.....	3,212		201		68		104		.214		.25	
September.....	2,597		201		68		86.6		.176		.20	
Water year 1935-36.....	270,007		20,000		68		738		1.52		20.63	

## North River at Rockbridge Baths, Va.

Location.- Water-stage recorder, lat. 37°54'28", long. 79°25'20", 700 feet above highway bridge at Rockbridge Baths, Rockbridge County, and 1 mile above Hays Creek.

Zero of gage is 1,100.33 feet above mean sea level.

Drainage area.- 329 square miles.

Records available.- October 1928 to September 1936.

Extremes.- Maximum discharge during year, about 20,800 second-feet Mar. 17 (gage height, 13.07 feet), from rating curve extended above 3,000 second-feet on basis of velocity-area studies; minimum, 21 second-feet Sept. 29 (gage height, 1.04 feet).

1928-36: Maximum discharge, that of Mar. 17, 1936; minimum, 11 second-feet Nov. 28, 1930 (gage height, 0.76 foot).

Remarks.- Records excellent except those above 5,000 second-feet, which are good, and those for Dec. 22-25 and for period of ice effect, Jan. 23-31, which are fair and were computed on basis of recorder charts, weather records, and records for stations at Goshen and Lexington.

Rating table, water year 1935-36 except period of ice effect  
(gage height, in feet, and discharge, in second-feet)

1.0	18	4.0	1,400
1.2	36	4.5	1,830
1.4	68	5.0	2,340
1.6	112	6.0	3,540
1.8	166	7.0	5,000
2.0	228	8.0	6,720
2.3	342	9.0	8,760
2.6	486	10.0	11,200
3.0	700	11.0	14,100
3.5	1,030		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	57	522	146	242	858	622	153	64	42	46	28
2	43	50	407	360	266	712	878	152	63	43	40	28
3	42	49	313	3,490	222	633	1,060	149	57	43	37	33
4	40	46	270	2,730	277	569	760	172	63	43	34	35
5	37	46	228	1,480	303	517	672	158	76	43	33	30
6	43	42	202	1,100	212	491	3,230	144	64	52	34	28
7	44	52	131	1,140	193	461	2,750	135	61	49	34	26
8	42	103	228	1,280	163	417	1,440	130	66	50	34	25
9	42	78	491	1,922	209	383	1,320	122	68	43	32	24
10	40	66	417	2,450	178	347	2,180	117	63	42	29	25
11	39	68	374	1,560	160	426	1,550	176	103	89	28	34
12	40	87	321	1,140	166	760	1,280	603	149	255	28	30
13	39	3,190	520	925	184	306	1,050	317	138	180	30	28
14	39	1,320	1,560	788	1,480	678	858	255	144	78	28	44
15	39	622	1,440	818	3,150	574	718	202	110	55	27	54
16	39	417	1,140	1,280	2,450	522	633	172	89	47	30	35
17	37	431	690	995	1,560	8,950	528	155	76	42	33	29
18	36	773	672	799	2,730	12,000	461	141	72	39	29	27
19	34	585	539	2,640	1,880	3,540	402	163	100	43	27	24
20	36	461	441	2,230	1,170	3,090	356	158	68	89	27	25
21	35	365	262	1,280	858	3,540	321	133	59	52	30	24
22	36	304	200	960	655	2,340	239	120	52	40	28	24
23	36	313	220	600	517	1,740	262	112	49	36	43	24
24	36	259	210	420	538	1,480	238	105	50	123	37	24
25	35	225	200	280	724	1,240	222	96	52	72	37	24
26	35	212	184	250	1,700	960	212	91	47	61	33	24
27	35	199	187	220	2,340	1,060	196	87	44	72	28	24
28	35	235	181	220	1,650	1,440	184	83	43	50	39	23
29	112	625	160	230	1,100	1,240	178	74	39	49	40	22
30	107	712	152	250	-	860	169	70	39	54	37	44
31	68	-	138	230	-	760	-	68	-	54	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	1,364	112	34	44.0	0.134	0.15
November.....	12,242	3,190	42	408	1.24	1.38
December.....	13,219	1,560	138	426	1.29	1.49
Calendar year 1935.....	170,621	8,210	34	467	1.42	19.25
January.....	34,209	3,490	146	1,104	3.36	3.87
February.....	27,282	3,150	160	941	2.86	3.08
March.....	53,494	12,000	347	1,726	5.25	6.05
April.....	25,039	3,230	169	835	2.54	2.83
May.....	4,818	603	68	155	.471	.54
June.....	2,168	149	39	72.3	.220	.25
July.....	2,030	255	36	65.6	.199	.23
August.....	1,086	69	27	35.0	.106	.12
September.....	869	54	22	29.0	.089	.10
Water year 1935-36.....	177,820	12,000	22	486	1.48	20.09



## Tye River at Roseland, Va.

Location.- Chain gage, lat.  $37^{\circ}45'$ , long.  $78^{\circ}59'$ , at highway bridge three-quarters of a mile southwest of Roseland, Nelson County, and three-quarters of a mile above Hat Creek. Zero of gage is 655.78 feet above mean sea level.

Drainage area.- 68 square miles.

Records available.- January 1927 to September 1936.

Extremes.- Maximum discharge during year, 3,970 second-feet Mar. 17 (gage height, 8.92 feet, from floodmarks); minimum, 7 second-feet Aug. 6, 10, Sept. 29 (gage height, 3.02 feet).  
1927-36: Maximum discharge, about 6,000 second-feet Sept. 16, 1934 (gage height, 10.02 feet, from floodmarks), from rating curve extended above 700 second-feet on basis of velocity-area studies; minimum, 2 second-feet Sept. 30, Oct. 1, 1930.

Remarks.- Records good except those above 1,500 second-feet, which are fair. Discharge for periods of ice effect, Dec. 22, 23, 27, 28, 31, computed on basis of observer's notes, weather records, and records for South River at Waynesboro. Discharge for period Mar. 8-25 computed from stage graph based on twice-daily gage readings, floodmarks, and stage graphs for nearby stations. Gage read twice daily.

Rating table, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

3.0	6	4.3	210
3.2	16	4.6	318
3.4	32	5.0	490
3.6	57	5.5	755
3.8	90	6.0	1,040
4.0	130	7.0	1,680
		8.0	2,640

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	44	186	90	126	180	299	109	40	25	12	8
2	44	38	149	183	113	167	318	105	40	26	10	9
3	44	38	130	1,470	105	154	244	109	40	27	9	10
4	38	34	120	810	130	142	227	154	49	24	9	12
5	34	32	109	540	120	135	217	109	44	25	8	9
6	42	32	100	490	100	126	865	100	40	26	7	8
7	42	126	90	444	94	120	645	100	37	20	9	8
8	38	100	105	444	100	109	515	100	68	18	10	8
9	38	64	94	590	109	104	467	94	47	17	8	8
10	38	57	86	645	90	100	490	90	44	15	17	21
11	34	57	81	540	100	134	444	81	40	19	25	12
12	32	57	72	444	126	429	422	113	44	18	11	12
13	32	318	280	358	86	419	358	94	53	36	9	9
14	32	186	565	280	590	333	318	86	40	20	8	12
15	32	154	467	262	540	274	299	81	37	16	24	11
16	32	149	358	262	400	236	280	72	29	15	16	11
17	32	280	280	227	338	1,510	237	72	29	14	19	10
18	32	217	244	220	590	2,220	227	72	28	12	12	9
19	32	204	204	1,160	400	1,240	210	72	57	12	10	8
20	32	186	175	865	318	957	186	69	37	13	10	9
21	32	175	142	540	244	810	175	64	32	14	44	8
22	32	149	130	490	210	716	180	60	28	13	12	8
23	32	130	120	338	175	591	159	60	32	12	13	8
24	32	113	113	318	167	525	149	60	44	27	10	8
25	32	105	105	244	227	446	142	53	34	15	9	8
26	32	94	86	227	280	400	130	49	28	14	8	8
27	30	90	85	175	280	422	120	53	27	19	8	6
28	28	135	85	149	244	422	120	49	25	12	20	8
29	379	280	90	154	204	379	120	44	22	20	16	8
30	69	227	81	142	-	358	109	47	22	17	11	44
31	50	-	85	135	-	318	-	40	-	14	9	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				1,472	379	28	47.5	0.699	0.81			
November.....				3,871	318	32	129	1.90	2.12			
December.....				5,017	565	72	162	2.38	2.74			
Calendar year 1935.....				55,823	1,470	28	153	2.25	30.52			
January.....				13,236	1,470	90	427	6.28	7.24			
February.....				6,606	590	86	228	3.35	3.61			
March.....				14,476	2,220	100	467	6.87	7.92			
April.....				8,672	865	109	289	4.25	4.74			
May.....				2,461	154	40	79.4	1.17	1.35			
June.....				1,137	68	22	37.9	.557	.62			
July.....				575	36	12	18.5	.272	.31			
August.....				403	44	7	13.0	.191	.22			
September.....				320	44	8	10.7	.157	.18			
Water year 1935-36.....				58,246	2,220	7	159	2.34	31.86			

## Kerrs Creek near Lexington, Va.

Location.— Chain gage, lat. 37°49'33", long. 79°26'28", at highway bridge 2½ miles north (revised) of Lexington, Rockbridge County, and 1½ miles above mouth (revised). Zero of gage is 972.04 feet above mean sea level.

Drainage area.— 34 square miles.

Records available.— January 1927 to September 1936 (fragmentary prior to August 1930).

Extremes.— Maximum discharge during year, about 4,090 second-feet Mar. 17 (gage height, 12.82 feet, from floodmarks), from rating curve extended above 300 second-feet on basis of velocity-area studies; minimum, 6 second-feet Sept. 13 (gage height, 3.74 feet).

1927-36: Maximum discharge, that of Mar. 17, 1936; minimum, 4 second-feet numerous days in August and September 1932 and Sept. 12, 1934.

Remarks.— Records fair. Discharge for periods of ice effect, Dec. 21, 22, 26, 27, 31, Jan. 23-29, 31, Feb. 11, 12, computed on basis of observer's notes, weather records, and records for North River at Goshen, Rockbridge Baths, and Lexington. Discharge for period Mar. 8-25 computed from stage graph based on twice-daily gage readings, floodmarks, and stage graphs for nearby stations. Gage read twice daily.

Rating tables, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1-29

Oct. 30 to Mar. 17

Mar. 18 to Sept. 30

3.6	13	3.6	10	6.0	506	3.7	4	5.5	326
3.8	25	3.8	22	7.0	895	3.8	10	6.0	502
4.0	40	4.0	38	8.0	1,330	4.0	24	7.0	895
		4.3	70	9.0	1,800	4.3	54	8.0	1,330
		4.6	118	10.0	2,300	4.6	98	9.0	1,800
		5.0	200	11.0	2,900	5.0	182		
		5.5	339						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.			
1	14	11	27	18	48	52	88	31	17	16	10	8			
2	14	10	25	50	28	49	120	32	16	15	10	9			
3	14	10	23	617	26	46	195	30	34	15	10	12			
4	13	10	21	127	53	42	120	42	22	15	9	12			
5	12	10	20	96	28	39	102	31	17	15	8	11			
6	14	10	18	127	28	36	466	28	17	15	11	10			
7	14	17	101	31	34	208	28	17	12	10	8				
8	14	17	27	177	16	29	132	27	19	12	11	8			
9	13	12	27	470	26	31	154	27	16	11	10	9			
10	13	11	23	212	22	30	158	26	16	11	11	9			
11	13	14	22	118	15	30	147	377	145	19	11	8			
12	12	25	22	85	20	32	170	48	655	195	11	8			
13	12	118	136	72	309	30	112	34	64	19	8	8			
14	12	42	177	60	370	29	95	30	36	14	11	11			
15	12	29	108	68	656	28	90	29	24	11	11	10			
16	14	22	73	85	200	26	76	26	21	11	14	9			
17	12	50	56	63	136	2,480	68	26	18	11	12	9			
18	12	29	46	70	212	1,890	65	26	32	12	10	9			
19	13	23	39	542	127	380	57	26	30	15	10	9			
20	13	18	32	156	-93	235	54	25	21	12	10	9			
21	13	22	30	110	73	331	53	24	21	12	264	9			
22	13	22	25	85	65	182	52	22	18	12	22	9			
23	13	23	27	70	50	139	47	22	18	11	14	9			
24	13	20	25	50	58	127	44	21	18	12	14	9			
25	13	16	25	40	115	103	42	19	16	10	12	9			
26	13	17	20	35	136	95	34	19	16	14	11	9			
27	13	16	25	30	118	109	34	19	14	10	12	9			
28	12	25	22	30	85	182	36	18	14	10	18	9			
29	38	42	21	30	58	120	31	19	12	15	11	9			
30	12	32	20	33	-	109	32	18	14	11	11	52			
31	11	-	15	30	-	98	-	18	-	10	11	-			
Month				Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....				424		38		11		13.7		0.403		0.46	
November.....				728		118		10		24.3		.715		.80	
December.....				1,194		177		15		38.5		1.13		1.30	
Calendar year 1935.....				16,686		695		9		45.7		1.34		18.24	
January.....				3,857		617		18		124		3.65		4.21	
February.....				3,202		656		15		110		3.24		3.49	
March.....				7,143		2,480		26		230		6.76		7.79	
April.....				3,082		466		31		103		3.03		3.38	
May.....				1,168		377		18		37.7		1.11		1.22	
June.....				1,398		655		12		46.6		1.37		1.53	
July.....				583		195		10		18.8		.553		.64	
August.....				608		264		8		19.6		.576		.66	
September.....				319		52		8		10.6		.512		.35	
Water year 1935-36.....				23,706		2,480		8		64.8		1.91		25.89	

## Hardware River near Scottsville, Va.

Location.- Chain gage, lat. 37°50', long. 78°29', at bridge on Woodridge-Scottsville Highway 3 miles north of Scottsville, Albemarle County, and 11½ miles above mouth. Zero of gage is 308.50 feet above mean sea level.

Drainage area.- 104 square miles.

Records available.- May 1925 to September 1936.

Extremes.- Maximum discharge during year, 4,550 second-feet Mar. 17 (gage height, 16.45 feet, from floodmarks); minimum, 2 second-feet July 28 (gage height, 1.61 feet). 1925-36: Maximum discharge, 6,150 second-feet Sept. 5 or 6, 1935 (gage height, 19.6 feet, from floodmarks); minimum, 1.5 second-feet Sept. 2, 22, 1932 (gage height, 1.20 feet).

Remarks.- Records fair. Discharge for period Mar. 8-25 computed from stage graph based on twice-daily gage readings, floodmarks, and stage graphs for nearby stations. Gage read twice daily. Low-water flow regulated by dam and gristmill above station.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1-31)

Oct. 1 to Mar. 18	Mar. 19 to Aug. 15	Aug. 16 to Sept. 30
2.6 57	1.6 2	1.7 14
3.0 75	1.6 8	1.8 16
3.5 124	2.0 15	2.0 28
4.0 181	2.3 29	2.2 41
5.0 325	2.6 49	2.4 56
6.0 504	3.0 82	2.6 73
7.0 718	3.5 132	
8.0 980	4.0 192	
9.0 1,280	5.0 333	
10.0 1,660	6.0 504	
12.0 2,460	7.0 718	
14.0 3,350	8.0 980	
16.4 4,550		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	94	104	130	135	130	260	138	55	27	24	28
2	62	80	99	608	130	124	274	132	50	34	20	26
3	62	70	75	3,400	130	109	288	138	48	36	15	26
4	57	70	66	740	157	104	274	143	49	35	17	24
5	57	66	66	446	135	99	245	138	50	32	15	24
6	66	70	66	356	124	94	303	132	47	29	41	24
7	66	75	66	484	124	84	718	125	46	24	22	17
8	66	89	66	341	130	82	348	116	47	20	20	21
9	62	75	66	341	140	76	380	111	57	18	19	23
10	62	70	66	325	140	74	466	106	56	19	11	39
11	62	75	62	293	130	127	348	101	49	22	29	34
12	56	75	57	263	124	404	318	96	47	26	20	28
13	62	356	278	248	135	289	288	91	44	29	19	26
14	56	341	790	220	840	214	260	91	43	23	27	26
15	56	119	293	194	1,040	145	246	66	42	24	65	33
16	57	104	234	220	428	129	246	86	43	22	38	28
17	55	608	*200	207	325	1,730	232	82	36	20	35	30
18	57	325	*180	181	278	2,510	218	78	34	26	33	28
19	54	135	169	2,260	263	923	205	78	41	22	28	24
20	55	109	169	1,040	248	594	202	78	42	20	26	25
21	57	99	157	392	220	421	192	78	49	21	22	24
22	57	94	140	341	207	402	192	69	57	20	29	24
23	57	84	146	234	124	375	179	69	46	26	39	28
24	55	75	146	220	119	358	167	65	48	24	32	17
25	56	75	130	207	157	338	167	61	46	22	28	23
26	57	70	114	194	169	318	167	61	36	20	26	21
27	62	66	114	181	181	380	167	61	29	18	28	24
28	62	99	119	169	157	348	155	57	33	*20	28	21
29	293	220	124	157	140	353	149	56	34	20	37	14
30	181	124	130	157	-	303	143	55	26	22	29	64
31	146	-	114	140	-	274	-	57	-	22	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	2,278	293	54	73.5	0.707	0.82
November.....	4,014	608	66	134	1.29	1.44
December.....	4,606	790	57	149	1.43	1.65
Calendar year 1935.....	57,643	3,000	54	158	1.52	20.63
January.....	14,691	3,400	130	474	4.56	5.26
February.....	6,630	1,040	119	229	2.20	2.37
March.....	11,891	2,510	74	384	3.69	4.25
April.....	7,801	718	143	260	2.50	2.79
May.....	2,836	143	55	91.5	.880	1.01
June.....	1,352	57	26	44.4	.427	.46
July.....	758	36	15	24.5	.236	.27
August.....	842	65	11	27.2	.262	.30
September.....	794	64	14	26.5	.255	.28
Water year 1935-36.....	58,473	3,400	11	160	1.54	20.92

\*Computed on basis of weather records and records for Rivanna River at Palmyra.

## Slate River near Arvonnia, Va.

Location.- Water-stage recorder, lat. 37°42', long. 78°21', at Bumpers highway bridge 2 miles from Arvonnia, Buckingham County, and 2 miles above mouth. Prior to Sept. 22, 1936, staff gage at same site and datum. Zero of gage is 238.78 feet above mean sea level.

Drainage area.- 235 square miles.

Records available.- April 1926 to September 1936.

Extremes.- Maximum discharge during year, 7,980 second-feet Mar. 17 or 18 (gage height, 18.1 feet, from floodmarks); minimum, 22 second-feet Sept. 24 (gage height, 1.97 feet). 1926-36: Maximum stage, 22.18 feet Sept. 6, 1935, from floodmarks (discharge not determined); minimum discharge, 2 second-feet Sept. 28 to Oct. 2, 1930.

Remarks.- Records good except those for Jan. 3, 4, 19, 20 and for periods of ice effect, Dec. 23-31, Jan. 24 to Feb. 2, Feb. 8-10, 12, which are fair and were computed on basis of observer's notes, weather records, and records for stations on the Rivanna, Hardware, and Appomattox Rivers. No records Feb. 14 to Sept. 21. Staff gage read twice daily. Operation of gristmill  $7\frac{1}{2}$  miles upstream affects low-water flow.

Rating table, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

2.0	23	4.0	320
2.2	34	4.5	456
2.4	47	5.0	610
2.6	64	6.0	986
2.8	85	7.0	1,450
3.0	110	8.0	1,980
3.3	160	10.0	3,220
3.6	222	12.0	4,650

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97	125	282	190	180							-
2	97	125	234	428	180							-
3	91	110	190	4,400	234							-
4	97	110	190	3,700	516							-
5	85	110	160	626	788							-
6	91	118	160	1,120	428							-
7	110	104	142	1,650	257							-
8	104	179	151	826	240							-
9	104	125	179	2,160	320							-
10	104	118	160	1,870	440							-
11	97	118	151	644	346							-
12	97	118	142	456	280							-
13	97	428	372	400	346							-
14	104	644	1,550	333	-							-
15	97	257	610	320	-							-
16	85	190	428	610	-							-
17	91	944	320	400	-							-
18	91	428	257	346	-							-
19	97	170	234	3,800	-							-
20	91	222	211	3,400	-							-
21	97	200	179	714	-							-
22	97	170	125	486	-							47
23	97	160	160	428	-							29
24	97	151	180	260	-							24
25	91	142	140	240	-							32
26	91	142	130	230	-							32
27	97	142	140	220	-							28
28	104	160	150	210	-							26
29	294	1,350	140	210	-							34
30	400	428	160	240	-							68
31	170	-	180	200	-							-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October.....					3,562	400	85	115	0.489	0.56		
November.....					7,788	1,350	104	260	1.11	1.24		
December.....					7,807	1,550	125	252	1.07	1.23		
Calendar year .....												
January.....					31,417	4,400	190	1,013	4.31	4.97		
February 1-13.....					4,555	788	180	350	1.49	.72		
March.....												
April.....												
May.....												
June.....												
July.....												
August.....												
September 22-30 .....					320	68	24	35.6	.151	.05		
Water year .....												

## Rivanna River at Palmyra, Va.

Location.- Water-stage recorder, lat. 37°51', long. 78°16', 200 feet below highway bridge at Palmyra, Fluvanna County.

Drainage area.- 675 square miles.

Records available.- May 1934 to September 1936.

Extremes.- Maximum discharge during year, 39,900 second-feet (supersedes figure published in Water-Supply Paper 800) Mar. 18 (gage height, 29.26 feet, from floodmarks); minimum, 70 second-feet Aug. 28 (gage height, 1.85 feet).

1934-36: Maximum discharge, that of Mar. 18, 1936; minimum, that of Aug. 28, 1936.

Flood of May 1924 reached a stage of about 27 feet (discharge, 31,400 second-feet).  
Remarks.- Records fair. Discharge for periods of ice effect, Dec. 27 to Jan. 1, Jan. 24 to Feb. 4, Feb. 7-13, were computed on basis of recorder charts, weather records, and records for Hardware River near Scottsville and James River at Cartersville.

Rating tables, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 14		Dec. 15 to July 24		July 25 to Sept. 30			
2.4	212	2.2	226	12.0	5,520	1.8	56
2.7	312	2.6	358	15.0	7,550	2.0	114
3.0	422	3.0	500	18.0	10,400	2.3	206
3.5	620	3.5	700	20.0	13,100	2.6	305
4.0	825	4.0	920	22.0	16,700	3.0	450
5.0	1,290	5.0	1,400	25.0	24,600	3.5	650
6.0	1,800	6.0	1,920	28.0	34,900	4.0	860
8.0	2,960	8.0	3,040	29.3	39,900	5.0	1,330
10.0	4,160	10.0	4,240				
12.0	5,450						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	251	341	680	520	620	1,300	1,030	560	321	284	180	108
2	247	312	560	1,650	600	1,150	1,200	540	317	293	159	99
3	251	292	484	10,800	700	1,060	1,550	540	307	300	150	105
4	244	278	441	8,540	900	998	1,080	808	324	290	144	114
5	234	271	403	2,980	1,250	898	965	740	375	277	213	108
6	238	268	373	2,470	740	852	2,170	600	354	284	560	105
7	261	264	355	2,660	700	808	2,920	560	324	268	368	99
8	251	460	355	2,200	800	762	1,980	520	348	248	216	99
9	244	399	452	3,340	1,000	740	1,600	500	382	236	177	96
10	241	337	414	4,420	820	720	2,580	475	351	232	162	190
11	241	323	394	2,520	760	1,080	2,140	460	358	297	153	126
12	234	319	362	1,920	720	2,800	1,760	453	348	290	150	114
13	234	586	690	1,600	700	3,520	1,550	453	468	453	153	99
14	234	1,590	5,190	1,350	5,820	2,200	1,350	442	385	290	132	1,220
15	234	825	3,280	1,250	6,640	1,700	1,200	417	334	248	156	693
16	228	640	2,080	1,600	4,420	1,400	1,120	414	314	232	222	241
17	218	1,640	1,550	1,280	2,980	8,980	988	410	297	216	180	180
18	218	1,750	1,220	1,120	3,820	33,800	898	403	287	207	153	159
19	222	1,030	1,010	7,720	2,920	9,010	852	459	334	204	155	144
20	222	780	875	6,170	2,030	3,640	808	436	361	223	126	156
21	215	640	700	2,860	1,600	4,000	785	399	304	239	180	129
22	222	560	520	2,140	1,350	3,100	762	382	297	220	190	138
23	222	500	540	1,700	1,150	2,360	720	375	284	216	219	126
24	218	449	580	1,100	1,080	1,980	700	368	304	889	219	126
25	215	392	520	880	1,250	1,760	660	365	317	386	159	120
26	212	373	457	800	1,980	1,550	640	351	297	212	126	114
27	212	366	460	760	2,080	1,500	640	351	277	180	120	111
28	212	422	480	720	1,860	1,600	600	351	271	174	108	114
29	458	1,440	460	680	1,500	1,350	600	334	261	165	132	114
30	1,120	848	480	660	-	1,220	580	331	255	280	144	184
31	437	-	500	640	-	1,120	-	327	-	232	123	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	8,490	1,120	212	274	0.406	0.47
November.....	18,695	1,750	264	623	.923	1.03
December.....	26,855	5,190	355	866	1.28	1.48
Calendar year 1935.....	364,355	19,100	212	998	1.48	20.08
January.....	81,220	10,800	520	2,620	3.88	4.47
February.....	52,690	6,640	600	1,817	2.69	2.90
March.....	98,948	35,800	720	3,192	4.73	5.45
April.....	36,228	2,920	580	1,208	1.79	2.00
May.....	14,104	808	327	455	.674	.78
June.....	9,716	468	255	324	.480	.54
July.....	8,565	889	165	276	.409	.47
August.....	5,609	560	108	181	.268	.31
September.....	5,510	1,220	96	184	.273	.30
Water year 1935-36.....	366,630	33,800	96	1,002	1.48	20.20

## Appomattox River at Farmville, Va.

Location.— Water-stage recorder, lat. 37°18', long. 78°23', at highway bridge 1,000 feet north of Farmville, Prince Edward County, and 1½ miles below Buffalo Creek.

Drainage area.— 306 square miles.

Records available.— March 1926 to September 1936.

Average discharge.— 10 years, 259 second-feet.

Extremes.— Maximum discharge during year, 4,870 second-feet Mar. 18 (gage height, 17.72 feet); minimum, 25 second-feet July 30 (gage height, 2.88 feet); minimum daily discharge, 80 second-feet Sept. 24.

1926-36: Maximum discharge observed, 6,960 second-feet Aug. 12, 1928 (gage height, 21.10 feet), from rating curve extended above 2,800 second-feet on basis of velocity-area studies; minimum, 5 second-feet Oct. 4, 1933; minimum daily discharge, 9 second-feet Sept. 20, 1932.

Remarks.— Records poor. Discharge for periods Dec. 26-30, Jan. 23 to Feb. 3, Feb. 8-14 and for periods of ice effect, Dec. 23-25, 31, Jan. 1, computed on basis of recorder charts, weather records, and records for stations at Mattoax and Petersburg. Low-water flow regulated by mills at dam above station.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	117	164	394	200	300	348	368	238	135	160	93	94
2	120	147	323	310	300	334	510	232	131	213	88	92
3	118	141	279	2,370	350	332	765	232	128	210	84	94
4	114	134	264	4,180	778	325	476	270	126	172	82	144
5	111	133	248	1,790	1,050	314	382	260	134	155	84	118
6	112	132	241	1,040	706	314	645	230	128	149	179	95
7	124	156	232	1,620	380	304	1,120	222	128	131	184	90
8	122	259	233	1,140	340	298	640	218	268	118	186	89
9	119	202	253	1,460	320	296	485	212	194	112	118	86
10	119	152	248	2,190	320	306	1,050	205	200	108	100	86
11	120	143	234	974	400	604	1,170	198	167	302	118	85
12	118	140	222	576	500	888	758	196	148	145	190	84
13	118	470	396	467	450	691	584	193	468	118	134	117
14	120	1,280	1,110	409	900	475	460	201	394	114	98	261
15	116	644	804	416	3,030	402	406	186	188	109	90	144
16	114	374	534	598	2,460	370	388	182	159	106	199	111
17	109	819	398	474	1,280	1,660	345	180	144	104	2,110	102
18	109	1,140	337	417	1,090	4,490	318	176	154	98	521	92
19	113	636	306	2,740	975	2,480	304	172	550	94	210	88
20	114	393	284	4,380	624	1,170	296	187	374	93	150	87
21	114	324	237	1,600	494	912	286	171	196	91	131	90
22	115	294	206	657	419	685	296	162	443	93	120	88
23	116	268	190	480	378	490	320	159	358	92	111	84
24	115	254	200	380	382	426	290	158	369	91	104	80
25	112	240	190	320	403	408	272	155	311	139	104	84
26	111	238	180	300	431	398	266	155	218	117	102	82
27	112	231	180	280	420	494	264	150	182	96	110	82
28	113	257	180	280	406	1,080	254	145	162	90	171	89
29	258	948	180	280	361	899	250	137	154	204	140	121
30	508	656	180	290	-	524	244	138	142	124	127	232
31	248	-	180	300	-	423	-	137	-	102	106	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October.....					4,249	508	109	137	0.448	0.52		
November.....					11,369	1,280	132	379	1.24	1.38		
December.....					9,443	1,110	180	305	.997	1.15		
Calendar year 1935.....					148,260	4,500	109	406	1.33	18.02		
January.....					32,918	4,380	200	1,062	3.47	4.00		
February.....					20,247	3,030	300	698	2.28	2.46		
March.....					23,110	4,490	296	745	2.43	2.68		
April.....					14,213	1,170	244	474	1.55	1.73		
May.....					5,857	270	137	189	.618	.71		
June.....					6,853	550	126	228	.745	.83		
July.....					4,050	302	90	131	.428	.49		
August.....					6,344	2,110	82	205	.670	.77		
September.....					3,191	261	80	106	.346	.39		
Water year 1935-36.....					141,844	4,490	80	388	1.27	17.23		

## Appomattox River at Mattoax, Va.

Location.- Chain gage, lat. 37°25', long. 77°52', at Southern Railway bridge at Mattoax, Amelia County, a quarter of a mile above Skinquarter Creek.

Drainage area.- 729 square miles.

Records available.- August 1900 to December 1905; March 1926 to September 1936.

Average discharge.- 10 years (1926-36), 621 second-feet.

Extremes.- Maximum discharge during year, 8,740 second-feet (supersedes figure published in Water-Supply Paper 800) Mar. 30 (gage height, 25.27 feet, from floodmarks); minimum, 95 second-feet Sept. 7 (gage height, 4.86 feet).

1900-1905, 1926-36: Maximum discharge observed, 12,200 second-feet May 25, 1901 (gage height, 24.6 feet, former datum); minimum, 11 second-feet Oct. 2, 1930 (gage height, 3.52 feet).

Remarks.- Records fair. Discharge for June 20-22 and for periods of ice effect, Dec. 24 to Jan. 2, Jan. 30 to Feb. 2, computed on basis of observer's notes, weather records and records for stations at Farmville and Petersburg. Discharge for period Mar. 8-25 computed from stage graph based on twice-daily gage readings, floodmarks, and stage graphs for stations at Farmville and Petersburg. Gage read twice daily.

Rating tables, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 16, Mar. 21 to Sept. 30				Dec. 17 to Mar. 20			
4.8	90	9.0	852	6.0	288	12.0	1,830
5.0	111	10.0	1,120	6.5	372	14.0	2,490
5.3	146	12.0	1,740	7.0	466	16.0	3,190
5.6	186	14.0	2,420	7.5	570	19.0	4,330
6.0	244	16.0	3,160	8.0	682	22.0	5,710
6.5	324	19.0	4,330	9.0	932	25.3	8,740
7.0	412	22.0	5,710	10.0	1,210		
7.5	510	25.0	8,320				
8.0	616						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	244	490	984	530	560	802	956	510	200	229	172	200
2	214	307	594	500	580	754	1,010	490	200	244	128	140
3	214	291	490	3,050	658	706	1,520	490	200	490	116	134
4	214	259	430	4,290	854	706	1,610	510	186	412	116	172
5	200	259	394	4,730	1,890	682	1,180	572	186	358	106	146
6	186	259	376	6,610	2,180	658	1,150	510	186	259	376	186
7	200	259	358	8,200	2,020	636	2,040	450	186	214	550	134
8	214	358	358	5,650	880	614	2,110	430	200	200	324	122
9	214	530	376	4,570	828	593	1,840	412	214	172	358	116
10	214	412	394	4,250	802	605	2,520	394	275	166	229	146
11	214	324	394	3,830	906	995	2,820	376	291	152	172	122
12	214	307	358	3,560	1,240	1,980	2,970	376	259	376	214	116
13	200	470	470	2,550	932	2,340	2,460	358	244	275	394	111
14	200	1,300	1,120	1,100	2,690	2,010	1,420	341	376	186	244	200
15	200	1,710	1,640	1,100	3,790	1,190	1,100	341	510	159	172	1,390
16	200	1,120	2,250	1,890	4,450	871	1,040	341	307	172	159	412
17	200	984	1,120	1,830	5,710	1,250	904	324	229	140	430	200
18	186	1,770	778	1,270	6,230	3,550	802	307	214	134	1,910	152
19	186	1,970	658	3,640	4,890	5,430	730	307	200	134	2,390	134
20	186	1,390	592	4,650	3,980	7,820	706	307	400	186	1,040	122
21	186	660	526	5,590	1,830	7,640	660	307	620	122	341	116
22	200	530	390	8,320	1,240	5,580	638	291	440	122	324	111
23	200	470	256	7,420	1,070	3,250	660	275	572	122	214	134
24	200	450	320	3,830	906	1,280	682	259	658	128	179	111
25	186	394	310	906	730	1,070	638	259	730	152	166	106
26	200	394	300	754	1,040	1,010	594	259	490	172	152	100
27	186	376	300	706	1,040	1,100	594	244	324	200	152	95
28	200	358	300	636	984	1,640	572	244	275	166	152	100
29	259	550	300	614	880	2,180	550	229	229	200	214	122
30	450	1,330	300	580	-	2,210	530	214	244	214	229	307
31	490	-	300	560	-	1,180	-	214	-	229	186	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	8,857	490	186	221	0.303	0.35
November.....	20,281	1,970	259	676	.927	1.03
December.....	17,736	2,250	256	572	.785	.90
Calendar year 1935.....	315,848	6,030	166	865	1.19	16.09
January.....	97,316	8,320	330	3,139	4.31	4.97
February.....	66,790	6,230	560	1,924	2.64	2.85
March.....	62,332	7,820	593	2,011	2.76	3.18
April.....	36,806	2,970	530	1,227	1.68	1.87
May.....	10,941	572	214	353	.484	.56
June.....	9,625	730	186	321	.440	.49
July.....	6,485	490	122	209	.287	.33
August.....	11,909	2,390	106	384	.527	.61
September.....	5,757	1,390	95	192	.263	.29
Water year 1935-36.....	341,835	8,320	95	934	1.28	17.43

## Appomattox River near Petersburg, Va.

**Location.**- Water-stage recorder, lat. 37°14', long. 77°33', 1½ miles above Wallace Creek, 2½ miles above dam of Virginia Electric & Power Co., and 7 miles west of Petersburg, Dinwiddie County.

**Drainage area.**- 1,335 square miles.

**Records available.**- September 1931 to September 1936. May 1927 to September 1931 at site 1 mile downstream.

**Extremes.**- Maximum discharge during year, 11,000 second-feet (supersedes figure published in Water-Supply Paper 800) Jan. 9 (gage height, 11.75 feet); minimum, 127 second-feet Sept. 27 (gage height, 2.32 feet).  
1927-36: Maximum discharge, that of Jan. 9, 1936; minimum, 19 second-feet Sept. 21-27, 1932.

**Remarks.**- Records good except those for periods of ice effect, Dec. 23 to Jan. 2, Jan. 25 to Feb. 2, which are fair and were computed on basis of recorder charts, weather records, and records for stations at Farmville and Mattoax.

Rating tables, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 16

Dec. 17 to Sept. 30

2.8	257	2.2	98	4.0	1,060
3.0	332	2.4	149	4.5	1,500
3.3	470	2.6	213	5.0	2,000
3.6	640	2.8	290	6.0	3,030
4.0	920	3.0	380	7.0	4,130
4.5	1,350	3.3	545	8.0	5,300
5.0	1,840	3.6	745	10.0	7,840
6.0	2,930			11.8	11,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	430	896	1,690	530	920	1,360	1,850	1,000	405	375	375	316
2	379	610	1,100	800	940	1,280	1,800	964	405	380	282	282
3	357	481	819	4,570	1,040	1,280	2,400	948	405	474	235	217
4	353	445	705	7,700	1,500	1,230	2,650	972	380	669	220	196
5	353	430	640	8,760	3,690	1,180	2,150	1,050	385	521	199	243
6	320	420	604	8,440	4,130	1,140	2,650	1,040	380	415	210	220
7	312	430	569	8,140	3,470	1,100	3,360	940	385	395	490	243
8	324	508	564	8,920	2,600	1,060	3,910	876	371	357	745	206
9	340	686	569	10,600	1,800	1,040	3,580	836	395	321	710	186
10	340	724	604	10,200	2,250	1,040	4,240	798	485	290	597	217
11	340	592	616	8,440	2,400	1,700	5,300	760	558	270	371	258
12	336	514	592	7,020	2,350	2,810	5,420	738	497	250	316	179
13	332	520	592	4,940	2,050	3,910	4,700	724	584	364	564	173
14	336	1,250	1,170	2,250	4,350	3,470	3,580	717	564	385	590	167
15	345	2,050	2,490	2,350	7,560	2,150	2,200	669	824	282	371	893
16	324	2,220	2,930	4,350	9,080	1,600	2,050	682	696	282	282	1,090
17	316	1,400	2,300	4,130	8,920	1,550	1,800	656	468	343	368	425
18	309	1,690	1,460	3,140	8,440	1,550	3,950	595	270	1,350	262	217
19	305	2,440	1,180	5,520	8,600	5,760	1,410	623	410	239	2,300	210
20	309	2,320	1,050	9,260	8,760	6,630	1,360	610	637	220	2,400	186
21	309	1,260	932	10,400	8,290	7,560	1,280	590	1,100	290	940	167
22	324	856	731	9,800	2,920	9,260	1,280	584	884	270	468	158
23	328	744	450	9,080	1,850	9,800	1,280	564	860	246	400	152
24	320	666	510	9,620	1,700	7,150	1,280	527	1,040	224	312	155
25	320	622	500	9,080	1,700	2,100	1,230	503	1,020	239	274	149
26	320	598	490	2,350	1,750	1,750	1,140	503	948	290	239	141
27	320	574	480	1,410	1,750	1,800	1,180	465	668	299	220	136
28	316	574	480	1,060	1,650	2,920	1,140	463	503	308	213	133
29	356	864	480	980	1,550	3,690	1,100	458	430	330	262	138
30	411	1,260	480	960	-	3,690	1,040	430	395	410	343	182
31	896	-	480	940	-	2,760	-	420	-	430	357	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	10,960	896	305	354	0.265	0.31
November.....	28,644	2,440	420	955	.715	.80
December.....	28,237	2,930	450	911	.682	.79
Calendar year 1935.....	542,061	8,730	243	1,485	1.11	15.10
January.....	175,740	10,600	530	5,669	4.25	4.90
February.....	108,010	9,080	920	3,724	2.79	3.01
March.....	97,810	9,800	1,040	3,156	2.36	2.72
April.....	69,910	5,420	1,040	2,530	1.75	1.95
May.....	21,780	1,050	420	703	.527	.61
June.....	17,477	1,100	371	583	.437	.49
July.....	10,458	689	220	337	.252	.29
August.....	17,023	2,400	199	549	.411	.47
September.....	7,680	1,090	133	256	.192	.21
Water year 1935-36.....	593,729	10,600	133	1,622	1.21	16.55



## Lake Drummond in Dismal Swamp, Va.

Location.- Staff gage, lat.  $36^{\circ}36'00''$ , long.  $76^{\circ}26'40''$ , near lake outlet in Norfolk County, 2 miles east of Nansemond County line, 3 miles from North Carolina State line, and 25 miles from Norfolk.

Records available.- May 1926 to September 1936.

Extremes.- Maximum gage height during year, 5.30 feet Jan. 19, 23; minimum, 3.70 feet Sept. 16, 17.

1926-36: Maximum gage height, 6.09 feet Oct. 7, 1929; minimum, 0.10 foot Dec. 9, 1926.

Remarks.- Records good. Gage read twice daily.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.20	4.95	5.20	5.06	4.95	5.18	5.02	5.15	4.90	4.78	4.80	4.20
2	5.15	5.00	5.20	5.12	4.92	5.15	5.02	5.12	4.85	4.82	4.80	4.20
3	5.18	4.95	5.22	5.10	4.92	5.12	5.05	5.10	4.90	4.85	4.82	4.12
4	5.18	4.98	5.25	5.15	4.98	5.12	5.02	5.12	4.95	4.82	4.80	4.20
5	5.20	4.95	5.20	5.05	4.98	5.05	5.02	5.10	4.98	4.85	4.80	4.05
6	5.20	4.92	5.18	5.02	4.98	5.00	5.05	5.08	5.00	4.82	4.78	4.00
7	5.15	4.98	5.20	5.12	4.95	4.98	5.10	5.10	4.95	4.82	4.80	4.00
8	5.18	5.05	5.22	5.12	4.92	5.08	5.08	5.10	4.95	4.82	4.78	3.95
9	5.20	5.00	5.20	5.08	4.82	5.00	5.05	5.10	4.95	4.80	4.78	3.95
10	5.18	5.00	5.20	5.00	4.88	5.05	5.00	5.10	4.92	4.80	4.80	3.85
11	5.15	5.02	5.25	5.00	4.85	4.70	5.02	5.15	4.90	4.75	4.75	3.90
12	5.15	5.05	5.15	5.02	4.92	4.70	5.08	5.12	4.88	4.75	4.75	3.90
13	5.15	5.10	5.12	4.98	4.92	5.05	5.10	5.18	4.95	4.70	4.75	3.85
14	5.10	5.20	5.12	5.05	5.02	5.02	5.08	5.15	4.95	4.70	4.70	3.85
15	5.12	5.10	5.20	5.05	5.10	5.00	5.08	5.10	4.95	4.65	4.70	3.82
16	5.15	5.05	5.18	5.02	5.05	5.05	5.00	5.15	4.95	4.65	4.70	3.75
17	5.10	5.02	5.20	4.95	4.92	4.90	4.90	5.15	4.90	4.80	4.60	3.80
18	5.10	5.00	5.18	4.98	5.00	4.95	4.90	5.20	4.90	4.78	4.55	4.35
19	5.05	5.08	5.18	5.22	4.95	5.10	5.00	5.15	4.90	4.65	4.55	4.10
20	5.02	5.02	5.20	4.92	4.95	5.15	4.92	5.15	4.90	4.72	4.55	4.00
21	5.00	5.00	5.20	4.95	5.02	5.15	5.05	5.15	4.88	4.88	4.55	4.00
22	5.05	5.02	5.18	4.95	5.00	4.90	5.02	5.10	4.90	4.65	4.50	4.00
23	5.00	5.02	5.20	5.25	5.00	5.00	5.02	5.10	4.88	4.75	4.50	4.00
24	5.00	5.05	5.15	5.22	4.92	5.08	5.05	5.10	4.65	4.70	4.40	4.00
25	5.00	5.08	5.20	5.18	4.95	5.10	5.08	5.10	4.82	4.70	4.40	4.00
26	4.95	5.08	5.12	5.18	4.98	5.10	5.08	5.00	4.82	4.65	4.40	4.00
27	4.92	5.05	5.08	4.95	4.95	5.15	5.08	5.00	4.82	4.60	4.30	4.00
28	4.90	5.10	5.10	5.02	5.02	5.15	5.10	5.00	4.80	4.65	4.25	3.98
29	4.80	5.18	5.05	4.92	4.98	5.05	5.10	4.98	4.78	4.70	4.30	4.00
30	4.95	5.15	5.20	5.00	-	5.10	5.15	4.92	4.75	4.80	4.25	4.00
31	4.95	-	5.18	5.02	-	5.10	-	4.90	-	4.80	4.20	-

## Nottoway River near Stony Creek, Va.

Location.- Water-stage recorder, lat. 36°54', long. 77°24', at bridge on Petersburg-Emporia highway 2 miles above Island Swamp Creek and 3½ miles south of Stony Creek, Sussex County.

Drainage area.- 586 square miles.

Records available.- March 1930 to September 1936.

Extremes.- Maximum discharge during year, 7,690 second-feet Jan. 22 (gage height, 17.42 feet); minimum, 36 second-feet Sept. 28 (gage height, 1.40 feet).  
1930-36: Maximum discharge, 8,250 second-feet (revised) Sept. 7, 1935 (gage height, 17.76 feet); minimum, 5 second-feet Sept. 2, 5, 1932 (gage height, 0.62 foot).

Remarks.- Records good except those for Jan. 8-13, July 20-22, and for period of ice effect, Dec. 25 to Jan. 2, which are fair and were computed on basis of recorder charts, weather records, and records for Meherrin River near Lawrenceville.

Rating table, water year 1935-36 except period of ice effect  
(gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1 to Dec. 15)

1.4	36	6.0	929
1.6	49	7.0	1,200
1.8	66	8.0	1,490
2.0	87	10.0	2,070
2.3	124	12.0	2,730
2.6	165	13.0	3,150
3.0	228	14.0	3,810
3.5	325	15.0	4,740
4.0	432	16.0	5,880
5.0	670	17.4	7,690

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	192	432	489	300	645	670	902	477	150	137	172	701
2	174	265	387	350	632	670	1,230	454	147	243	136	237
3	220	206	315	2,340	695	670	2,430	443	141	720	107	164
4	174	186	275	5,400	1,010	670	1,660	443	140	466	94	136
5	140	180	265	5,640	2,270	620	1,060	500	138	265	89	124
6	124	176	246	6,000	2,230	620	1,700	466	162	203	84	114
7	114	188	237	5,640	1,720	595	4,150	410	161	174	70	97
8	120	256	237	4,000	902	571	4,640	388	184	151	246	91
9	124	346	256	3,200	1,060	547	3,100	367	246	133	177	100
10	120	305	295	3,300	1,460	559	2,200	346	209	121	162	87
11	120	228	295	2,500	1,400	1,600	2,630	325	237	111	130	108
12	120	214	265	1,500	1,150	2,430	2,770	315	197	97	222	336
13	118	285	275	1,100	983	2,040	1,920	305	608	91	356	168
14	114	720	798	876	2,770	2,310	1,310	305	632	121	184	107
15	115	876	1,260	1,060	5,400	956	1,090	305	315	123	129	93
16	118	512	1,120	2,700	5,760	824	983	275	214	110	105	76
17	107	535	720	2,630	6,000	850	876	256	176	125	99	74
18	103	929	559	1,830	4,480	2,300	772	256	165	118	671	69
19	100	956	477	3,160	2,300	3,100	720	246	285	107	983	65
20	104	871	432	1,240	1,830	4,740	695	237	798	130	295	62
21	109	421	399	7,020	1,310	2,980	670	237	443	110	208	57
22	107	356	325	7,410	1,090	1,400	645	216	315	140	176	53
23	111	315	237	4,370	956	1,090	695	206	454	166	138	55
24	116	285	346	1,120	902	902	695	198	399	134	115	55
25	120	265	320	772	876	824	620	195	399	119	103	53
26	125	256	290	824	850	798	583	192	336	216	88	51
27	115	246	260	798	824	798	571	183	246	198	82	47
28	118	246	270	720	772	2,140	547	183	195	165	92	46
29	124	346	260	632	720	2,360	523	171	171	128	295	48
30	192	632	270	746	-	1,720	500	158	151	133	1,000	51
31	523	-	300	746	-	1,120	-	152	-	166	1,490	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	4,381	523	100	141	0.241	0.28
November.....	11,734	956	176	391	.667	.74
December.....	12,459	1,260	237	402	.686	.79
Calendar year 1935.....	233,046	5,440	71	638	1.09	14.77
January.....	79,924	7,410	300	2,578	4.40	5.07
February.....	65,007	6,000	632	1,828	3.12	3.56
March.....	42,474	4,740	547	1,370	2.34	2.70
April.....	42,887	4,640	500	1,430	2.44	2.72
May.....	9,215	500	152	297	.507	.68
June.....	8,404	798	138	280	.478	.53
July.....	5,421	720	91	175	.299	.34
August.....	8,298	1,490	70	268	.457	.53
September.....	3,525	701	46	118	.201	.22
Water year 1935-36.....	281,729	7,410	46	770	1.31	17.86

## Meherrin River near Lawrenceville, Va.

Location.- Water-stage recorder, lat. 36°43'00", long. 77°49'59", at Gholson Bridge, 3 miles southeast of Lawrenceville, Brunswick County.

Drainage area.- 553 square miles.

Records available.- December 1928 to September 1936.

Extremes.- Maximum discharge during year, 11,200 second-feet Jan. 21 (gage height, 25.84 feet), from rating curve extended above 7,500 second-feet; minimum, 13 second-feet Sept. 28 (gage height, 1.03 feet); minimum daily discharge, 40 second-feet Sept. 27. 1928-36: Maximum discharge, that of Jan. 21, 1936; revised discharge for previously recorded maximum, 9,420 second-feet Dec. 1, 1934 (gage height, 24.17 feet); minimum, 5 second-feet Sept. 23, 24, 1932 (gage height, 0.72 foot); minimum daily discharge, 5 second-feet Sept. 24, 1932.

Remarks.- Records excellent except those for high stages, which are fair. Flow regulated during low water by small dam and mill just above station.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.4	33	8.0	1,490
1.6	47	10.0	2,110
1.8	64	12.0	2,750
2.0	84	14.0	3,430
2.3	120	16.0	4,110
2.6	164	18.0	4,810
3.0	230	19.0	5,230
3.5	320	20.0	5,780
4.0	421	21.0	6,480
5.0	652	22.0	7,300
6.0	912	24.0	9,200
7.0	1,190	25.8	11,200

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	144	204	334	248	416	453	649	360	133	167	143	198
2	152	160	270	346	457	454	1,310	346	142	490	130	124
3	165	150	240	3,500	456	453	2,490	335	135	648	99	108
4	141	140	216	6,720	812	448	1,140	333	136	250	99	102
5	116	144	198	8,500	3,020	422	774	366	148	178	100	100
6	105	146	194	3,260	1,790	416	1,740	374	156	162	82	97
7	107	180	188	3,870	845	402	4,380	318	142	156	99	61
8	113	361	190	2,560	662	385	4,970	297	128	128	304	69
9	110	386	213	2,620	864	376	1,980	284	222	120	235	154
10	113	230	240	3,020	1,150	389	2,270	274	534	115	136	255
11	112	182	237	1,360	1,060	1,900	3,670	252	241	116	129	342
12	106	192	204	902	748	2,780	1,790	247	168	99	160	154
13	104	255	718	752	1,280	1,170	248	553	93	189	106	106
14	104	2,080	1,830	604	3,350	832	942	268	526	98	157	70
15	101	582	1,340	1,020	5,780	640	791	263	199	90	114	76
16	101	326	661	3,460	6,880	562	713	224	160	90	112	83
17	99	412	490	1,700	3,530	1,280	639	220	136	84	177	83
18	100	1,610	394	968	1,640	4,450	576	211	136	74	1,010	69
19	94	654	333	3,560	1,980	6,720	541	205	814	119	219	58
20	101	391	297	7,390	1,090	3,060	520	204	899	82	150	51
21	94	312	254	9,970	858	1,200	499	201	300	125	122	48
22	98	270	172	3,210	738	1,170	480	190	700	156	117	54
23	97	244	192	682	638	798	515	182	348	130	106	52
24	100	226	285	631	596	698	626	178	313	148	82	45
25	102	210	255	526	589	630	472	170	999	282	80	48
26	102	204	227	564	568	595	439	175	226	290	76	44
27	106	198	210	533	545	602	435	170	186	145	69	40
28	103	201	213	409	519	2,400	428	187	160	132	339	44
29	110	343	211	473	476	2,560	402	168	139	119	595	43
30	526	527	216	519	-	985	378	146	140	262	1,060	75
31	423	-	245	478	-	764	-	154	-	210	936	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	4,151	526	94	134	0.242	0.28
November.....	11,490	2,050	140	393	.693	.77
December.....	10,809	1,830	172	349	.631	.73
Calendar year 1935.....	199,972	7,060	75	548	.991	13.43
January.....	74,121	9,970	248	2,391	4.32	4.98
February.....	42,789	6,880	416	1,475	2.67	2.88
March.....	40,094	6,720	376	1,293	2.34	2.70
April.....	37,629	4,970	378	1,254	2.27	2.53
May.....	7,510	374	146	242	.438	.50
June.....	8,519	899	128	284	.514	.57
July.....	5,337	648	74	172	.311	.36
August.....	7,406	1,060	69	239	.432	.50
September.....	2,853	342	40	95.1	.172	.19
Water year 1935-36.....	252,708	9,970	40	690	1.25	16.99

## Roanoke River at Roanoke, Va.

Location.- Chain gage, lat. 37°15'30", long. 79°56'20", at Walnut Street highway bridge in Roanoke, Roanoke County. Zero of gage is 906.84 feet above mean sea level.

Drainage area.- 388 square miles.

Records available.- July 1896 to September 1936.

Average discharge.- 36 years (1896-97, 1898-1902, 1903-5, 1907-36), 402 second-feet.

Extremes.- Maximum discharge observed during year, 9,950 second-feet Mar. 18 (gage height, about 11.0 feet), from rating curve extended above 5,500 second-feet; minimum, 60 second-feet Sept. 29 (gage height, 0.70 foot).

1896-1936: Maximum discharge observed, 16,900 second-feet Aug. 6, 1901 (gage height, 14.54 feet); practically no flow on Dec. 23, 1909, when flow was retarded by freezing (gage height, 0.0 foot).

Remarks.- records fair. Gage read twice daily.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 18				Mar. 19 to Sept. 30			
0.2	60	3.5	1,520	0.7	60	2.5	810
1.0	104	4.0	2,000	.8	80	3.0	1,120
1.3	202	5.0	3,000	1.0	132	3.5	1,520
1.6	320	6.0	4,100	1.3	234	4.0	2,000
2.0	510	8.0	6,350	1.6	358	5.0	3,000
2.5	790	10.0	8,750	2.0	544	6.0	4,100
3.0	1,110	11.0	9,950				

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	113	*150	*100	217	*480	210	380	184	99	22	27
2	90	177	125	125	*300	455	350	320	178	126	*80	94
3	76	*60	153	4,365	320	460	1,340	*360	164	135	92	92
4	72	80	127	2,600	310	410	930	472	302	*130	76	154
5	74	80	127	*1,200	592	398	*600	402	202	*125	85	129
6	*81	76	110	1,040	365	362	1,520	378	171	118	94	*100
7	92	113	99	2,600	320	365	1,900	337	*180	132	110	*100
8	97	146	*100	1,900	280	*340	1,190	312	173	110	115	37
9	*92	140	107	2,000	*250	320	350	337	209	102	*100	35
10	92	*130	140	3,000	300	342	1,910	*340	193	94	94	129
11	87	115	118	1,520	244	675	1,260	*2,200	181	107	104	128
12	90	118	116	*1,000	232	1,180	*1,040	930	212	*100	121	92
13	*88	198	300	790	435	910	370	673	316	99	112	*90
14	25	300	1,520	375	7,310	730	755	496	*210	104	94	90
15	78	217	*900	592	4,250	*620	673	425	167	92	358	104
16	88	170	620	910	*2,200	536	673	402	156	86	*200	85
17	*80	*160	460	766	1,340	3,440	564	*360	151	80	337	20
18	76	156	368	702	2,000	5,200	*560	312	148	104	151	76
19	76	140	320	*4,700	1,340	2,300	*540	316	254	*150	110	72
20	*76	133	268	3,000	975	1,900	520	716	191	126	94	*76
21	76	113	153	1,430	790	4,320	496	274	*180	94	85	80
22	76	99	*140	1,040	*670	*2,200	520	258	164	99	110	78
23	78	*120	182	790	*590	1,260	544	254	171	102	*120	74
24	68	*110	206	592	552	1,060	472	*234	129	90	92	80
25	72	116	*150	533	510	930	448	234	126	90	99	80
26	63	104	104	*500	510	370	*440	216	116	*90	90	80
27	*70	113	80	460	510	1,260	425	118	118	94	37	*79
28	72	*140	124	342	565	1,610	402	191	*110	92	910	78
29	320	166	*120	320	510	*1,350	402	164	102	80	227	65
30	272	217	133	392	-	1,060	380	*194	104	92	*120	238
31	153	-	92	280	-	370	-	*184	-	85	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	2,957	320	68	95.4	0.246	0.28
November.....	4,105	300	76	137	.353	.39
December.....	7,790	1,520	80	751	.647	.75
Calendar year 1935.....	158,257	9,230	68	434	1.12	15.16
January.....	40,947	4,980	100	1,321	3.40	3.92
February.....	29,273	7,310	217	1,009	2.60	2.80
March.....	36,211	5,200	320	1,233	3.18	3.67
April.....	24,034	1,900	380	901	2.06	2.30
May.....	12,527	2,200	184	404	1.04	1.20
June.....	5,179	316	102	173	.446	.50
July.....	3,216	135	65	104	.268	.31
August.....	4,567	810	76	147	.379	.44
September.....	2,853	238	68	96.1	.243	.28
Water year 1935-36.....	175,639	7,310	68	480	1.24	16.84

\*Computed on basis of observer's notes, weather records, and records for station at Niagara.

## Roanoke River at Niagara, Va.

Location.- Water-stage recorder, lat. 37°15'18", long. 79°52'18", 200 feet below power plant of Appalachian Electric Power Co. at Niagara, Roanoke County, and 2 miles below mouth of Tinker Creek. Zero of gage is 820.15 feet above mean sea level.

Drainage area.- 511 square miles.

Records available.- July 1926 to September 1936.

Average discharge.- 10 years, 511 second-feet.

Extremes.- Maximum discharge during year, about 12,700 second-feet Mar. 17 (gage height, 14.78 feet), from rating curve extended above 5,000 second-feet; minimum, 17 second-feet July 15 (gage height, 0.54 foot); minimum daily discharge, 105 second-feet Aug. 2.

1926-36: Maximum discharge, about 16,300 second-feet Aug. 16, 1928 (gage height, 17.36 feet), from rating curve extended above 5,000 second-feet; minimum, 14 second-feet July 11, 1926 (gage height, 0.45 foot); minimum daily discharge (estimated), 40 second-feet Nov. 6, 1931.

Remarks.- Records good except those for Dec. 30, 31, Jan. 5, 6, 11-18, Jan. 21 to Feb. 13, Feb. 17 to Mar. 10, Mar. 19, 23, 24, Apr. 27 to May 3, May 13 to June 3, which are fair and were computed on basis of recorder charts, weather records, output of Niagara hydroelectric plant, and records for stations at Roanoke and Tushes. Flow regulated at dam and water-power plant located 200 feet above station.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.6	139	4.0	912	8.0	4,150
2.0	221	4.5	1,160	9.0	5,270
2.5	348	5.0	1,470	10.0	6,470
3.0	510	6.0	2,230	12.0	8,970
3.5	698	7.0	3,130		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	172	241	228	440	670	1,070	530	310	138	158	180
2	156	171	294	509	510	920	1,660	520	210	130	105	187
3	137	156	205	5,320	460	630	2,030	630	270	217	129	160
4	139	174	196	4,410	670	600	1,460	638	290	213	146	170
5	140	152	201	1,900	860	560	1,210	554	276	229	148	164
6	141	142	196	1,500	580	550	2,440	496	250	188	232	152
7	148	226	192	3,660	510	530	2,750	468	306	194	166	151
8	156	260	210	2,760	470	480	1,790	467	300	190	174	138
9	144	212	191	3,610	510	470	1,540	449	358	164	162	136
10	140	200	190	3,510	490	490	2,230	444	266	170	185	200
11	144	184	205	2,200	440	1,340	1,870	1,760	248	194	150	200
12	138	199	210	1,500	410	1,790	1,540	1,670	343	165	135	168
13	152	396	699	1,100	580	1,170	1,380	870	446	157	147	143
14	142	426	1,710	940	7,840	966	1,080	650	292	168	189	163
15	123	290	1,170	840	6,010	823	968	650	230	153	378	142
16	142	270	810	1,200	3,140	722	912	520	233	163	272	140
17	126	262	116	1,000	1,300	6,490	815	430	224	153	490	142
18	124	230	495	930	2,100	7,420	769	420	372	173	226	112
19	122	216	445	6,200	1,700	3,100	738	470	417	160	173	111
20	122	198	368	4,780	1,200	3,400	718	360	224	172	152	112
21	122	198	334	2,100	1,000	5,000	678	300	233	172	154	118
22	122	212	274	1,400	590	2,380	698	340	225	164	150	118
23	126	230	271	1,100	840	2,200	718	290	220	137	177	121
24	134	164	330	840	770	1,700	653	320	201	150	162	118
25	125	202	272	800	730	1,460	639	280	235	148	149	112
26	119	178	239	750	740	1,260	620	270	211	139	142	129
27	123	186	169	690	760	1,560	600	310	183	142	155	120
28	129	248	238	570	760	2,370	570	260	204	153	694	120
29	612	230	245	600	730	1,060	560	260	205	168	316	120
30	356	318	400	600	-	1,520	530	290	186	144	180	569
31	222	-	250	520	-	1,250	-	230	-	123	179	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	4,831	512	118	156	0.305	0.35
November.....	5,732	426	142	221	.438	.49
December.....	11,803	1,710	190	381	.746	.86
Calendar year 1935.....	231,950	9,360	115	635	1.24	16.87
January.....	58,467	6,200	228	1,686	3.69	4.25
February.....	37,950	7,840	410	1,309	2.56	2.76
March.....	56,001	7,420	470	1,802	3.53	4.07
April.....	35,191	2,760	520	1,173	2.30	2.57
May.....	15,855	1,760	230	512	1.00	1.15
June.....	7,955	446	153	265	.519	.58
July.....	5,284	229	123	170	.333	.38
August.....	6,335	694	105	204	.399	.46
September.....	4,677	559	111	155	.305	.34
Water year 1935-36.....	251,091	7,840	105	680	1.34	18.26

## Roanoke River near Toshes, Va.

Location.-- Water-stage recorder, lat. 37°02'03", long. 79°31'18", three-quarters of a mile below Smith Mountain Gap, 3 miles above Pigg River, and 7 miles northwest of Toshes, Pittsylvania County. Zero of gage is 588.99 feet above mean sea level.

Drainage area.-- 1,020 square miles.

Records available.-- September 1925 to September 1936.

Average discharge.-- 11 years, 935 second-feet.

Extremes.-- Maximum discharge during year, 21,900 second-feet Mar. 18 (gage height, 17.13 feet); minimum, 203 second-feet Aug. 3, 4, Sept. 20 (gage height, 1.24 feet). 1925-36: Maximum discharge, 26,500 second-feet Oct. 18, 1932 (gage height, 19.60 feet), from rating curve extended above 17,000 second-feet; minimum, 93 second-feet Sept. 19, 20, 1932 (gage height, 0.96 foot).

Remarks.-- Records excellent except those for Jan. 21-24, Feb. 16-24, which are fair and were computed on basis of recorder charts, weather records, and records for station at Altavista.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.2	186	3.5	1,960
1.4	275	4.0	2,410
1.6	382	5.0	3,400
1.8	512	6.0	4,600
2.0	654	8.0	7,000
2.3	915	10.0	9,900
2.6	1,170	12.0	13,000
3.0	1,510	14.0	16,400

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	354	478	690	602	992	1,420	2,150	1,130	527	432	243	290
2	343	413	571	1,110	1,070	1,340	2,900	1,060	579	444	238	261
3	343	401	602	7,540	1,080	1,300	3,730	1,130	485	401	229	275
4	326	371	498	8,560	1,380	1,300	2,800	1,340	549	478	220	290
5	321	394	484	4,280	1,960	1,210	2,320	1,210	579	432	243	306
6	332	365	478	3,820	1,340	1,170	5,110	1,040	541	425	266	300
7	348	371	464	5,610	1,170	1,170	5,010	1,010	655	382	438	261
8	354	526	484	5,100	1,130	1,080	3,510	986	1,200	365	617	287
9	337	542	505	5,960	1,080	1,040	2,800	924	730	354	413	243
10	348	451	471	7,000	1,210	1,040	3,400	915	633	332	337	316
11	343	444	458	4,860	1,030	1,400	3,400	1,300	602	407	444	376
12	348	425	451	3,300	874	3,100	2,900	2,180	672	458	382	316
13	343	1,360	1,240	2,410	1,160	2,410	2,500	1,690	1,510	343	326	270
14	337	1,300	2,620	1,960	9,130	1,960	2,230	1,300	754	326	246	247
15	343	830	3,600	1,780	12,500	1,690	2,000	1,080	564	316	413	266
16	343	672	1,820	2,280	6,400	1,610	1,870	1,010	492	316	680	261
17	371	664	1,580	2,100	3,700	6,270	1,740	949	485	311	1,170	252
18	337	641	1,170	1,870	3,200	16,200	1,640	856	485	290	625	247
19	332	564	1,020	8,650	3,200	6,350	1,560	890	822	326	376	216
20	332	527	672	13,400	2,400	4,390	1,510	906	617	365	321	208
21	326	485	721	4,500	2,100	6,350	1,420	905	464	432	300	216
22	326	485	602	3,000	1,600	4,990	1,420	680	471	326	295	285
23	332	512	602	2,400	1,600	3,320	1,510	746	464	316	280	216
24	337	498	713	1,800	1,500	3,000	1,420	641	527	295	290	216
25	337	451	721	1,780	1,560	2,700	1,340	705	485	270	285	220
26	326	464	556	1,620	1,510	2,410	1,300	617	478	270	270	216
27	321	438	444	1,560	1,560	2,800	1,260	594	432	266	275	216
28	321	605	498	1,380	1,560	3,950	1,210	625	394	261	551	216
29	1,056	947	579	1,170	1,470	3,620	1,170	556	394	257	771	220
30	1,260	627	690	1,300	-	2,900	1,130	571	389	275	464	572
31	617	-	705	1,210	-	2,500	-	579	-	257	311	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	12,388	1,260	321	400	0.392	0.45
November.....	17,181	1,360	365	573	.562	.63
December.....	26,640	3,620	444	860	.943	.97
Calendar year 1935.....	453,374	15,500	270	1,242	1.22	16.51
January.....	115,082	13,400	602	3,712	3.64	4.20
February.....	70,786	12,500	974	2,441	2.39	2.58
March.....	96,180	16,200	1,040	3,103	3.04	3.50
April.....	89,230	5,110	1,130	2,276	2.23	2.49
May.....	50,005	2,180	556	968	.949	1.09
June.....	17,998	1,510	399	600	.588	.66
July.....	10,728	478	257	346	.339	.39
August.....	12,358	1,170	220	399	.391	.45
September.....	7,995	572	208	266	.261	.29
Water year 1935-36.....	485,638	16,200	208	1,327	1.30	17.70

## Roanoke River at Altavista, Va.

Location.- Water-stage recorder, lat. 37°06'21", long. 79°17'58", at highway bridge a quarter of a mile south of Altavista, Campbell County. Zero of gage is 503.25 feet above mean sea level.

Drainage area.- 1,802 square miles.

Records available.- August 1930 to September 1936.

Extremes.- Maximum discharge during year, 42,300 second-feet Jan. 20 (gage height, 27.66 feet); minimum, 423 second-feet Sept. 20 (gage height, 2.52 feet).  
1930-36: Maximum discharge, 46,500 second-feet Oct. 18, 1932 (gage height, 29.30 feet); minimum, 94 second-feet Jan. 31, 1934 (gage height, 1.66 feet).

Remarks.- Records fair. Discharge for periods Oct. 1-20, Nov. 15-25, Apr. 27 to May 11, May 14 to June 17, June 22 to July 14, Aug. 14-16, 25-28, Aug. 30 to Sept. 1 and for period of ice effect, Dec. 24 to Jan. 2, were computed on basis of recorder charts, weather records, and records for stations at Toshes, Brookneal, and Clover and Pigg River near Toshes.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

2.4	375	5.0	1,990	16.0	14,000
2.6	455	6.0	2,790	18.0	17,800
2.8	540	8.0	4,560	20.0	22,300
3.0	630	10.0	6,400	22.0	27,200
3.5	900	12.0	8,400	24.0	32,400
4.0	1,230	14.0	10,800	26.0	37,600

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	260	260	1,300	1,100	1,670	2,310	3,570	1,900	1,000	1,100	554	620
2	260	340	1,160	1,700	1,760	2,230	4,350	1,800	1,100	1,800	522	554
3	640	752	1,000	22,600	1,830	2,150	6,300	1,800	990	1,200	526	558
4	650	705	850	20,000	2,230	2,070	4,560	5,100	1,000	1,000	504	608
5	610	730	870	6,900	3,600	2,030	3,840	2,100	1,200	950	522	608
6	620	730	540	6,100	2,630	1,990	8,960	1,900	1,100	890	558	655
7	660	705	870	11,800	1,910	2,030	10,500	1,700	1,100	840	1,020	580
8	680	900	840	6,900	1,710	1,790	8,220	1,700	2,000	800	2,170	551
9	660	1,060	370	9,890	1,910	1,750	4,650	1,600	1,300	760	1,480	540
10	660	900	930	10,800	2,070	1,750	6,100	1,600	1,200	730	900	608
11	660	765	870	6,500	1,790	2,070	5,730	1,900	1,200	820	849	758
12	660	785	840	1,650	1,630	3,660	4,330	2,850	1,200	910	1,150	655
13	640	2,210	1,270	3,660	1,670	3,660	4,330	2,710	2,100	850	840	525
14	640	3,470	6,460	3,120	19,800	2,950	3,840	2,200	1,700	770	710	576
15	650	1,900	5,100	2,790	29,400	2,650	3,460	1,900	1,200	730	780	544
16	640	1,400	3,330	3,480	11,300	2,310	3,300	1,500	1,000	730	1,100	580
17	700	1,500	2,550	3,480	6,500	12,300	3,030	1,600	960	730	5,960	531
18	650	1,400	2,070	2,950	5,730	37,200	2,870	1,500	1,440	730	1,880	526
19	630	1,200	1,750	22,500	5,640	12,100	2,710	1,500	5,180	730	1,060	479
20	620	1,100	1,650	32,000	4,290	6,700	2,630	1,500	1,350	1,120	812	431
21	608	1,000	1,250	7,940	3,660	7,990	2,550	1,400	1,230	1,930	730	443
22	605	930	1,020	5,260	3,120	7,400	2,470	1,200	1,100	1,080	930	487
23	630	970	990	4,200	2,790	5,290	2,650	1,300	1,100	755	705	423
24	655	980	1,130	3,210	2,830	4,580	2,630	1,200	1,200	730	608	463
25	655	900	1,100	2,790	2,470	4,110	2,390	1,200	1,100	680	620	475
26	655	870	1,000	2,790	2,470	3,750	2,310	1,200	1,000	730	620	475
27	630	840	510	2,550	2,470	4,110	2,200	1,100	970	630	600	467
28	608	900	840	2,150	2,470	7,500	2,100	1,100	880	610	1,000	475
29	1,600	1,710	990	2,150	2,390	5,910	2,100	1,100	880	676	1,160	504
30	2,630	1,580	1,100	1,790	-	4,650	2,000	1,000	830	585	920	1,150
31	1,440	-	1,100	1,350	-	4,020	-	1,000	-	585	700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	23,629	2,630	608	762	0.423	0.49
November.....	34,638	3,470	705	1,155	.641	.72
December.....	47,230	6,460	810	1,524	.846	.98
Calendar year 1935.....	798,312	31,500	567	2,167	1.21	16.50
January.....	221,590	32,000	1,100	7,143	3.97	4.58
February.....	133,790	29,400	1,630	4,613	2.56	2.76
March.....	164,690	37,200	1,750	5,313	2.95	3.40
April.....	118,860	10,500	2,000	3,962	2.20	2.46
May.....	50,160	2,950	1,000	1,612	.892	1.04
June.....	40,410	5,120	830	1,547	.742	.83
July.....	27,064	1,930	576	878	.434	.56
August.....	32,430	5,960	604	1,045	.523	.67
September.....	16,949	1,150	431	565	.314	.35
Water year 1935-36.....	911,500	37,200	431	2,490	1.32	18.84

## Roanoke River at Brookmeal, Va.

Location.- Water-stage recorder, lat. 37°02'22", long. 78°56'41", at highway bridge at Virginian Railway station at Brookmeal, Campbell County, 2 3/4 miles above Falling River. Zero of gage is 351.14 feet above mean sea level.

Drainage area.- 2,420 square miles.

Records available.- April 1923 to September 1936.

Average discharge.- 13 years, 2,270 second-feet.

Extremes.- Maximum discharge during year, 45,700 second-feet Jan. 20 (gage height, 30.80 feet); minimum, 585 second-feet Sept. 28 (gage height, 4.10 feet).  
1923-36: Maximum discharge, 68,300 second-feet Aug. 12, 1928 (gage height, 37.15 feet), from rating curve extended above 28,000 second-feet; minimum (estimated), 191 second-feet Sept. 2, 1932.

Remarks.- Records fair. Discharge Jan. 13-18, Jan. 24 to Feb. 13, Feb. 20 to Mar. 17, Mar. 24-27, Mar. 30 to Apr. 2, Apr. 4, 5, Apr. 14 to May 24 computed on basis of recorder charts, weather record, and records for stations at Altavista and Clover.

Revisions.- Revised records for water years 1923-35 inclusive, and revised yearly figures for calendar year 1934 are published in Bulletin 4, Division of Water Resources and Power, Virginia State Commission on Conservation and Development, and supersede those published in previous water-supply papers.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	940	1,440	2,080	1,400	2,500	3,100	4,600	2,500	1,490	1,360	802	870
2	940	1,210	1,860	1,900	2,400	3,000	5,300	2,400	1,420	2,140	780	780
3	912	1,090	1,620	24,000	2,500	2,900	8,600	2,300	1,420	1,940	780	760
4	912	1,060	1,540	32,300	3,200	2,900	6,300	2,600	1,340	1,390	760	780
5	885	1,030	1,400	11,900	5,300	2,900	4,900	2,800	1,690	1,360	740	802
6	885	1,060	1,300	7,890	4,400	2,800	8,650	2,600	1,580	1,260	938	780
7	912	1,090	1,300	14,100	9,200	2,900	15,800	2,300	1,480	1,180	1,260	780
8	940	1,180	1,300	9,580	2,800	2,600	8,720	2,200	2,460	1,140	1,980	740
9	940	1,480	1,370	11,900	2,800	2,600	6,680	2,100	2,450	1,080	2,220	740
10	940	1,270	1,400	15,200	3,100	2,600	8,000	2,100	1,760	1,040	1,240	740
11	940	1,150	1,340	9,220	2,900	2,900	8,360	2,200	1,620	1,040	1,080	780
12	940	1,120	1,270	6,580	2,500	4,200	6,800	2,900	1,550	1,240	1,280	870
13	912	3,030	1,790	5,100	2,700	4,700	5,980	3,200	2,380	1,260	1,140	760
14	912	5,480	6,420	4,300	15,500	4,000	5,000	2,900	2,820	1,160	1,040	1,180
15	912	2,880	7,120	3,800	35,700	3,400	4,500	2,400	1,900	1,010	1,040	1,080
16	912	2,050	4,980	4,500	19,700	3,000	4,200	2,100	1,480	1,040	1,240	802
17	1,000	2,320	3,690	4,600	9,820	11,000	3,900	2,000	1,360	1,060	8,440	760
18	940	2,320	2,880	4,100	8,000	42,700	3,600	1,900	1,390	1,010	3,300	700
19	912	1,960	2,480	20,600	7,670	25,600	3,400	1,800	6,750	1,010	1,560	680
20	885	1,680	2,240	42,000	6,000	9,850	3,300	1,900	2,910	1,180	1,160	640
21	885	1,540	1,900	15,300	5,000	10,100	3,200	1,900	1,800	1,280	1,040	602
22	912	1,440	1,440	7,560	4,200	10,400	3,100	1,700	1,520	1,940	1,160	620
23	912	1,400	1,300	6,180	3,800	7,280	3,300	1,700	1,550	1,080	1,110	640
24	912	1,400	1,340	4,800	3,500	5,800	3,300	1,700	1,660	1,010	892	620
25	912	1,340	1,300	3,800	3,500	5,300	3,100	1,660	1,620	985	848	602
26	885	1,270	1,440	3,700	3,300	4,900	2,900	1,690	1,420	892	870	602
27	885	1,270	1,120	3,500	3,200	5,100	2,800	1,620	1,340	938	825	602
28	885	1,370	1,060	3,100	3,200	10,200	2,700	1,550	1,260	870	1,500	602
29	1,340	3,240	1,270	2,900	3,200	8,960	2,700	1,550	1,210	825	1,460	690
30	3,240	2,880	1,300	2,600	-	6,300	2,600	1,450	1,160	825	1,360	1,240
31	2,240	-	1,370	2,700	-	5,200	-	1,480	-	825	1,040	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October.....				32,452	3,240	858	1,047	0.433		0.50		
November.....				53,080	5,480	1,030	1,769	.731		.82		
December.....				64,220	7,120	1,060	2,072	.856		.99		
Calendar year 1935.....				1,043,777	42,000	745	2,860	1.18		16.04		
January.....				290,310	42,000	1,400	9,381	3.88		4.47		
February.....				181,190	35,700	2,400	6,248	2.56		2.78		
March.....				219,190	42,700	2,600	7,071	2.92		3.37		
April.....				156,290	15,800	2,600	5,210	2.15		2.40		
May.....				65,300	3,200	1,450	2,106	.870		1.00		
June.....				55,690	6,750	1,160	1,856	.767		.86		
July.....				36,370	2,140	825	1,173	.485		.56		
August.....				45,455	8,440	740	1,466	.606		.70		
September.....				22,844	1,240	602	761	.314		.35		
Water year 1935-36.....				1,222,891	42,700	602	3,341	1.35		18.80		



## Roanoke River near Clover, Va.

Location.- Water-stage recorder, lat. 36°50'17", long. 78°40'02", at highway bridge 3½ miles below mouth of Roanoke Creek and 6 miles east of Clover, Halifax County.

Drainage area.- 3,230 square miles.

Records available.- August 1929 to September 1936.

Extremes.- Maximum discharge during year, 56,400 second-feet Mar. 19 (gage height, 23.49 feet); minimum, 769 second-feet Sept. 26 (gage height, 1.59 feet).  
1929-36: Maximum discharge, that of Mar. 19, 1936; minimum, 204 second-feet Sept. 3, 1932 (gage height, 0.50 foot).

Remarks.- Records excellent except those for Feb. 24-29, Mar. 2-10, July 27 to Aug. 4 and those for period of ice effect, Dec. 25-27, which are fair and were computed on basis of recorder charts, weather records, and records for stations at Altavista, Brookneal, and Clarksville.

Revisions.- Revised records for the water years 1928-31 for station near Clover are published in Bulletin 4, Division of Water Resources and Power, Virginia State Commission on Conservation and Development, and supersede those published in Water-Supply Papers 697 and 712. Revised records, for Roanoke River at Randolph, Va., for water years 1927-30, also published in Virginia Bulletin 4 and supersede those published in Water-Supply Papers 662, 682, and 697.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.6	776	3.0	2,000	8.0	7,630	16.0	21,000	21.0	40,500
1.8	922	3.5	2,500	10.0	10,200	17.0	23,700	22.0	46,500
2.0	1,080	4.0	3,020	12.0	13,000	18.0	26,900	23.5	56,400
2.3	1,330	5.0	4,120	14.0	16,500	19.0	30,600		
2.6	1,600	6.0	5,230	15.0	18,600	20.0	35,100		

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,280	2,350	3,350	1,850	3,570	4,120	5,950	3,240	1,750	1,510	1,000	1,280
2	1,200	1,750	2,600	2,100	3,240	4,100	6,190	3,130	1,750	2,910	965	1,080
3	1,200	1,510	2,300	12,500	3,460	4,000	9,290	3,020	1,650	2,800	930	1,000
4	1,160	1,420	2,100	29,800	4,450	4,000	8,770	3,240	1,650	2,100	900	1,000
5	1,160	1,350	2,000	39,400	7,630	4,000	6,430	3,570	1,700	1,750	863	1,040
6	1,120	1,390	1,850	21,600	7,150	4,000	8,250	3,460	2,000	1,650	1,160	1,040
7	1,120	1,510	1,750	15,600	5,000	4,000	17,400	3,020	1,800	1,560	1,200	1,000
8	1,200	2,100	1,750	17,600	4,010	3,800	15,200	2,910	2,100	1,460	3,900	984
9	1,240	1,950	1,800	13,300	4,010	3,800	8,640	2,800	3,130	1,350	2,910	930
10	1,240	1,900	1,900	18,000	4,560	3,800	10,500	2,800	2,450	1,280	2,100	1,000
11	1,200	1,700	1,850	16,900	4,560	4,120	11,600	2,600	2,100	1,240	1,560	969
12	1,200	1,560	1,750	9,680	3,790	4,780	9,160	2,700	1,900	1,330	1,950	1,080
13	1,200	2,800	2,100	7,030	3,900	6,070	7,630	3,790	2,350	1,700	1,800	1,080
14	1,200	7,630	5,950	5,830	11,400	5,470	6,430	3,680	4,120	1,600	1,380	1,120
15	1,200	5,710	10,100	5,250	26,600	4,450	5,710	3,130	2,910	1,350	1,240	2,000
16	1,160	3,350	7,270	5,710	40,500	3,900	5,230	2,700	2,050	1,200	1,420	1,280
17	1,200	3,570	5,000	6,070	28,400	7,780	4,890	2,600	1,750	1,330	5,240	1,080
18	1,240	4,560	3,900	5,590	13,000	30,000	4,560	2,500	1,650	1,330	11,500	977
19	1,200	3,680	3,240	14,400	10,200	53,600	4,230	2,400	4,450	1,510	3,760	892
20	1,160	2,800	2,910	35,100	8,380	35,100	4,120	2,450	6,510	1,200	1,950	863
21	1,160	2,300	2,600	49,700	6,790	16,100	4,010	2,450	2,700	1,560	1,460	805
22	1,160	2,100	2,100	26,500	5,710	13,500	3,900	2,300	2,050	2,050	1,330	798
23	1,160	1,950	1,750	8,770	5,110	10,100	4,010	2,150	2,050	1,700	1,560	812
24	1,200	1,900	1,800	6,310	4,700	7,630	4,120	2,100	2,200	1,420	1,280	826
25	1,160	1,850	1,800	5,230	4,500	6,790	3,900	2,100	2,300	1,420	1,120	798
26	1,160	1,750	1,900	4,890	4,300	6,430	3,680	2,000	2,000	1,330	1,080	776
27	1,120	1,700	1,800	4,760	4,200	6,310	3,460	2,000	1,750	1,400	1,160	783
28	1,120	1,700	1,460	4,450	4,200	10,500	3,460	1,900	1,650	1,300	1,420	790
29	1,560	3,570	1,560	3,900	4,200	12,700	3,460	1,850	1,560	1,100	2,250	805
30	3,460	4,780	1,750	3,680	-	8,510	3,240	1,800	1,460	1,100	2,000	1,280
31	3,680	-	1,750	3,900	-	6,790	-	1,750	-	1,100	1,600	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	41,820		3,680		1,120		1,349		0.418		0.48	
November.....	78,210		7,630		1,380		2,607		.807		.90	
December.....	85,540		10,100		1,460		2,759		.854		.98	
Calendar year 1935.....	1,384,788		31,000		984		3,794		1.17		15.97	
January.....	405,400		49,700		1,850		13,080		4.05		4.67	
February.....	241,520		40,500		3,240		8,328		2.58		2.78	
March.....	300,050		53,600		3,800		9,679		3.00		3.46	
April.....	197,420		17,400		3,240		6,581		2.04		2.28	
May.....	82,140		3,790		1,750		2,680		.820		.95	
June.....	69,490		6,510		1,460		2,516		.717		.80	
July.....	47,650		2,910		1,100		1,537		.476		.55	
August.....	64,883		11,500		863		2,096		.649		.75	
September.....	30,168		2,000		776		1,006		.311		.35	
Water year 1935-36.....	1,644,391		53,600		776		4,493		1.39		18.95	

## ROANOKE RIVER BASIN

Roanoke River at Clarksville, Va.

Location.— Water-stage recorder, lat. 36°37'40", long. 78°33'04", at highway bridge in Clarksville, Mecklenburg County, 500 feet above confluence of Roanoke and Dan Rivers. Records include flow of Dan River.

Drainage area.— 7,320 square miles (below confluence with Dan River).

Records available.— December 1934 to September 1936.

Extremes.— Maximum discharge during year, 114,000 second-feet Jan. 21 (gage height, 18.88 feet); minimum, 1,340 second-feet Sept. 27 (gage height, 1.27 feet); minimum daily discharge, 1,540 second-feet Sept. 25, 27.  
1934-36: Maximum discharge, that of Jan. 21, 1936; minimum, that of Sept. 27, 1936; minimum daily discharge, that of Sept. 23, 27, 1936.

Remarks.— Records excellent except those for period of ice effect, Dec. 24 to Jan. 2, which are fair and were computed on basis of recorder charts, weather records, and records for stations at Clover and Roanoke Rapids. Some regulation of low-water flow by operation of cotton mills at Danville and by power plant on Banister River. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Jan. 23 to Feb. 5)

1.2	1,230	2.3	3,540	5.0	13,000	10.0	41,700
1.4	1,560	2.6	4,380	5.0	17,400	12.0	59,200
1.6	1,930	3.0	5,620	7.0	22,500	14.0	80,200
1.8	2,340	3.5	7,310	8.0	27,900	16.9	114,000
2.0	2,790	4.0	9,120	9.0	34,200		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,790	5,950	8,020	3,700	9,880	8,200	13,000	7,140	3,810	3,280	3,410	2,210
2	2,540	3,810	6,450	4,200	8,750	8,020	13,000	7,140	3,230	7,840	3,230	2,050
3	2,490	3,160	5,140	29,900	8,750	8,200	20,300	6,620	3,540	6,790	2,910	1,930
4	2,580	3,100	4,680	80,200	12,200	8,020	21,800	6,960	3,540	5,680	2,010	1,970
5	2,410	2,620	4,090	80,200	21,300	7,340	16,500	7,430	3,540	4,550	1,950	2,070
6	2,280	2,690	3,950	79,000	20,800	7,430	19,800	7,480	4,240	4,990	2,340	2,010
7	2,090	3,230	3,810	49,300	14,700	7,310	43,000	6,790	3,810	3,540	5,130	2,210
8	2,130	5,780	3,810	47,500	10,700	6,790	52,000	6,280	3,950	3,160	8,200	1,800
9	2,110	6,450	4,090	40,100	9,310	6,790	37,900	6,120	5,620	2,860	6,790	1,700
10	2,410	5,300	3,810	37,000	11,400	6,790	33,500	5,780	5,620	2,840	6,120	2,070
11	2,320	4,090	4,090	35,600	12,200	10,400	37,000	6,120	4,990	2,790	4,380	2,790
12	2,880	5,410	3,950	21,800	10,300	12,600	27,900	5,780	4,530	2,960	5,300	2,610
13	2,340	6,640	4,880	14,700	8,940	13,400	19,800	7,480	4,990	4,090	4,680	2,780
14	2,260	19,800	12,600	11,800	29,200	12,800	15,600	8,200	6,960	3,280	3,680	2,240
15	2,280	16,500	18,300	10,700	56,500	2,880	13,400	6,790	8,790	2,380	3,010	2,450
16	2,170	9,500	16,000	13,000	80,200	8,940	12,200	5,950	5,140	2,560	2,840	2,490
17	2,660	7,660	11,000	14,200	85,500	21,500	11,000	5,140	3,810	2,470	7,820	2,090
18	2,540	10,300	8,560	13,800	41,400	64,200	10,700	5,620	3,810	2,520	17,400	1,890
19	2,340	7,660	7,140	34,900	24,500	94,800	9,500	4,650	8,020	5,140	8,560	1,800
20	2,540	6,450	6,120	59,200	19,800	95,200	9,310	4,990	14,200	3,090	4,380	1,690
21	2,280	4,990	5,620	103,000	15,200	44,600	9,310	5,140	7,660	2,790	3,280	1,970
22	2,130	4,530	4,530	100,000	13,000	28,200	8,750	5,140	4,840	4,840	2,680	1,650
23	2,170	4,240	3,540	43,300	11,000	20,300	8,940	4,380	4,240	6,450	2,700	1,540
24	2,260	4,090	3,000	16,000	10,300	15,200	9,120	4,380	5,760	4,680	2,960	1,740
25	2,340	3,950	3,000	13,000	9,880	13,400	9,120	4,380	6,120	4,680	1,930	1,760
26	2,280	3,540	3,200	11,800	9,500	12,600	8,200	4,240	5,300	3,680	2,070	1,650
27	2,410	3,540	3,400	11,800	9,310	12,200	7,840	4,240	3,230	2,220	1,540	
28	2,520	3,540	3,200	11,800	9,120	21,300	8,020	3,810	3,810	3,270	1,330	
29	2,680	5,780	2,800	10,300	8,940	29,100	7,480	3,950	3,540	2,340	3,410	1,560
30	5,950	9,500	2,900	9,310	-	23,400	7,310	3,810	3,010	2,720	3,610	2,090
31	8,560	-	3,300	10,300	-	16,500	-	3,540	-	2,960	3,410	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	82,500	8,560	2,090	2,861	0.364	0.42
November.....	181,680	19,800	2,520	6,086	.827	.92
December.....	179,280	18,300	2,800	5,783	.790	.91
Calendar year 1935.....	2,962,280	55,900	1,960	8,116	1.11	15.05
January.....	1,009,410	103,000	3,700	32,560	4.45	5.13
February.....	589,580	83,500	8,750	20,330	2.78	3.00
March.....	654,760	96,200	6,790	21,120	2.89	3.33
April.....	520,400	52,000	7,310	17,310	2.37	2.64
May.....	175,560	8,200	3,540	5,663	.774	.89
June.....	152,680	14,200	3,010	5,089	.695	.78
July.....	115,350	7,840	2,340	3,818	.522	.60
August.....	135,840	17,400	1,930	4,382	.599	.69
September.....	59,990	2,790	1,540	2,000	.273	.30
Water year 1935-36.....	3,860,030	103,000	1,540	10,556	1.44	19.61

## Roanoke River at Roanoke Rapids, N. C.

Location.- Water-stage recorder, lat. 36°28'15", long. 77°38'05", 1½ miles below State highway bridge at Roanoke Rapids, Halifax County. Zero of gage is 43.79 feet above mean sea level (general adjustment of 1929).

Drainage area.- 8,410 square miles.

Records available.- February 1930 to September 1936.

Extremes.- Maximum discharge during year, about 110,000 second-feet Jan. 23 (gage height, 24.85 feet, from floodmarks); minimum, 1,580 second-feet Sept. 28 (gage height, 2.38 feet); minimum daily discharge, 1,660 second-feet Sept. 25.  
1930-36: Maximum discharge, that of Jan. 23, 1936; minimum, 458 second-feet Sept. 21, 1932 (gage height, 1.25 feet); minimum daily discharge, 472 second-feet Sept. 21, 1932.

Remarks.- Records good except those for periods of ice effect, Dec. 27, 28 and Jan. 30 to Feb. 14 (computed on basis of gage heights, weather records, U. S. Weather Bureau gage-height record at Weldon, and comparison with other discharge records, principally those for station on Dan River at Leaksville), those for periods of backwater from overflowed areas Jan. 6-12, 22-24, Feb. 17-20 and Mar. 20-23 (computed on basis of 7 discharge measurements and characteristic shape of normal flood hydrographs), and those estimated, which are fair.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,960	8,440	9,170	3,440	10,000	*9,500	19,200	8,300	3,540	*3,430	4,640	3,540
2	2,870	6,220	7,880	3,850	10,000	*9,500	17,500	7,990	3,640	*4,750	3,540	2,960
3	2,620	4,320	6,380	16,700	11,000	*9,000	24,000	7,990	*3,640	*7,690	3,740	2,180
4	2,540	3,440	5,130	68,800	12,000	*9,000	25,900	7,390	*3,640	*7,390	3,040	2,110
5	2,460	3,140	4,720	78,400	20,000	*8,500	23,100	7,540	*3,640	*5,990	2,610	2,040
6	2,390	2,920	4,140	80,000	28,000	*8,500	21,600	7,990	*3,430	*4,290	2,040	2,040
7	2,320	2,780	4,060	80,000	26,000	*8,500	45,400	7,990	*3,640	*5,230	2,310	2,110
8	2,250	5,600	3,960	65,000	18,000	*8,000	57,800	7,240	*3,850	*4,290	4,650	2,040
9	2,190	6,360	3,960	55,000	14,000	*8,000	55,200	6,810	*4,520	*3,640	8,620	2,110
10	2,320	6,430	4,170	46,000	13,000	7,990	40,400	6,400	*5,730	*3,040	6,960	1,980
11	2,250	5,660	4,060	40,000	13,000	10,400	39,800	6,120	*5,480	*3,040	6,260	2,390
12	2,460	4,390	4,080	32,000	12,000	15,400	37,600	6,260	*4,990	*2,860	4,520	3,430
13	2,460	4,170	4,280	20,000	18,000	15,000	28,100	5,990	*4,750	*3,230	5,230	3,140
14	2,460	9,730	8,100	14,900	40,000	15,400	22,200	7,990	*5,730	*3,640	4,640	3,040
15	2,390	20,200	15,800	13,000	55,100	13,400	18,300	8,300	6,810	*3,230	4,180	2,390
16	2,250	14,600	18,600	18,000	69,000	10,700	16,600	6,960	*7,390	*3,040	3,230	2,310
17	2,250	9,680	14,700	17,200	80,000	10,900	15,400	6,120	*4,990	*2,860	3,140	2,610
18	2,250	9,510	11,000	16,400	85,000	44,300	14,500	5,360	*3,850	*2,860	9,810	*2,310
19	2,700	10,400	8,520	24,400	40,000	70,200	14,200	5,730	*3,850	*2,590	16,500	*2,190
20	2,460	7,890	7,120	73,900	26,000	90,000	12,600	4,990	*10,700	*5,430	8,500	*1,920
21	2,390	6,440	6,300	87,400	22,600	100,000	12,200	5,110	*14,600	*5,230	5,120	1,920
22	2,320	5,180	5,660	95,000	18,300	50,000	11,800	5,110	*7,990	*3,850	3,740	1,920
23	2,180	4,720	4,610	100,000	15,800	26,000	11,800	5,230	5,480	*4,990	3,040	2,180
24	2,180	4,500	3,680	55,000	14,200	21,800	11,800	4,400	*4,520	6,120	2,610	1,720
25	2,250	4,170	3,540	21,300	*13,000	17,100	11,800	4,750	*5,730	5,360	2,860	1,660
26	2,390	4,060	2,960	13,400	*12,000	15,400	11,400	*4,290	*5,990	5,360	2,530	1,850
27	2,210	3,740	3,200	11,800	*11,000	15,400	10,300	*4,290	*5,230	4,070	2,040	1,850
28	2,440	3,640	3,400	11,400	*10,000	20,400	9,610	*4,290	*4,290	3,540	2,460	1,720
29	2,460	3,960	3,240	12,600	*10,000	29,100	9,270	3,960	*3,850	3,140	4,390	1,780
30	2,790	5,980	2,700	12,000	-	30,100	8,940	3,850	*3,640	3,850	3,430	1,850
31	6,040	-	3,050	11,000	-	23,500	-	3,740	-	5,360	3,960	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	78,410	6,040	2,180	2,529	0.301	0.35
November.....	192,260	20,200	2,780	6,409	.752	.85
December.....	192,200	18,600	2,700	6,200	.737	.85
Calendar year 1935.....	3,235,080	57,300	2,180	8,863	1.05	14.30
January.....	1,197,890	100,000	3,440	38,640	4.59	5.29
February.....	727,000	95,000	10,000	25,070	2.98	3.21
March.....	730,990	100,000	7,990	23,580	2.80	3.23
April.....	658,320	57,800	8,940	21,940	2.61	2.91
May.....	188,480	8,300	2,860	6,080	.723	.83
June.....	159,130	14,600	3,430	5,304	.631	.70
July.....	133,540	7,690	2,690	4,308	.512	.59
August.....	144,440	16,500	2,040	4,659	.554	.64
September.....	67,160	3,540	1,660	2,239	.266	.30
Water year 1935-36.....	4,469,820	100,000	1,660	12,210	1.45	19.75

\*Discharge computed on basis of fragmentary gage-height record and comparison with gage-height records at Virginia Electric & Power Co.'s plant 1½ miles upstream and at the Weather Bureau station at Weldon.

## Blackwater River near Union Hall, Va.

Location.- Water-stage recorder, lat. 37°02'35", long. 79°41'07", at highway bridge at Kemp's Ford, 3 miles above Glills Creek and 4 miles north of Union Hall, Franklin County. Zero of gage is 693.13 feet above mean sea level.

Drainage area.- 206 square miles.

Records available.- March 1925 to September 1936.

Average discharge.- 11 years, 200 second-feet.

Extremes.- Maximum discharge during year, 5,200 second-feet Jan. 19 (gage height, 9.87 feet); minimum, 53 second-feet Sept. 20, 24, 28 (gage height, 1.70 feet).

1925-36: Maximum discharge observed, 10,800 second-feet Aug. 11, 1928, from flood hydrograph; minimum, 13 second-feet Sept. 20, 1932 (gage height, 1.42 feet).

Remarks.- Records good except those for Feb. 25-28, Mar. 11-15, 18-22, and those for period of ice effect, Dec. 21 to Jan. 1, which are fair and were computed on basis of recorder charts, weather records, and records for stations on Pigg River and Goose Creek.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 19						Jan. 20 to Sept. 30					
1.8	79	3.0	562	6.0	2,300	1.6	36	2.6	374	5.0	1,660
2.0	134	3.5	810	8.0	3,700	1.8	74	3.0	562	6.0	2,300
2.3	247	4.0	1,080	10.0	5,280	2.0	128	3.5	810	7.0	3,000
2.6	376	5.0	1,660			2.3	240	4.0	1,080	8.0	3,700

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	116	138	160	224	280	374	271	188	135	68	68
2	102	110	128	281	288	275	610	271	184	138	66	66
3	99	104	122	2,860	244	271	591	280	176	151	64	66
4	99	99	116	2,300	365	262	429	324	176	154	61	76
5	99	99	122	576	458	253	392	280	195	148	59	92
6	99	102	128	922	262	249	1,470	262	188	135	70	74
7	104	107	107	1,050	236	240	860	258	312	135	122	70
8	104	148	107	660	266	232	596	258	406	125	406	66
9	102	122	116	1,510	288	232	538	249	220	116	151	64
10	102	107	116	970	275	232	685	253	211	119	108	116
11	102	102	113	576	256	310	548	258	211	138	99	105
12	99	104	110	450	240	320	490	328	275	141	125	74
13	94	484	382	372	342	300	448	324	369	114	111	68
14	94	329	733	332	3,280	270	411	288	211	108	125	68
15	96	188	385	323	1,920	250	388	258	180	102	99	74
16	113	152	293	417	835	232	379	244	169	96	232	72
17	110	155	243	336	610	1,950	360	236	158	92	253	68
18	96	155	215	319	576	2,500	342	232	154	89	131	59
19	96	134	196	3,550	466	950	333	244	158	111	92	59
20	96	131	180	1,490	402	700	328	258	154	122	84	55
21	94	128	140	710	360	800	319	228	148	99	82	57
22	92	125	140	533	342	600	315	220	141	96	79	61
23	92	125	150	443	356	480	333	215	148	94	74	57
24	94	122	170	383	342	452	302	215	176	82	72	55
25	92	119	150	406	340	429	293	211	169	76	76	59
26	89	116	130	374	330	402	284	203	151	74	79	61
27	89	116	130	346	330	509	275	199	138	82	74	57
28	89	131	140	302	320	760	256	191	138	76	86	87
29	434	207	140	284	266	519	266	191	131	68	89	61
30	270	162	140	328	-	443	275	191	128	66	84	320
31	134	-	150	284	-	402	-	191	-	68	76	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				3,577	434	89	115	0.553	0.64			
November.....				4,395	484	99	147	.707	.79			
December.....				5,630	733	107	182	.875	1.01			
Calendar year 1935.....				92,256	3,240	77	253	1.22	15.49			
January.....				23,847	3,550	160	769	3.70	4.27			
February.....				14,779	3,280	224	510	2.45	2.64			
March.....				16,104	2,500	232	519	2.50	2.68			
April.....				13,500	1,470	266	450	2.16	2.41			
May.....				7,631	328	191	246	1.18	1.36			
June.....				5,760	406	128	192	.923	1.03			
July.....				3,350	154	66	108	.519	.60			
August.....				3,397	406	59	110	.529	.61			
September.....				2,305	320	55	76.8	.369	.41			
Water year 1935-36.....				104,279	3,550	55	285	1.37	18.65			

## Pigg River near Toshes, Va.

**Location.**- Water-stage recorder, lat. 36°59'01", long. 79°30'52", half a mile below Frylingan Creek and 1.7 miles northwest of Toshes, Pittsylvania County. Zero of gage is 602.55 feet above mean sea level.

**Drainage area.**- 394 square miles.

**Records available.**- August 1930 to September 1936.

**Extremes.**- Maximum discharge during year, 10,700 second-feet Jan. 19 (gage height, 20.71 feet); minimum, 125 second-feet Sept. 24, 27, 29 (gage height, 2.95 feet).  
1930-36: Maximum discharge, 11,700 second-feet Oct. 17, 1932 (gage height, 21.98 feet), from rating curve extended above 5,600 second-feet; minimum, 22 second-feet Aug. 31, 1932 (gage height, 2.32 feet).

**Remarks.**- Records good except those for periods of ice effect, Dec. 20-31, Jan. 28 to Feb. 1, which are fair and were computed on basis of recorder charts, weather records, and records for Goose Creek near Huddleston and Blackwater River near Union Hall.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 19

Jan. 20 to Sept. 30

3.4	169	5.0	634	12.0	4,120	2.9	116	3.8	316	7.0	1,520
3.6	214	6.0	1,010	14.0	5,520	3.0	134	4.0	374	8.0	1,930
3.8	263	7.0	1,440	16.0	6,920	3.2	172	4.5	530	10.0	2,990
4.0	316	8.0	1,980	18.0	8,500	3.4	216	5.0	704	12.0	4,120
4.5	466	10.0	2,900	20.7	10,700	3.6	264	6.0	1,090	14.0	5,520

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	162	222	285	389	400	395	526	400	260	554	177	170
2	162	213	256	586	588	391	966	396	250	1,070	174	166
3	165	204	242	5,510	542	386	1,030	390	244	372	176	176
4	163	200	238	2,980	944	376	639	450	235	299	180	185
5	182	205	224	1,950	994	356	554	401	246	268	168	210
6	165	197	224	1,480	475	352	3,080	395	246	240	183	174
7	184	210	209	1,970	392	344	1,750	377	242	253	719	162
8	182	262	223	970	539	332	854	372	512	223	1,230	166
9	172	235	242	1,420	514	334	797	340	315	206	354	158
10	181	202	241	1,450	449	338	1,290	338	282	208	268	188
11	176	205	226	742	399	494	950	312	282	271	326	198
12	172	214	224	561	627	586	775	359	292	254	307	165
13	162	1,100	796	473	540	498	704	414	465	260	271	162
14	186	732	1,620	421	5,100	425	620	364	320	212	220	158
15	176	365	614	434	3,940	398	575	338	267	204	202	204
16	166	300	533	652	1,490	376	542	336	244	202	238	170
17	184	338	414	510	930	3,770	512	318	238	199	923	171
18	170	323	354	448	911	5,820	492	312	1,500	197	300	164
19	176	268	315	7,400	740	1,210	480	311	1,290	254	216	146
20	170	257	280	4,510	596	797	470	320	330	260	206	144
21	177	241	260	1,010	527	892	457	302	290	1,100	203	160
22	174	231	260	722	482	686	461	288	370	270	298	163
23	174	236	280	582	449	539	495	276	324	228	198	150
24	202	228	320	490	432	558	460	283	362	244	191	142
25	188	218	280	506	426	608	436	270	306	244	192	150
26	174	214	240	482	422	551	422	268	278	232	186	152
27	176	214	240	452	430	686	450	260	257	212	192	142
28	178	262	250	400	424	1,710	413	263	244	194	226	145
29	756	509	260	450	394	911	411	250	240	175	221	154
30	537	368	270	550	-	669	408	258	234	180	197	709
31	276	-	320	450	-	578	-	262	-	186	180	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	6,448	756	162	208	0.528	0.61
November.....	8,973	1,100	197	299	.755	.85
December.....	10,940	1,620	209	353	.996	1.03
Calendar year 1935.....	151,679	4,430	150	416	1.06	14.31
January.....	40,050	7,400	389	1,292	3.28	3.78
February.....	25,076	5,100	392	865	2.20	2.37
March.....	26,408	5,820	332	852	2.16	2.49
April.....	22,002	3,080	408	735	1.86	2.03
May.....	10,242	450	250	330	.838	.97
June.....	10,965	1,500	234	366	.929	1.04
July.....	9,271	1,100	175	299	.759	.88
August.....	9,114	1,230	168	294	.746	.86
September.....	5,494	709	142	183	.464	.52
Water year 1935-36.....	184,981	7,400	142	505	1.28	17.48

## ROANOKE RIVER BASIN

Snow Creek at Sago, Va.

Location.- Water-stage recorder, lat. 36°53'50", long. 79°39'05", at highway bridge 200 feet below First Fork and three-quarters of a mile northwest of Sago, Franklin County.

Drainage area.- 60 square miles.

Records available.- October 1934 to September 1936.

Extremes.- Maximum daily discharge during year (estimated), 1,700 second-feet Jan. 19; minimum discharge, 18 second-feet Oct. 5, Sept. 18-20.  
1934-36: Maximum daily discharge, that of Jan. 19, 1936; minimum discharge, 13 second-feet Aug. 28, 1935 (gage height, 1.38 feet).

Remarks.- Records good except those for Dec. 8-16, Jan. 2-20, Feb. 3-16, July 21-29, July 31 to Aug. 2, Aug. 4, 5, 8, which are fair and were computed on basis of recorder charts, weather records, and records for Pigg River near Toshes and Sandy River near Danville.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 18				Mar. 19 to Sept. 30			
1.4	14	5.0	327	1.7	16	4.0	217
1.6	23	6.0	438	1.8	21	5.0	327
1.8	36	8.0	680	2.0	35	6.0	438
2.0	50	10.0	940	2.5	71	9.0	680
2.5	98	12.0	1,210	3.0	115		
3.0	131	15.0	1,650				
4.0	225						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	32	39	49	78	58	65	44	25	201	30	21
2	20	30	35	120	69	56	175	43	24	191	30	20
3	20	29	32	200	50	56	124	44	23	52	31	25
4	20	29	32	100	100	54	79	56	23	43	30	26
5	19	29	30	80	100	52	73	42	25	36	30	25
6	21	28	29	300	80	51	680	40	23	36	42	22
7	23	36	30	300	50	49	174	40	25	35	111	22
8	23	37	30	120	80	49	91	39	41	30	100	21
9	22	30	35	160	70	49	146	38	26	29	46	25
10	23	29	30	130	60	50	179	36	29	39	34	23
11	22	30	30	100	60	102	120	36	28	51	44	23
12	22	34	30	80	70	85	102	37	33	46	36	22
13	22	198	90	60	90	70	84	37	49	37	31	20
14	23	64	100	50	800	61	74	39	28	32	29	22
15	22	46	70	60	500	58	70	34	25	33	42	25
16	22	42	55	80	350	56	65	34	23	34	49	23
17	22	53	47	70	122	724	61	33	22	32	47	22
18	23	42	44	80	154	722	57	32	194	36	29	20
19	23	36	41	1,700	104	139	55	34	162	40	28	18
20	23	35	38	260	92	110	53	34	43	187	26	20
21	23	32	36	131	85	124	52	29	106	200	57	27
22	24	30	44	106	74	83	54	29	45	70	31	22
23	25	30	49	91	70	77	57	29	68	40	26	20
24	28	29	41	86	66	82	50	28	52	35	24	21
25	24	28	37	86	66	94	48	28	42	30	26	24
26	23	28	36	79	63	80	48	27	38	30	22	21
27	24	27	44	74	66	131	46	27	35	30	28	21
28	23	52	42	78	60	338	46	25	34	30	33	21
29	143	72	38	96	57	115	46	25	35	35	29	26
30	45	44	49	74	-	82	45	25	51	34	25	245
31	37	-	49	70	-	73	-	25	-	30	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	854	143	19	27.5	0.458	0.53
November.....	1,261	198	27	42.0	.700	.78
December.....	1,332	100	29	43.0	.717	.83
Calendar year 1935.....	19,518	642	15	53.5	.892	12.10
January.....	5,040	1,700	49	163	2.72	3.14
February.....	3,666	800	50	126	2.10	2.26
March.....	3,930	724	49	127	2.12	2.44
April.....	3,019	680	45	101	1.68	1.87
May.....	1,089	56	25	34.5	.575	.66
June.....	1,355	194	22	45.2	.765	.84
July.....	1,784	201	29	57.5	.958	1.10
August.....	1,168	111	22	37.7	.628	.72
September.....	903	245	18	30.1	.502	.56
Water year 1935-36.....	25,381	1,700	18	69.3	1.16	15.73

## Goose Creek near Huddleston, Va.

Location.- Water-stage recorder, lat. 37°10', long. 79°32', a quarter of a mile above Haden Bridge, three-eighths of a mile above Rockcastle Creek, and 4 miles above Huddleston, Bedford County.

Drainage area.- 187 square miles.

Records available.- September 1930 to September 1936. March 1925 to September 1927 (gage heights only) at a site a quarter of a mile downstream.

Extremes.- Maximum discharge during year, 4,390 second-feet Jan. 3 (gage height, 13.26 feet); minimum, 15 second-feet Aug. 31 (gage height, 1.16 feet).  
1930-36: Maximum discharge, 6,700 second-feet Oct. 17, 1932 (gage height, 18.15 feet), from rating curve extended above 1,800 second-feet; minimum, 3 second-feet Aug. 31, 1932, Jan. 30, 1934.

Remarks.- Records good except those for Oct. 13-20, Nov. 4-12, Dec. 21, Apr. 11-16, 18-24, 26, 27, and those for periods of ice effect, Dec. 22-31, Jan. 24-27, which are fair and were computed on basis of recorder charts, weather records, and records for Pigg River near Toshes and Blackwater River near Union Hall.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 13

Nov. 14 to Jan. 3

Jan. 4 to Sept. 30

1.4	56	1.4	75	5.0	1,170	1.2	17	3.0	464
1.6	99	1.6	121	6.0	1,530	1.4	39	4.0	794
1.8	150	1.8	175	8.0	2,270	1.6	76	5.0	1,150
2.0	206	2.0	231	10.0	3,050	1.8	123	6.0	1,510
2.5	350	2.5	373	12.0	3,850	2.0	176	8.0	2,270
3.0	495	3.0	518	14.0	4,700	2.5	316	10.0	3,050
4.0	812	4.0	826						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	70	150	142	152	203	392	139	78	70	32	42
2	60	69	134	563	154	187	724	135	74	68	27	39
3	62	62	121	3,490	168	179	641	157	72	76	31	46
4	60	60	116	1,190	404	162	480	270	83	83	30	46
5	56	60	116	811	354	152	419	184	97	64	36	42
6	66	65	119	845	192	144	763	154	31	60	72	39
7	70	70	102	1,190	133	133	970	144	104	56	85	39
8	66	100	99	934	171	128	726	133	149	54	46	38
9	62	80	109	1,470	181	123	608	146	92	53	38	41
10	62	70	104	1,040	190	121	777	128	85	49	36	106
11	64	65	99	608	156	162	540	128	81	141	32	48
12	60	65	95	434	149	181	440	123	99	66	35	39
13	60	764	321	325	286	171	400	118	265	58	30	32
14	60	298	746	265	2,850	144	360	109	90	51	27	44
15	30	178	402	287	2,080	133	330	104	76	48	36	38
16	70	142	265	395	1,080	128	310	101	64	44	378	38
17	70	197	206	287	760	2,280	287	99	60	44	1,760	36
18	60	175	178	245	794	2,770	270	101	109	44	165	34
19	60	147	161	3,220	560	1,110	250	113	128	76	101	32
20	60	131	147	1,590	464	934	240	109	265	111	61	31
21	60	121	120	760	389	1,260	230	94	160	133	70	36
22	58	114	120	560	342	970	220	92	118	58	70	36
23	60	116	130	398	287	743	230	92	116	46	53	34
24	60	109	150	180	265	675	200	90	131	41	53	34
25	60	102	130	190	259	624	176	88	113	39	56	38
26	60	102	110	130	265	544	170	85	88	48	49	35
27	60	99	110	180	276	592	160	78	76	41	44	35
28	60	153	120	173	262	1,010	157	78	74	34	64	35
29	246	253	120	209	223	692	154	78	68	31	74	36
30	114	178	120	228	-	544	149	78	62	34	53	236
31	72	-	130	171	-	449	-	81	-	30	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	2,160	246	56	69.7	0.373	0.43
November.....	4,184	764	60	139	.743	.83
December.....	5,150	746	95	166	.888	1.02
Calendar year 1935.....	77,093	3,210	40	211	1.13	15.31
January.....	22,440	3,490	142	724	3.87	4.46
February.....	13,856	2,850	133	478	2.56	2.76
March.....	17,654	2,770	121	569	3.04	3.50
April.....	11,773	970	149	392	2.10	2.34
May.....	3,627	270	78	117	.626	.72
June.....	3,158	265	60	105	.561	.63
July.....	1,851	141	30	59.7	.319	.37
August.....	3,698	1,760	27	119	.638	.73
September.....	1,405	256	31	46.8	.250	.28
Water year 1935-36.....	90,956	3,490	27	249	1.33	18.07

## ROANOKE RIVER BASIN

Otter River near Altavista, Va.

Location.- Water-stage recorder, lat. 37°12', long. 79°17', 1½ miles below Flat Creek and 8 miles north of Altavista, Campbell County.

Drainage area.- 372 square miles.

Records available.- August 1929 to October 1936 (discontinued).

Extremes.- Maximum discharge during period, 7,360 second-feet Mar. 17 (gage height, 21.70 feet), from rating curve extended above 2,000 second-feet; minimum, 30 second-feet Aug. 5 (gage height, 2.35 feet).  
1929-36: Maximum discharge, that of Mar. 17, 1936; minimum, 9 second-feet Sept. 1, 1932 (gage height, 1.71 feet).

Remarks.- Records fair. Discharge for periods Jan. 13-18, 24, 25, Aug. 19-22, Aug. 23 to Sept. 3, Sept. 6-20, Oct. 18-22, 1936, computed on basis of recorder charts, weather records, and records for Goose Creek near Huddleston, Pigg River near Toshes, and Blackwater River near Union Hall.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	152	166	408	458	329	418	564	286	110	111	39	60
2	147	158	360	686	405	392	1,120	276	103	101	35	60
3	144	152	315	5,730	379	392	1,000	260	96	99	35	60
4	142	147	272	3,650	735	366	644	414	121	117	33	62
5	142	152	256	2,100	921	354	564	304	296	91	32	70
6	140	150	244	2,020	472	341	2,000	263	128	94	90	60
7	150	150	232	2,140	392	317	1,720	244	206	79	596	50
8	152	236	236	1,460	366	306	1,040	237	444	71	220	55
9	150	184	262	2,430	418	306	896	246	152	68	87	55
10	148	161	248	1,530	466	306	1,250	223	132	63	81	110
11	145	161	236	1,080	341	432	1,000	215	122	107	78	90
12	147	166	226	852	317	432	862	428	159	89	76	60
13	144	743	535	700	405	405	777	228	644	101	71	60
14	142	702	1,250	600	4,260	354	644	204	246	70	68	60
15	142	384	790	600	4,290	341	564	163	142	68	74	70
16	142	315	583	800	1,980	329	518	178	118	235	414	60
17	140	420	458	650	1,250	2,880	518	172	107	81	2,980	60
18	142	470	405	600	1,210	5,110	472	166	241	68	296	50
19	142	360	354	4,760	915	2,610	443	183	1,770	65	180	50
20	142	326	317	3,990	760	1,660	428	189	358	68	120	50
21	142	282	226	1,950	656	2,140	386	154	212	75	80	51
22	140	262	226	1,320	555	1,360	458	147	200	77	70	51
23	134	262	243	979	513	965	458	140	159	74	70	50
24	124	260	292	600	466	794	372	142	202	68	70	47
25	117	224	240	620	466	744	355	135	176	64	70	47
26	115	220	200	596	499	710	353	130	143	47	70	42
27	118	204	202	541	513	1,040	342	127	124	47	70	39
28	120	371	225	432	499	1,830	318	118	117	41	80	39
29	370	926	204	432	432	1,040	307	111	107	40	80	39
30	315	509	210	472	-	794	296	112	95	47	70	43
31	186	-	354	392	-	661	-	110	-	42	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	4,776	370	115	154	0.414	0.48
November.....	9,213	926	147	307	.625	.92
December.....	10,640	1,280	200	343	.922	1.06
Calendar year 1935.....	157,291	5,610	98	431	1.16	15.70
January.....	45,532	5,730	392	1,469	3.95	4.55
February.....	25,260	4,290	317	871	2.34	2.52
March.....	30,139	5,110	306	972	2.61	3.01
April.....	20,669	2,000	296	689	1.65	2.06
May.....	6,325	428	110	204	.548	.65
June.....	7,230	1,770	95	241	.648	.72
July.....	2,458	235	40	79.3	.213	.25
August.....	6,395	2,980	32	206	.554	.64
September.....	2,110	460	39	70.3	.189	.21
Water year 1935-36.....	170,747	5,730	32	467	1.26	17.05

Discharge, in second-feet, Oct. 1-27, 1936

Oct. 1	276	Oct. 8	89	Oct. 15	89	Oct. 22	150
2	191	9	87	16	191	23	140
3	126	10	87	17	3,090	24	140
4	107	11	87	18	650	25	142
5	100	12	87	19	400	26	142
6	94	13	89	20	250	27	143
7	91	14	89	21	180		

Note.- Mean discharge, Oct. 1-27, 1936, 271 second-feet.



## Falling River near Brookneal, Va.

Location.- Water-stage recorder, lat.  $37^{\circ}04'54''$ , long.  $78^{\circ}56'07''$ , 300 feet below Hat Creek and  $2\frac{1}{4}$  miles north of Brookneal, Campbell County.

Drainage area.- 228 square miles.

Records available.- January 1935 to September 1936.

Extremes.- Maximum discharge during year, 14,700 second-feet Mar. 17 or 18 (gage height, 28.0 feet, from floodmarks); minimum, 46 second-feet Sept. 13 (gage height, 3.82 feet).

1935-36: Maximum discharge, that of Mar. 17 or 18, 1936; minimum, that of Sept. 13, 1936.

Remarks.- Records good except those for Oct. 19-22, 24, 26, 27, Oct. 29 to Nov. 7, Nov. 9-13, Mar. 20-23, Apr. 26-29 and those for periods of ice effect, Dec. 22-31, Jan. 24 to Feb. 4, Feb. 12, 13, which are fair and were computed on basis of recorder charts, weather records, and records for Otter River near Altavista.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	110	234	160	240	436	410	225	103	232	65	60
2	103	100	203	556	360	420	972	220	95	171	62	61
3	100	100	181	4,640	320	436	809	216	91	121	63	65
4	98	100	171	1,690	750	406	491	259	89	123	60	71
5	93	100	160	652	962	406	418	230	92	107	57	61
6	96	100	154	872	469	392	1,490	213	83	103	109	56
7	104	100	145	1,040	456	392	1,140	206	85	94	1,060	58
8	100	170	154	662	465	379	594	201	167	91	162	54
9	97	120	170	1,640	524	379	639	194	113	86	111	107
10	96	110	151	1,090	569	392	1,180	189	117	84	97	64
11	95	110	146	420	420	716	1,100	204	99	77	136	56
12	93	110	138	330	400	830	834	235	94	86	117	55
13	92	500	461	274	500	662	616	208	804	538	89	51
14	96	495	983	234	2,300	505	464	199	196	138	83	596
15	93	252	373	248	2,580	452	407	179	153	105	156	92
16	90	203	282	542	1,480	420	330	175	138	91	451	77
17	92	877	230	254	1,110	5,120	330	167	123	84	587	70
18	89	460	205	244	1,220	6,920	304	167	189	79	111	65
19	95	272	189	5,190	884	1,430	292	171	317	89	89	63
20	100	232	176	2,840	662	950	280	182	164	84	92	61
21	100	203	151	656	589	1,200	272	156	142	79	84	67
22	95	189	130	452	466	750	269	149	192	79	77	65
23	91	178	140	392	469	550	317	145	155	73	73	62
24	90	168	160	280	469	464	270	142	194	81	71	62
25	86	161	140	300	486	464	254	140	147	79	70	63
26	85	158	120	280	505	443	250	134	130	70	67	58
27	85	164	130	280	524	889	245	132	119	69	67	58
28	87	316	140	270	486	1,680	240	119	115	65	113	64
29	240	943	120	270	436	918	235	111	105	71	80	162
30	210	292	130	300	-	599	230	103	101	83	76	720
31	120	-	140	270	-	482	-	107	-	69	63	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				3,214	240	85	104	0.456	0.53			
November.....				7,383	943	100	246	1.08	1.20			
December.....				6,415	988	120	207	.908	1.06			
Calendar year .....												
January.....				27,108	5,190	160	874	3.83	4.42			
February.....				21,121	2,580	240	728	3.19	3.44			
March.....				30,482	6,920	379	983	4.31	4.97			
April.....				15,852	1,490	230	528	2.32	2.69			
May.....				5,477	259	103	177	.776	.89			
June.....				4,708	804	83	157	.689	.77			
July.....				3,401	538	65	110	.482	.56			
August.....				4,598	1,060	67	148	.649	.75			
September.....				3,224	720	51	107	.469	.52			
Water year 1935-36.....				132,983	6,920	51	363	1.59	21.69			

## Dan River near Francisco, N. C.

Location.- Water-stage recorder, lat. 36°30'15", long. 80°20'55", at county highway bridge just below Georges Mill, 3 miles east of Francisco, Stokes County, and 7.9 miles below Little Dan River.

Drainage area.- 119 square miles.

Records available.- August 1924 to September 1936.

Average discharge.- 11 years (1924-26, 1927-36), 180 second-feet.

Extremes.- Maximum discharge during year, 3,760 second-feet Apr. 6 (gage height, 6.14 feet); minimum, 42 second-feet Oct. 12 (gage height, 0.97 foot),  
1924-36: Maximum discharge, 8,700 second-feet Dec. 8, 1924 (gage height, 10.0 feet), from rating curve extended above 2,400 second-feet; minimum, 7.1 second-feet Sept. 8, 1932 (gage height, 0.43 foot).

Remarks.- Records good except those for periods of ice effect, Dec. 21 to Jan. 2, Jan. 28 to Feb. 3, Feb. 8-13 (computed on basis of gage-height record, weather records, and comparison with other discharge records, principally those for stations at Leaksville and on Mayo River near Price), which are fair. Slight diurnal fluctuation from operation of gristmills upstream.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge in second-feet)

1.0	46	2.0	320	4.0	1,590
1.2	79	2.5	445	4.5	2,050
1.4	122	2.6	590	5.0	2,550
1.6	178	3.0	820	5.5	3,080
1.8	245	3.5	1,170		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	120	160	130	170	224	324	249	135	97	85	66
2	93	110	145	324	170	224	515	238	130	212	81	70
3	95	106	127	2,220	180	225	506	238	127	132	77	93
4	93	104	132	584	423	214	388	267	127	125	70	101
5	95	106	120	388	328	207	356	238	130	110	74	85
6	89	104	127	670	224	204	1,890	224	125	106	83	74
7	93	115	125	601	217	197	813	217	130	101	120	70
8	95	154	127	436	200	194	555	214	138	95	140	66
9	95	115	140	422	220	194	565	210	239	91	127	73
10	93	101	125	396	190	197	606	210	140	87	270	235
11	91	106	117	320	170	387	490	200	173	104	270	99
12	91	89	115	290	180	324	454	238	163	97	130	79
13	89	420	148	260	220	267	414	234	194	95	104	72
14	91	228	254	238	1,230	234	364	200	143	91	95	72
15	127	172	200	296	747	220	368	188	127	83	135	72
16	91	148	166	360	445	217	348	188	122	79	149	74
17	89	151	148	328	368	328	328	181	117	104	176	68
18	87	135	138	300	384	758	320	178	115	106	125	65
19	87	127	132	2,180	328	440	316	181	115	97	93	61
20	87	122	130	722	301	445	305	184	115	97	85	79
21	89	120	110	454	278	550	297	169	110	95	83	95
22	99	115	120	376	264	418	297	163	108	97	95	74
23	97	115	120	312	245	368	312	160	134	81	89	65
24	93	104	120	282	242	356	282	167	135	133	81	63
25	89	104	110	278	242	372	271	154	122	99	93	72
26	85	115	100	275	242	344	267	151	110	97	85	63
27	87	106	110	245	256	405	264	148	106	93	85	60
28	85	208	110	190	252	650	256	143	104	74	137	61
29	599	340	110	190	225	450	290	138	95	66	101	85
30	204	191	110	200	-	380	264	138	93	167	83	686
31	140	-	110	170	-	348	-	135	-	106	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	3,521	599	85	114	0.958	1.10
November.....	4,351	420	89	145	1.22	1.36
December.....	4,104	254	110	132	1.11	1.28
Calendar year 1935.....	73,202	1,130	85	201	1.69	22.88
January.....	14,387	2,220	130	464	3.90	4.50
February.....	8,944	1,230	170	308	2.59	2.80
March.....	11,008	992	194	355	2.98	3.44
April.....	13,045	1,890	256	435	3.66	4.08
May.....	5,933	267	135	191	1.61	1.86
June.....	3,913	230	93	130	1.09	1.22
July.....	5,220	212	66	104	.874	1.01
August.....	3,485	270	70	113	.950	1.10
September.....	2,998	686	60	99.9	.839	.94
Water year 1935-36.....	78,919	2,220	60	216	1.82	24.69

## Dan River at Leaksville, N. C.

Location.- Water-stage recorder, lat. 36°29'05" long. 79°45'30", at covered wagon bridge at Leaksville, Rockingham County, half a mile above Smith River.

Drainage area.- 1,150 square miles.

Records available.- July 1929 to September 1936.

Extremes.- Maximum discharge during year, 24,800 second-feet Jan. 20 (gage height, 28.40 feet), from rating curve extended above 17,000 second-feet; minimum, 290 second-feet Sept. 2 (gage height, 1.00 foot).  
1929-36: Maximum discharge, that of Jan. 20, 1936; minimum, 84 second-feet Sept. 12, 1932 (gage height, 0.25 foot).

Remarks.- Records good except those above 10,000 second-feet, which are poor, and those for periods of ice effect, Dec. 24-31, Jan. 29 to Feb. 1, Feb. 10-12 (computed on basis of study of gage-height record, weather records, and comparison with other discharge records, principally those for stations at Francisco and on Mayo River near Price), which are fair. Slight diurnal fluctuation caused by operation of power plants upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	430	673	865	653	1,000	1,340	1,720	1,840	738	572	697	350
2	440	562	751	1,130	1,020	1,310	2,580	1,110	727	673	572	308
3	430	556	685	13,300	1,140	1,340	3,290	1,140	691	941	523	317
4	425	550	650	13,900	1,590	1,340	2,400	1,210	635	775	518	345
5	365	550	622	4,050	4,210	1,280	1,860	1,210	697	685	496	430
6	390	545	594	5,500	2,270	1,240	7,420	1,140	697	628	496	410
7	425	578	600	9,760	1,540	1,210	12,600	1,080	685	600	943	370
8	440	769	615	3,730	1,440	1,180	4,200	1,080	805	589	1,730	345
9	420	835	661	4,640	1,440	1,180	2,910	1,020	805	572	856	370
10	400	775	661	4,130	1,400	1,140	8,420	1,020	841	540	775	529
11	405	733	616	2,470	1,200	1,540	4,470	1,020	763	1,140	848	745
12	415	703	600	1,620	1,200	1,340	2,900	2,100	805	854	1,070	644
13	405	4,020	895	1,580	1,310	1,640	2,470	1,260	1,020	622	655	528
14	440	2,630	1,780	2,030	10,200	1,400	2,170	1,140	1,040	528	545	452
15	446	1,050	1,180	1,500	14,700	1,310	1,960	1,050	739	505	490	410
16	405	835	935	3,360	8,380	1,280	1,820	983	685	490	1,040	380
17	468	805	865	2,100	3,900	6,630	1,650	955	644	474	835	375
18	440	775	775	1,840	3,330	15,300	1,610	955	654	474	739	365
19	425	727	739	15,300	3,320	4,540	1,540	925	1,650	666	584	350
20	435	703	697	22,100	2,400	2,620	1,500	955	924	572	484	326
21	440	644	556	6,710	2,030	3,100	1,470	925	696	1,090	452	326
22	435	600	446	2,700	1,890	2,400	1,440	865	819	1,530	435	370
23	435	589	490	2,100	1,780	1,960	1,680	865	1,000	721	420	375
24	446	578	550	1,580	1,580	1,750	1,470	865	1,180	584	420	375
25	462	567	650	1,470	1,540	1,960	1,400	811	985	703	390	340
26	435	545	600	1,440	1,470	1,820	1,340	835	757	562	385	326
27	435	556	550	1,370	1,440	1,820	1,340	805	673	523	430	308
28	452	600	500	1,180	1,500	5,970	1,280	775	628	484	458	308
29	540	1,230	500	1,000	1,400	3,480	1,240	739	506	435	572	360
30	1,020	1,210	500	1,100	-	2,320	1,310	757	572	610	474	3,600
31	925	-	500	1,000	-	1,890	-	721	-	865	400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	14,474	1,020	365	467	0.406	0.47
November.....	26,493	4,020	545	883	.768	.86
December.....	21,679	1,780	446	699	.608	.70
Calendar year 1935.....	435,051	13,000	365	1,192	1.04	14.09
January.....	136,553	22,100	633	4,405	3.83	4.42
February.....	81,560	14,700	1,000	2,812	2.45	2.64
March.....	78,520	15,300	1,140	2,533	2.20	2.54
April.....	84,190	12,600	1,240	2,806	2.44	2.72
May.....	31,558	2,100	721	1,018	.885	1.02
June.....	24,212	1,650	572	807	.702	.78
July.....	21,108	1,630	435	681	.592	.68
August.....	19,832	1,730	385	640	.557	.64
September.....	15,037	3,600	308	501	.436	.49
Water year 1935-36 .....	555,216	22,100	308	1,517	1.32	17.96

## Dan River at Danville, Va.

Location.- Water-stage recorder, lat. 36°35'15", long. 79°22'55", at Southern Railway bridge in Danville, Pittsylvania County, 1,000 feet above Fall Creek.

Drainage area.- 2,050 square miles.

Records available.- August 1934 to September 1936.

Extremes.- Maximum discharge during year, 45,200 second-feet Jan. 20 (gage height 17.30 feet), from rating curve extended above 30,000 second-feet; minimum, 99 second-feet Nov. 6 (gage height, 1.27 feet); minimum daily discharge, 436 second-feet Sept. 21, 1934-36: Maximum discharge, that of Jan. 20, 1936; minimum, 82 second-feet Sept. 4, 1935 (gage height, 1.18 feet); minimum daily discharge, that of Sept. 21, 1936.

Remarks.- Records fair. Discharge for Jan. 21 to Apr. 7 computed from rating curve determined by comparison with records for stations at Leaksville, N. C., and South Boston. Flow regulated by operation of Dan River cotton mills above station. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 20				Jan. 21 to Apr. 7				Apr. 8 to Sept. 30			
1.2	85	5.0	6,060	3.0	1,420	1.8	390	3.5	2,810		
1.4	130	6.0	8,680	3.5	2,350	2.0	530	4.0	3,680		
1.7	250	8.0	14,400	4.0	3,490	2.3	810	5.0	6,210		
2.0	460	10.0	20,600	5.0	5,980	2.6	1,170	6.0	8,720		
2.5	930	12.0	27,100	6.0	8,630	3.0	1,830	8.0	14,400		
3.0	1,680	15.0	37,200	8.0	14,400						
4.0	3,690	17.3	45,200	10.0	20,600						
				12.0	27,100						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	834	1,050	1,660	1,020	2,370	2,220	3,140	2,220	991	1,020	1,120	664
2	900	804	1,400	1,430	2,840	2,480	3,850	1,660	1,280	1,350	926	703
3	810	934	1,280	17,800	3,140	2,270	7,020	2,030	1,220	1,500	603	622
4	824	718	1,050	26,800	4,240	2,270	4,640	2,130	1,070	1,440	914	792
5	705	844	1,120	10,600	7,960	2,100	3,470	2,200	1,280	1,200	805	612
6	696	884	1,020	7,550	5,750	1,980	8,410	2,000	960	861	956	870
7	760	1,110	909	14,400	3,750	1,630	21,900	1,690	1,060	1,100	1,820	532
8	642	1,950	1,140	8,140	3,090	1,880	10,300	1,680	1,300	995	2,620	850
9	850	1,340	959	7,610	3,590	1,900	5,920	1,600	1,410	878	2,080	588
10	826	939	1,120	8,140	4,040	1,830	12,000	1,630	1,200	912	1,480	948
11	304	876	1,050	4,820	3,420	2,370	8,980	1,880	1,360	1,020	1,180	1,380
12	698	1,090	1,020	3,510	2,550	3,420	5,850	2,660	1,280	1,780	1,900	832
13	738	5,580	1,860	2,950	2,960	3,470	4,840	2,420	1,500	1,050	1,280	601
14	710	8,410	2,820	2,500	17,300	2,420	4,000	1,580	1,690	1,010	1,090	452
15	738	2,400	2,780	2,340	26,800	2,370	3,460	1,680	1,560	880	922	640
16	1,260	1,420	2,300	4,370	16,500	2,480	3,260	1,410	1,220	883	932	778
17	784	1,500	1,770	4,100	8,360	10,000	2,980	1,600	1,140	775	1,950	666
18	793	1,200	1,560	2,840	7,020	28,100	2,600	1,500	1,060	826	1,400	708
19	713	1,410	1,460	24,100	7,020	13,900	2,700	1,550	2,400	724	997	644
20	674	1,100	1,220	42,800	4,960	5,590	2,840	1,580	1,780	993	904	719
21	714	1,100	1,140	23,200	4,110	5,590	2,460	1,490	1,160	1,840	769	436
22	744	978	846	6,500	3,320	5,110	2,500	1,480	1,230	2,560	323	578
23	748	1,070	522	5,490	3,110	3,870	2,550	1,300	1,600	1,420	714	764
24	780	955	980	4,540	3,140	3,230	2,620	1,400	2,060	985	516	700
25	758	916	1,260	3,830	2,750	3,200	2,260	1,180	1,660	1,120	830	579
26	778	1,000	1,350	3,800	2,680	3,300	2,290	1,440	1,340	878	735	705
27	806	956	1,180	3,800	2,550	3,070	2,800	1,280	1,140	870	775	485
28	588	994	1,080	3,180	2,570	7,690	2,270	1,320	1,040	824	936	675
29	1,070	1,980	774	2,840	2,140	7,740	2,190	1,340	992	930	905	574
30	3,110	2,190	890	3,200	-	4,680	2,180	1,250	889	990	858	2,740
31	1,830	-	1,160	3,390	-	3,610	-	1,160	-	1,300	548	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	27,685	3,110	588	893	0.436	0.50
November.....	45,658	6,410	718	1,522	.742	.83
December.....	40,480	2,820	522	1,306	.637	.73
Calendar year 1935.....	806,316	17,300	522	2,209	1.08	14.63
January.....	261,590	42,800	1,020	8,438	4.12	4.75
February.....	163,620	26,800	2,140	5,642	2.75	2.97
March.....	145,760	28,100	1,650	4,702	2.29	2.64
April.....	148,780	21,900	2,180	4,859	2.37	2.64
May.....	62,240	2,660	1,160	1,895	.822	.95
June.....	39,872	2,400	889	1,329	.648	.72
July.....	34,906	2,560	724	1,126	.549	.63
August.....	34,393	2,620	516	1,109	.541	.62
September.....	23,037	2,740	436	768	.375	.42
Water year 1935-36.....	1,015,021	42,800	436	2,773	1.35	18.40

## Dan River at South Boston, Va.

Location.- Water-stage recorder, lat. 36°41'37", long. 78°54'09", at Norfolk & Western Railway bridge at South Boston, Halifax County, 6 miles above Banister River. Zero of gage is 300.07 feet above mean sea level.

Drainage area.- 2,730 square miles.

Records available.- August 1900 to May 1907; April 1923 to September 1936.

Average discharge.- 18 years (1900-1902, 1903-6, 1923-36), 2,860 second-feet.

Extremes.- Maximum discharge during year, 58,200 second-feet Jan. 21 (gage height, 28.5 feet, from floodmarks), from rating curve extended above 40,000 second-feet; minimum not determined; minimum daily discharge (estimated), 600 second-feet Sept. 15. 1900-1907, 1923-36: Maximum discharge, that of Jan. 21, 1936; minimum, 161 second-feet Sept. 20, 1932 (gage height, 3.11 feet); minimum daily discharge, 206 second-feet Sept. 15, 1932.

Remarks.- Records good except those for Dec. 5-17, Dec. 21 to Feb. 17, June 29 to July 2, July 7-12, 14-21, 25, 27-31, Aug. 2-7, 15, 18, Aug. 20 to Sept. 11, Sept. 13-30, which are fair and were computed on basis of recorder charts, weather records, and records for station at Danville and Roanoke River at Clover and Clarksville. Water supply for South Boston diverted just above gage. Dams and mills at Danville regulate low-water flow to some extent.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,100	2,300	2,860	1,200	4,400	2,700	4,220	2,780	1,510	1,400	1,710	750
2	995	1,570	1,960	1,400	3,900	2,770	4,580	2,760	1,440	1,800	1,300	800
3	1,100	1,280	1,660	15,000	4,000	2,870	7,700	2,560	1,460	2,020	1,000	800
4	1,040	1,400	1,820	24,000	5,200	2,760	7,800	2,540	1,460	1,860	1,000	850
5	995	995	1,500	32,000	7,700	2,740	5,140	2,700	1,540	1,720	1,200	900
6	920	1,100	1,400	12,000	9,000	2,620	6,600	2,640	1,500	1,560	1,100	850
7	872	1,260	1,400	13,000	6,600	2,480	17,000	2,510	1,210	1,300	1,300	1,100
8	920	2,370	1,300	15,000	4,800	2,280	26,100	2,370	1,470	1,200	2,620	700
9	776	2,980	1,400	9,000	4,300	2,340	13,900	2,340	1,490	1,100	3,160	900
10	995	2,090	1,400	9,000	4,800	2,400	13,200	2,150	1,870	1,200	2,200	800
11	995	1,570	1,400	8,000	5,200	3,120	15,900	2,140	1,560	1,200	1,820	1,300
12	970	1,260	1,400	6,000	4,300	4,250	9,800	2,340	1,580	1,500	1,670	1,560
13	970	2,540	1,600	4,200	3,700	4,750	6,650	3,240	1,720	1,800	2,060	1,100
14	920	9,760	2,400	3,600	16,000	3,960	5,480	2,820	1,940	1,400	1,580	1,000
15	920	5,700	5,000	3,200	24,000	3,120	4,800	2,280	1,960	1,300	1,300	600
16	896	2,900	3,800	4,000	31,000	2,700	4,310	2,100	1,680	1,100	1,200	850
17	1,450	2,240	2,800	5,500	12,000	9,040	3,930	1,660	1,400	900	2,540	800
18	1,070	2,150	2,290	5,100	6,400	25,100	3,620	2,040	1,360	1,000	2,600	800
19	1,040	1,710	1,020	20,000	8,180	37,200	3,380	1,790	1,080	1,500	1,690	800
20	970	1,610	1,800	32,000	6,440	23,600	3,260	1,910	2,990	1,300	1,300	750
21	896	1,500	1,600	50,000	5,000	8,050	3,340	1,930	2,060	1,500	1,200	950
22	920	1,500	1,400	22,000	4,160	7,140	3,080	1,880	1,380	2,510	1,000	700
23	945	1,400	1,100	8,600	3,740	5,450	3,220	1,820	1,490	3,060	1,200	750
24	395	1,420	1,000	7,300	3,560	4,480	3,320	1,730	2,170	1,690	950	850
25	1,020	1,380	1,400	6,000	3,370	4,140	3,200	1,760	2,450	1,300	700	750
26	1,320	1,180	1,600	5,100	3,160	4,250	3,040	1,520	2,040	1,500	1,100	750
27	1,040	1,210	1,700	5,100	3,100	4,160	2,760	1,620	1,700	1,200	1,000	750
28	1,100	1,180	1,500	5,000	3,090	7,280	2,960	1,600	1,460	1,200	1,000	750
29	1,050	1,890	1,500	4,200	3,060	11,500	2,820	1,560	1,300	1,000	2,000	750
30	2,610	2,820	1,000	3,800	-	7,430	2,760	1,540	1,200	1,200	1,200	1,100
31	3,540	-	1,200	4,300	-	5,010	-	1,500	-	1,400	1,100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	35,050	3,540	776	1,131	0.414	0.48
November.....	64,505	9,760	995	2,150	.768	
December.....	55,810	5,000	1,000	1,800	.659	.76
Calendar year 1935.....	1,061,386	20,600	740	2,881	1.06	14.33
January.....	344,600	50,000	1,200	11,120	4.07	4.69
February.....	206,220	31,000	3,060	7,111	2.60	2.80
March.....	211,600	37,200	2,280	6,835	2.50	2.58
April.....	197,890	26,100	2,760	6,596	2.42	2.70
May.....	66,330	3,240	1,600	2,140	.784	.90
June.....	50,370	2,990	1,200	1,679	.615	.69
July.....	45,720	3,060	900	1,475	.540	.62
August.....	46,000	3,160	700	1,484	.544	.63
September.....	26,110	1,560	600	870	.319	.36
Water year 1935-36.....	1,350,495	50,000	600	3,690	1.35	18.39

## Mayo River near Price, N. C.

**Location.**— Water-stage recorder, lat. 36°32'00", long. 79°59'30", just below Anglins Bridge, three-quarters of a mile below State line, and 4 miles west of Price, Rockingham County.

**Drainage area.**— 260 square miles.

**Records available.**— July 1929 to September 1936.

**Extremes.**— Maximum discharge during year, 11,200 second-feet Jan. 19 (gage height, 8.52 feet), from rating curve extended above 1,000 second-feet; minimum, 92 second-feet Sept. 19 (gage height, 0.94 foot).  
1929-36: Maximum discharge, 16,200 second-feet (revised) Oct. 2, 1929 (gage height, 10.2 feet, from graph based on gage readings), from rating curve extended above 1,000 second-feet; minimum, 41 second-feet Sept. 19, 1932 (gage height, 0.52 foot).

**Remarks.**— Records good below 2,000 second-feet and poor above except those for periods of ice effect, Dec. 22 to Jan. 2, Jan. 25, Jan. 28 to Feb. 3, Feb. 7-13, and those for period of missing gage heights, which are fair. Discharge during ice periods based on study of gage-height record, weather records, and comparison with other discharge records, principally those for station on Dan River near Francisco.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.0	162	3.0	1,070
1.2	138	3.5	1,500
1.4	185	4.0	2,040
1.6	255	4.5	2,370
1.8	344	5.0	3,400
2.0	444	6.0	5,150
2.3	605	7.0	7,300
2.6	780	8.0	9,800

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	156	172	224	180	260	344	464	373	228	*160	160	119
2	153	165	207	500	260	344	790	364	220	*340	161	121
3	153	162	191	5,560	280	349	714	364	213	*260	145	128
4	151	160	188	1,500	552	335	556	408	210	*220	166	151
5	145	162	182	807	634	335	506	364	220	*190	170	142
6	147	160	182	1,420	398	335	3,310	349	210	*180	166	130
7	156	180	178	1,370	320	326	1,450	344	216	*170	269	123
8	153	207	178	762	300	312	815	330	251	*160	269	119
9	153	172	188	864	320	303	891	326	228	*160	276	121
10	153	165	182	684	300	307	1,240	321	220	*150	197	208
11	153	162	175	522	280	492	836	316	236	*180	596	145
12	149	170	170	444	280	470	703	344	*251	*170	292	132
13	147	680	353	403	340	393	632	358	*300	*160	191	127
14	151	354	444	359	2,970	359	583	325	*260	*150	172	119
15	149	243	316	416	2,000	335	550	307	*220	*150	267	128
16	153	213	272	610	990	330	528	307	*200	*153	471	130
17	149	216	236	418	690	2,360	500	294	*190	158	394	121
18	147	204	220	390	756	2,270	485	294	*190	151	197	114
19	147	191	216	7,440	627	738	464	285	*190	149	170	109
20	147	185	204	2,250	534	616	449	294	*190	166	160	112
21	147	178	175	787	485	720	434	276	*180	178	153	151
22	151	172	190	610	454	550	429	272	*180	170	165	125
23	151	172	190	512	424	506	464	268	*220	151	149	117
24	158	168	190	454	408	485	418	264	*240	329	138	112
25	149	165	180	420	403	539	403	255	*200	182	149	123
26	147	168	160	413	398	485	393	247	*180	162	145	116
27	147	168	170	393	403	571	398	247	*180	158	134	119
28	147	208	170	320	403	1,240	378	239	*170	142	153	117
29	423	477	170	280	349	666	393	232	*160	156	151	148
30	255	264	170	300	-	550	388	236	*150	304	138	1,250
31	185	-	170	280	-	495	-	236	-	185	125	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	5,072	423	145	164	0.631	0.73
November.....	6,463	680	160	215	.827	.92
December.....	6,441	444	170	208	.800	.92
Calendar year 1935.....	118,935	2,410	*130	326	1.25	17.02
January.....	31,668	7,440	180	1,022	3.93	4.53
February.....	16,318	2,970	260	580	2.23	2.40
March.....	19,460	2,360	303	595	2.29	2.64
April.....	20,549	3,310	378	685	2.53	2.95
May.....	9,441	408	232	305	1.17	1.35
June.....	5,303	300	150	210	.808	.90
July.....	5,673	340	136	183	.704	.81
August.....	6,479	596	125	209	.804	.93
September.....	4,977	1,250	109	166	.638	.71
Water year 1935-36.....	138,344	7,440	109	378	1.45	19.77

\*Discharge computed on basis of comparison with other discharge records, principally those for station on Dan River near Francisco; gage-height record missing.

## North Mayo River near Spencer, Va.

Location.- Water-stage recorder, lat. 36°34'05", long. 79°59'15", 800 feet below highway bridge at Moores Mill, 4 miles southeast of Spencer, Henry County. Staff gage at same site and datum July 25 to Sept. 27, 1936. Chain gage at highway bridge prior to July 25, 1936. Zero of chain gage is 732.44 feet above mean sea level. Mean sea level elevation of zero of recording gage not determined.

Drainage area.- 108 square miles.

Records available.- October 1928 to September 1936.

Extremes.- Maximum discharge observed during periods, 3,200 second-feet Jan. 19 (gage height, 7.60 feet), from rating curve extended above 300 second-feet; minimum, 33 second-feet Sept. 29 (gage height, 1.46 feet).

1928-36: Maximum stage observed, 10.52 feet Oct. 17, 1932 (discharge not determined); minimum discharge, 19 second-feet Sept. 2-5, 1930 (gage height, 2.12 feet).

Remarks.- Records fair prior to July 25 and good thereafter. Discharge for periods Nov. 14-26, Jan. 1-4, 8, 11, Sept. 27 computed on basis of observer's notes, weather records, and records for Mayo River near Price and Smith River at Martinsville. No record Jan. 23 to July 24. Chain and staff gages read twice daily.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 22				July 25 to Sept. 30			
2.4	40	4.0	555	1.4	26		
2.6	73	4.5	810	1.6	52		
2.8	119	5.0	1,110	1.8	90		
3.0	174	6.0	1,820	2.0	140		
3.3	270	7.0	2,660	2.3	230		
3.6	383	8.0	3,600	2.6	338		
				3.0	498		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	50	116	75						-	63	37
2	50	50	106	210						-	56	37
3	44	50	106	2,300						-	59	46
4	42	50	106	620						-	68	52
5	44	48	94	487						-	61	52
6	54	50	88	650						-	74	38
7	48	54	77	650						-	148	38
8	48	48	73	320						-	76	38
9	44	50	96	555						-	92	84
10	44	50	92	288						-	74	70
11	44	54	84	220						-	392	63
12	42	57	64	130						-	107	54
13	44	326	64	112						-	78	40
14	42	130	73	99						-	68	38
15	46	90	132	141						-	63	43
16	50	75	168	154						-	61	42
17	44	70	157	116						-	130	38
18	44	68	132	112						-	59	37
19	44	60	94	2,750						-	56	37
20	40	55	86	1,580						-	54	49
21	40	50	84	532						-	52	40
22	43	50	73	364						-	65	37
23	40	50	75	-						-	65	37
24	50	50	79	-						-	54	35
25	52	50	77	-						70	52	36
26	52	50	84	-						63	49	37
27	52	50	79	-						63	46	36
28	48	104	71	-						59	54	35
29	145	143	71	-						56	52	45
30	73	132	75	-						151	40	438
31	57		96	-						76	37	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				1,556	143	40	50.2	0.465	0.54			
November.....				2,210	325	48	73.7	.682	.76			
December.....				2,872	168	64	92.6	.857	.99			
Calendar year 1935.....				43,474	1,170	40	119	1.10	14.98			
January 1-22.....				12,265	2,750	75	558	5.17	4.23			
February.....												
March.....												
April.....												
May.....												
June.....												
July 25-31.....				538	151	56	76.9	.712	.19			
August.....				2,405	392	37	77.6	.718	.83			
September.....				1,709	438	35	57.0	.528	.69			
Water year .....												

## Smith River at Martinsville, Va.

Location.-- Water-stage recorder, lat. 36°39'45", long. 79°52'55", 2 miles south of Martinsville, Henry County, and 3 miles below Grassy Creek. Zero of gage is 656.86 feet above mean sea level.

Drainage area.-- 374 square miles.

Records available.-- August 1929 to September 1936.

Extremes.-- Maximum discharge during year, 16,000 second-feet Jan. 3 (gage height, 11.75 feet); minimum, 18 second-feet Oct. 3, 4, 6 (gage height, 1.40 feet); minimum daily discharge, 19 second-feet Oct. 6.  
1929-36: Maximum stage, 17.50 feet Oct. 17, 1932 (discharge not determined); minimum discharge, 5 second-feet May 20, 1934 (gage height, 1.20 feet); minimum daily discharge, that of Oct. 6, 1935.

Remarks.-- Records excellent. Flow regulated by dam and power plant 1,000 feet upstream.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 3				Jan. 4 to Sept. 30			
1.4	18	3.5	1,070	1.5	25	3.5	1,070
1.6	48	4.0	1,610	1.7	57	4.0	1,610
1.8	95	4.5	2,270	2.0	130	4.5	2,270
2.0	157	5.0	3,000	2.3	241	5.0	3,000
2.3	268	6.0	4,620	2.6	386	6.0	4,620
2.6	408	8.0	8,260	3.0	640	8.0	8,260
3.0	650	10.0	12,200			10.0	12,200

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	244	184	285	257	320	451	623	514	338	239	207	175
2	224	202	385	799	332	488	1,140	464	302	646	64	161
3	192	120	246	7,870	488	448	1,140	474	313	376	266	159
4	204	238	268	2,130	671	460	822	582	296	250	200	169
5	194	234	266	1,060	922	433	690	528	318	204	178	174
6	19	240	240	2,190	608	434	5,210	462	288	350	207	172
7	255	284	356	1,670	480	374	1,900	472	204	276	820	164
8	218	300	180	1,120	462	407	1,140	451	423	237	474	128
9	216	236	252	1,380	472	479	1,200	364	334	221	280	216
10	204	178	252	1,160	554	418	1,670	394	327	240	342	240
11	206	294	248	756	421	610	1,140	472	351	288	476	255
12	190	238	240	637	377	688	980	406	387	201	352	185
13	136	1,120	626	629	609	612	897	462	560	282	286	35
14	213	528	1,160	551	4,390	525	760	440	352	218	231	216
15	288	391	628	504	2,020	469	749	418	382	212	232	186
16	290	304	439	932	1,620	493	640	315	324	214	424	162
17	219	244	520	498	927	4,690	628	319	286	206	391	148
18	201	384	496	560	1,010	3,570	614	452	316	195	245	146
19	190	294	326	9,780	796	1,130	617	394	692	77	234	140
20	118	266	330	1,910	674	917	576	384	256	308	210	32
21	210	276	251	1,190	647	1,400	593	366	206	281	190	174
22	206	261	170	808	565	943	558	364	338	246	209	176
23	198	210	268	866	516	754	614	312	366	242	64	142
24	211	204	318	560	519	712	562	235	330	265	254	157
25	210	292	232	472	521	722	558	434	325	216	212	154
26	189	222	260	562	522	670	496	346	294	124	181	130
27	102	222	228	583	565	834	544	324	268	242	164	31
28	212	199	189	376	524	1,640	504	330	190	234	208	182
29	1,170	532	208	380	502	914	534	327	279	240	209	147
30	665	384	392	477	-	768	514	275	272	256	58	980
31	262	-	244	470	-	652	-	216	-	236	202	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	7,666	1,170	19	247	0.660	0.76
November.....	9,081	1,120	120	303	.810	.90
December.....	10,505	1,160	170	339	.906	1.04
Calendar year 1935.....	170,956	5,060	19	468	1.25	16.98
January.....	42,917	9,780	257	1,384	3.70	4.27
February.....	23,044	4,390	320	795	2.13	2.30
March.....	28,105	4,690	374	907	2.43	2.80
April.....	28,593	5,210	496	953	2.55	2.84
May.....	12,296	582	216	397	1.06	1.22
June.....	9,917	692	190	351	.885	.99
July.....	7,822	646	77	282	.674	.78
August.....	8,070	820	58	280	.695	.80
September.....	5,536	980	31	185	.495	.55
Water year 1935-36.....	193,550	9,780	19	529	1.41	19.25



## Sandy River near Danville, Va.

Location.- Water-stage recorder, lat. 36°37'05", long. 79°30'00", 500 feet below highway bridge on road between Callahans Store and Mount Cross and 6 miles northwest of Danville, Pittsylvania County. Zero of gage is 454.89 feet above mean sea level.

Drainage area.- 113 square miles.

Records available.- November 1929 to September 1936.

Extremes.- Maximum discharge during year, about 4,880 second-feet Jan. 19 (gage height, 10.95 feet); minimum, 5 second-feet Sept. 20 (gage height, 0.72 foot).  
1929-36: Maximum discharge, about 5,300 second-feet Sept. 7, 1934 (gage height, 11.60 feet); minimum, 3 second-feet Sept. 29, 1930 (gage height, 0.40 foot).

Remarks.- Records fair. Discharge for May 4 to June 4, Aug. 27 and for period of ice effect, Dec. 21-28, computed on basis of recorder charts, weather records, and records for Pigg River near Toshes and Snow Creek at Sago. Some regulation at low water.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	41	80	418	188	105	174	108	65	53	62	31
2	39	39	72	1,420	91	102	557	111	65	102	58	30
3	39	38	68	562	75	105	333	111	60	60	30	26
4	39	38	65	251	188	100	191	130	55	58	53	31
5	38	39	65	191	188	100	170	115	60	55	51	28
6	38	43	58	610	118	100	1,310	110	62	55	176	20
7	41	111	55	601	94	97	635	105	65	55	214	32
8	41	87	55	222	159	94	306	105	78	58	198	36
9	41	54	62	339	140	91	496	95	65	55	114	80
10	38	45	58	256	127	94	800	90	72	53	94	86
11	38	45	58	151	121	137	424	80	68	154	68	44
12	38	43	55	130	127	121	236	110	65	65	88	38
13	38	856	180	114	176	108	182	120	88	60	75	31
14	39	173	213	102	1,500	100	151	105	65	55	65	30
15	41	105	127	114	934	97	137	95	62	53	72	34
16	41	83	105	157	667	97	134	90	60	55	69	36
17	43	88	91	121	265	1,990	134	85	58	55	167	31
18	43	78	83	118	328	1,530	127	80	62	55	80	30
19	43	70	80	3,390	204	838	118	80	164	55	69	34
20	43	65	78	1,000	167	585	118	85	78	60	58	19
21	45	62	75	566	155	560	121	80	58	464	47	42
22	43	62	90	280	137	407	134	75	60	121	40	31
23	48	62	100	174	127	322	130	70	163	75	40	28
24	52	58	90	167	118	296	111	75	108	72	40	26
25	48	58	80	187	114	317	111	70	75	68	38	32
26	48	58	80	127	114	270	118	65	70	62	40	26
27	48	58	80	134	118	328	118	60	68	62	60	24
28	48	86	85	159	118	835	118	65	60	60	75	28
29	114	155	88	267	102	251	114	60	60	74	38	34
30	56	91	102	134	-	174	111	65	58	72	30	388
31	41	-	97	192	-	167	-	70	-	62	30	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				1,390	114	38	44.8	0.396	0.46			
November.....				2,891	856	38	96.4	.853	.95			
December.....				2,675	213	55	86.3	.764	.88			
Calendar year 1935.....				37,042	942	32	101	.594	12.19			
January.....				12,684	3,390	102	409	3.62	4.17			
February.....				6,960	1,500	75	240	2.12	2.29			
March.....				10,518	1,990	91	339	3.00	3.46			
April.....				7,919	1,310	111	264	2.34	2.61			
May.....				2,765	130	60	89.2	.789	.91			
June.....				2,197	164	55	73.2	.648	.72			
July.....				2,463	464	53	79.5	.704	.81			
August.....				2,358	214	30	75.4	.667	.77			
September.....				1,386	388	19	46.2	.409	.46			
Water year 1935-36.....				56,186	3,390	19	154	1.36	18.49			

## Banister River at Halifax, Va.

**Location.**- Water-stage recorder, lat. 36°45'30", long. 78°54'05", 1 mile north of Halifax, Halifax County, and 10 miles above mouth. Zero of gage is 318.54 feet above mean sea level.

**Drainage area.**- 552 square miles.

**Records available.**- December 1928 to September 1936.

**Extremes.**- Maximum discharge during year, 10,200 second-feet Mar. 18 (gage height, 24.10 feet); minimum, 16 second-feet Sept. 19, 20 (gage height, 0.28 foot); minimum daily discharge, 18 second-feet Sept. 20.

1928-36: Maximum discharge, that of Mar. 18, 1936; revised discharge for previously recorded maximum, 10,100 second-feet Oct. 3, 1929 (gage height, 24.02 feet); minimum, 6 second-feet numerous days in August and September 1932; minimum daily discharge, 6 second-feet Aug. 30, 1932.

**Remarks.**- Records good. Flow regulated except for high stages by power plant half a mile upstream.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 14			Nov. 15 to Sept. 30		
1.4	92		0.2	14	764
1.6	116		.4	21	1,000
1.8	142		.6	30	1,520
2.0	170		.8	44	2,100
2.3	216		1.0	63	2,740
2.6	264		1.3	96	3,460
3.0	332		1.6	134	4,350
3.5	422		2.0	190	5,470
4.0	520		2.5	270	6,850
5.0	740		3.0	356	8,590
6.0	980		4.0	548	10,200
8.0	1,510				
10.0	2,100				

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	85	412	238	394	352	767	403	251	410	235	194
2	183	212	535	593	264	651	839	426	226	990	86	91
3	97	268	345	2,310	562	622	1,600	406	218	812	216	186
4	203	88	287	6,220	678	588	1,120	436	212	381	70	209
5	170	250	342	4,870	1,170	532	804	598	490	114	170	62
6	109	187	344	2,280	1,200	511	1,750	400	208	626	239	88
7	97	590	314	3,130	816	439	3,570	369	120	219	337	191
8	130	540	433	2,440	616	424	2,130	243	568	26	202	70
9	236	601	320	2,190	463	484	1,280	380	431	228	204	140
10	116	131	315	2,250	828	762	2,410	371	94	223	214	384
11	194	422	360	1,500	851	940	2,510	398	98	495	506	19
12	158	139	244	840	628	908	1,680	310	236	123	623	253
13	196	746	682	860	956	886	1,200	384	491	214	245	64
14	172	2,190	1,250	732	2,130	845	989	384	227	200	228	59
15	158	1,510	1,420	678	4,930	804	811	372	436	200	241	192
16	108	869	986	766	6,290	652	878	154	25	196	80	160
17	139	707	755	926	3,390	1,720	660	456	221	19	904	100
18	106	1,190	651	705	1,800	9,280	626	211	262	346	1,120	148
19	186	856	357	4,070	1,520	7,270	450	212	1,610	674	425	68
20	193	412	598	9,030	1,140	3,170	658	226	1,600	212	301	18
21	119	314	134	7,130	921	2,100	623	528	782	350	198	108
22	149	498	181	2,490	838	1,360	450	38	258	212	156	120
23	144	310	387	1,000	527	962	634	428	628	314	208	122
24	182	244	404	784	786	814	516	26	770	472	64	128
25	113	366	244	678	722	887	621	512	468	510	228	122
26	158	249	462	293	713	822	410	232	235	132	222	87
27	232	315	172	650	643	950	434	24	462	236	112	52
28	134	603	280	575	666	1,520	598	291	24	126	212	113
29	608	848	302	276	576	1,720	426	216	540	236	200	131
30	474	773	267	568	-	1,140	487	84	216	218	95	*200
31	437	-	294	606	-	886	-	166	-	84	156	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	5,803	808	97	187	0.339	0.39
November.....	16,513	2,190	85	544	.986	1.10
December.....	14,067	1,420	134	454	.822	.95
Calendar year 1935.....	200,997	3,940	26	550	.996	13.54
January.....	61,778	9,030	238	1,993	3.61	4.16
February.....	36,720	6,290	264	1,266	2.29	2.47
March.....	45,001	9,280	356	1,452	2.63	3.03
April.....	33,871	3,570	410	1,062	1.92	2.14
May.....	9,684	598	24	312	.565	.65
June.....	12,197	1,610	24	407	.737	.82
July.....	9,588	990	19	309	.560	.65
August.....	8,496	1,120	64	274	.496	.57
September.....	3,879	384	18	129	.234	.26
Water year 1935-36.....	255,397	9,280	18	698	1.26	17.19

\*Discharge computed on basis of recorder charts, weather records, and records for Hyco River near Omega.

## Hyco River near Omega, Va.

Location.- Water-stage recorder, lat. 36°38', long. 78°48', at highway bridge  $1\frac{1}{2}$  miles above Hillv Creek.  $2\frac{1}{2}$  miles south of Omega, Halifax County, and 7 miles above mouth.

Drainage area.- 338 square miles.

Records available.- March 1934 to September 1936.

Extremes.- Maximum discharge during year, 5,580 second-feet Mar. 19 (gage height, 22.90 feet); minimum, 5 second-feet Sept. 21 (gage height, 1.54 feet).  
1934-36: Maximum discharge, 7,240 second-feet Sept. 8, 1934 (gage height, 27.50 feet), from rating curve extended above 3,600 second-feet; minimum, 3 second-feet Aug. 29, 1935 (gage height, 1.46 feet).

Remarks.- Records good. Discharge for period Apr. 2-6 computed on basis of recorder charts, weather records, and records for Banister River at Halifax.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.4	2	6.0	614
1.6	5	8.0	974
1.8	18	10.0	1,400
2.0	32	12.0	1,950
2.3	59	14.0	2,550
2.6	94	16.0	3,190
3.0	145	18.0	3,860
3.6	209	20.0	4,540
4.0	281	22.0	5,260
5.0	441	24.0	5,980

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	118	195	156	274	244	520	144	27	50	367	21
2	35	74	144	286	266	230	600	156	28	40	209	14
3	38	57	117	3,220	230	244	2,000	129	28	58	83	10
4	34	50	106	4,760	1,230	274	1,500	146	26	44	57	8
5	31	44	96	5,220	1,950	244	600	155	24	44	45	8
6	26	44	90	5,400	1,600	225	2,200	133	27	38	44	8
7	24	163	86	4,970	1,500	202	3,620	117	26	32	119	8
8	18	758	83	3,950	958	188	4,270	108	28	31	160	6
9	19	686	92	3,660	668	176	4,200	101	51	25	57	6
10	22	397	104	3,660	920	176	3,620	94	192	22	46	71
11	22	157	100	2,870	848	1,050	2,950	86	441	22	59	63
12	22	119	90	2,070	668	1,220	2,610	81	262	23	49	40
13	22	972	411	768	773	1,110	1,780	80	376	15	34	31
14	22	1,690	1,500	509	2,870	722	722	77	195	11	31	21
15	18	1,150	1,330	613	3,830	458	543	71	160	17	27	14
16	16	555	1,170	1,170	4,370	359	458	67	77	13	26	14
17	19	671	596	650	4,340	2,140	383	61	59	12	840	10
18	22	525	551	1,010	5,450	4,900	327	58	68	8	119	10
19	17	288	258	3,720	1,950	5,440	288	66	108	10	41	8
20	15	209	216	5,120	1,150	5,190	266	54	89	8	28	6
21	17	169	176	4,940	722	3,720	244	54	209	9	24	63
22	16	146	136	4,340	578	1,920	230	49	76	225	20	96
23	13	126	176	2,140	475	974	274	47	56	475	14	52
24	18	113	209	475	424	596	266	47	72	180	11	28
25	25	104	188	407	383	509	230	40	96	59	12	21
26	28	96	162	367	351	458	202	40	119	260	16	19
27	27	92	150	343	327	484	188	39	82	176	12	21
28	24	94	136	335	311	2,160	176	38	57	87	18	18
29	88	209	124	319	274	2,510	166	31	47	50	47	16
30	296	244	130	375	-	2,100	166	31	41	84	51	116
31	188	-	169	369	-	1,320	-	31	-	182	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	1,217	296	13	39.3	0.116	0.13
November.....	10,118	1,690	44	337	.997	1.11
December.....	8,891	1,500	83	287	.849	.98
Calendar year 1935.....	143,619	3,060	4	393	1.16	15.80
January.....	68,312	5,400	136	2,204	6.62	7.62
February.....	37,670	4,370	230	1,299	3.24	4.14
March.....	41,241	5,440	176	1,334	3.98	4.55
April.....	35,569	4,270	156	1,186	3.61	3.92
May.....	2,402	155	31	77.5	.229	.26
June.....	3,147	441	24	105	.311	.35
July.....	2,280	475	8	73.5	.217	.25
August.....	2,694	840	11	86.9	.257	.30
September.....	827	116	6	27.6	.082	.09
Water year 1935-36.....	214,468	5,440	6	586	1.73	23.60

## TAR RIVER BASIN

Tar River near Nashville, N. C.

Location.- Water-stage recorder, lat. 35°51'00" long. 77°55'50", at Cockrell Bridge, on Nashville-Wilson road 5 miles above Sapon Creek and 10 miles south of Nashville, Nash County.

Drainage area.- 593 square miles.

Records available.- October 1928 to September 1936.

Extremes.- Maximum discharge during year, 9,220 second-feet Apr. 10 (gage height, 15.57 feet); minimum, 67 second-feet Dec. 5 (gage height, 2.21 feet).  
1928-36: Maximum discharge, 18,900 second-feet Dec. 3, 1934 (gage height, 20.8 feet, from floodmarks); minimum observed, 10 second-feet Sept. 20, 1932 (gage height, 1.50 feet).

Remarks.- Records good except those for periods of no gage-height record, Jan. 22, June 21-26, Sept. 4-9, and those for periods of ice effect, Dec. 25 to Jan. 2, Jan. 26-28, 30, 31, which are fair. Discharge during periods of no gage-height record based on other discharge records, principally those for station at Tarboro, and those for periods of ice effect based on gage heights, weather records, and comparison with other records, principally those for station at Tarboro.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	427	524	542	300	628	762	1,140	497	194	235	2,450	582
2	304	431	506	440	672	740	1,340	488	184	334	1,190	283
3	297	297	415	2,530	785	740	2,510	474	166	875	628	187
4	265	255	319	4,490	1,820	785	3,350	470	160	875	415	170
5	228	241	136	5,300	2,930	762	4,070	453	216	650	323	160
6	200	290	286	6,400	3,470	718	3,690	444	190	488	262	160
7	194	502	276	7,950	3,720	672	4,550	419	160	470	331	150
8	190	942	269	7,620	1,760	628	5,560	386	190	600	312	140
9	184	1,280	301	5,910	1,500	628	6,700	382	219	362	852	136
10	181	942	370	5,220	1,800	672	8,740	370	265	269	524	163
11	172	650	436	4,700	1,950	1,500	8,280	358	222	235	335	923
12	175	488	374	3,000	1,700	2,100	4,200	335	197	219	276	1,190
13	338	560	448	1,420	1,800	2,390	2,200	338	272	194	252	569
14	203	1,340	1,190	1,100	4,280	1,650	1,460	448	808	181	216	279
15	184	2,050	2,330	1,320	5,300	1,190	1,190	448	492	184	187	276
16	163	1,370	2,870	2,100	6,100	988	1,080	358	276	175	178	245
17	160	718	1,330	2,870	7,200	1,380	965	319	222	155	172	175
18	146	650	808	2,620	8,280	3,350	875	304	200	158	448	141
19	194	695	650	2,410	6,750	4,210	808	294	720	158	762	136
20	166	605	560	4,660	1,920	5,820	762	290	2,230	216	316	123
21	146	538	488	5,300	1,420	5,910	718	276	1,900	578	319	115
22	143	457	415	5,550	1,240	4,240	695	255	1,600	1,200	308	115
23	146	402	331	6,000	1,190	1,650	695	258	2,000	2,050	219	120
24	155	354	358	2,660	1,120	1,240	762	252	2,200	1,000	175	120
25	163	327	340	965	1,060	1,100	740	748	1,300	402	152	111
26	166	312	320	800	988	1,060	650	238	700	304	133	149
27	166	301	300	750	920	965	628	225	398	327	138	138
28	163	297	300	700	920	1,280	578	216	323	290	327	120
29	160	331	280	672	852	1,950	556	197	308	219	1,420	111
30	225	448	280	700	-	2,690	533	190	258	630	1,280	130
31	378	-	260	650	-	1,580	-	190	-	2,390	1,080	-
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Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October.....				6,382	427	143	206	0.347		0.40		
November.....				18,897	2,050	241	620	1.05		1.17		
December.....				18,088	2,870	156	583	.983		1.13		
Calendar year 1935.....				275,380	4,630	75	754	1.27		17.28		
January.....				97,007	7,950	300	3,129	5.28		6.09		
February.....				73,775	8,280	628	2,544	4.29		4.63		
March.....				55,350	5,910	628	1,785	3.01		3.47		
April.....				70,015	8,740	533	2,334	3.94		4.40		
May.....				10,420	497	190	356	.597		.65		
June.....				18,570	2,230	160	619	1.04		1.16		
July.....				16,723	2,390	155	539	.909		1.05		
August.....				15,980	2,450	133	515	.868		1.00		
September.....				7,417	1,190	111	247	.417		.47		
Water year 1935-36.....				408,324	8,740	111	1,116	1.88		25.62		

Location.- Water-stage recorder, lat. 35°53'40", long. 77°32'00", at highway bridge at Tarboro, Edgecombe County. Zero of gage is 10.34 feet above mean sea level (preliminary adjustment).

Records available.- July 1896 to December 1900, October 1931 to September 1936.

Extremes.- Maximum discharge during year, 20,200 second-feet Apr. 12 (gage height, 25.53 feet); minimum, 180 second-feet Sept. 29 (gage height, 1.30 feet).  
1898-1900, 1931-36: Maximum discharge, 23,500 second-feet Dec. 6, 1934 (gage height, 27.38 feet); minimum, 36 second-feet Oct. 17, 22, 1933 (gage height, 0.45 foot).  
Maximum stage known, 34.2 feet, present datum, July 27, 1919 (discharge, estimated, 32,000 second-feet).

Remarks.- Records good except those above 6,000 second-feet, those for period of missing gage heights, Dec. 27-31, and those during periods of ice effect, Dec. 25, 26, Jan. 1, 2, which are fair. Discharge during period of missing gage heights based principally on records for station near Nashville, and during periods of ice effect based on gage heights, weather records, and comparison with other records, principally those for station near Nashville.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

discharge, in second-foot)											
Oct. 1 to Jan. 10						Jan. 11 to Sept. 30					
2.0	317	5.0	1,280	12.0	5,050	1.5	201	6.0	1,840	16.0	7,800
2.5	455	6.0	1,700	14.0	6,350	2.0	324	8.0	2,810	19.0	10,500
3.0	605	8.0	2,650	16.0	7,800	3.0	640	10.0	3,890	22.0	14,200
4.0	935	10.0	3,800	18.0	9,500	4.0	1,000	13.0	5,710	26.0	21,100

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,940	528	998	1,000	2,510	3,400	5,380	1,680	366	943	4,840	1,800
2	1,800	897	1,140	1,200	2,410	3,120	4,540	1,490	425	1,000	5,780	1,450
3	782	814	1,170	2,260	2,640	2,860	4,240	1,410	440	1,390	5,620	943
4	733	669	1,070	4,620	3,290	2,760	4,960	1,370	456	2,210	3,560	623
5	733	515	964	6,480	4,840	2,760	5,900	1,490	488	2,610	2,140	521
6	653	560	831	8,150	6,230	2,710	6,950	1,330	472	2,410	1,520	472
7	560	701	914	10,500	7,500	2,610	9,080	1,280	572	2,120	1,120	425
8	998	831	13,600	13,600	2,510	3,120	1,100	568	1,710	1,000	410	568
9	485	1,520	814	16,800	8,780	2,310	14,800	1,120	623	1,580	962	366
10	470	2,100	864	18,600	8,280	2,310	17,000	1,040	555	1,200	1,180	362
11	440	1,970	897	18,800	7,720	3,320	18,900	962	728	888	1,280	338
12	470	1,440	998	17,900	7,200	4,960	20,000	906	852	798	962	546
13	425	1,240	1,070	16,300	6,840	5,970	19,800	870	762	640	816	1,240
14	425	1,320	1,490	13,700	7,580	6,900	17,200	870	744	623	762	1,040
15	500	1,970	2,370	10,700	9,700	6,770	12,700	924	762	555	708	657
16	411	2,870	3,680	8,440	12,600	6,100	8,790	1,040	1,000	521	674	538
17	383	4,560	7,580	15,300	5,080	5,610	1,000	744	565	572	504	504
18	356	1,880	4,296	7,720	17,900	5,280	3,930	834	572	538	823	440
19	343	1,700	2,900	8,440	18,900	6,490	3,120	708	961	538	802	366
20	356	1,920	2,260	8,960	19,100	7,650	2,710	780	1,660	819	1,470	310
21	325	1,880	1,920	9,900	17,900	8,870	2,510	726	2,890	1,830	1,080	253
22	356	1,570	1,660	11,400	13,600	10,300	2,360	726	2,880	3,410	780	237
23	312	1,360	1,360	13,900	9,990	11,300	2,210	657	2,840	3,670	906	275
24	320	1,240	1,240	16,800	7,070	10,500	2,170	691	4,250	3,840	691	270
25	327	1,100	1,100	16,800	5,260	7,930	2,170	565	4,540	3,320	589	283
26	343	1,070	1,000	14,100	4,480	5,400	2,120	572	4,540	1,830	488	278
27	356	964	950	10,000	4,000	3,900	1,980	538	3,890	1,280	521	258
28	356	930	950	6,630	3,780	3,450	1,890	538	2,560	924	410	283
29	322	930	900	4,050	3,620	3,780	1,750	504	1,670	888	498	205
30	383	964	900	2,950	-	4,600	1,660	488	1,240	1,170	1,390	265
31	343	-	900	2,760	-	5,380	-	521	-	2,990	1,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	15,908	1,940	312	513	0.244	0.28
November.....	45,380	2,870	515	1,346	.641	.72
December.....	46,881	4,560	814	1,512	.720	.83
Calendar year 1935.....	816,035	11,300	224	2,236	1.06	14.45
January.....	310,750	18,800	1,000	10,080	4.77	5.50
February.....	247,200	19,100	2,410	8,524	4.06	4.38
March.....	161,060	11,300	2,310	5,195	2.47	2.85
April.....	218,730	20,000	1,660	7,291	3.47	3.87
May.....	28,720	1,580	488	926	.441	.51
June.....	44,869	4,540	366	1,496	.712	.79
July.....	48,800	3,840	538	1,574	.750	.86
August.....	45,444	5,780	410	1,466	.698	.80
September.....	15,948	1,800	205	532	.253	.28
Water year 1935-36.....	1,224,690	20,000	205	3,346	1.59	21.67

## TAR RIVER BASIN

Tar River at Greenville, N. C.

Location.- Water-stage recorder, lat. 35°37'00", long. 77°22'30", at bridge on State Highway 11, about 600 feet below Atlantic Coast Line Railroad bridge at Greenville, Pitt County. Zero of gage is 2.39 feet (revised) below mean sea level.

Drainage area.- 2,680 square miles.

Records available.- March to September 1935.

Extremes.- Maximum discharge during period, 11,800 second-feet Sept. 12 (gage height, 14.70 feet); minimum, gage height, 2.43 feet June 18 (discharge not determined). Maximum stage known, 24.5 feet July 28, 1919.

Remarks.- Records poor. Considerable diurnal fluctuation from power operations and tide effect. Gage-height record collected in cooperation with U. S. Weather Bureau. Because of tide effect, the accuracy of the discharge records for the water year 1935-36 was considered too doubtful to warrant publication.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	*7,500	*3,410	*1,000	*320	*1,500	*600
2						-	*6,500	*2,640	*900	*300	1,350	*650
3						-	*7,000	*2,000	*800	580	1,000	*600
4						-	*8,000	*2,000	*750	540	745	*550
5						-	*9,500	*1,800	722	768	700	722
6						-	*10,000	*1,400	745	1,000	*700	*2,810
7						-	*11,000	*1,400	745	930	*700	*5,820
8						-	*11,000	*1,400	722	1,100	812	7,400
9						-	*9,500	*1,200	*650	930	1,240	8,850
10						-	*9,000	*1,200	*600	1,060	1,100	9,990
11						-	*8,000	*1,000	*600	1,400	930	11,000
12						-	*9,500	*1,000	*600	1,850	812	11,800
13						-	*9,500	*1,400	*600	*3,480	680	11,400
14						-	*9,000	*1,400	*550	*5,000	620	9,990
15						-	*8,000	*1,600	*500	*5,500	*500	7,540
16						-	*7,000	*1,200	*500	*6,000	*440	4,760
17						-	*6,000	*1,200	*500	*6,500	*400	2,620
18						-	*5,060	*1,200	*500	*6,500	*400	1,700
19						-	4,100	*1,200	*500	*6,000	*400	1,300
20						-	3,410	*1,000	*500	*5,500	*420	1,060
21						-	3,020	*1,600	*500	*4,600	*700	930
22						-	3,410	*3,500	*550	*4,000	905	812
23						-	4,370	*4,000	540	3,250	1,030	*800
24						1,960	5,380	5,270	*550	*2,200	1,130	*800
25						2,430	6,390	5,490	*440	*1,500	1,100	*1,000
26						3,490	7,270	4,560	*360	*1,200	835	*900
27						4,760	7,960	3,330	*320	2,390	660	*812
28						6,270	*7,820	*2,400	*320	*2,800	500	745
29						7,270	*5,500	*1,900	*320	*3,000	*400	745
30						7,950	*4,000	*1,500	360	*2,500	*420	*1,800
31						8,550	-	*1,200	-	*2,000	*360	-
Month						Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches	
October.....												
November.....												
December.....												
Calendar year .....												
January.....						-	-	-	-	-	-	
February.....						-	-	-	-	-	-	
March 24-31.....						42,690	8,550	1,950	5,336	1.99	0.59	
April.....						214,690	11,000	3,020	7,156	2.67	2.98	
May.....						65,400	5,490	1,000	2,110	.787	.91	
June.....						17,244	1,000	320	675	.215	.24	
July.....						84,808	6,500	300	2,736	1.02	1.18	
August.....						23,589	1,500	400	761	.284	.33	
September.....						110,506	11,800	550	3,684	1.37	1.65	
Water year .....												

\*Estimated from fragmentary gage-height record or by comparison with record for station at Tarboro; gage heights missing or valuable because of tide effect.

Note.- The above records supersede those published in Water-Supply Paper 782.

## Fishing Creek near Enfield, N. C.

Location.- Water-stage recorder, lat. 36°08'55", long. 77°41'45", at bridge on U. S. Highway 301 2,000 feet below Atlantic Coast Line Railroad bridge, 2 miles southwest of Enfield, Halifax County, and 4½ miles below mouth of Rocky Creek.

Drainage area.- 462 square miles.

Records available.- October 1923 to September 1936.

Average discharge.- 13 years, 502 second-feet.

Extremes.- Maximum discharge during year, 7,720 second-feet Jan. 21 (gage height, 15.77 feet); minimum, 64 second-feet Sept. 23 (gage height, 0.83 foot).  
1923-36: Maximum discharge, 15,200 second-feet Dec. 2, 1934 (gage height, 17.66 feet), from rating curve extended above 6,200 second-feet; minimum, about 10 second-feet Oct. 19, 1933.

Maximum stage known, 21.0 feet Apr. 19, 1910.

Remarks.- Records good except those for periods of ice effect, Dec. 24-30, Jan. 27, 28, Jan. 30 to Feb. 1, (based on study of recorder graph, weather records, and hydrographs of nearby streams), and those for period when gage heights are partly or wholly missing, which are fair. Slight diurnal fluctuation at low stages from operation of mills.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	275	*400	*580	*130	500	610	744	370	136	176	1,080	182
2	189	*241	*320	*260	550	580	939	355	127	446	527	132
3	164	*160	*260	*1,200	580	595	2,090	348	128	662	309	110
4	152	*146	*220	*3,400	1,340	658	2,440	332	135	587	222	102
5	140	*135	*200	4,820	2,440	610	2,150	318	145	482	182	100
6	118	*248	*200	5,640	2,590	580	1,550	310	176	393	158	102
7	121	*658	*190	4,310	2,090	550	2,780	295	139	295	142	98
8	112	*652	*190	3,110	1,210	520	4,470	282	139	281	147	93
9	113	*690	*220	3,110	1,000	490	5,640	261	278	208	189	86
10	117	*415	*260	3,270	1,400	520	4,880	254	482	176	202	83
11	116	*260	*300	3,040	1,500	1,260	2,960	234	433	148	170	79
12	115	*241	*260	2,050	1,190	1,380	1,690	222	215	130	152	85
13	110	*268	*280	1,210	1,000	1,720	1,180	222	196	121	141	208
14	118	*690	*550	818	2,750	1,190	924	312	254	112	136	176
15	103	*550	*1,000	1,030	4,640	834	816	407	288	107	121	128
16	105	*400	1,140	2,170	5,420	674	726	323	241	106	108	104
17	104	*360	726	2,340	5,640	832	658	267	182	103	164	88
18	98	*460	475	1,940	4,040	2,470	595	234	152	160	394	83
19	98	*642	362	1,950	2,390	3,190	550	222	222	202	446	78
20	96	*520	310	3,920	1,370	3,350	520	228	561	208	228	72
21	102	378	275	7,040	1,000	2,440	520	215	464	436	152	69
22	96	505	228	5,980	888	1,500	505	195	464	710	146	66
23	93	*280	152	3,250	852	1,010	505	182	714	453	128	65
24	104	*240	200	1,390	834	780	580	176	870	274	112	65
25	103	*220	190	726	798	726	550	176	647	202	101	66
26	101	*200	180	642	744	690	490	164	407	176	95	69
27	117	*200	180	600	708	674	460	158	287	208	81	69
28	114	*200	180	550	708	1,130	430	152	202	164	93	69
29	*108	*220	170	520	674	1,630	415	146	169	158	461	71
30	*140	*280	170	550	-	1,450	400	136	176	329	407	71
31	*460	-	*170	500	-	850	-	130	-	1,500	352	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	4,103		460		93		132		0.286		0.33	
November.....	10,837		852		135		361		.781		.87	
December.....	9,938		1,140		170		321		.695		.80	
Calendar year 1935.....	203,516		5,580		71		558		1.21		16.39	
January.....	71,394		7,040		180		2,303		4.98		5.74	
February.....	50,846		5,640		500		1,753		3.79		4.09	
March.....	36,093		3,350		490		1,164		2.52		2.90	
April.....	45,157		5,640		400		1,439		3.11		3.47	
May.....	7,634		407		130		246		.532		.61	
June.....	9,029		370		127		301		.682		.73	
July.....	9,683		1,800		103		313		.677		.78	
August.....	7,356		1,080		91		237		.513		.59	
September.....	2,868		208		65		95.6		.207		.23	
Water year 1935-36.....	262,948		7,040		65		718		1.55		21.14	

\*Discharge computed on basis of fragmentary gage-height record or by comparison with other discharge records, principally those for station on Tar River near Nashville; gage heights partly or wholly missing.

## Eno River at Hillsboro, N. C.

Location.- Staff gage, lat. 36°04'20", long. 79°06'30", 1,000 feet below State Highway 10 at Hillsboro, Orange County, and 2 miles below Sevenmile Creek.

Drainage area.- 66.5 square miles.

Records available.- November 1927 to September 1936.

Extremes.- Maximum discharge during year, 3,870 second-feet Aug. 28 (gage height, 15.95 feet, from floodmark); minimum observed, 5.4 second-feet Oct. 15 (gage height, 0.78 foot).

1927-38: Maximum discharge, 4,650 second-feet Oct. 2, 1929 (gage height, estimated, 18.0 feet); minimum, 1.2 second-feet Sept. 24-26, 1932 (gage height, 0.50 foot).

Remarks.- Records poor. Those for periods of ice effect, Dec. 26 to Jan. 2, Jan. 29 to Feb. 3, based on gage heights, weather records, and comparison with other discharge records, principally those for station on Flat River near Bahama.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge in second-feet)

0.7	2.9	4.0	361
.8	6.0	6.0	321
.9	10	8.0	381
1.0	16	9.0	1,040
1.3	37	10.0	1,260
1.6	62	11.0	1,590
2.0	102	13.0	2,340
2.5	166	15.0	3,220
3.0	231	17.0	4,150

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	18	*24	16	42	*50	*100	45	*14	22	*46	*14
2	*8	12	*17	59	46	*50	*1,220	43	*13	19	*54	*13
3	7.6	11	*15	*1,730	50	*48	458	46	*13	15	*26	*13
4	6.0	*10	*14	*687	580	*46	166	45	*13	15	*20	*12
5	6.0	*10	13	452	342	*46	*127	42	*12	14	*18	*12
6	6.0	*10	*15	*504	*170	*44	1,690	40	*12	14	*17	*11
7	6.0	*30	*13	*744	*130	*44	1,210	39	13	13	*28	*11
8	6.4	*146	*12	*517	*110	*42	309	37	15	12	*24	*10
9	6.4	*47	*20	*595	*120	*42	259	36	15	11	*17	*10
10	6.0	*26	*18	*335	283	56	596	36	44	11	*15	*40
11	6.0	*18	*15	127	*170	*400	285	54	29	10	*14	*34
12	6.0	*50	*15	96	*120	*150	192	35	26	9.6	*13	*20
13	6.0	*300	*333	86	*754	*90	134	31	22	*10	*13	*15
14	6.0	*120	*302	140	733	*80	108	50	48	*13	*13	*14
15	5.7	*70	*91	91	*205	*75	91	29	22	15	*12	*14
16	6.4	*46	56	81	140	*70	81	27	20	*12	*12	*13
17	6.0	*34	44	66	146	*2,000	76	26	20	*11	*14	*12
18	6.0	*60	36	*76	*120	*1,000	71	26	19	*10	*12	*12
19	6.0	*36	51	2,100	*100	*540	66	24	212	*10	*18	*11
20	6.0	*22	29	*726	*90	*240	66	23	212	*400	*14	*10
21	6.0	*19	25	*218	*80	*400	66	22	*66	*200	*13	*11
22	6.4	*17	23	120	*75	*260	71	22	21	*80	*12	*14
23	6.0	*16	21	91	*70	*170	71	20	20	*50	*12	*14
24	7.6	*15	19	71	*70	*120	66	20	19	*30	*11	*13
25	6.0	*15	18	66	*65	*100	61	19	*143	*40	*11	*13
26	6.0	*14	17	62	*60	*95	58	19	*30	*28	*11	*12
27	6.0	14	17	56	*55	*95	54	17	*17	*22	*13	*12
28	6.0	*14	17	51	*55	*600	59	16	17	20	931	*11
29	40	*50	16	48	*55	*280	48	15	17	*19	*30	*11
30	60	*40	16	48	-	*140	47	15	15	*80	*18	*40
31	29	-	16	46	-	*110	-	*14	-	*140	*15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	304.3	60	5 7	9.82	0.148	0.17
November.....	1,290	300	10	43.0	.647	.72
December.....	1,318	333	12	42.5	.639	.74
Calendar year 1935.....	20,330.3	1,030	3.2	55.7	.838	11.38
January.....	10,105	2,100	16	326	4.90	5.65
February.....	5,036	754	42	174	2.62	2.93
March.....	7,263	2,000	42	234	3.52	4.06
April.....	7,906	1,690	47	264	3.97	4.43
May.....	889	46	14	28.7	.432	.50
June.....	1,168	212	12	38.6	.580	.65
July.....	1,355.6	400	9.6	43.7	.657	.76
August.....	1,457	931	11	47.0	.707	.82
September.....	452	40	10	15.1	.227	.26
Water year 1935-36.....	38,535.9	2,100	5.7	105	1.58	21.68

\*Estimated from graphs based on some gage readings and by comparison with other discharge records, principally those for station on Flat River near Bahama; gage readings mostly unreliable.



## Neuse River near Northside, N. C.

Location.- Water-stage recorder, lat. 36°02'25", long. 78°45'05", at Fish Dam Bridge, 1½ miles below Seaboard Air Line Railway bridge and 2 miles south of Northside, Granville County. Zero of gage is 226.32 feet above mean sea level (survey by Corps of Engineers, U. S. Army).

Drainage area.- 574 square miles.

Records available.- July 1927 to September 1936.

Extremes.- Maximum discharge during year, 11,100 second-feet Apr. 7; maximum gage height, 23.83 feet Apr. 7; minimum discharge, 15 second-feet Oct. 22 (gage height, 1.14 feet). 1927-36: Maximum discharge, 26,600 second-feet Oct. 3, 1929 (gage height, 28.64 feet), from rating curve extended above 8,000 second-feet; minimum, 3.1 second-feet Sept. 20, 1932 (gage height, 0.87 foot).

Remarks.- Records good below 1,000 second-feet, fair 1,000 to 4,000 second-feet, and poor above. Discharge for period of missing gage heights, Jan. 21-29, were computed on basis of other discharge records, principally those for station at Clayton. Rate of change in stage is a factor in the determination of discharge during floods. Considerable diurnal fluctuation from power operations upstream. Low flow slightly regulated by storage in Durham Reservoir. (See Flat River at dam near Bahama for diversion.)

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	156	139	268	235	552	552	799	360	96	96	1,800	198
2	136	99	203	276	568	535	1,880	302	66	139	636	182
3	107	73	215	3,120	552	601	5,210	260	53	193	319	165
4	120	73	198	5,190	1,910	618	3,800	268	62	319	252	131
5	99	88	187	5,450	3,400	601	1,750	285	45	252	226	148
6	91	78	198	4,100	3,130	568	2,390	276	36	115	198	115
7	97	102	171	5,500	1,360	552	9,620	252	41	60	578	126
8	120	667	132	4,580	900	469	6,900	252	70	66	740	139
9	113	519	201	4,980	849	360	4,450	226	76	45	435	134
10	105	302	310	4,380	1,340	469	4,850	201	173	52	244	175
11	110	211	268	2,520	1,240	1,710	4,300	182	198	50	218	369
12	92	203	244	1,200	900	1,680	2,400	213	121	52	193	193
13	70	526	1,070	866	621	1,090	1,200	210	552	38	208	139
14	63	1,200	2,860	733	5,060	816	951	198	402	185	185	128
15	86	700	1,940	823	8,710	651	799	187	196	131	199	131
16	83	519	842	1,740	5,850	585	750	178	170	149	165	83
17	36	435	618	1,240	4,350	1,810	700	153	154	91	131	70
18	28	452	535	849	3,200	7,540	634	151	156	394	188	66
19	23	294	469	2,370	1,900	5,050	801	185	734	203	148	66
20	22	252	410	8,000	1,020	3,700	568	185	694	178	182	113
21	19	226	276	5,500	849	3,180	601	178	265	166	156	684
22	18	226	216	3,400	783	1,620	585	193	235	1,150	137	226
23	24	185	203	1,800	717	984	601	180	294	682	128	131
24	53	168	252	1,200	684	783	618	187	555	469	112	92
25	30	165	218	900	700	766	568	151	452	883	142	83
26	28	175	178	750	684	750	519	176	327	585	134	53
27	27	182	171	700	667	717	502	175	211	344	72	34
28	23	160	171	650	651	2,120	486	142	156	208	2,520	38
29	28	268	195	650	618	3,140	469	131	136	193	2,140	56
30	268	327	218	618	-	1,590	435	128	146	1,250	489	99
31	215	-	226	618	-	866	-	115	-	3,040	218	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				2,490	268	18	80.3	0.140	0.16			
November.....				9,014	1,200	73	300	.523	.68			
December.....				13,663	2,860	132	441	.768	.89			
Calendar year 1935.....				179,806	5,190	17	493	.859	11.62			
January.....				77,938	8,190	235	2,514	4.38	5.05			
February.....				53,765	8,710	552	1,854	3.23	3.48			
March.....				46,463	7,540	360	1,499	2.61	3.01			
April.....				59,936	9,620	435	1,998	3.43	3.88			
May.....				6,290	360	115	203	.364	.41			
June.....				6,872	734	36	229	.399	.45			
July.....				11,798	3,040	38	381	.664	.77			
August.....				13,493	2,520	72	435	.758	.87			
September.....				4,367	684	34	146	.254	.28			
Water year 1935-36.....				306,089	9,620	18	636	1.46	19.83			

## Neuse River near Clayton, N. C.

Location.- Water-stage recorder, lat. 35°38'55", long. 78°24'30", at bridge 3 miles east of Clayton, Johnston County. Zero of gage is 128.12 feet above mean sea level (survey by Corps of Engineers, U. S. Army).

Drainage area.- 1,180 square miles.

Records available.- July 1927 to September 1936.

Extremes.- Maximum discharge during year, 12,600 second-feet Apr. 8 (gage height, 15.40 feet); minimum, 136 second-feet Oct. 21 (gage height, 1.00 foot).

1927-36: Maximum discharge, 28,100 second-feet Oct. 3, 1929 (gage height, 21.62 feet), from rating curve extended above 14,100 second-feet; minimum, 44 second-feet Sept. 15, 1932 (gage height, 0.28 foot).

Remarks.- Records good except those for period of ice effect, Dec. 29 to Jan. 2, which are fair, and those estimated, which are poor. Discharge during ice period based on gage heights, weather records, and comparison with other discharge records, principally those for station near Northside.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet).

1.0	136	6.0	2,980
1.3	191	8.0	4,710
1.6	270	10.0	6,620
2.0	417	12.0	8,820
2.5	639	14.0	10,800
3.0	907	16.0	12,000
4.0	1,530	16.0	13,400
5.0	2,210		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	496	458	663	500	1,080	1,200	2,360	794	303	*400	5,620	544
2	405	385	590	150	1,060	1,120	2,450	740	321	*500	4,350	446
3	373	310	518	3,970	1,080	1,080	5,700	663	286	*950	2,170	433
4	325	296	483	8,620	2,590	1,140	5,070	663	261	*1,300	936	446
5	293	203	466	9,370	5,870	1,140	5,430	633	240	*1,300	714	381
6	290	*280	450	8,020	5,400	1,140	6,580	609	*240	*850	624	362
7	280	*500	450	8,820	5,070	1,080	10,400	609	*240	*600	628	310
8	264	*1,100	433	9,610	4,860	1,020	12,300	585	*280	*440	907	303
9	270	*1,200	438	9,320	2,540	965	10,600	567	*280		1,370	369
10	283	*900	476	9,610	2,580	936	10,400	531	*300	314	907	710
11	280	*600	576	8,620	2,360	2,360	10,600	522	*400	280	628	3,440
12	277	*480	553	7,220	2,820	3,460	9,370	492	*500	246	553	2,100
13	255	*550	710	5,810	2,340	3,810	7,820	509	*1,900	243	504	794
14	246	*1,800	2,760	2,550	6,140	2,820	5,920	535	*1,400	637	475	500
15	249	*1,800	3,380	1,850	9,480	1,790	2,530	509	*950	397	454	425
16	205	*1,500	3,720	3,300	9,700	1,430	1,790	475	*550	421	438	393
17	230	*900	2,500	3,300	8,930	2,000	1,560	458	*420	366	417	335
18	243	*700	1,200	2,960	9,480	5,800	1,400	442	*400	446	366	290
19	212	*650	995	3,940	9,370	6,620	1,270	429	*3,000	500	385	258
20	169	*600	850	8,220	3,220	6,820	1,200	504	*4,000	531	397	249
21	148	*550	740	8,620	5,440	7,920	1,120	453	*1,800	1,600	393	397
22	287	*550	614	5,620	2,130	8,220	1,120	421	*1,300	2,990	369	899
23	196	600	572	7,320	1,720	6,820	1,140	413	*1,600	2,000	335	581
24	171	496	567	7,420	1,600	3,690	1,140	413	*2,000	1,530	349	413
25	169	429	553	4,970	1,500	1,790	1,120	401	*1,700	1,120	332	350
26	235	462	561	1,610	1,430	1,660	1,020	405	*1,200	1,500	314	277
27	189	442	544	1,370	1,400	1,560	995	377	*850	1,060	366	270
28	166	454	513	1,200	1,400	2,220	878	385	*700	714	965	237
29	271	568	500	1,150	1,300	3,640	878	358	*480	567	2,280	249
30	332	628	500	1,140	-	4,080	850	335	*440	2,290	3,380	446
31	328	-	500	1,180	-	4,040	-	335	-	7,020	1,700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	8,077	496	148	261	0.221	0.25
November.....	20,381	1,800	280	679	.575	.64
December.....	28,394	3,720	433	916	.776	.89
Calendar year 1935.....	405,885	5,800	109	1,112	.942	12.77
January.....	159,610	9,920	500	5,149	4.36	5.03
February.....	119,130	9,700	1,060	4,108	3.48	3.75
March.....	93,461	8,220	936	3,015	2.66	2.95
April.....	125,111	12,300	860	4,170	3.63	3.94
May.....	16,570	794	335	502	.425	.69
June.....	28,341	4,000	240	945	.801	.93
July.....	33,470	7,020	243	1,080	.915	1.05
August.....	33,644	5,620	314	1,085	.919	1.06
September.....	17,207	3,440	237	574	.486	.54
Water year 1935-36.....	682,386	12,300	148	1,864	1.58	21.48

\*Discharge estimated from study of gage-height relation with Weather Bureau station near Smithfield and comparison with other discharge records, principally those for stations near Northside and Goldsboro; gage heights missing.

## Neuse River near Goldsboro, N. C.

Location.-- Water-stage recorder, lat. 35°20'40", long. 78°01'35", a quarter of a mile above bridge on State Highway 40, 2½ miles above Stoney Creek, and 3 miles south of Goldsboro, Wayne County.

Drainage area.-- 2,380 square miles.

Records available.-- February 1930 to September 1936.

Extremes.-- Maximum discharge during year, 26,300 second-feet Apr. 11; maximum gage height, 25.3 feet Apr. 11; minimum discharge, 303 second-feet Oct. 23 (gage height, 2.08 feet).

1930-36: Maximum discharge and gage height, those of Apr. 11, 1936; minimum, 85 second-feet Sept. 14, 1932 (gage height, 1.03 feet).

A stage of 25.3 feet also occurred Oct. 5, 1929 (discharge, 26,300 second-feet, revised).

Remarks.-- Records good except those for periods of missing gage heights, which are fair. Rising and falling stages are a factor in the determination of discharge during floods.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,600	519	1,070	*1,200	3,310	3,990	6,220	1,980	519	*1,300	6,340	3,720
2	1,380	536	1,160	*1,200	2,830	3,600	6,640	1,830	502	*1,500	7,440	2,610
3	985	625	1,200	*2,000	2,890	3,370	7,040	1,740	485	2,030	8,300	1,330
4	779	554	1,090	4,430	3,550	3,130	7,360	1,600	485	2,600	9,170	1,010
5	681	502	985	5,610	4,770	3,070	7,520	1,560	452	2,440	9,600	880
6	625	519	922	6,720	5,820	3,130	7,680	1,460	452	2,720	8,700	840
7	572	569	880	8,030	6,800	3,130	9,060	1,420	468	2,500	7,570	739
8	536	965	840	9,850	7,600	2,950	12,000	1,330	519	2,390	5,980	681
9	519	1,540	840	12,100	8,390	2,830	16,000	1,240	554	1,330	4,320	625
10	502	2,230	860	14,900	9,170	2,830	22,200	1,160	*600	1,010	5,820	572
11	485	2,130	901	17,100	9,300	3,790	26,300	1,090	*650	819	3,600	799
12	485	1,890	943	17,400	9,000	4,840	24,800	1,010	*800	720	2,950	1,600
13	485	1,690	1,350	17,200	9,800	5,750	21,800	964	1,110	607	2,180	3,130
14	468	1,940	2,390	15,800	9,100	5,340	19,100	901	1,740	572	1,830	3,370
15	452	2,890	3,620	14,200	9,200	6,550	16,300	901	2,390	607	1,560	2,280
16	452	3,430	4,980	12,700	10,100	6,590	14,000	880	1,880	922	1,330	1,380
17	436	3,550	5,430	11,300	11,000	6,570	12,200	*850	1,330	922	1,160	1,050
18	405	2,950	5,180	10,100	13,100	6,170	10,500	*850	901	779	985	819
19	390	2,340	4,700	9,080	15,800	6,500	8,790	*800	901	681	901	700
20	405	1,980	4,040	8,160	16,400	7,280	6,770	*800	1,540	799	799	700
21	376	1,690	5,490	7,900	14,900	8,300	4,650	*800	3,430	1,200	779	985
22	334	1,460	*2,600	8,300	13,800	9,170	3,250	799	4,300	1,880	739	1,420
23	316	1,240	*2,000	8,960	12,800	9,850	2,950	739	4,910	3,430	720	1,600
24	348	1,160	*1,800	9,850	11,800	10,300	3,010	700	5,120	4,560	682	1,880
25	362	1,050	*1,600	11,000	10,500	10,400	3,070	681	5,340	4,930	625	1,460
26	348	985	*1,500	10,900	9,080	10,100	2,950	662	5,170	4,320	662	1,050
27	340	901	*1,400	10,300	7,410	9,500	2,720	644	4,650	2,330	625	880
28	356	890	*1,400	9,580	5,700	8,700	2,500	607	5,510	2,130	860	720
29	348	860	*1,300	8,610	4,540	7,570	2,280	589	*9,000	1,740	1,510	662
30	334	922	*1,300	6,970	-	6,460	2,080	572	*1,500	1,980	2,500	1,160
31	420	-	*1,300	4,870	-	6,030	-	554	-	4,170	3,490	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October.....	16,524			1,600	316	533	0.224	0.26				
November.....	44,507			3,550	502	1,484	.624	.70				
December.....	63,071			5,430	840	2,035	.855	.99				
Calendar year 1935.....	807,011			7,600	254	2,211	.929	12.63				
January.....	296,220			17,400	1,200	9,555	4.01	4.62				
February.....	257,460			16,400	2,830	8,878	3.73	4.02				
March.....	188,790			10,400	2,830	6,090	2.56	2.95				
April.....	291,740			26,300	2,080	9,725	4.09	4.56				
May.....	31,713			1,980	554	1,023	.430	.50				
June.....	55,008			5,340	452	1,934	.813	.91				
July.....	60,318			4,930	572	1,946	.818	.94				
August.....	101,587			9,600	625	3,277	1.38	1.59				
September.....	40,652			3,720	572	1,355	.569	.63				
Water year 1935-36.....	1,450,590			26,300	316	3,963	1.67	22.67				

\*Discharge computed on basis of comparison with records for stations at Kinston and Clayton; gage heights missing.

## Neuse River at Kinston, N. C.

Location.- Water-stage recorder, lat. 35°15'30", long. 77°35'10", two blocks below bridge on State Highway 11 at Kinston, Lenoir County. Zero of gage is 10.80 feet above mean sea level, North Carolina State Highway benchmark.

Drainage area.- 2,700 square miles.

Records available.- February 1930 to September 1936.

Extremes.- Maximum discharge during year, 24,400 second-feet Apr. 14 (gage height, 20.9 feet); minimum, 505 second-feet Oct. 24 (gage height, 2.85 feet).

1930-36: Maximum discharge, that of Apr. 14, 1936; minimum, 124 second-feet Sept. 28, 1932 (gage height, 1.29 feet, former site and datum).

Maximum stage known, 24.6 feet (former site and datum) July 1919 (discharge, about 39,000 second-feet).

Remarks.- Records good except those below 800 second-feet, those for period of ice effect, Dec. 21-29, and those for periods of no gage heights, which are fair. Discharge during ice period based on gage heights, weather records, and comparison with other discharge records, principally those for station at Clayton.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30			
2.8	490	10.0	4,520	3.8	660	12.0	6,000
3.0	551	12.0	6,000	4.0	750	14.0	7,770
3.5	733	14.0	7,770	5.0	1,240	15.0	8,900
4.0	950	15.0	8,900	6.0	1,790	17.0	12,500
5.0	1,440	17.0	12,500	8.0	3,040	19.0	17,900
6.0	1,980	19.0	17,900	10.0	4,475	21.0	24,700
8.0	3,150	21.0	24,700				

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,120	*550	1,240	*1,700	*9,000	8,420	9,160	2,640	750	2,030	4,100	2,970
2	1,440	*600	1,290	*1,700	7,200	6,930	8,190	2,520	728	1,620	5,380	3,530
3	1,700	713	1,440	*2,200	5,250	5,780	7,680	2,330	682	1,730	6,490	3,250
4	1,760	796	1,440	*3,400	4,520	4,450	7,480	2,150	660	2,450	7,110	2,030
5	1,490	796	1,490	5,020	4,590	4,450	7,580	2,030	1,190	3,180	7,580	1,460
6	1,240	733	*1,400	5,780	5,100	4,240	7,770	1,910	1,090	3,180	8,080	1,190
7	*1,100	754	*1,300	6,490	5,920	4,170	8,190	1,790	750	3,110	8,660	990
8	*1,000	818	*1,300	7,580	6,660	4,100	8,900	1,730	728	2,900	9,500	865
9	*900	1,040	*1,200	9,050	7,300	3,960	10,400	1,680	865	2,330	9,160	795
10	*850	1,650	*1,200	10,100	7,770	3,820	12,500	1,660	818	1,730	8,190	728
11	*800	2,200	*1,200	11,200	8,300	4,310	14,700	1,510	940	1,320	6,580	682
12	*750	2,310	*1,300	12,700	8,780	5,100	18,200	1,460	915	1,090	5,300	818
13	*750	2,200	*1,500	*14,000	9,300	5,780	22,200	1,340	940	940	4,250	1,370
14	*750	2,140	*2,000	*16,000	10,100	6,160	24,000	1,290	1,220	865	3,110	2,580
15	*700	2,200	3,960	*17,000	10,600	6,490	24,000	1,220	1,680	772	2,270	3,180
16	*700	2,600	4,170	*18,000	11,000	6,840	22,200	1,190	2,330	795	1,910	2,640
17	674	3,480	4,350	*18,000	10,800	7,200	19,800	1,190	2,270	1,040	1,680	1,680
18	637	3,680	4,800	*17,000	10,600	7,680	17,000	1,160	1,850	1,060	1,460	1,240
19	602	3,540	5,100	*15,000	10,800	8,080	14,200	1,140	1,340	940	1,290	990
20	584	3,020	5,480	*13,000	11,600	8,080	11,800	1,120	1,260	840	1,140	865
21	568	2,540	5,500	*12,000	13,500	7,970	9,900	1,090	*1,500	1,090	1,040	840
22	568	2,200	4,800	*11,000	15,300	7,970	6,580	1,040	*2,600	1,790	990	1,120
23	536	1,970	4,000	*11,000	16,400	8,300	4,860	1,040	*3,800	2,520	915	1,460
24	508	1,700	3,200	*11,000	16,400	8,780	4,090	1,020	*4,400	3,320	865	1,620
25	520	1,540	2,600	*12,000	16,100	9,300	3,380	940	*4,800	3,950	818	1,910
26	551	1,440	2,200	*13,000	15,000	9,900	3,740	915	*5,000	4,480	750	1,680
27	551	1,390	1,900	*14,000	14,000	10,400	3,670	890	*5,500	4,780	750	1,340
28	*550	1,540	1,800	*14,000	12,000	10,800	3,460	890	5,600	4,250	840	1,120
29	*550	1,290	2,000	*13,000	9,740	11,000	3,250	840	4,850	2,900	1,020	990
30	*550	1,260	*1,800	*12,000	-	10,800	2,900	818	3,180	2,150	1,560	1,320
31	*550	-	*1,700	*11,000	-	9,900	-	795	-	2,640	2,210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	25,546	1,760	505	824	0.305	0.35
November.....	52,390	3,680	550	1,746	.647	.72
December.....	78,690	5,500	1,200	2,538	.940	1.08
Calendar year 1935.....	970,798	8,660	490	2,660	.985	13.38
January.....	338,900	18,000	1,700	10,930	4.05	4.67
February.....	293,630	16,400	4,520	10,130	3.75	4.04
March.....	221,660	11,000	3,820	7,150	2.65	3.06
April.....	321,970	24,000	2,900	10,730	3.97	4.43
May.....	43,238	2,640	795	1,395	.517	.60
June.....	64,036	5,600	660	2,135	.791	.88
July.....	67,852	4,780	772	2,189	.811	.94
August.....	114,798	9,300	760	3,703	1.37	1.68
September.....	47,253	3,530	682	1,575	.593	.65
Water year 1935-36.....	1,669,963	24,000	505	4,563	1.69	23.00

\*Discharge computed on basis of comparison with other discharge records, principally those for station at Goldsboro; gage heights missing.

## Flat River at Bahama, N. C.

Location.- Water-stage recorder, lat.  $36^{\circ}11'25''$ , long.  $78^{\circ}53'00''$ , at head of Lake Michie, 1 mile north of Bahama, Durham County, and  $1\frac{1}{2}$  miles above Dial Creek. Zero of gage is 255.05 feet above mean sea level.

Drainage area.- 150 square miles.

Records available.- July 1925 to September 1936.

Average discharge.- 11 years, 141 second-feet.

Extremes.- Maximum discharge during year, 8,670 second-feet Jan. 19 (gage height, 9.26 feet); minimum, 5.0 second-feet Oct. 29 (gage height, 1.10 feet).  
1925-36: Maximum discharge, 13,600 second-feet Sept. 8, 1934 (gage height, 11.14 feet); minimum, 0.37 second-foot Sept. 28, 27, 1932 (gage height, 0.23 foot).

Remarks.- Records good except those for period of unreliable gage heights, May 26-29, computed on basis of other records, principally those for station on Dial Creek near Bahama, which are fair.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.1	5.0	3.0	140
1.2	7.4	3.5	278
1.3	10.4	4.0	504
1.4	13.9	4.5	860
1.6	22	5.0	1,320
1.8	32	6.0	2,530
2.0	42	7.0	4,080
2.3	58	8.0	5,860
2.6	79		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	14.3	36	52	44	79	105	193	92	19.5	24	98	19.1	
2	13.2	26	40	91	90	99	2,530	77	18.7	27	45	17.1	
3	19	20	38	4,980	97	109	1,100	80	18.7	24	40	15.9	
4	24	18.7	34	1,830	1,260	110	370	80	18.7	20	37	14.7	
5	16.6	18.3	29	516	1,080	98	271	89	18.7	20	32	13.6	
6	14.3	21	32	1,590	323	93	4,200	79	17.9	20	27	12.8	
7	10.4	113	25	1,330	233	89	2,870	65	22	20	64	11.1	
8	10.4	41.6	25	838	207	82	718	66	22	20	45	10.4	
9	10.4	98	36	1,200	220	77	540	68	21	19.1	37	10.1	
10	10.4	57	44	669	396	89	1,800	63	31.2	17.1	32	12.1	
11	11.1	46	37	319	254	748	585	57	69	15.1	28	9.5	
12	10.1	41	34	239	186	361	374	55	17.2	14.3	15.9	34	
13	10.1	747	893	193	474	262	300	74	208	12.5	13.9	22	
14	8	337	671	166	3,840	170	245	65	169	11.1	14.7	17.9	
15	8.6	121	224	371	2,010	140	218	60	61	11.4	14.7	14.7	
16	9.2	78	163	638	805	130	196	53	42	10.8	15.1	12.8	
17	8	82	117	268	411	4,060	178	52	34	10.4	15.1	11.1	
18	6.9	92	92	207	414	2,500	168	48	32	9.8	17.1	9.6	
19	8.9	67	77	4,850	308	684	147	48	60	9.2	21	8.9	
20	8.9	55	64	1,490	230	412	140	46	62	15.3	19.1	8.9	
21	6.4	46	55	340	202	719	138	44	36	1,370	17.5	8.9	
22	6	43	50	245	183	308	130	40	33	547	16.7	9.8	
23	6.2	40	45	207	166	233	152	28	34	72	15.9	11.8	
24	5.5	34	50	154	154	207	142	32	36	46	13.9	11.4	
25	7.2	33	47	132	145	199	123	34	47	55	13.2	11.1	
26	7.2	34	41	123	136	186	117	32	42	60	12.2	10.8	
27	7.4	33	41	130	132	193	114	30	33	40	11.4	12.5	
28	5.5	30	41	110	123	1,600	102	28	26	30	927	10.8	
29	46	74	37	109	109	373	101	26	26	30	75	10.8	
30	207	80	42	112	-	252	94	24	25	203	31	78	
31	70	-	44	102	-	215	-	22	-	284	24	-	
Month				Second-foot-days		Maximum		Minimum		Mean		Per square mile	Run-off in inches
October.....				607.2		207		5.5		19.6		0.181	0.15
November.....				2,937		747		18.3		97.9		.653	.73
December.....				3,220		893		25		104		.693	.80
Calendar year 1935.....				53,795.9		3,280		5.5		147		.980	13.33
January.....				23,593		4,980		44		761		5.07	5.84
February.....				14,267		3,840		79		492		3.28	3.54
March.....				14,903		4,060		77		481		3.21	3.70
April.....				18,346		4,200		94		612		4.08	4.55
May.....				1,657		92		22		53.5		.357	.41
June.....				1,736.2		312		17.9		57.9		.386	.43
July.....				3,068.1		1,370		9.2		99.0		.660	.76
August.....				1,790.4		927		11.4		57.8		.385	.44
September.....				656.5		121		8.9		21.9		.146	.16
Water year 1935-36.....				86,781.4		4,980		5.5		237		1.58	21.51

## NEUSE RIVER BASIN

Flat River at dam near Bahama, N. C.

Location.- Water-stage recorder, lat. 36°09'05", long. 78°50'55", just below Durham municipal dam at old Tilley mill site, 3 miles southeast of Bahama, Durham County and 4 miles above junction with Eno River.

Drainage area.- 171 square miles.

Records available.- August 1927 to September 1936.

Extremes.- Maximum discharge during water year 1934-35, 5,360 second-feet Dec. 1 (gauge height, 12.82 feet); minimum, 0.3 second-foot Nov. 27 (gauge height, 0.91 foot); minimum daily discharge (estimated), 3 second-feet Aug. 3-5.  
Maximum discharge during water year 1935-36, 6,440 second-feet Jan. 19 (gauge height, 13.98 feet); minimum, 1.2 second-foot Oct. 13, 14 (gauge height, 0.99 foot); minimum daily discharge, 1.6 second-feet June 4-7.  
1927-36: Maximum discharge, 11,400 second-feet Oct. 2, 1929 (gauge height, 16.72 feet); minimum, 0.14 second-foot Dec. 5, 1933 (gauge height, 0.85 foot); minimum daily discharge, 0.2 second-foot Dec. 5, 1933.

Remarks.- Records good except those estimated, which are poor. Considerable regulation by Durham Reservoir just above station, where water is also diverted for Durham water supply. Large diurnal fluctuation from power-plant operations.

Rating table, water years 1934-36 (gauge height, in feet, and discharge, in second-feet)

1.0	1.25	1.8	71	4.0	706
1.1	5.0	2.0	101	5.0	1,090
1.2	11	2.3	163	6.0	1,490
1.3	18	2.6	244	8.0	2,400
1.4	26	3.0	366	10.0	3,445
1.6	46	3.6	531	12.0	4,770

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	71	3,690	126	276	206	2,790	283	*44	*5.7	*4	*4
2	58	76	1,430	277	273	207	1,320	262	*42	*4	3.5	*60
3	84	76	476	281	168	155	581	256	*65	*4	*3	*5
4	86	66	342	279	206	115	423	255	*55	*4	*3	*5
5	79	84	306	289	213	116	339	173	*56	*4	*3	*5
6	69	87	290	189	230	112	294	269	*85	*4	*25	*60
7	66	86	273	294	214	80	271	199	*55	*4	*4	*100
8	82	91	273	300	136	202	1,930	210	59	*4	*4	122
9	78	80	180	291	136	204	1,140	106	56	*4	*4	99
10	79	44	276	269	112	169	535	62	78	*4	*4	76
11	80	32	285	277	129	206	404	61	74	*4	*4	81
12	80	35	262	214	148	152	332	55	75	*30	*4	76
13	71	38	278	168	124	266	308	72	72	76	4.2	78
14	83	45	280	285	195	314	199	71	80	*60	4.6	65
15	80	38	294	303	201	296	303	68	66	*80	*4	66
16	79	43	200	299	200	275	282	64	69	*70	*4	81
17	79	34	124	225	145	146	274	61	75	*60	*4	85
18	78	29	127	220	275	248	274	52	84	*60	*4	81
19	76	39	122	*190	285	263	268	57	90	*70	*4	70
20	71	43	167	*150	285	261	255	72	77	*80	*4	81
21	56	33	216	*95	281	261	1,460	250	86	70	*25	*70
22	82	43	266	*200	293	268	2,070	260	78	97	*5	61
23	81	43	166	*280	297	197	590	259	76	*90	*5	95
24	80	28	243	*280	168	84	411	249	88	*80	4.6	89
25	83	25	147	256	267	296	318	246	83	*50	4.6	*60
26	81	27	219	*300	282	1,750	276	183	90	*5	4.6	*60
27	74	24	183	*200	285	741	273	224	108	5.0	*4	*55
28	66	31	180	281	263	448	165	*60	26	5.0	*4	55
29	79	662	186	280	-	385	259	*60	4.6	5.0	*4	55
30	84	2,400	162	*270	-	308	253	*60	4.2	*4	*4	*50
31	83	-	168	272	-	463	-	*46	-	*4	*4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	2,356	86	55	75.0	0.444	0.51
November.....	4,453	2,400	24	148	.865	.97
December.....	11,876	3,690	122	383	2.24	2.58
Calendar year 1934.....	70,506.55	5,420	.66	193	1.13	15.33
January.....	7,640	303	95	246	1.44	1.66
February.....	8,077	297	112	217	1.27	1.32
March.....	9,174	1,750	80	296	1.73	1.99
April.....	18,597	2,790	165	620	3.63	4.08
May.....	4,583	283	46	148	.865	1.00
June.....	1,979.8	108	4.2	66.0	.386	.43
July.....	1,096.7	97	4	35.4	.207	.24
August.....	167.1	25	3	5.39	.032	.04
September.....	1,950	122	4	65.0	.380	.42
Water year 1934-35.....	69,949.6	3,690	*3	192	1.12	15.21

\*Discharge estimated from power-plant records, fragmentary gage-height record, and comparison with other records, principally those for station at Bahama; gage-height record partly or wholly missing.

Note.- Above records supersede those published in Water-Supply Paper 782.

## Flat River at dam near Bahama, N. C.

(Continued)

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*65	37	65	105	295	194	318	94	17	22	266	109
2	*60	34	99	91	180	292	1,740	82	3.1	9.4	104	102
3	*75	26	109	1,300	287	302	1,720	68	12	6.2	81	74
4	86	37	103	2,760	306	324	*550	75	1.6	6.2	84	118
5	*80	29	113	667	805	316	*360	106	1.6	6.2	91	74
6	*70	30	108	1,080	513	306	*2,600	90	1.6	6.2	97	78
7	62	67	87	1,950	385	298	*3,600	95	1.6	5.6	105	92
8	91	*65	73	754	298	142	1,130	93	14	5.6	192	97
9	95	*50	96	1,300	221	169	601	92	10	5.6	64	104
10	94	59	113	860	521	233	1,780	55	26	5.6	88	101
11	75	72	113	454	419	309	733	88	36	5	98	80
12	56	75	102	278	315	296	*550	94	28	5	87	92
13	38	*95	112	330	374	301	*480	96	76	14	97	74
14	60	*200	220	307	3,580	288	*360	89	60	5	125	93
15	64	*220	204	314	2,440	186	*320	93	79	15	125	41
16	7.9	*200	223	629	1,070	253	*280	92	106	5	66	41
17	3.5	175	251	409	631	1,370	*180	60	96	25	122	41
18	3.5	145	220	296	539	2,970	*280	100	91	7.4	95	40
19	3.5	91	221	3,190	502	890	191	110	31	5.6	93	42
20	3.9	89	128	2,300	362	578	263	105	71	4.6	111	40
21	3.9	90	95	543	315	844	279	115	68	3.9	101	31
22	3.9	102	68	389	288	430	264	120	93	208	89	41
23	30	86	92	328	185	369	275	137	84	296	91	41
24	3.5	93	95	328	307	296	283	103	75	282	102	33
25	3.1	99	78	306	310	281	256	107	102	107	120	26
26	3.1	112	56	202	323	307	173	121	101	62	40	5
27	2.8	105	64	299	317	303	234	101	73	90	45	5
28	2.4	86	74	307	313	1,530	231	100	80	90	98	5
29	45	94	81	305	303	614	220	100	92	92	88	5
30	26	105	87	312	-	420	179	89	48	120	68	3.2
31	30	-	87	318	-	340	-	72	-	216	68	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October.....				1,249	95	2.4	40.3	0.236		0.27		
November.....				2,768	*220	26	92.3	.540		.60		
December.....				3,642	251	56	117	.684		.79		
Calendar year 1935.....				58,923.6	2,790	2.4	161	0.942		12.81		
January.....				23,033	3,190	91	743	4.35		5.02		
February.....				16,704	3,580	130	576	3.37		3.64		
March.....				15,751	2,970	142	508	2.97		3.42		
April.....				20,430	*3,600	173	681	3.98		4.44		
May.....				2,942	137	55	94.9	.555		.64		
June.....				1,628.5	106	1.6	54.3	.518		.35		
July.....				1,737.1	296	3.9	56.0	.327		.38		
August.....				3,121	266	40	101	.521		.68		
September.....				1,731.2	118	5.0	57.7	.337		.38		
Water year 1935-36.....				94,736.8	*3,600	1.6	259	1.51		20.61		

\*Discharge estimated from power-plant records, fragmentary gage-height record, and comparison with other records, principally those for station at Bahama; gage-height record partly or wholly missing.

## Dial Creek near Bahama, N. C.

Location.- Water-stage recorder, lat.  $36^{\circ}10'50''$ , long.  $78^{\circ}51'55''$ , three-eighths of a mile above confluence with Flat River and Lake Michie and  $1\frac{1}{2}$  miles northeast of Bahama, Durham County.

Drainage area.- 4.9 square miles.

Records available.- October 1925 to September 1936.

Average discharge.- 10 years (1926-36), 3.84 second-feet.

Extremes.- Maximum discharge during year, 380 second-feet Jan. 19 (gage height, 4.75 feet), from rating curve extended above 65 second-feet; minimum, 0.30 second-foot Oct. 17 (gage height, 0.42 foot).

1925-36: Maximum discharge, 575 second-feet Apr. 27, 1928 (gage height, 5.60 feet), from rating curve extended above 65 second-feet; no flow at times in 1926, 1930-33.

Remarks.- Records good except those above 80 second-feet, those for periods of ice effect, Dec. 22-25, Dec. 30 to Jan. 1, Jan. 28, Feb. 1, 2, 7, and those for periods of incomplete gage-height record, which are fair. Discharge during ice periods computed on basis of gage heights, weather records, and comparison with other discharge records, principally those for station on Flat River at Bahama. Discharge below 14 second-feet determined by use of 2-foot triangle weir, rating for which was checked by discharge measurements.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.4	0.28	1.0	2.52	2.3	27
.5	.48	1.2	3.95	2.6	55
.6	.71	1.4	5.8	3.0	101
.7	1.04	1.6	8.0	3.5	169
.8	1.45	1.8	10.8	4.0	246
.9	1.94	2.0	14.0		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.80	1.12	1.89	1.5	3.4	4.20	7.1	3.26	0.71	1.01	*3.87	0.66
2	1.24	.97	1.69	9.0	3.8	4.12	75	3.05	.66	2.08	2.52	.60
3	.74	.87	1.45	125	3.95	4.64	34	2.98	.83	.97	1.94	.71
4	.66	.90	1.41	26	31	4.46	12	3.48	.55	1.67	1.45	.87
5	.60	.97	1.28	13	22	4.37	9.7	2.84	.60	.94	1.20	*.77
6	.48	1.45	1.28	52	11	3.79	127	2.71	.55	.80	1.07	.60
7	.50	8.5	1.24	22	9	3.64	78	2.65	.84	.68	21	.52
8	.50	5.5	1.41	32	7.6	3.56	22	2.58	1.64	.60	4.04	.50
9	.50	2.46	3.02	27	*11	3.56	25	2.40	3.64	.55	2.58	4.88
10	.48	1.84	2.05	14	*10	7.1	39	2.16	9.4	.46	1.89	18
11	.50	1.74	1.64	8.8	*8.3	21	17	2.05	1.54	.39	1.59	*8.4
12	.48	1.79	1.60	6.5	*7.1	11	13	2.05	.35	.37	1.41	2.05
13	.48	17	34	5.5	*44	7.1	10	2.00	13	.37	1.20	1.32
14	.52	5.4	18	4.64	124	5.7	8.7	1.94	15	.33	1.01	.97
15	.46	2.98	6.9	17	38	5.1	7.8	1.69	2.78	.88	.94	.90
16	.33	2.40	4.91	14	21	4.73	7.1	1.84	1.89	1.76	.90	.74
17	.30	5.0	3.71	8.3	14	81	6.2	1.74	1.54	.60	1.28	.66
18	.43	3.05	3.05	6.5	13	25	6.0	1.59	1.36	.55	.80	.48
19	.46	2.34	2.71	15.1	9.1	14	5.6	1.54	2.34	.60	2.28	.46
20	.35	2.16	2.46	23	7.9	16	5.4	1.54	1.54	.50	*1.24	.50
21	.35	1.89	2.05	11	7.2	13	5.1	1.36	1.20	69	*.87	.68
22	.35	1.74	1.9	*8.1	6.5	9.0	5.4	1.28	1.32	7.7	*.71	.60
23	.37	1.54	1.7	*6.8	6.0	7.3	6.2	1.28	2.39	2.46	.63	.48
24	.48	1.50	1.6	*6.1	5.7	6.8	5.0	1.20	2.78	1.59	.55	.46
25	.52	1.41	1.5	5.5	5.4	6.6	4.46	1.08	2.00	3.21	.50	*.46
26	.46	1.36	*1.5	5.1	5.2	5.8	4.29	1.04	1.36	2.06	.46	*.33
27	.46	1.28	*1.5	4.98	5.1	11	4.20	1.04	1.08	1.24	3.71	.58
28	.46	1.56	1.50	4.8	4.46	29	3.79	.90	.97	.90	24	.74
29	8.4	4.60	1.50	*4.6	4.20	11	3.71	.84	.77	5.5	1.89	.87
30	3.10	2.22	1.5	*4.4	-	8.0	3.41	.84	.68	24	1.16	17
31	1.50	-	1.5	*4.2	-	7.0	-	.77	-	*8.3	.84	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	27.16	8.4	0.30	0.876	0.179	0.21
November.....	87.64	17	.90	2.92	.596	.66
December.....	113.35	34	1.24	3.66	.747	.86
Calendar year 1935.....	1,634.07	96	.08	4.48	.914	12.39
January.....	632.32	151	1.5	20.4	4.16	4.80
February.....	448.91	124	3.4	15.5	3.16	3.41
March.....	349.57	81	3.56	11.3	2.31	2.66
April.....	559.16	127	3.42	18.6	3.80	4.24
May.....	87.72	3.45	.77	1.86	.380	.44
June.....	109.76	35	.55	3.66	.747	.83
July.....	142.17	69	.33	4.59	.937	1.08
August.....	89.53	24	.46	2.89	.590	.68
September.....	66.79	18	.33	2.23	.455	.51
Water year 1935-36.....	2,684.08	151	.30	7.33	1.50	20.38

\*Discharge computed on basis of fragmentary gage-height record and comparison with other discharge records, principally those for station on Flat River at Bahama; gage heights partly or wholly missing.



## Little River near Princeton, N. C.

Location.- Water-stage recorder, lat. 35°30'40", long. 78°09'30", a quarter of a mile above county bridge, three-quarters of a mile above Little Creek, and 3 miles north of Princeton, Johnston County.

Drainage area.- 221 square miles.

Records available.- February 1930 to September 1936.

Extremes.- Maximum discharge during year, 3,340 second-feet Apr. 8 (gage height, 11.73 feet); minimum, 10 second-feet Oct. 21 (gage height, 0.54 foot).  
1930-36: Maximum discharge, 4,030 second-feet Dec. 2, 1934 (gage height, 12.68 feet); minimum, 1.0 second-foot several times in September 1932 and Oct. 2, 3, 1932. Maximum stage known, 14.90 feet September 1924.

Remarks.- Records good. Gage-height record missing July 8, 9; discharge computed on basis of records for station on Contentnea Creek near Wilson. Considerable diurnal fluctuation from power-plant operation upstream.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15			Nov. 16 to Sept. 30		
0.6	13	0.6	10	4.0	597
.8	28	.8	23	5.0	817
1.0	48	1.0	42	6.0	1,038
1.3	86	1.3	81	7.0	1,268
1.6	130	1.6	127	8.0	1,510
2.0	194	2.0	193	9.0	1,820
2.5	283	2.5	280	10.0	2,280
3.0	384	3.0	379	12.0	3,540
4.0	602				

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	79	103	146	308	328	487	125	22	105	1,340	203
2	122	65	117	173	253	298	476	117	30	253	1,340	173
3	69	26	88	769	328	271	795	112	36	253	1,240	133
4	61	78	88	1,430	806	262	861	117	34	224	707	93
5	49	62	79	1,480	1,290	253	817	102	42	289	328	70
6	39	69	79	1,430	1,200	253	839	102	23	244	225	64
7	45	106	82	1,510	1,080	244	1,860	88	12	186	227	82
8	60	151	73	1,570	971	217	3,200	77	35	150	208	53
9	47	204	91	1,650	795	210	3,270	82	61	100	166	59
10	34	194	84	1,750	927	246	2,820	73	45	87	185	81
11	45	204	97	1,540	993	773	2,080	74	39	76	181	63
12	38	165	90	1,200	861	1,040	1,310	60	25	53	146	213
13	32	181	216	905	795	949	905	64	44	69	119	207
14	72	292	751	663	1,650	839	707	57	84	64	102	227
15	49	478	817	553	2,280	663	553	53	105	58	85	137
16	31	483	587	817	2,570	498	454	90	74	56	74	102
17	42	374	400	971	2,570	619	368	100	80	50	76	80
18	36	280	308	853	2,120	1,430	298	84	56	51	72	80
19	39	194	236	949	1,270	1,890	262	60	220	45	64	53
20	16	154	195	1,570	817	1,870	227	60	766	143	52	46
21	35	140	162	1,620	641	1,410	210	53	751	171	43	64
22	41	126	141	1,680	575	1,020	193	56	1,060	196	55	46
23	20	104	127	1,570	553	729	227	52	1,380	318	35	51
24	15	82	133	1,040	553	575	253	44	1,130	465	62	56
25	34	106	143	597	531	498	215	58	883	454	62	35
26	36	78	143	443	465	443	190	48	575	328	52	44
27	16	77	143	410	421	421	179	53	339	181	32	24
28	27	66	141	358	421	520	162	51	198	121	183	48
29	38	102	153	289	390	685	149	45	146	104	400	47
30	46	102	190	289	-	619	137	44	110	602	410	56
31	30	-	169	289	-	520	-	20	-	1,340	280	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				1,594	130	15	45.0	0.204	0.24			
November.....				4,822	483	26	161	.729	.81			
December.....				6,236	817	73	201	.910	1.05			
Calendar year 1935.....				82,975.8	1,620	3.8	227	1.03	13.95			
January.....				30,544	1,750	146	985	4.46	5.14			
February.....				28,434	2,570	253	980	4.43	4.78			
March.....				20,083	1,680	210	648	2.93	3.38			
April.....				24,604	3,270	137	820	3.71	4.14			
May.....				2,221	125	20	71.6	.324	.37			
June.....				6,384	1,380	12	279	1.26	1.41			
July.....				6,836	1,340	45	221	1.00	1.15			
August.....				8,531	1,340	32	275	1.24	1.43			
September.....				2,660	227	24	88.7	.401	.45			
Water year 1935-36.....				144,749	3,270	12	395	1.79	24.35			

## Contentnea Creek near Wilson, N. C.

Location.-- Water-stage recorder, lat. 35°41'15", long. 77°56'50", at bridge on U. S. Highway 301 just below municipal power plant, 1 mile above Atlantic Coast Line Railroad bridge, and 3 miles southwest of Wilson, Wilson County.

Drainage area.-- 245 square miles.

Records available.-- February 1930 to September 1936.

Extremes.-- Maximum discharge during year, 4,220 second-feet Apr. 9 (gage height, 12.58 feet); minimum, 5.5 second-feet May 14 (gage height, 0.70 foot).  
1930-36: Maximum discharge, that of Apr. 9, 1936; minimum, about 0.2 second-foot several days in October 1932 and December 1933.  
Maximum stage known, about 24.3 feet September 1924.

Remarks.-- Records good. Discharge Dec. 21-24 computed on basis of fragmentary gage heights and power-plant records. Extreme diurnal fluctuation from power operations. Considerable storage in pond above power plant for short periods during low flows.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Aug. 12 to Sept. 30)

0.9	10	5.0	1,040
1.0	15	5.5	1,150
1.3	37	6.0	1,275
1.6	79	7.0	1,550
2.0	162	8.0	1,925
2.5	302	9.0	2,350
3.0	474	10.0	2,820
3.5	655	11.0	3,320
4.0	800	12.0	3,870
4.5	925		

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	41	26	196	266	343	478	146	25	30	891	73
2	77	30	172	181	258	303	427	138	23	366	1,100	45
3	13	14	70	369	259	285	655	24	24	532	1,070	21
4	14	14	25	1,000	576	270	780	220	25	454	569	70
5	55	14	79	1,260	1,020	261	855	28	155	406	298	25
6	16	15	26	1,550	1,140	260	876	72	26	403	232	25
7	61	132	78	1,610	1,200	258	2,250	156	24	328	90	23
8	16	121	20	1,340	1,060	232	3,430	71	267	241	239	25
9	15	233	158	1,480	827	222	3,850	25	230	26	299	25
10	16	183	18	1,520	774	244	2,700	22	30	142	292	25
11	16	163	74	1,420	856	497	1,690	46	68	58	247	26
12	65	18	109	1,230	925	934	1,110	60	29	44	16	26
13	16	216	158	952	894	1,060	899	31	307	22	66	27
14	16	222	264	620	1,550	1,060	722	85	292	150	66	82
15	16	244	515	452	2,130	869	519	65	222	15	68	28
16	16	296	480	637	2,570	564	392	63	19	15	29	16
17	16	382	507	820	2,640	511	324	25	19	22	71	21
18	16	265	320	913	1,610	1,030	280	23	150	65	30	22
19	19	202	255	979	1,090	1,330	255	66	1,210	28	22	22
20	18	16	238	1,430	768	1,530	242	65	1,460	28	61	27
21	14	86	75	1,400	606	1,410	234	23	872	239	29	25
22	14	142	18	1,560	490	990	210	24	574	236	64	17
23	14	84	240	1,560	461	692	209	66	922	145	21	14
24	14	20	19	1,010	466	494	207	34	1,300	182	23	14
25	13	70	212	560	475	403	238	29	1,070	140	26	14
26	72	69	74	374	427	362	128	27	736	22	23	14
27	16	69	180	337	379	328	218	26	384	27	22	13
28	40	70	95	320	382	376	135	26	278	70	236	13
29	43	72	87	290	373	505	142	26	193	63	235	13
30	42	78	216	267	-	621	139	26	77	293	244	13
31	42	-	74	274	-	608	-	26	-	572	129	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	836	77	13	27.0	0.110	0.13
November.....	3,581	382	14	119	.486	.54
December.....	4,982	580	18	161	.657	.76
Calendar year 1935.....	85,517.5	1,530	4.2	234	.955	12.98
January.....	27,911	1,610	181	900	3.67	4.23
February.....	26,702	2,640	250	921	3.76	4.06
March.....	18,642	1,530	222	608	2.48	2.86
April.....	24,584	3,850	128	619	3.34	3.73
May.....	1,746	220	22	56.3	.230	.26
June.....	11,011	1,460	19	367	1.50	1.67
July.....	5,312	572	15	171	.698	.80
August.....	6,847	1,100	16	221	.902	1.04
September.....	804	82	13	26.8	.109	.12
Water year 1935-36.....	133,158	3,850	13	364	1.49	20.20

## Contentnea Creek at Hookerton, N. C.

Location.- Water-stage recorder, lat. 35°25'40", long. 77°35'05", at Hookerton, Green County, about 300 feet below highway bridge and 2½ miles above Wheat Swamp Creek.

Drainage area.- 691 square miles.

Records available.- November 1928 to September 1936.

Extremes.- Maximum discharge during year, 6,670 second-feet Apr. 11, 12; maximum gage height, 15.93 feet Apr. 11; minimum daily discharge, 100 second-feet (estimated) Oct. 24, 25 (no gage-height record).  
1928-36: Maximum discharge, 11,100 second-feet Oct. 6, 1929 (gage height, 18.9 feet); minimum, 13 second-feet Sept. 16, 17, 1932 (gage height, 1.17 feet).  
Maximum stage known, 23.3 feet September 1928.

Remarks.- Records good except those estimated, which are fair.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.5	103	8.0	945
3.0	152	9.0	1,185
3.5	206	10.0	1,460
4.0	265	11.0	1,860
4.5	330	12.0	2,490
5.0	400	13.0	3,330
6.0	555	14.0	4,340
7.0	745	15.0	5,510
		16.0	6,800

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	344	142	298	627	*1,010	1,530	1,430	507	121	1,320	1,760	415
2	291	147	298	665	*925	1,430	1,460	475	120	845	2,490	358
3	195	147	291	*945	*905	1,340	1,530	445	116	*945	2,970	265
4	190	157	272	*1,500	*1,100	1,260	1,600	430	150	*1,280	3,060	235
5	184	162	304	1,866	*1,500	1,180	1,560	400	241	1,560	2,890	229
6	178	173	272	2,210	*2,000	1,110	1,560	386	162	1,760	2,570	190
7	168	206	241	2,570	*2,400	1,080	1,970	386	142	*1,720	2,030	184
8	162	284	241	2,970	*2,600	1,040	3,150	324	206	*1,430	1,530	173
9	157	298	241	3,420	*2,600	965	4,340	310	212	*1,080	1,340	152
10	152	310	265	3,810	*2,600	965	5,630	317	268	*765	1,160	142
11	147	351	278	3,910	*2,400	1,310	6,540	278	372	475	1,040	142
12	152	372	324	3,910	*2,400	1,720	6,670	235	310	*360	885	142
13	142	386	342	3,910	*2,400	1,970	6,020	212	212	*300	705	142
14	142	507	808	3,810	*2,650	2,090	5,270	217	154	*240	491	142
15	132	805	1,210	3,510	2,970	2,350	4,450	223	223	*340	372	132
16	124	945	1,460	3,240	3,610	2,490	3,710	212	310	*280	330	126
17	125	965	1,560	2,810	4,120	2,570	3,060	212	317	*240	284	132
18	124	945	1,560	2,490	4,670	2,650	2,420	212	259	*259	259	137
19	112	905	1,530	2,210	4,790	2,810	1,860	195	223	206	241	121
20	*110	765	1,430	2,150	4,670	2,890	1,460	178	401	210	235	117
21	*120	705	1,210	2,090	4,340	2,970	1,160	168	785	420	223	147
22	*120	573	925	2,150	4,010	3,060	945	168	1,080	865	200	178
23	*110	507	685	2,210	3,510	3,060	865	173	1,560	785	190	162
24	*100	445	507	2,350	2,970	*3,000	865	157	2,280	591	190	142
25	*100	358	*480	2,490	2,490	*2,800	885	147	2,650	507	184	137
26	*110	324	*500	2,490	2,150	*2,400	825	142	2,730	573	173	132
27	132	284	*500	2,490	1,910	*2,000	765	142	2,730	445	168	125
28	132	284	*491	2,210	1,760	*1,700	695	132	2,730	337	311	118
29	137	298	507	1,720	1,640	1,530	627	125	2,490	241	415	163
30	137	304	609	1,400	-	1,460	573	120	1,910	408	430	458
31	132	-	609	1,180	-	1,400	-	121	-	1,040	415	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October.....				4,661	344	100	150	0.217		0.25		
November.....				13,064	965	142	435	.630		1.70		
December.....				20,248	1,560	241	655	.945		1.08		
Calendar year 1935.....				280,300	2,980	100	768	1.11		15.09		
January.....				75,307	3,910	627	2,429	3.52		4.06		
February.....				77,100	4,790	905	2,659	3.85		4.15		
March.....				60,130	3,060	965	1,940	2.81		3.24		
April.....				73,885	6,670	573	2,463	3.56		3.97		
May.....				7,749	507	120	250	.362		.42		
June.....				25,494	2,730	116	850	1.23		1.37		
July.....				21,827	1,760	206	704	1.02		1.18		
August.....				29,541	3,060	168	953	1.38		1.59		
September.....				5,428	458	117	161	.262		.29		
Water year 1935-36.....				414,424	6,670	100	1,132	1.64		22.31		

\*Estimated on basis of fragmentary gage-height record and comparison with records for station at Wilson; gage heights mostly missing and comparison poor.

## CAPE FEAR RIVER BASIN

Haw River near BenaJa, N. C.

Location.— Water-stage recorder, lat. 36°14'55", long. 79°33'45", at old High Rock mill site 500 feet above county road crossing, half a mile upstream from county line, and 6 miles east of BenaJa, Rockingham County.

Drainage area.— 168 square miles.

Records available.— October 1923 to September 1936.

Extremes.— Maximum discharge during year, 2,250 second-feet Jan. 20 (gage height, 9.5 feet, from floodmarks); minimum, 20 second-feet Sept. 20 (gage height, 1.10 feet).  
1923-36: Maximum discharge, 5,020 second-feet Oct. 3, 1929 (gage height, 13.54 feet), from rating curve extended above 3,200 second-feet: minimum, 6.3 second-feet Sept. 1, 1932 (gage height, 0.73 foot).

Remarks.— Records good except those for periods of ice effect, Dec. 23-28, Dec. 30 to Jan. 1, Jan. 29 to Feb. 1, which are fair. Discharge for periods of ice effect computed on basis of gage-height record, weather records, and comparison with other discharge records, principally those for station at Haw River. Occasional slight diurnal fluctuation from operation of gristmills.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 20				Jan. 21 to Sept. 30			
1.2	26	5.0	820	1.1	20	3.0	300
1.5	53	6.0	1,110	1.2	27	4.0	536
2.0	122	7.0	1,420	1.4	46	5.0	800
2.5	213	8.0	1,740	1.7	79	6.0	1,080
3.0	314	9.0	2,080	2.0	120	7.0	1,380
4.0	553	10.0	2,440	2.5	201	8.0	1,700
						9.0	2,046

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	61	134	60	120	158	333	130	46	65	238	39
2	48	53	103	102	124	150	438	126	54	77	196	31
3	44	53	84	552	130	163	692	117	48	103	113	35
4	36	46	76	1,120	232	171	614	116	44	106	86	44
5	35	54	70	1,200	366	174	486	114	45	92	68	52
6	32	53	65	1,200	414	163	1,030	109	49	75	67	40
7	32	128	70	1,390	311	150	1,840	102	44	66	134	34
8	33	161	70	1,450	322	142	1,600	98	49	62	510	39
9	35	148	78	1,260	290	135	968	96	71	57	800	33
10	37	148	87	1,110	333	136	996	91	77	47	537	45
11	37	120	80	820	279	232	968	87	78	52	210	51
12	34	91	70	579	252	271	718	119	63	68	124	45
13	33	206	125	416	277	279	535	134	163	77	113	36
14	32	211	173	336	556	242	402	119	166	62	84	
15	40	282	190	282	1,700	201	322	93	163	49	77	40
16	38	358	177	242	1,940	166	264	87	144	46	68	41
17	34	304	144	217	1,320	669	219	80	102	46	66	34
18	32	272	119	222	928	1,920	192	78	67	43	64	33
19	34	217	100	1,560	640	1,660	180	78	293	39	59	27
20	34	130	91	2,150	498	828	166	78	1,080	50	56	24
21	31	98	72	2,080	390	562	164	75	772	384	59	30
22	34	87	60	1,360	322	414	158	71	414	1,200	55	38
23	38	76	65	523	275	322	174	69	322	556	51	33
24	42	73	70	344	227	258	183	65	240	246	41	29
25	38	65	65	268	201	223	178	65	197	168	45	33
26	39	65	60	196	185	205	160	64	166	96	44	33
27	39	67	60	168	178	240	147	60	117	72	42	30
28	36	69	55	135	176	486	148	55	89	66	56	27
29	64	124	55	120	168	523	141	54	77	67	63	40
30	87	136	56	130	-	498	134	51	69	174	46	257
31	73	-	55	120	-	390	-	54	-	256	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	1,235	87	31	39.8	0.237	0.27
November.....	3,956	358	46	132	.786	.88
December.....	2,778	190	55	89.6	.533	.61
Calendar year 1935.....	56,145	1,050	20	151	.899	12.19
January.....	21,712	2,150	60	700	4.17	4.81
February.....	15,354	1,940	120	480	2.74	2.95
March.....	12,131	1,920	135	391	2.33	2.69
April.....	14,551	1,840	134	485	2.89	3.22
May.....	2,735	134	51	88.2	.525	.61
June.....	5,329	1,080	44	178	1.06	1.18
July.....	4,547	1,200	39	147	.875	1.01
August.....	4,211	800	36	136	.810	.93
September.....	1,516	257	24	43.9	.261	.29
Water year 1935-36.....	87,855	2,150	24	240	1.43	19.46



## Haw River near Pittsboro, N. C.

Location.- Water-stage recorder, lat. 35°41'00", long. 79°05'40", about 100 feet above Robinsons Creek, 2 miles below bridge on State Highway 90, and 5 miles east of Pittsboro, Chatham County. Zero of gage is 180.06 feet above mean sea level (survey by Corps of Engineers, U. S. Army).

Drainage area.- 1,340 square miles.

Records available.- November 1928 to September 1936.

Extremes.- Maximum discharge during year, 41,000 second-feet Apr. 7 (gage height, 20.73 feet); minimum, 19 second-feet Oct. 28 (gage height, 1.40 feet); minimum daily discharge, 33 second-feet Sept. 27.

1928-38: Maximum discharge, 47,300 second-feet Oct. 2, 1929 (gage height, 22.1 feet); minimum, 9 second-feet Oct. 13, 1930 (gage height, 1.32 feet); minimum daily discharge, 18 second-feet Sept. 30, Nov. 13, 1933.

Flood of August 1908 reached a stage of about 32.1 feet (discharge, 98,000 second-feet), from rating curve extended above 46,000 second-feet.

Remarks.- Records good except those for period of ice effect, Dec. 28 to Jan. 2, which are fair, and those for periods of missing gage heights, which are poor. Discharge for period of ice effect computed on basis of gage heights, weather records, and comparison with other discharge records, principally those for station at Haw River. Large diurnal fluctuation from power operations.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.6	28	2.6	270	5.0	2,300	10.0	9,320	16.0	22,700
2.0	79	3.0	530	6.0	3,360	12.0	13,110	18.0	29,700
2.3	149	4.0	1,360	8.0	6,010	14.0	17,220	20.0	37,900

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	165	335	610	320	850	970	2,250	714	164	367	2,970	*340
2	84	297	618	460	762	966	8,720	674	143	559	1,540	*340
3	146	127	570	*20,000	906	978	14,800	618	222	1,160	1,090	*240
4	182	239	368	*22,000	6,050	1,090	6,050	658	208	1,780	826	*820
5	124	200	370	*11,000	10,200	1,090	3,560	770	209	1,580	523	*170
6	47	227	293	*12,000	4,210	1,050	10,700	738	110	890	397	*170
7	174	220	249	*16,000	2,920	895	35,200	682	143	626	475	*240
8	169	1,780	270	*14,000	2,400	810	13,500	578	318	437	5,280	*360
9	86	1,320	293	*11,000	2,350	794	5,220	509	260	368	2,280	*280
10	138	690	476	*9,000	3,110	866	12,400	427	384	263	1,810	*400
11	132	550	450	*5,500	2,920	3,160	7,030	405	526	229	1,180	*500
12	133	518	378	*3,600	2,000	3,910	4,610	474	425	265	*800	*300
13	62	1,580	2,050	*2,600	2,020	2,600	3,560	610	1,080	257	*600	*320
14	144	5,850	5,020	*2,000	16,100	1,760	2,600	530	866	277	*440	*280
15	162	1,540	2,160	*1,800	19,500	1,400	2,100	453	610	368	*380	*320
16	83	1,090	1,400	*2,400	11,600	1,220	1,860	425	610	352	*340	256
17	162	1,050	1,050	1,950	6,560	8,690	1,630	358	446	411	*380	229
18	140	922	866	1,600	4,600	27,500	1,450	358	318	1,130	*400	256
19	167	794	714	11,500	4,280	10,000	1,220	432	7,310	404	*390	164
20	56	706	706	19,500	2,920	5,220	1,220	448	4,680	244	*380	46
21	73	538	538	13,500	2,400	4,600	1,180	384	3,020	868	*300	226
22	89	453	338	5,730	2,050	3,140	1,050	306	1,540	4,090	*200	495
23	46	296	351	2,960	1,810	2,250	1,050	221	1,650	2,040	*150	224
24	135	220	418	1,900	1,630	1,900	1,140	233	3,050	1,050	*260	180
25	88	307	390	1,400	1,500	1,950	1,050	234	2,550	650	*220	166
26	147	417	390	1,320	1,400	1,900	914	287	1,320	453	*260	113
27	40	321	340	1,320	1,320	1,680	906	313	930	397	*320	33
28	40	260	340	1,180	1,270	11,500	1,000	198	579	384	*400	100
29	195	377	340	986	1,090	7,090	938	240	474	282	*340	149
30	308	665	320	930	-	3,600	842	187	425	3,070	*180	122
31	483	-	320	986	-	2,700	-	177	-	7,500	*260	-
Month	Second-foot-days		Maximum	Minimum	Mean	Per square mile	Run-off in inches					
October.....	4,180		483	40	135	0.101	0.12					
November.....	23,617		5,650	127	787	.587	.65					
December.....	22,996		5,020	249	742	.554	.64					
Calendar year 1935.....	437,097		12,700	40	1,198	.894	12.15					
January.....	200,142		22,000	320	6,456	4.82	5.58					
February.....	119,728		19,500	752	4,129	3.08	3.32					
March.....	117,302		27,500	794	3,784	2.82	3.25					
April.....	149,150		35,200	842	4,972	3.71	4.14					
May.....	13,641		770	177	440	.328	.38					
June.....	34,659		7,310	110	1,152	.860	.96					
July.....	32,751		7,500	229	1,056	.788	.91					
August.....	28,261		5,280	150	815	.608	.70					
September.....	7,239		500	33	241	.180	.20					
Water year 1935-36.....	750,566		35,200	35	2,051	1.53	20.83					

\*Discharge computed on basis of other discharge records, principally those for station at Haw River; gage-height record missing.

## Cape Fear River at Lillington, N. C.

Location.- Water-stage recorder, lat. 35°24'25", long. 78°48'45", at highway bridge just below Norfolk Southern Railway bridge at Lillington, Harnett County, and 1 mile below Neill Creek. Zero of gage is 105.71 feet above mean sea level (survey by Corps of Engineers, U. S. Army).

Drainage area.- 3,530 square miles.

Records available.- December 1923 to September 1936.

Average discharge.- 12 years, (1924-36), 3,290 second-feet.

Extremes.- Maximum discharge during year, 73,200 second-feet Apr. 7 (gage height, 22.88 feet); minimum, 74 second-feet Oct. 18 (gage height, 0.45 feet); minimum daily discharge, 90 second-feet Oct. 23.

1923-36: Maximum discharge, 101,000 second-feet Oct. 2, 1929 (gage height, 27.55 feet); minimum, 8 second-feet Oct. 8, 1926 (gage height, 0.01 feet); minimum daily discharge, 8 second-feet Oct. 8, 1926.

Remarks.- Records good except those for periods of partly or wholly missing gage heights, which are fair. Large diurnal fluctuation caused by operation of Buckhorn power plant, 14 miles above.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.5	80	4.0	2,980	14.0	30,000
0.7	116	5.0	4,430	16.0	38,280
1.0	210	6.0	6,130	18.0	47,500
1.5	460	8.0	10,740	20.0	57,500
2.0	790	10.0	16,300	22.0	68,200
3.0	1,740	12.0	22,580		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*480	758	1,310	*850	*1,700	2,460	8,170	1,580	582	864	12,300	713
2	*482	782	1,110	*900	1,720	2,330	9,890	1,580	410	742	6,220	494
3	455	530	1,220	18,900	1,960	2,270	36,500	1,180	254	1,240	4,210	512
4	454	430	743	51,900	15,000	2,270	26,900	1,580	265	2,420	2,710	522
5	445	438	648	39,100	30,100	2,270	14,700	1,190	428	3,330	1,870	506
6	306	473	1,020	28,900	20,800	2,270	13,900	1,570	532	2,760	995	343
7	224	730	666	35,100	10,900	2,210	59,700	1,150	248	2,250	1,520	224
8	417	5,660	544	28,500	6,740	2,210	62,900	946	728	1,240	6,550	466
9	291	4,640	634	31,300	5,580	1,420	44,100	1,580	1,420	862	9,380	312
10	222	2,550	614	24,300	7,490	2,100	35,800	1,010	1,700	536	8,950	576
11	427	1,970	942	13,600	8,490	6,620	27,200	830	1,300	476	3,830	2,580
12	294	1,350	718	8,280	5,960	11,800	13,600	809	1,390	486	2,520	3,580
13	93	1,600	2,580	5,640	5,480	8,620	8,640	964	1,630	772	1,880	2,220
14	212	11,100	14,000	4,130	31,200	5,880	6,170	1,060	2,210	1,730	1,630	1,130
15	424	5,270	7,500	3,680	47,000	4,130	4,910	845	1,300	532	986	777
16	418	2,850	4,590	5,520	42,600	3,120	4,130	948	1,520	744	733	506
17	240	2,270	3,680	5,550	30,700	9,540	3,540	820	658	1,240	705	487
18	194	2,020	*2,850	4,280	*14,200	46,200	3,130	706	485	1,830	684	477
19	384	1,370	*2,350	14,900	*9,000	41,300	2,650	515	8,850	1,330	762	486
20	205	1,520	770	43,800	*7,000	26,000	2,660	732	14,500	1,170	552	761
21	195	1,040	1,580	*36,000	*5,410	12,600	2,460	585	7,350	1,400	619	498
22	302	952	851	*22,000	*4,590	8,180	2,400	729	3,180	3,760	781	754
23	90	1,070	980	*12,000	4,130	5,500	2,460	535	3,060	3,630	424	787
24	210	594	1,270	*6,000	3,830	4,430	2,520	498	16,000	2,500	393	520
25	314	494	956	*3,400	3,470	4,130	2,590	628	12,600	1,980	438	570
26	206	543	911	*2,780	3,190	4,860	2,330	523	4,760	1,170	196	516
27	257	658	*850	*2,590	3,050	5,100	1,850	480	2,630	766	324	336
28	91	705	*800	*2,460	2,920	17,100	2,030	442	2,160	786	3,440	292
29	245	885	*800	*2,400	2,720	24,600	1,780	582	963	468	3,620	482
30	522	886	*850	2,330	-	13,600	1,960	426	917	3,950	2,460	938
31	888	-	*900	2,270	-	7,110	-	140	-	19,700	1,340	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	9,965	888	90	321	0.091	0.10
November.....	54,038	11,100	430	1,801	.510	.57
December.....	59,217	14,000	544	1,910	.541	.62
Calendar year 1935.....	1,099,369	30,100	68	3,012	.832	11.59
January.....	463,260	51,800	850	14,940	4.23	4.88
February.....	337,730	47,000	1,700	11,650	3.30	3.65
March.....	292,230	46,200	1,420	9,427	2.67	3.08
April.....	411,770	62,900	1,780	13,730	3.89	4.34
May.....	27,193	1,580	140	877	.248	.29
June.....	94,151	16,000	248	3,138	.889	.99
July.....	66,654	19,700	468	2,150	.609	.70
August.....	85,230	12,500	196	2,686	.761	.88
September.....	22,465	3,580	224	782	.222	.25
Water year 1935-36.....	1,922,903	62,900	90	5,254	1.49	20.26

\*Discharge computed on basis of fragmentary gage-height record and comparison with the sum of discharge records for stations on Haw River near Pittsboro and Deep River at Moncure; gage heights partly or wholly missing.

## Cape Fear River at Fayetteville, N. C.

Location.— Water-stage recorder, lat. 35°02'50", long. 73°51'35", at highway bridge just below Cross Creek at Fayetteville, Cumberland County. Zero of gage is 20.23 feet above mean sea level (survey by Corps of Engineers, U. S. Army).

Drainage area.— 4,290 square miles.

Records available.— January 1889 to May 1903, September 1928 to September 1936.

Average discharge.— 21 years (1889-1902, 1928-36), 4,775 second-feet.

Extremes.— Maximum discharge during year, 75,000 second-feet Apr. 8 (gage height, 54.0 feet); maximum gage height, 54.9 feet Apr. 8; minimum discharge not determined, minimum gage height, 9.12 feet Oct. 27; minimum daily discharge (estimated), 320 second-feet Oct. 29.

1889-1903, 1928-36: Maximum discharge, 110,000 second-feet Oct. 4, 1929 (gage height, 63.43 feet); minimum, 73 second-feet Oct. 6, 1930; minimum daily discharge, 110 second-feet Oct. 5, 1930.

Maximum discharge known, estimated, 135,000 second-feet Aug. 29, 1908 (gage height, about 68.0 feet, from levels run to the flood crest as witnessed by local residents).

Remarks.— Records fair above 10,000 second-feet and poor below. Lock 3, about 20 miles downstream, creates about 10 feet of backwater at Fayetteville except during floods when the lock drowns out. This backwater, combined with diurnal fluctuation from operation of Buckhorn power plant and regulation on Rockfish Creek entering Cape Fear River between Fayetteville and Lock 3, has made the development of a discharge rating impossible for medium and low stages. Most of the record has, therefore, been estimated from study of gage heights, 37 discharge measurements, and comparison with records for stations at Lillington and on Lower Little River at Linden. Rate of change in stage enters into the determination of discharge during floods.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,100	1,100	1,600	1,700	3,200	3,800	10,000	2,800	400	1,430	16,800	2,150
2	900	1,000	1,900	1,700	2,420	3,600	9,080	2,400	700	1,280	11,100	1,100
3	750	1,000	1,600	8,580	2,600	3,400	45,400	2,200	600	1,570	7,600	900
4	700	800	1,600	42,600	9,680	3,400	35,200	2,200	500	2,710	5,720	900
5	700	700	1,200	47,600	30,400	3,400	24,800	2,200	500	3,830	3,610	900
6	650	700	1,100	39,200	29,500	3,400	18,500	2,000	600	3,940	2,420	850
7	580	800	1,400	41,000	19,000	3,200	49,100	2,200	700	3,110	2,420	700
8	500	4,280	1,100	39,600	13,800	3,200	72,300	2,000	650	2,420	4,280	600
9	650	5,720	1,000	40,800	10,700	3,200	63,600	1,700	950	1,500	10,200	700
10	550	4,540	1,000	35,700	10,500	3,000	52,200	1,970	3,000	1,100	13,600	700
11	500	3,000	1,000	25,200	12,200	5,960	43,000	1,640	2,800	750	8,500	3,000
12	600	2,400	1,200	16,300	10,000	14,000	28,400	1,400	2,200	700	5,000	4,760
13	500	2,200	1,300	11,000	8,960	12,900	20,000	1,400	2,200	800	3,400	4,050
14	360	8,500	10,800	8,000	23,800	9,700	13,500	1,500	2,600	1,900	2,400	3,110
15	460	10,000	12,000	6,560	45,500	7,100	9,000	1,600	3,200	1,920	2,000	2,060
16	600	5,400	7,800	7,160	50,600	5,720	7,000	1,400	2,200	1,000	1,700	1,540
17	600	3,610	6,600	8,360	42,800	5,950	5,500	1,400	2,200	1,000	1,300	1,200
18	460	3,010	5,480	7,100	27,400	34,200	4,400	1,300	1,400	1,800	1,200	1,000
19	400	2,610	4,280	9,440	18,400	46,500	4,000	1,100	2,200	1,880	1,300	950
20	550	2,240	3,410	37,000	13,400	36,400	3,800	950	17,000	1,800	1,200	950
21	420	1,900	2,200	42,700	9,900	23,400	3,600	1,100	11,000	2,150	1,000	1,100
22	400	1,500	2,420	35,000	7,600	15,200	3,400	1,000	5,500	2,910	1,100	1,600
23	480	1,400	1,760	19,600	6,500	10,100	3,400	1,000	3,610	4,760	1,200	1,800
24	340	1,500	2,020	11,100	5,500	7,400	3,600	850	10,700	3,410	900	1,500
25	400	1,200	2,100	7,200	5,000	6,440	3,600	800	16,500	2,610	800	1,100
26	480	1,000	1,800	5,600	4,600	6,920	3,400	950	11,000	1,880	800	950
27	400	1,000	1,700	4,400	4,200	8,000	3,200	900	5,000	1,290	700	900
28	420	1,100	1,600	3,800	4,200	12,500	2,800	850	3,210	1,000	1,720	900
29	320	1,200	1,600	3,600	4,000	29,600	2,600	800	2,330	1,000	5,240	850
30	500	1,300	1,600	3,400	-	20,500	2,600	850	1,640	3,000	4,280	1,200
31	800	-	1,700	3,400	-	12,900	-	700	-	15,600	3,210	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				17,040	1,100	320	550	0.122	0.15			
November.....				76,710	10,000	700	2,557	.596	.66			
December.....				87,870	12,000	1,000	2,835	.661	.76			
Calendar year 1935.....				1,473,381	27,900	200	4,037	.941	12.78			
January.....				574,400	47,600	1,700	18,530	4.32	4.98			
February.....				437,160	50,600	2,420	15,070	3.51	3.79			
March.....				363,990	46,500	3,000	11,740	2.74	3.16			
April.....				550,180	72,300	2,600	18,340	4.23	4.78			
May.....				45,160	2,900	700	1,457	.340	.39			
June.....				117,090	17,000	400	3,903	.910	1.02			
July.....				76,060	15,600	700	2,454	.572	.66			
August.....				126,700	16,800	700	4,087	.953	1.10			
September.....				44,020	4,760	600	1,467	.342	.38			
Water year 1935-36.....				2,516,380	72,300	320	6,875	1.60	21.83			



## Reedy Fork near Gibsonville, N. C.

Location.- Water-stage recorder, lat. 36°10'30", long. 79°37'00", a quarter of a mile below Huffiness Mill, 1½ miles above Buffalo Creek, and 8 miles northwest of Gibsonville, Guilford County.

Drainage area.- 135 square miles.

Records available.- September 1923 to September 1936.

Extremes.- Maximum discharge during year, 4,590 second-feet Jan. 20 (gage height, 13.28 feet), from rating curve extended above 1,400 second-feet; minimum, 2 second-feet Sept. 5; minimum daily discharge, 5 second-feet Sept. 6.

1928-36: Maximum discharge, that of Jan. 20, 1936: minimum, 0.8 second-foot Aug. 27, 1932 (gage height, 0.35 foot); minimum daily discharge, 1.8 second-feet Aug. 24, 1930.

Remarks.- Records good except those below 15 and above 1,500 second-feet and those for periods of partly or wholly missing gage heights, which are poor. Considerable diurnal fluctuation from power operations upstream. Flow slightly regulated by storage for Greensboro water supply 14 miles upstream, where an average daily discharge of 9.0 second-feet was diverted during the year.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Feb. 16 to Mar. 17, Aug. 8 to Sept. 30)

0.3	4	1.3	48	4.0	680	9.0	2,580
.4	6	1.6	78	5.0	1,010	10.0	3,000
.6	11	2.0	142	6.0	1,380	11.0	3,420
.8	18	2.5	257	7.0	1,760	12.0	3,840
1.0	28	3.0	390	8.0	2,160		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	28	117	29	44	49	*240	54	26	37	312	13
2	21	22	61	94	58	50	*1,000	51	20	44	296	17
3	15	19	33	815	143	120	*900	76	23	46	196	9
4	17	22	44	923	283	159	*500	155	26	97	70	15
5	18	21	102	995	252	134	*300	132	18	112	114	13
6	22	23	54	1,130	294	55	*2,000	119	23	44	123	5
7	50	89	32	992	229	44	*2,800	53	13	32	187	17
8	59	91	29	1,040	303	42	*1,000	45	26	28	174	13
9	40	74	35	841	285	44	*650	44	26	27	112	16
10	25	*43	82	623	258	111	660	43	38	27	76	21
11	21	*34	72	488	213	235	704	40	36	28	78	14
12	19	34	33	363	221	195	506	96	44	28	73	11
13	20	47	80	257	511	89	346	60	128	62	48	10
14	23	*92	92	205	1,100	60	264	43	152	88	58	18
15	21	200	67	191	1,570	84	230	38	121	38	79	20
16	19	262	52	207	1,180	122	217	35	42	60	55	19
17	20	184	39	176	713	*734	198	49	28	86	78	17
18	17	119	62	119	507	1,110	150	123	32	32	31	20
19	13	133	123	1,990	376	712	189	90	965	24	23	14
20	16	67	57	3,710	296	455	159	42	1,490	90	21	11
21	20	36	32	1,540	240	*309	81	37	331	458	20	24
22	23	30	25	516	196	*280	67	30	168	275	21	17
23	21	26	28	304	182	*240	77	28	108	63	16	15
24	22	23	27	202	175	*200	73	29	141	84	20	11
25	22	48	50	206	188	*400	65	31	191	107	15	17
26	19	110	57	204	168	*300	94	55	180	45	17	15
27	20	60	32	164	147	*400	175	45	118	31	16	14
28	22	39	29	103	72	*1,000	149	22	48	26	18	21
29	41	65	28	59	51	*900	69	24	36	33	16	21
30	41	70	27	55	-	*500	58	21	32	209	15	343
31	29	-	30	48	-	*260	-	24	-	341	19	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				754	59	13	24.3	0.183	0.21			
November.....				2,116	262	19	70.5	.530	.59			
December.....				1,631	123	25	52.6	.395	.46			
Calendar year 1935.....				41,898	1,100	12	115	.865	11.72			
January.....				18,589	3,710	29	600	4.51	5.20			
February.....				10,055	1,570	44	347	2.61	2.82			
March.....				9,393	1,110	42	303	2.28	2.63			
April.....				13,921	2,800	58	464	3.49	3.89			
May.....				1,734	155	21	55.9	.420	.48			
June.....				4,630	1,490	13	154	1.16	1.29			
July.....				2,702	458	24	87.2	.656	.76			
August.....				2,397	312	15	77.3	.581	.67			
September.....				791	343	5	26.4	.198	.22			
Water year 1935-36.....				68,713	3,710	5	188	1.41	19.22			

\*Computed from fragmentary gage-height record and by comparison with other records in vicinity, principally those for station on North Buffalo Creek near Greensboro.

## CAPE FEAR RIVER BASIN

Horsepen Creek at Battle Ground, N. C.

Location.- Water-stage recorder, lat. 36°08'30", long. 79°51'20", at bridge on U. S. Highway 411 three-quarters of a mile northwest of Battle Ground, Guilford County, and about 2½ miles above junction with Reedy Fork.

Drainage area.- 15.9 square miles.

Records available.- November 1925 to July 1931, May 1934 to September 1936.

Extremes.- Maximum discharge during year, 980 second-feet Jan. 19 (gage height, 7.07 feet), from rating curve extended above 330 second-feet; minimum, 2.5 second-feet Sept. 29 (gage height, 0.30 foot).

1925-31, 1934-36: Maximum discharge, that of Jan. 19, 1936; minimum, 0.7 second-foot July 24, 1926.

Remarks.- Records fair except those for period of missing gage heights, which are poor. Discharge during period of ice effect, Dec. 21 to Jan. 1, Jan. 24, 25, 28, 29, 31, Feb. 1, 8, 12, computed on basis of gage heights, weather records, and comparison with other records, principally those for stations on Reedy Fork near Gibsonville, North Buffalo Creek near Greensboro, and East Fork of Deep River near High Point.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	3.5	6.2	7	14	13	19	13	8.5	*20	16	3.9
2	3.5	3.3	5.6	29	14	13	252	13	8.3	*50	11	3.9
3	3.2	3.3	5.4	382	15	15	141	13	8.3	*24	9.8	3.9
4	3.1	3.3	5.3	119	80	13	29	13	8.3	*50	8.9	4.2
5	3.1	3.8	5.1	42	66	13	23	13	8.0	*20	8.3	4.2
6	3.2	3.8	5.1	170	26	12	382	12	7.2	*10	7.2	3.9
7	3.5	3.1	5.1	141	35	12	130	12	7.2	*7	7.0	3.9
8	3.3	10	5.3	78	20	12	42	12	7.6	*6	7.4	3.8
9	3.3	5.4	6.6	78	23	12	76	12	7.6	5.3	29	5.9
10	3.3	4.6	5.3	35	29	19	108	12	7.6	4.9	9.6	5.1
11	3.3	4.8	5.1	20	21	50	42	12	8.0	27	7.6	4.4
12	3.2	4.6	5.3	16	17	24	28	12	13	6.6	7.2	4.1
13	3.2	70	23	14	58	17	22	12	12	5.6	6.4	3.9
14	3.2	14	16	12	376	15	20	12	7.8	5.1	6.2	3.8
15	3.1	8.7	11	14	185	14	19	11	7.2	15	13	3.8
16	2.9	7.4	8.9	14	65	16	18	10	6.6	5.4	7.8	3.6
17	2.9	7.0	7.6	12	39	229	16	10	6.8	4.9	6.2	3.5
18	3.1	6.4	7.2	31	56	104	16	9.4	*9	4.8	5.6	3.3
19	3.1	5.8	6.8	598	30	34	16	9.1	*240	4.6	5.4	3.2
20	3.1	5.6	6.2	82	23	26	15	9.4	*30	4.4	5.3	3.1
21	3.1	5.4	5	29	21	22	15	9.1	*15	22	5.1	3.1
22	3.5	5.3	5	22	18	16	15	9.1	*9	7.6	4.9	3.1
23	3.3	4.9	5	18	17	15	18	8.9	*40	4.9	4.6	2.9
24	3.1	4.9	6	16	16	15	15	8.9	*46	4.2	4.2	2.9
25	3.1	4.9	6	15	16	16	14	8.7	*16	4.1	4.2	2.8
26	3.2	4.8	5	15	15	14	14	8.7	*10	4.1	4.4	2.6
27	3.1	4.8	5	15	15	54	14	8.7	*8	3.8	4.4	2.6
28	3.1	11	5	15	14	198	14	8.7	*7	3.5	4.2	2.6
29	8.2	12	5	14	14	31	14	8.7	*7	31	4.2	2.5
30	3.6	7.0	5	14	-	21	13	8.6	*6	184	4.1	225
31	3.5	-	5	14	-	20	-	8.5	-	76	3.9	-
Month	Second-foot-days			Maximum		Minimum		Mean		Per square mile		Run-off in inches
October.....	104.4			8.2		2.9		3.37		0.212		0.24
November.....	271.5			70		3.3		9.04		.569		.65
December.....	209.1			23		5		6.75		.425		.49
Calendar year 1935.....	5,091.2			287		2.2		13.9		.874		11.91
January.....	2,081			598		7		67.1		4.22		4.86
February.....	1,338			376		14		46.1		2.90		3.13
March.....	1,085			229		12		35.0		2.20		2.54
April.....	1,558			352		13		51.9		3.28		3.64
May.....	329.4			13		8.5		10.6		.687		.77
June.....	583.0			240		6		19.4		1.22		1.36
July.....	625.8			184		3.5		20.2		1.27		1.46
August.....	235.1			29		3.9		7.52		.473		.55
September.....	329.5			225		2.5		11.0		.692		.77
Water year 1935-36.....	8,746.6			598		2.5		23.9		1.50		20.44

\*Computed on basis of other discharge records, principally those for stations on Reedy Fork near Gibsonville, North Buffalo Creek near Greensboro, and East Fork of Deep River near High Point; gage-height record missing.

## Buffalo Creek near Greensboro, N. C.

Location.- Water-stage recorder, lat. 36°03'30", long. 79°43'35", at McConnell road crossing 3 miles east of Greensboro, Guilford County, and 6 miles above confluence with North Buffalo Creek.

Drainage area.- 32.8 square miles.

Records available.- August 1928 to September 1936.

Extremes.- Maximum discharge during year, 1,440 second-feet Apr. 6 (gage height, 8.20 feet), from rating curve extended above 720 second-feet; minimum, 2.6 second-feet Oct. 6 (gage height, 1.81 feet).  
1928-36: Maximum discharge, 1,870 second-feet Feb. 28, 1929 (gage height, 8.74 feet), from rating curve extended above 720 second-feet; minimum, 0.2 second-foot Oct. 2, 1930.

Remarks.- Records fair except those for periods of partly or wholly missing gage heights, Dec. 7-16, Dec. 23 to Jan. 7, Jan. 25 to Feb. 11, Sept. 1-22, which were computed on the basis of fragmentary gage-height record and comparison with other discharge records, principally those for station on North Buffalo Creek near Greensboro, and are poor. Sewage from Greensboro enters just above station.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	5.3	16	16	12	20	50	9.1	4.2	9.9	56	6
2	4.4	5.2	13	70	12	20	489	8.6	4.1	107	14	6
3	4.4	5.3	12	900	28	27	425	8.4	4.2	35	9.7	7
4	3.9	5.6	11	500	100	23	81	10	7.8	150	8.2	6
5	3.4	6.0	11	140	360	20	40	8.9	6.2	50	7.2	5
6	3.0	6.2	10	500	150	20	740	7.9	4.7	11	6.6	4
7	3.0	14	10	470	80	17	618	7.4	4.4	8.1	6.7	4
8	3.3	48	10	164	60	16	194	7.2	5.2	6.5	62	8
9	3.7	11	22	249	80	16	88	7.0	5.1	5.6	63	65
10	3.7	7.1	18	175	90	26	329	7.0	6.4	5.3	28	38
11	3.8	6.6	14	81	63	128	156	6.5	6.7	47	11	70
12	3.8	6.8	16	48	43	92	67	7.7	5.9	18	8.4	10
13	3.7	48	90	35	76	54	42	9.3	11	9.3	7.2	5
14	3.9	52	40	29	743	33	32	7.5	6.4	7.6	6.5	5
15	4.5	16	26	28	482	27	27	6.3	4.6	7.0	6.0	6
16	4.3	12	22	46	197	25	21	5.9	4.3	6.8	7.4	7
17	4.2	11	19	33	92	399	18	5.7	4.0	6.0	6.7	7
18	4.2	10	16	30	92	605	16	5.9	5.2	6.0	6.0	5
19	4.6	9.0	15	764	104	158	14	6.0	412	5.6	5.5	4
20	4.9	8.7	14	630	54	61	14	6.3	95	7.1	5.2	4
21	4.8	8.5	12	107	42	63	13	5.8	8.2	23	5.2	5
22	5.2	8.3	10	50	37	36	13	5.2	6.4	30	4.6	6
23	5.2	8.4	12	37	31	27	19	5.0	42	8.4	4.6	3.8
24	5.5	8.0	12	22	29	25	15	5.3	79	6.6	4.6	3.6
25	5.6	8.4	12	16	27	44	12	5.2	52	6.2	4.9	3.6
26	5.0	8.6	10	16	26	33	12	5.1	10	6.4	5.2	3.6
27	4.7	9.0	12	18	27	56	11	4.9	6.8	5.9	4.7	3.3
28	4.9	11	12	16	27	550	10	4.6	6.0	5.6	5.1	3.6
29	13	60	10	14	21	174	10	4.5	5.2	12	5.6	3.6
30	11	26	14	16	-	54	9.4	4.1	4.9	134	5.3	98
31	6.5	-	16	14	-	35	-	4.2	-	236	5.2	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	149.9		13		3.0		4.83		0.147		0.17	
November.....	450.0		60		5.2		15.0		.457		.51	
December.....	537		90		10		17.3		.527		.61	
Calendar year 1935.....	13,154.9		705		1.9		36.0		1.10		14.93	
January.....	5,224		900		14		168		5.15		5.94	
February.....	3,165		743		12		109		3.32		3.88	
March.....	2,884		605		16		93.0		2.84		3.27	
April.....	3,585.4		740		9.4		120		3.66		4.08	
May.....	202.3		10		4.1		6.52		.199		.23	
June.....	850.9		412		4.0		27.7		.845		.94	
July.....	932.9		235		5.3		31.7		.966		1.11	
August.....	326.3		63		4.6		12.5		.381		.44	
September.....	406.1		98		3.3		13.5		.412		.46	
Water year 1935-36.....	18,803.8		900		3.0		51.4		1.57		21.54	

## CAPE FEAR RIVER BASIN

North Buffalo Creek near Greensboro, N. C.

Location.- Water-stage recorder, lat. 36°07'10", long. 79°42'35", at county highway bridge 3 miles above junction with Buffalo Creek and 6 miles northwest of Greensboro, Guilford County.

Drainage area.- 36.4 square miles.

Records available.- August 1928 to September 1936.

Extremes.- Maximum discharge during year, 1,750 second-feet Jan. 19 (gage height, 11.38 feet), from rating curve extended above 1,040 second-feet; minimum, 4.8 second-feet Sept. 7 (gage height, 1.72 feet).

1928-36: Maximum discharge, that of Jan. 19, 1936; minimum, 1.6 second-feet Aug. 28, 1932.

Remarks.- Records good except those for period of missing gage heights, Oct. 5 to Nov. 23, which were computed on basis of other discharge records, principally those for station on Buffalo Creek near Greensboro, and are poor. Diurnal fluctuation from operation of mills except at high stages. Sewage from Greensboro and Proximity Mills enters above station.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.7	4.2	2.6	73	4.5	465	7.5	1,020
1.8	7.2	2.8	99	5.0	590	8.0	1,080
1.9	12.0	3.0	128	5.5	704	8.5	1,148
2.0	17.6	3.3	178	6.0	802	9.0	1,220
2.2	31	3.6	238	6.5	882	10.0	1,400
2.4	49	4.0	333	7.0	955	11.5	1,775

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	13	19	18	23	27	57	25	14	44	32	13
2	15	13	17	110	22	28	742	21	15	41	21	12
3	12	12	18	994	51	34	358	20	15	28	19	19
4	11	12	18	502	422	32	105	29	25	46	20	13
5	10	12	16	109	116	29	72	24	15	15	19	9.6
6	10	12	16	558	79	29	947	23	13	16	18	6.3
7	12	20	16	358	59	26	619	22	10	17	42	6.6
8	12	55	13	199	53	23	150	23	15	16	63	11
9	12	20	28	233	67	24	250	19	18	17	134	77
10	12	15	21	114	118	41	362	16	15	16	31	40
11	12	13	19	61	68	214	142	47	15	47	21	81
12	12	13	20	42	49	83	92	23	25	14	18	13
13	12	60	96	37	240	51	71	28	22	14	16	8.2
14	13	40	55	33	1,010	38	55	22	12	17	16	8.6
15	14	20	31	42	450	32	47	20	12	18	16	12
16	13	15	28	47	186	33	40	16	13	15	13	12
17	12	13	25	34	107	761	37	14	13	15	15	12
18	12	13	22	82	161	517	31	16	20	12	17	10
19	12	12	20	1,350	61	136	30	18	790	9.1	17	8.6
20	12	12	17	494	65	89	31	18	36	13	18	6.6
21	13	12	14	103	53	79	31	18	19	142	19	12
22	13	12	13	68	45	49	33	19	18	54	17	14
23	13	12	14	48	40	44	39	15	64	21	12	11
24	13	11	14	37	37	43	32	15	81	17	11	9.6
25	12	12	14	30	37	59	28	16	35	18	15	11
26	11	14	12	30	35	43	25	15	23	15	14	7.7
27	11	15	14	33	35	157	28	19	17	13	14	9.1
28	15	32	14	30	34	559	28	16	14	16	15	9.1
29	20	58	13	28	28	108	27	18	15	46	13	12
30	18	23	18	29	-	72	27	13	18	370	13	457
31	14	-	18	28	-	59	-	11	-	160	8.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	395	20	10	12.7	0.349	0.40
November.....	596	60	11	19.9	.547	.61
December.....	673	96	12	21.7	.596	.69
Calendar year 1935.....	16,802	825	6.9	46.0	1.26	17.16
January.....	5,681	1,350	18	183	5.03	5.80
February.....	3,781	1,010	22	130	3.57	3.85
March.....	3,521	761	23	114	3.13	3.61
April.....	4,536	947	25	151	4.15	4.63
May.....	619	47	11	20.0	.549	.63
June.....	1,417	790	10	47.2	1.30	1.45
July.....	1,302.1	370	9.1	42.0	1.15	1.33
August.....	718.6	134	8.6	25.2	.637	.73
September.....	932.0	457	6.3	51.1	.854	.95
Water year 1935-36.....	24,153.7	1,350	6.3	66.0	1.81	24.68

## West Fork of Deep River near High Point, N. C.

Location.- Water-stage recorder, lat. 36°00'10", long. 79°58'40", a quarter of a mile above State highway bridge at head of High Point Reservoir, about 2 miles northwest of Jamestown, and 3½ miles northeast of High Point, Guilford County.

Drainage area.- 33 square miles.

Records available.- June 1923 to September 1926, July 1928 to September 1936.

Extremes.- Maximum discharge during year, 2,570 second-feet Jan. 19 (gage height, 13.84 feet); minimum, 3.4 second-feet May 29 (gage height, 2.51 feet).

1923-26, 1928-36: Maximum discharge, that of Jan. 19, 1936; minimum, 0.3 second-foot Sept. 1, 1932.

Remarks.- Records good except those for periods of ice effect, Dec. 21, Dec. 27 to Jan. 2, Jan. 24, 28, 29, 31, Feb. 1, 7, 11, 12, which are fair. Discharge during period of ice effect computed on basis of discharge measurements, engineers' notes, recorder graph, weather records, and comparison with records for other stations. Slight diurnal fluctuation from operation of gristmill 4 miles upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	6.0	11	9.9	15	21	41	17	7.3	16	21	5.2
2	6.2	5.7	9.9	108	19	21	768	16	7.1	11	14	5.2
3	5.0	5.5	9.6	737	24	27	232	18	7.2	31	11	8.9
4	4.8	5.7	9.6	240	244	21	58	16	11	28	9.6	7.7
5	4.4	7.1	9.4	110	121	21	44	15	7.1	9.1	8.6	6.4
6	4.6	6.4	9.6	520	56	20	1,020	14	6.6	8.3	7.9	5.7
7	5.0	55	9.6	288	46	19	342	14	7.5	7.1	14	5.5
8	5.0	28	9.9	195	41	18	80	13	8.2	6.4	149	5.3
9	5.0	11	14	202	52	18	195	13	7.9	6.0	66	4.4
10	5.0	9.1	10	93	65	29	246	13	9.2	21	92	50
11	5.0	9.6	9.6	51	38	78	94	12	8.2	111	14	10
12	5.0	9.6	9.9	34	31	38	58	14	32	13	12	7.9
13	4.8	271	41	29	205	28	44	13	14	8.8	10	6.6
14	5.0	44	27	24	757	23	36	12	8.6	7.7	9.1	6.4
15	5.3	21	19	31	368	22	33	11	7.5	7.1	17	6.6
16	5.5	16	16	33	135	22	29	11	7.1	6.4	9.6	6.4
17	4.8	14	14	25	73	322	27	10	6.6	6.2	9.3	6.0
18	4.8	12	13	70	128	241	25	10	6.0	6.0	7.9	5.2
19	4.8	11	12	1,520	58	68	24	10	8.4	6.2	7.4	5.0
20	4.8	11	11	217	42	50	23	10	6.4	5.5	7.1	25
21	4.8	10	9.4	55	37	44	23	9.2	6.0	15	6.6	7.7
22	5.0	9.8	8.8	40	33	31	23	8.9	10	10	6.4	5.7
23	4.8	9.1	9.6	29	29	28	27	8.6	24	6.2	6.2	5.3
24	4.8	8.6	11	22	27	32	23	8.6	33	5.7	6.0	5.5
25	4.6	8.8	10	22	26	36	21	8.2	11	5.7	6.6	6.0
26	4.8	9.1	9.6	23	25	29	21	8.2	7.9	6.6	6.0	5.0
27	4.8	9.1	8.4	22	27	184	19	8.2	7.3	5.3	8.2	5.3
28	4.8	19	8.6	19	24	435	19	7.7	6.6	4.6	15	5.3
29	15	26	7.4	19	22	69	20	6.4	6.0	25	6.9	5.2
30	6.6	13	14	21	-	44	18	7.5	5.7	295	6.2	570
31	6.0	-	9.9	17	-	43	-	7.7	-	150	5.3	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October.....					165.6	15	4.4	5.34	0.162	0.19		
November.....					681.2	271	5.5	22.7	.688	.77		
December.....					361.8	41	7.4	12.3	.373	.43		
Calendar year 1935.....					9,849.5	514	3.0	27.0	.818	11.09		
January.....					4,825.9	1,520	9.9	156	4.73	5.45		
February.....					2,768	757	15	95.4	2.89	3.12		
March.....					2,082	435	18	67.2	2.04	2.35		
April.....					3,633	1,020	18	121	3.67	4.10		
May.....					351.2	18	6.4	11.3	.342	.39		
June.....					301.6	33	5.7	10.1	.306	.34		
July.....					850.9	295	4.6	27.4	.830	.96		
August.....					505.9	149	5.3	16.3	.494	.57		
September.....					850.0	570	5.0	28.3	.858	.96		
Water year 1935-36.....					17,397.1	1,520	4.4	47.5	1.44	19.63		

## Deep River near Randleman, N. C.

Location.- Water-stage recorder, lat. 35°53'40", long. 79°50'40", 500 feet below county bridge at Coltrane's mill, half a mile south of Guilford County line, and 7 miles north of Randleman, Randolph County. Zero of gage is 638.11 feet above mean sea level.

Drainage area.- 124 square miles.

Records available.- October 1923 to September 1936.

Extremes.- Maximum discharge during year, 7,600 second-feet Apr. 6 (gage height, 22.84 feet); minimum discharge, 2.0 second-feet Apr. 24, 28; minimum gage height, 1.62 feet Oct. 11, 24; minimum daily discharge, 4.9 second-feet July 28.  
1928-36: Maximum discharge, 8,470 second-feet Feb. 28, 1929 (gage height, 23.9 feet); minimum, 0.5 second-foot Nov. 28, 1931 (gage height, 1.41 feet); minimum daily discharge, 1.2 second-feet Nov. 12, 1933.

Remarks.- Records good. Large diurnal fluctuations from operation of Coltrane's mill. Slight regulation by storage in High Point Reservoir.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	10	22	19	73	87	193	54	7.2	13	169	22
2	12	19	22	91	60	120	2,650	41	14	111	118	12
3	8.6	15	18	2,850	106	90	1,120	51	13	57	63	15
4	15	15	27	1,010	1,080	96	290	68	9.4	243	32	35
5	7.7	17	14	460	752	88	190	56	68	87	14	11
6	12	17	29	1,760	318	84	3,950	65	40	100	17	8.0
7	6.6	52	29	1,350	233	51	2,650	52	11	70	199	10
8	7.5	69	10	720	159	75	520	33	23	57	364	11
9	13	49	29	802	228	114	535	26	22	24	281	51
10	19	40	25	438	372	58	1,250	22	15	18	147	107
11	9.5	40	16	226	239	278	499	47	20	669	100	109
12	7.1	23	46	162	162	214	283	36	26	96	92	34
13	10	394	101	164	551	152	204	51	85	70	38	6.9
14	11	248	142	93	2,980	70	172	32	26	46	21	39
15	11	95	99	120	1,410	86	146	43	55	39	17	18
16	11	85	118	164	594	86	134	30	23	94	34	35
17	11	28	61	82	334	1,610	122	11	9.1	39	35	8.8
18	12	43	89	113	492	1,150	103	36	5.4	35	26	9.5
19	10	22	65	4,390	315	384	105	26	31	27	11	9.6
20	9.1	16	51	2,100	224	265	103	13	24	15	15	25
21	13	18	66	282	178	229	98	30	19	18	32	7.1
22	11	19	66	192	122	154	102	13	61	28	9.2	16
23	11	18	77	143	132	163	58	31	87	17	14	40
24	11	8.6	68	100	153	135	41	30	197	19	28	11
25	12	40	60	78	113	161	41	81	113	14	17	6.4
26	19	16	25	82	109	134	48	33	32	22	17	25
27	6.0	73	16	120	110	344	69	13	43	16	7.5	6.7
28	15	68	14	70	102	1,970	56	12	60	4.9	24	11
29	37	126	28	70	63	405	59	7.4	89	16	14	11
30	24	33	39	87	-	247	60	5.9	37	554	15	639
31	17	-	41	74	-	184	-	6.6	-	560	27	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				391.1	37	6.0	12.6	0.102	0.12			
November.....				1,716.6	394	8.6	57.2	.461	.51			
December.....				1,608	142	10	48.6	.392	.45			
Calendar year 1935.....				40,017.7	2,230	4.0	110	.887	11.99			
January.....				18,422	4,390	19	594	4.79	5.52			
February.....				11,744	2,980	60	405	3.27	3.53			
March.....				9,272	1,970	51	299	2.41	2.78			
April.....				15,856	3,980	41	529	4.27	4.76			
May.....				1,057.8	61	5.9	34.1	.275	.32			
June.....				1,255.1	197	5.4	42.2	.340	.38			
July.....				3,178.9	669	4.9	103	.831	.96			
August.....				2,017.7	384	7.5	65.1	.625	.61			
September.....				1,348.0	639	6.4	44.9	.362	.40			
Water year 1935-36.....				67,777.2	4,390	4.9	185	1.49	20.34			

## Deep River at Ramseur, N. C.

Location.- Water-stage recorder, lat. 35°44'10", long. 79°58'40", 2,000 feet below railroad station at Ramseur, Randolph County, and 1½ miles below mouth of Sandy Creek. Zero of gage is 419.50 feet above mean sea level (survey by Corps of Engineers, U. S. Army).

Drainage area.- 545 square miles.

Records available.- November 1922 to September 1936.

Average discharge.- 13 years (1923-36), 355 second-feet.

Extremes.- Maximum discharge during year, 16,400 second-feet Apr. 7 (gage height, 22.23 feet), from rating curve extended above 8,000 second-feet; minimum, 2 second-feet Nov. 30 (gage height, 0.31 foot); minimum daily discharge, 14 second-feet Oct. 13, 1922-36: Maximum discharge, 21,100 second-feet Sept. 19, 1928 (gage height, 25.44 feet), from rating curve extended above 7,000 second-feet; minimum, 6 second-feet several times in October and November 1931; minimum daily discharge, 6 second-feet Oct. 20-22, 1931.

Remarks.- Records good. Large diurnal fluctuation from operation of power plants. Slightly regulated by storage in High Point Reservoir.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 3					Jan. 4 to Sept. 30						
0.4	12	2.0	395	8.0	4,280	0.4	12	2.0	415	9.0	4,545
.7	42	3.0	895	11.0	6,630	.7	47	3.0	870	12.0	6,890
1.0	93	4.0	1,480	14.0	9,100	1.0	100	5.0	1,990	15.0	9,500
1.5	217	6.0	2,820			1.5	235	7.0	3,200	18.0	12,200

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	58	85	114	149	225	490	196	70	118	228	16
2	52	28	132	515	177	264	5,210	143	52	105	252	64
3	61	30	121	9,170	280	297	3,470	131	60	258	201	51
4	73	36	95	4,120	2,760	266	795	217	61	662	154	60
5	23	33	58	1,170	2,410	250	562	177	59	275	117	37
6	23	34	49	3,750	825	221	7,220	166	35	212	78	41
7	81	200	26	4,380	569	192	10,900	150	29	159	368	71
8	70	377	30	2,070	466	157	1,610	146	61	154	2,980	48
9	22	122	77	2,260	506	230	1,450	87	111	124	1,260	68
10	25	97	104	1,260	872	287	3,670	87	158	99	435	179
11	26	132	65	648	586	906	1,340	153	111	799	271	264
12	16	95	84	466	426	653	820	141	81	256	221	130
13	14	301	273	395	1,240	461	637	126	224	178	186	85
14	24	617	481	338	7,170	333	518	116	126	180	158	141
15	25	234	257	304	4,310	267	456	124	161	123	53	80
16	26	117	249	460	1,800	396	409	60	108	105	52	59
17	22	108	203	421	962	6,200	363	52	88	170	85	57
18	21	133	157	191	955	4,500	400	151	90	54	105	60
19	16	132	136	6,130	832	1,140	217	120	651	55	83	29
20	24	95	135	5,300	557	742	316	118	122	120	103	37
21	29	76	100	776	463	729	286	105	60	162	87	64
22	35	26	50	509	405	498	287	83	102	96	35	36
23	27	158	409	355	435	305	42	880	67	41	39	
24	26	27	113	307	358	409	244	34	855	23	79	58
25	25	65	95	252	339	542	170	91	461	43	70	73
26	22	87	126	242	300	437	200	77	231	37	53	29
27	19	70	129	297	293	564	249	116	118	76	88	33
28	25	29	91	254	293	4,860	212	109	67	29	55	65
29	52	186	22	202	236	1,160	202	77	151	59	38	43
30	37	127	69	213	-	666	189	34	111	1,440	39	142
31	43	-	73	224	-	510	-	46	-	1,680	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	1,051	81	14	33.9	0.099	0.11
November.....	3,699	617	26	123	.359	.40
December.....	3,845	481	22	124	.362	.42
Calendar year 1935.....	113,898	5,560	10	312	.910	12.35
January.....	46,937	9,170	114	1,514	4.41	5.08
February.....	39,914	7,170	149	1,066	3.11	3.35
March.....	28,695	6,200	157	926	2.70	3.11
April.....	43,187	10,800	170	1,440	4.20	4.69
May.....	3,452	217	34	111	.324	.37
June.....	5,494	880	29	183	.534	.60
July.....	7,923	1,680	28	256	.746	.86
August.....	8,022	2,990	35	259	.755	.87
September.....	2,159	254	16	72.0	.210	.23
Water year 1935-36.....	185,388	10,900	14	507	1.48	20.09

## East Fork of Deep River near High Point, N. C.

Location.- Water-stage recorder, lat. 36°02'15", long. 79°56'45", at highway bridge a quarter of a mile above High Point Reservoir and 6 miles northeast of High Point, Guilford County.

Drainage area.- 15.9 square miles.

Records available.- July 1922 to September 1936.

Extremes.- Maximum discharge during year, 2,170 second-feet Jan. 19 (gage height, 5.14 feet); minimum, 2.2 second-feet Dec. 20 (gage height, 0.25 foot).  
1928-36: Maximum discharge, that of Jan. 19, 1936; minimum, 1.3 second-feet Dec. 17, 1930 (gage height, 0.15 foot).

Remarks.- Records good between 5 and 500 second-feet; others poor. Discharge computed on basis of once-daily gage heights and partial recorder record Nov. 1-5, Dec. 23, 24. A slight correction for ice effect was made on Feb. 7.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	3.6	5.4	5.2	8.5	10	15	7.8	3.9	15	8.6	3.4
2	3.8	3.6	5.2	49	8.7	10	421	7.8	3.9	5.1	6.8	3.4
3	3.6	3.8	5.2	308	12	11	59	7.4	3.6	22	6.0	4.9
4	3.4	3.8	4.9	58	125	10	24	7.9	4.3	11	5.2	4.2
5	3.4	4.2	4.7	38	46	9.7	20	7.1	3.9	4.8	4.7	3.8
6	3.6	3.8	4.7	265	21	9.0	564	6.8	3.9	4.6	4.7	3.6
7	3.8	39	4.9	55	17	8.7	128	6.8	4.6	4.1	38	3.6
8	3.6	8.0	5.2	90	15	8.4	32	6.5	4.6	3.9	46	3.4
9	3.6	5.2	6.2	78	25	8.4	130	6.5	4.8	3.9	20	10
10	3.4	4.7	5.2	32	29	20	78	6.2	5.1	30	8.3	8.1
11	3.6	4.7	4.7	19	16	43	36	6.2	4.3	63	6.8	4.2
12	3.4	4.7	5.2	14	13	18	24	11	16	6.2	6.0	3.6
13	3.4	103	21	12	179	13	19	8.4	8.3	5.2	5.4	3.4
14	3.6	12	14	10	356	11	16	6	4.3	4.5	4.9	3.4
15	3.4	7.7	9.7	14	125	10	14	5.7	4.1	4.2	5.4	3.4
16	3.4	6.8	8.0	13	53	10	13	5.7	3.9	4.0	4.7	3.4
17	3.4	6.2	6.8	11	32	185	12	5.4	4.3	4.0	4.7	3.4
18	3.6	5.6	6.2	45	63	64	11	5.1	3.6	3.8	4.2	3.2
19	3.6	5.2	5.9	789	23	24	11	5.4	22	3.8	4.2	3.1
20	3.6	4.9	5.2	45	19	21	10	5.1	4.1	3.6	4.2	4.2
21	3.6	4.7	4.9	23	17	18	9.9	4.6	3.9	17	4.0	3.6
22	3.6	4.7	5.2	18	15	13	11	4.6	6.1	4.7	4.0	3.2
23	3.4	4.4	5.2	13	13	11	12	4.6	14	4.0	4.0	3.2
24	3.6	4.4	5.4	11	13	14	10	4.6	24	3.8	3.8	3.4
25	3.4	4.4	5.2	10	12	14	9.6	4.3	5.7	4.8	3.8	3.4
26	3.4	4.4	4.7	11	11	12	9.6	4.3	4.3	4.0	3.6	3.2
27	3.4	4.4	4.7	9.7	13	160	8.8	4.3	3.9	3.8	7.5	3.2
28	3.4	12	4.9	9.0	11	120	8.5	4.1	3.6	3.4	5.1	3.2
29	8.7	9.2	4.7	9.0	11	26	8.8	4.1	3.6	49	3.6	3.2
30	4.0	5.9	6.5	9.4	-	19	8.2	4.1	3.2	204	3.6	327
31	3.6	-	4.9	8.4	-	16	-	4.1	-	27	3.2	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October.....					115.1	8.7	3.4	3.71	0.267	0.31		
November.....					299.0	103	3.6	9.97	.717	.80		
December.....					194.6	21	4.7	6.28	.452	.52		
Calendar year 1935 .....					4,920.8	203	2.9	13.5	.971	13.16		
January.....					2,081.7	789	5.2	67.2	4.83	5.57		
February.....					1,302.2	356	8.5	44.9	3.23	3.48		
March.....					927.2	185	8.4	29.9	2.15	2.42		
April.....					1,735.4	564	8.2	57.8	4.16	4.64		
May.....					182.4	11	4.1	5.88	.423	.49		
June.....					189.8	24	3.2	6.33	.455	.51		
July.....					532.2	204	3.4	17.2	1.24	1.43		
August.....					245.0	46	3.2	7.90	.568	.65		
September.....					440.5	327	3.1	14.7	1.06	1.18		
Water year 1935-36 .....					8,242.9	789	3.1	22.5	1.62	22.06		



Muddy Creek near Archdale, N. C.

Location.- Water-stage recorder, lat. 35°52'25", long. 79°52'25", 600 feet above county highway bridge, 2 miles east of Glenola brick plant, 3 miles southwest of Coltrane's mill, and 7 miles southeast of Archdale, Randolph County.

Drainage area.- 14.2 square miles.

Records available.- May 1934 to September 1936.

Extremes.- Maximum discharge during year, 2,030 second-feet Aug. 7 (gauge height, 10.10 feet); minimum, 0.14 second-foot Oct. 13, 19 (gauge height, 0.17 foot).  
1934-36: Maximum discharge, that of Aug. 7, 1936; minimum, 0.05 second-foot Sept. 4, 1934, Aug. 27, 28, 1935 (gauge height, 0.12 foot).  
No flow at times during 1930.

Remarks.- Records good except those computed on basis of staff gage readings and fragmentary gage-height record, Dec. 16-18, and those for periods of ice effect, Dec. 21, Jan. 24, 25, 28, 31, Feb. 1, 11, 12, which are fair, and those below 1 second-foot, which are poor.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.29	0.67	3.0	3.1	10	12	30	4.9	0.45	0.68	4.1	0.58
2	.26	.55	2.2	30	10	11	352	4.5	.41	1.2	2.5	.54
3	.36	.56	2.0	600	19	16	64	4.1	.37	2.9	1.8	1.1
4	.26	.61	1.8	97	251	12	36	4.1	.37	24	1.4	1.4
5	.23	.67	1.7	59	84	12	30	3.5	.37	3.0	.96	.87
6	.20	.73	1.6	344	39	11	652	3.2	.33	1.8	.80	.63
7	.20	17	1.6	93	29	9.8	283	3.0	.37	1.4	328	.54
8	.23	10	1.7	156	32	9.3	61	2.8	.45	.96	318	.49
9	.23	2.9	4.6	108	37	9.0	109	2.7	.45	.60	76	99
10	.23	2.0	3.4	56	52	15	177	2.4	.54	7.3	20	83
11	.23	1.6	2.5	33	30	47	66	2.1	.58	70	11	62
12	.23	1.5	2.2	24	21	21	43	2.0	16	5.2	8.4	7.8
13	.26	32	18	20	136	16	33	2.0	14	2.8	6.1	4.9
14	.23	7.6	11	17	469	12	26	1.6	1.6	2.0	4.5	3.0
15	.23	3.9	6.9	20	134	11	22	1.4	.80	1.5	3.7	2.7
16	.20	2.9	6.0	23	66	11	18	1.3	.68	1.2	3.5	2.4
17	.17	2.4	4.5	16	43	324	16	1.2	.58	.96	3.0	1.8
18	.14	2.1	3.9	17	64	114	14	1.0	.49	.87	2.5	1.4
19	.14	1.8	3.7	592	38	50	13	.96	.58	.68	2.1	1.2
20	.20	1.8	3.2	64	28	36	12	1.2	.49	.58	2.0	1.1
21	.20	1.7	2.5	36	24	34	11	.96	.41	.63	1.6	3.2
22	.20	1.6	2.5	26	21	21	11	.73	2.3	.80	1.4	1.5
23	.26	1.4	2.7	19	18	19	14	.68	25	.58	2.1	1.2
24	.29	1.3	3.2	16	17	21	11	.68	49	.49	1.3	.96
25	.23	1.3	2.9	15	16	31	9.3	.63	7.0	.45	1.4	1.0
26	.26	1.4	2.7	14	15	21	8.7	.63	3.3	.45	1.0	.80
27	.26	1.4	2.0	14	16	87	7.7	.58	2.1	.41	1.2	.73
28	.26	2.7	2.1	12	14	255	7.0	.54	1.5	.33	2.4	.80
29	7.1	13	2.0	12	12	48	6.4	.45	1.0	.26	1.3	.87
30	2.2	4.1	2.9	12	-	32	5.7	.45	.80	-	.87	96
31	.89	-	3.0	11	-	25	-	.45	-	22	.68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	16.67	7.1	0.14	0.538	0.038	0.04
November.....	123.18	32	.55	4.11	.289	.32
December.....	114.0	18	1.6	3.68	.259	.30
Calendar year 1935.....	5,435.10	235	.06	14.9	1.05	14.22
January.....	2,559.1	600	3.1	82.6	5.82	6.71
February.....	1,745	469	10	60.2	4.24	4.57
March.....	1,355.1	324	9.0	43.6	3.07	3.54
April.....	2,148.8	652	5.7	71.6	5.04	5.62
May.....	56.74	4.9	.45	1.83	.129	.15
June.....	132.32	49	.33	4.41	.311	.35
July.....	151.23	70	.26	5.85	.412	.48
August.....	815.61	328	.68	26.3	1.85	2.13
September.....	383.51	99	.49	12.8	.901	1.01
Water year 1935-36.....	9,629.26	652	.14	26.3	1.85	25.22

## CAPE FEAR RIVER BASIN

Lower Little River at Linden, N. C.

Location.- Water-stage recorder, lat. 35°16'00", lon. 78°46'40", at bridge on State Highway 21, 1 mile west of Linden, Cumberland County, 1 mile above Stewart Creek, and 4 miles above junction with Cape Fear River. Gage of stage is 71.57 feet above mean sea level (survey by Corps of Engineers, U. S. Army).

Drainage area.- 450 square miles.

Records available.- November 1923 to September 1936.

Extremes.- Maximum discharge during year, 5,630 second-feet Apr. 8 (gage height, 25.4 feet), from current-meter measurement during period of backwater from Cape Fear River; minimum recorded, 85 second-feet July 19 (gage height, 2.57 feet).

1923-36: Maximum discharge, 10,300 second-feet Oct. 2, 1923, based on current-meter measurements during period of backwater from Cape Fear River; maximum gage height, 35.5 feet Oct. 4, 1923, during period of backwater from Cape Fear River; minimum discharge, 33 second-feet Sept. 14, 1932.

Maximum stage known, 37.3 feet Sept. 21, 1923, during period of backwater from Cape Fear River (estimated discharge, 13,000 second-feet).

Remarks.- Records good except those estimated, which are poor, and those corrected for backwater from Cape Fear River Jan. 4-12, 20-23, Feb. 6, 7, 15-17, Mar. 18-21, 29-31, Apr. 3-5, 7-13, which are fair. Discharge during periods affected by backwater from Cape Fear River based on four discharge measurements and comparison with discharge record for station on Cape Fear River at Lillington. Considerable diurnal fluctuation from power operations except at high stages.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	644	*300	492	511	820	1,020	1,370	683	167	*260	2,210	*360
2	405	*260	430	549	820	921	1,440	664	167	*250	3,120	*300
3	*306	*220	385	1,330	882	921	1,700	625	155	*300	1,130	*300
4	*220	*200	362	2,600	1,850	942	2,000	625	153	*350	722	*320
5	*180	*200	322	3,200	2,520	880	1,800	549	175	*600	468	*300
6	*160	*220	308	2,400	2,400	942	1,910	492	195	*800	352	*260
7	*150	*300	319	2,200	2,000	942	4,000	474	122	*600	657	*200
8	*150	*500	321	2,000	1,740	880	5,500	466	222	*340	761	*260
9	*140	*850	356	2,600	1,650	780	4,600	412	304	*220	1,220	*260
10	*130	*650	368	2,400	1,880	820	3,800	375	702	*170	2,380	*300
11	*130	*500	419	2,000	1,750	1,410	3,200	399	530	*140	3,000	*500
12	*130	*400	378	1,700	1,700	1,700	2,800	352	492	*110	2,380	*1,000
13	*120	*500	656	1,410	1,620	1,870	2,400	409	780	*120	1,290	*650
14	*120	*800	1,410	1,250	2,550	1,450	2,040	368	742	132	880	*460
15	*130	*950	1,500	1,250	3,600	1,210	1,780	320	606	132	664	*400
16	*130	702	1,500	1,290	3,600	1,000	1,580	289	330	130	549	*360
17	*120	563	1,350	1,250	2,400	1,040	1,450	268	265	132	492	*360
18	*120	568	750	1,250	1,990	1,900	1,290	286	230	120	392	*340
19	*110	426	683	1,590	1,740	1,800	1,250	274	259	103	359	*350
20	*110	444	606	2,200	1,580	1,600	1,170	259	474	143	349	*360
21	*110	419	568	1,800	1,370	1,600	1,080	250	*1,800	293	346	*440
22	*110	419	568	1,600	1,370	1,500	1,040	236	*1,000	349	333	*1,100
23	*110	378	549	1,600	1,350	1,550	1,130	219	*600	349	274	*700
24	*110	382	530	1,370	1,290	1,130	1,210	128	*1,000	247	242	*500
25	*110	364	530	1,250	1,250	1,170	1,290	206	*2,000	172	285	*440
26	*100	349	606	1,080	1,170	1,210	1,130	216	*1,600	102	298	*400
27	*100	353	549	1,080	1,130	1,450	962	167	*800	105	301	*400
28	*100	351	492	1,040	1,080	1,780	860	187	*500	160	330	*380
29	*110	448	511	1,000	1,040	1,600	800	148	*360	146	*1,290	*440
30	*150	492	511	880	-	1,700	722	160	*300	408	*800	*1,200
31	*240	-	511	942	-	1,500	-	117	-	1,620	*500	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	5,049		644		100		163		0.562		0.42	
November.....	13,508		950		200		450		1.00		1.12	
December.....	18,630		1,500		308		601		1.34		1.54	
Calendar year 1935.....	184,212		2,200		40		505		1.12		15.22	
January.....	48,522		3,200		511		1,555		3.48		4.01	
February.....	50,002		3,600		820		1,724		3.83		4.13	
March.....	40,298		1,900		780		1,300		2.89		3.33	
April.....	57,304		5,500		722		1,910		4.24		4.73	
May.....	10,626		683		117		343		.763		.88	
June.....	16,930		2,000		122		564		1.25		1.40	
July.....	9,149		1,620		103		295		.655		.76	
August.....	27,294		3,000		242		880		1.96		2.26	
September.....	13,630		1,200		200		454		1.01		1.13	
Water year 1935-36.....	310,942		5,500		100		850		1.89		25.71	

\*Estimated on basis of comparison with discharge records for station on Cape Fear River at Lillington; gage-height record missing.

## Yadkin River at Wilkesboro, N. C.

Location.- Water-stage recorder, lat. 36°09'00", long. 81°09'00", at highway bridge connecting North Wilkesboro and Wilkesboro, Wilkes County, just below mouth of Reddies River.

Drainage area.- 480 square miles.

Records available.- October 1928 to September 1936. April 1903 to June 1909 (only gage heights June 1907 to June 1909), October 1920 to September 1928 at North Wilkesboro, 1 mile below. Records prior to June 1907 revised in North Carolina Department of Conservation and Development Bulletin 34.

Average discharge.-16 years (1920-36), 749 second-feet.

Extremes.- Maximum discharge during year, 10,800 second-feet Jan. 19 (gage height, 13.84 feet); minimum, 240 second-feet Sept. 27, 28 (gage height, 1.78 feet).

1903-9, 1920-36: Maximum discharge, about 23,000 second-feet Oct. 2, 1929 (gage height, 24.0 feet, from graph based on gage readings); minimum, 130 second-feet Jan. 31, 1934 (gage height, 1.55 feet).

Maximum stage observed, 34.5 feet July 1916.

Remarks.- Records good except those for periods of ice effect, Dec. 21 to Jan. 1, Feb. 2, 3, which are fair. Discharge during ice periods computed on basis of gage heights, weather records, and comparison with other discharge records, principally those for station at Yadkin College. Slight diurnal fluctuations from operation of power plant on Reddies River 1 mile upstream.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.8	250	2.6	705	4.0	1,660	5.5	2,740	8.0	4,860	11.0	7,800
2.0	350	3.0	965	4.5	2,010	6.0	3,140	9.0	5,800	12.0	8,850
2.3	520	3.5	1,310	5.0	2,365	7.0	3,980	10.0	6,800	13.0	9,900

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	444	478	562	500	757	770	1,140	868	574	405	427	315
2	432	449	532	1,130	750	764	2,070	868	562	586	383	325
3	432	432	508	5,700	750	822	1,940	868	550	742	388	496
4	422	394	502	2,250	1,840	776	1,480	998	568	640	378	812
5	410	427	478	1,480	1,600	764	1,310	868	562	494	416	484
6	405	410	466	2,920	1,100	750	7,310	835	574	532	410	372
7	388	438	460	3,010	1,030	731	3,410	828	544	538	826	398
8	416	502	460	2,010	900	712	2,080	809	598	460	1,920	368
9	422	432	472	2,290	900	712	2,010	796	692	438	867	410
10	416	405	478	1,870	900	724	2,220	796	980	422	606	416
11	394	383	472	1,420	796	932	1,870	770	668	400	1,170	388
12	400	580	454	1,170	809	868	1,620	770	770	416	562	350
13	388	2,930	1,010	1,030	868	790	1,450	770	858	520	466	361
14	378	1,170	1,060	932	2,000	750	1,340	776	580	562	438	350
15	405	783	790	1,060	2,440	724	1,280	724	532	432	514	356
16	422	672	705	1,280	1,800	744	1,200	718	538	394	508	356
17	388	653	634	1,060	1,450	4,520	1,170	712	514	553	538	335
18	405	580	592	1,170	1,310	2,670	1,100	698	508	562	427	320
19	394	562	562	8,700	1,140	1,590	1,060	705	616	422	479	310
20	394	544	538	3,440	1,030	1,480	1,030	712	638	410	806	352
21	378	526	440	1,890	965	1,560	998	666	478	620	672	416
22	405	502	500	1,520	932	1,310	1,030	653	478	502	466	335
23	405	502	500	1,280	868	1,170	1,100	646	490	400	410	310
24	394	472	500	1,060	835	1,170	998	640	550	388	481	325
25	378	444	460	1,030	835	1,310	965	640	514	388	491	378
26	378	472	420	965	822	1,240	932	628	472	388	405	300
27	388	472	440	932	835	1,530	932	622	472	383	492	300
28	366	590	460	776	822	2,350	932	604	449	540	432	300
29	2,300	783	460	900	753	1,700	832	586	422	372	372	591
30	724	616	440	868	-	1,360	900	586	422	507	388	1,730
31	526	-	440	770	-	1,240	-	580	-	544	340	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	14,797	2,300	366	477	0.994	1.15
November.....	16,593	2,930	393	520	1.21	1.44
December.....	16,786	1,060	420	542	1.13	1.30
Calendar year 1935.....	294,016	6,820	372	806	1.68	22.77
January.....	56,413	8,700	500	1,820	3.79	4.37
February.....	31,867	2,440	750	1,100	2.29	2.47
March.....	38,553	4,520	712	1,240	2.58	2.97
April.....	47,809	7,310	900	1,590	3.21	3.69
May.....	22,740	998	580	734	1.53	1.76
June.....	17,273	980	422	576	1.20	1.34
July.....	14,703	742	325	474	.988	1.14
August.....	17,468	1,920	340	563	1.17	1.35
September.....	12,869	1,730	300	429	.894	1.00
Water year 1935-36.....	309,680	8,700	300	847	1.76	23.98

## Yadkin River at Yadkin College, N. C.

Location.- Water-stage recorder, lat. 35°51'25", long. 80°23'25", at State highway bridge 1 mile southwest of Yadkin College, Davidson County.

Drainage area.- 2,250 square miles.

Records available.- July 1928 to September 1936.

Extremes.- Maximum discharge during year, 47,900 second-feet Jan. 20 (gage height, 24.92 feet); minimum, 903 second-feet Dec. 28 (gage height, 0.87 foot, result of extremely low temperature).

1928-36: Maximum discharge, 67,800 second-feet Oct. 3, 1929 (gage height, 29.8 feet), from rating curve extended above 45,000 second-feet; minimum, 395 second-feet Sept. 20, 1932 (gage height, 0.05 foot).

Remarks.- Records good except those for periods of missing gage heights, Oct. 1 to Nov. 1, Jan. 6-18, and those for period of ice effect, Feb. 2, 3, which are fair. Discharge during ice period based on gage heights, weather records, and comparison with other discharge records, principally those for station at Wilkesboro. Discharge for periods of missing gage heights also based on these comparisons. Slight diurnal fluctuation caused by operation of small power plant about 10 miles upstream.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.9	930	4.0	3,950	10.5	12,500	18.0	26,190
1.0	1,020	5.0	4,850	12.0	14,800	19.5	29,890
1.5	1,470	6.0	6,060	13.5	17,400	21.0	34,090
2.0	1,950	7.5	7,920	15.0	20,100	22.5	39,040
3.0	2,950	9.0	10,000	16.5	22,990	24.0	44,500

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,800	1,900	2,050	1,520	2,750	2,950	4,350	3,250	1,950	1,470	2,050	1,240
2	1,500	1,850	1,900	1,950	2,900	2,950	7,920	3,150	1,950	1,600	1,800	1,150
3	1,400	1,650	1,750	15,900	2,800	3,050	10,800	3,050	1,900	2,400	1,420	1,240
4	1,400	1,470	1,700	27,300	4,250	3,150	6,590	3,150	1,850	3,450	1,380	1,520
5	1,400	1,520	1,650	9,940	5,860	2,950	4,950	3,350	1,850	2,550	1,470	2,400
6	1,400	1,420	1,600	10,000	5,800	2,950	14,400	3,050	1,900	1,900	1,580	1,850
7	1,300	1,650	1,600	15,000	4,050	2,850	30,600	2,950	1,850	1,750	1,580	1,420
8	1,300	2,250	1,600	10,000	3,750	2,750	13,400	2,850	2,000	1,750	4,550	1,290
9	1,400	1,950	1,650	8,000	3,550	2,850	7,270	2,850	2,400	1,600	5,500	1,290
10	1,400	1,600	1,700	7,500	3,550	2,850	10,200	2,850	2,500	1,470	3,350	2,100
11	1,400	1,520	1,650	6,000	3,450	3,150	9,000	2,850	3,150	1,420	2,550	1,900
12	1,300	1,520	1,600	4,400	2,950	3,550	6,530	2,750	3,250	1,470	3,550	1,420
13	1,300	3,280	1,750	3,800	3,250	3,350	5,500	2,750	3,450	1,340	2,200	1,290
14	1,300	7,540	2,450	3,400	13,000	2,950	4,950	2,750	3,150	1,380	1,700	1,290
15	1,300	3,800	3,050	3,200	21,200	2,850	4,650	2,650	2,300	1,420	2,200	1,240
16	1,400	2,650	2,450	3,600	12,200	2,750	4,350	2,550	2,000	1,420	2,850	1,190
17	1,400	2,300	2,000	4,000	7,400	5,070	4,150	2,550	1,900	1,340	2,100	1,200
18	1,300	2,150	2,050	3,800	6,050	22,900	3,950	2,500	1,800	1,700	2,050	1,160
19	1,300	2,000	1,900	23,500	5,500	11,500	3,750	2,450	1,750	1,900	1,700	1,080
20	1,300	1,850	1,850	45,000	4,550	5,940	3,650	2,550	1,750	1,650	1,470	1,020
21	1,300	1,800	1,600	20,500	4,150	6,170	3,650	2,500	1,900	1,470	2,050	1,000
22	1,300	1,750	1,550	8,530	3,750	5,830	3,550	2,350	1,750	3,550	2,650	1,290
23	1,400	1,650	1,240	5,170	3,550	4,750	3,750	2,300	2,000	2,200	2,050	1,200
24	1,400	1,650	1,520	4,250	3,350	4,350	3,750	2,250	2,300	1,520	1,560	1,080
25	1,400	1,600	1,800	3,750	3,250	4,750	3,550	2,250	2,300	1,340	2,150	1,090
26	1,400	1,550	1,700	3,750	3,250	4,650	3,350	2,250	2,000	1,290	1,900	1,080
27	1,300	1,550	1,420	3,550	3,250	4,750	3,350	2,200	1,750	1,290	1,650	1,080
28	1,300	1,600	1,170	3,180	3,250	10,600	3,350	2,100	1,600	1,290	2,680	1,010
29	2,600	2,250	1,240	2,950	3,150	8,720	3,350	2,050	1,560	1,240	2,350	1,040
30	6,000	2,650	1,420	3,150	-	5,720	3,350	2,000	1,620	2,400	1,520	5,070
31	3,000	-	1,520	3,150	-	4,850	-	1,950	-	3,150	1,340	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	49,800	6,000	1,300	1,606	0.713	0.82
November.....	63,650	7,540	1,420	2,122	.943	1.05
December.....	54,840	3,050	1,170	1,753	.779	.90
Calendar year 1935.....	1,038,600	17,300	1,170	2,845	1.26	17.16
January.....	267,710	45,000	1,520	8,636	3.84	4.43
February.....	152,760	21,200	2,750	5,268	2.34	2.52
March.....	158,450	22,900	2,950	5,111	2.27	2.62
April.....	195,960	30,600	3,350	6,532	2.90	3.24
May.....	81,050	3,350	1,950	2,615	1.16	1.34
June.....	63,330	3,450	1,520	2,111	.938	1.05
July.....	56,620	3,650	1,240	1,794	.797	.92
August.....	66,780	5,500	1,340	2,219	.986	1.14
September.....	43,230	5,070	1,000	1,441	.640	.71
Water year 1935-36.....	1,254,680	45,000	1,000	3,428	1.52	20.74

## Pee Dee River near Rockingham, N. C.

Location.- Water-stage recorder, lat. 34°56'10", long. 79°51'10", at State highway bridge 1 mile above Falling Creek, 4 miles below Blawett Falls hydroelectric plant, and 6 miles west of Rockingham, Richmond County. Zero of gage is 81.81 feet above mean sea level (Carolina Power & Light Co. datum).

Drainage area.- 6,910 square miles.

Records available.- September 1927 to September 1936.

Extremes.- Maximum discharge during year, 188,000 second-feet Apr. 7 (gage height, 22.92 feet); minimum, 167 second-feet Oct. 14 (gage height, 0.57 foot); minimum daily discharge, 188 second-feet Oct. 13.

1927-36: Maximum discharge, 212,000 second-feet Sept. 19, 1928 (gage height, 25.38 feet), from rating curve extended above 110,000 second-feet; minimum, that of Oct. 14, 1935; minimum daily discharge, that of Oct. 13, 1935.

Remarks.- Records good except those below 1,000 second-feet, which are poor. Flow partly regulated by several storage reservoirs. Large diurnal fluctuations caused by operation of power plant upstream.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.6	170	2.0	1,280	6.0	20,410	16.0	110,000
.8	210	2.5	2,450	8.0	34,280	18.0	132,000
1.0	260	3.0	4,200	10.0	51,000	20.0	154,000
1.3	380	4.0	8,680	12.0	70,000	22.0	177,000
1.6	650	5.0	14,150	14.0	90,000	24.0	201,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,360	4,740	2,840	6,240	8,630	4,860	16,000	7,420	4,130	4,500	15,100	4,580
2	5,460	1,580	4,960	7,580	1,400	5,080	35,900	7,410	5,920	4,130	7,030	6,620
3	6,800	470	4,390	22,900	4,380	6,920	85,200	4,140	5,870	5,300	4,860	4,410
4	6,940	4,520	5,050	56,400	25,500	7,060	55,000	4,760	5,680	2,910	4,340	7,390
5	3,180	5,290	7,180	30,400	50,200	8,240	23,500	5,680	5,990	1,460	3,370	6,640
6	288	2,560	6,200	19,700	35,300	8,230	36,500	8,120	5,990	5,470	5,040	1,460
7	3,180	3,820	4,340	45,200	24,100	6,710	149,000	7,200	1,740	6,190	6,180	3,320
8	3,410	7,920	1,720	51,200	14,200	332	166,000	7,440	4,120	3,000	4,820	6,550
9	3,150	6,940	5,270	62,800	12,200	4,470	78,400	5,620	5,940	3,840	13,800	4,670
10	4,750	2,380	5,320	35,000	15,500	8,920	51,700	1,520	7,670	3,570	11,100	6,680
11	5,430	5,220	5,050	24,500	19,800	16,800	46,500	4,420	5,520	2,620	9,460	8,160
12	1,220	6,510	7,180	15,400	17,200	19,800	26,700	5,680	2,980	1,810	8,020	7,610
13	188	8,310	7,420	13,100	14,200	14,400	17,200	6,500	1,880	5,160	9,460	4,060
14	3,810	9,460	6,040	13,000	54,200	12,200	16,000	3,600	1,520	3,560	7,420	4,980
15	4,060	7,760	1,380	12,300	63,000	6,670	15,000	5,880	3,290	3,360	3,540	4,900
16	4,620	7,540	5,230	12,200	69,800	4,440	13,600	2,930	3,770	3,990	1,040	4,690
17	4,090	2,220	6,950	12,400	34,300	16,800	11,800	2,980	2,990	5,330	3,730	4,880
18	4,390	4,520	7,140	11,100	21,700	71,900	11,000	3,770	3,970	1,330	4,320	5,190
19	1,440	7,420	7,420	30,900	17,200	63,000	7,480	4,650	4,960	1,010	3,760	2,870
20	242	6,960	7,420	105,200	16,000	28,500	6,400	6,040	4,440	5,410	5,640	2,230
21	4,440	7,150	7,120	109,000	13,600	19,800	6,170	5,140	552	4,860	5,740	4,300
22	6,280	5,510	1,390	56,000	11,600	13,200	7,360	4,760	4,480	4,980	2,560	4,450
23	5,440	2,760	5,840	21,000	6,180	12,200	8,120	2,640	5,870	3,370	762	5,950
24	4,750	1,240	5,700	14,700	7,850	14,100	8,800	3,970	9,200	4,150	3,420	5,240
25	4,800	3,580	894	11,600	10,400	13,900	8,830	4,090	7,200	4,000	4,670	4,450
26	1,110	4,980	4,840	8,390	9,730	18,900	6,000	5,060	5,650	3,160	5,420	2,140
27	200	5,540	7,420	5,000	8,830	39,800	4,270	5,000	3,140	5,430	5,620	1,140
28	4,590	6,420	5,200	11,300	8,870	51,700	5,910	5,560	2,090	4,910	5,700	4,800
29	5,060	8,990	4,060	9,860	8,820	58,900	7,840	2,960	5,850	6,060	3,500	5,380
30	3,920	4,110	5,950	9,160	-	28,300	8,440	3,100	5,120	6,540	1,720	7,620
31	3,540	-	6,400	8,990	-	17,800	-	1,910	-	9,360	4,060	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	118,138		6,940		188		3,746		0.542		0.82	
November.....	153,020		9,460		470		5,101		.738		.82	
December.....	163,514		7,430		894		5,268		.782		.88	
Calendar year 1935.....	2,803,627		61,000		188		7,681		1.11		15.06	
January.....	851,550		109,000		6,030		27,470		3.98		4.59	
February.....	624,470		83,000		1,400		21,650		3.12		3.36	
March.....	602,732		71,900		332		19,460		2.81		3.24	
April.....	940,620		166,000		4,270		31,350		4.54		5.08	
May.....	149,940		8,120		1,520		4,637		.700		.81	
June.....	132,782		9,200		552		4,425		.641		.72	
July.....	130,770		9,360		1,010		4,218		.610		.70	
August.....	175,002		15,100		762		5,645		.817		.94	
September.....	144,990		8,160		1,140		4,833		.699		.78	
Water year 1935-36.....	4,185,328		186,000		188		11,440		1.66		22.52	

## Fisher River near Copeland, N. C.

Location.-- Water-stage recorder, lat. 36°19'55", long. 80°40'30", 300 feet above highway bridge on State Highway 268, about half a mile above Cody Creek, and 2 miles west of Copeland, Surrey County. Prior to Sept. 5, 1936, staff gage at same site and datum.

Drainage area.-- 125 square miles.

Records available.-- October 1931 to September 1936.

Extremes.-- Maximum discharge during year, 6,780 second-feet Apr. 6 (gage height, 10.5 feet, from graph based on gage readings), from rating curve extended above 1,800 second-feet; minimum, 46 second-feet Sept. 19 (gage height, 1.92 feet).

1931-36: Maximum discharge, 7,600 second-feet Oct. 6, 1934 (gage height, 11.15 feet, from graph based on gage readings), from rating curve extended above 1,800 second-feet; minimum observed, 21 second-feet Sept. 18, 1932 (gage height, 1.70 feet).

Remarks.-- Records good except those for periods of ice effect, Dec. 20 to Jan. 1, Jan. 30 to Feb. 2, Feb. 11, 12, and those for days of rapidly changing stage, which are fair. Discharge during periods of ice effect based on gage heights, weather records, and comparison with other discharge records, principally those for Yadkin River at Wilkesboro. Prior to installation of water-stage recorder the staff gage was read twice daily and graphs based on gage readings were used during days of rapidly changing stage.

Rating table, water year 1935-36, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.9	43	2.6	184	3.6	605	6.0	2,300
2.0	57	2.8	247	4.0	840	7.0	3,160
2.2	90	3.0	321	4.5	1,175	8.0	4,120
2.4	151	3.3	450	5.0	1,550	9.0	5,150 10.0 6,250

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	146	122	100	150	181	247	190	109	79	75	63
2	76	111	116	316	150	178	475	181	105	545	73	63
3	76	107	109	2,720	159	181	525	187	103	270	73	173
4	76	105	103	820	525	173	283	214	101	136	78	138
5	75	100	101	593	214	167	342	187	105	113	181	94
6	73	96	100	1,510	202	162	2,610	176	105	109	92	80
7	70	173	96	515	214	156	578	173	105	105	550	82
8	70	129	107	427	202	134	404	173	247	94	98	78
9	75	124	107	382	187	156	525	167	525	92	127	80
10	75	120	100	302	205	156	475	167	116	87	213	90
11	75	116	101	247	180	196	404	170	578	83	585	73
12	71	116	100	214	170	173	361	164	283	83	96	67
13	71	628	229	208	247	162	302	164	247	82	83	67
14	76	199	247	190	1,900	159	283	159	129	78	164	65
15	80	144	170	247	632	161	283	148	116	75	134	70
16	82	120	159	265	404	154	247	144	105	73	283	68
17	76	120	144	214	361	1,370	247	144	101	154	159	65
18	73	118	134	211	302	625	230	138	100	118	82	60
19	71	120	129	3,820	247	361	230	138	101	109	76	52
20	70	116	120	815	230	450	230	146	103	86	73	87
21	87	111	100	404	230	680	230	136	96	88	138	90
22	82	107	110	265	214	321	214	129	127	100	230	68
23	85	103	110	247	205	283	247	127	105	78	88	62
24	88	98	110	230	196	341	230	124	120	75	103	63
25	92	101	100	230	193	321	208	131	148	75	96	70
26	90	100	95	214	205	321	205	124	98	76	85	60
27	83	96	100	184	199	302	205	118	94	71	76	62
28	78	136	100	159	190	632	205	115	82	65	127	62
29	1,010	261	100	156	184	341	199	116	86	62	94	136
30	302	127	100	160	-	302	196	111	87	82	78	2,550
31	230	-	100	150	-	265	-	111	-	82	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	3,714	1,010	70	120	0.960	1.11
November.....	4,248	628	96	142	1.14	1.27
December.....	3,721	247	95	120	.960	1.11
Calendar year 1935 .....	73,732	3,790	70	202	1.62	21.97
January.....	16,315	3,620	100	526	4.21	4.85
February.....	8,697	1,900	150	300	2.40	2.59
March.....	9,554	1,370	151	308	2.46	2.84
April.....	11,420	2,610	198	381	3.05	3.40
May.....	4,670	214	131	151	1.21	1.40
June.....	4,541	578	151	151	1.21	1.35
July.....	3,423	545	62	110	.880	1.01
August.....	4,475	585	65	144	1.15	1.33
September.....	4,828	2,550	52	161	1.29	1.44
Water year 1935-36 .....	79,606	3,620	52	218	1.74	23.70

## South Yadkin River at Cooleemee, N. C.

Location.- Water-stage recorder, lat. 35°48'30", long. 80°33'45", below tailrace of Erwin Cotton Mills at Cooleemee, Davie County.

Drainage area.- 560 square miles.

Records available.- June 1928 to September 1936.

Extremes.- Maximum discharge during year, 9,220 second-feet Jan. 20 (gage height, 22.39 feet), from rating curve extended above 7,000 second-feet; minimum, 24 second-feet Sept. 28, 29 (gage height, 0.64 foot); minimum daily discharge, 133 second-feet Dec. 28.

1928-36: Maximum discharge, 24,600 second-feet (estimated) Oct. 3, 1929 (gage height, 32.25 feet); minimum, 10 second-feet Nov. 25, 1931 (gage height, 0.40 foot); minimum daily discharge, 46 second-feet Sept. 11, 1932.

Remarks.- Records good except those for period of no gage heights, May 7 to June 7, and those above 3,000 second-feet, which are fair. Discharge for period of missing gage heights based on comparison with other records, principally those of Yadkin River at Wilkesboro. Large diurnal fluctuations during low and medium stages caused by operation of Erwin Cotton Mills.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.0	73	3.0	836	5.0	1,620	12.0	4,240
1.3	156	3.3	962	5.5	1,795	14.0	5,060
1.6	260	3.6	1,088	6.0	1,970	16.0	5,930
2.0	415	4.0	1,250	7.0	2,320	18.0	6,900
2.3	555	4.3	1,370	8.0	2,700	20.0	7,900
2.6	660	4.6	1,480	10.0	3,460	22.0	9,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct..	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	272	243	327	297	386	602	977	671	440	348	564	232
2	246	230	348	578	555	621	3,710	598	420	351	423	322
3	251	271	308	3,000	598	625	5,110	615	420	482	389	426
4	245	325	254	5,400	1,690	660	3,270	636	420	729	364	459
5	230	241	299	5,070	2,730	642	1,270	625	420	476	353	371
6	266	262	283	3,250	1,760	598	3,470	597	420	482	283	314
7	318	368	178	4,370	1,140	551	6,700	550	420	361	892	328
8	273	561	285	3,850	955	553	6,540	550	456	364	2,210	328
9	278	360	382	2,630	860	595	2,810	550	1,470	347	2,440	309
10	238	316	267	2,360	1,020	573	3,100	550	1,620	251	1,530	299
11	333	404	315	1,360	805	1,040	2,700	550	2,800	268	752	319
12	249	249	255	1,010	698	954	1,650	550	1,940	317	833	261
13	236	1,200	405	900	891	785	1,330	550	873	375	454	223
14	312	1,120	520	693	3,390	656	1,120	550	619	446	439	294
15	246	562	455	841	5,270	620	1,040	500	552	316	537	351
16	253	325	479	1,160	4,670	688	961	500	515	285	427	180
17	238	375	324	893	1,980	2,130	886	500	440	311	528	345
18	260	411	381	945	1,600	4,120	834	500	414	306	454	176
19	238	339	336	5,310	1,400	3,080	815	500	451	396	320	290
20	292	329	315	8,710	1,140	1,550	798	500	435	334	263	148
21	328	254	219	7,520	946	1,650	771	480	417	443	403	268
22	221	378	164	2,490	851	1,320	751	480	490	894	367	306
23	275	230	331	1,120	794	997	817	480	459	410	324	239
24	249	199	241	857	751	948	794	460	580	409	411	202
25	246	323	329	789	732	1,180	792	460	541	255	398	255
26	210	285	326	705	649	972	646	460	498	308	457	186
27	260	279	283	673	676	1,940	704	460	334	401	890	253
28	339	239	133	605	676	3,850	673	440	371	266	605	263
29	447	445	290	497	602	2,470	703	440	410	258	434	321
30	753	303	351	611	-	1,370	686	440	324	1,050	381	1,030
31	384	-	283	588	-	1,050	-	440	-	1,310	442	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	9,016	753	210	291	0.520	0.60
November.....	11,415	1,200	199	380	.679	.76
December.....	9,666	520	133	312	.557	.64
Calendar year 1935.....	211,728	4,170	133	580	1.04	14.06
January.....	69,082	8,710	297	2,228	3.98	4.59
February.....	40,195	5,270	386	1,386	2.48	2.68
March.....	39,398	4,120	551	1,271	2.27	2.02
April.....	56,428	6,700	646	1,931	3.36	3.75
May.....	15,182	671	440	522	.932	1.07
June.....	19,959	2,800	324	665	1.19	1.33
July.....	13,550	1,310	251	437	.780	.90
August.....	19,577	2,440	263	632	1.13	1.30
September.....	9,278	1,030	148	309	.552	.62
Water year 1935-36.....	313,736	8,710	133	857	1.53	20.96

## Uharie River near Trinity, N. C.

Location.- Water-stage recorder, lat. 35°52'10", long. 79°59'10", 500 feet below county highway bridge 2 miles south of Trinity, Randolph County.

Drainage area.- 11.3 square miles.

Records available.- May 1934 to September 1936.

Extremes.- Maximum discharge during year, 1,500 second-feet (result of current-meter measurement) Apr. 6 (gage height, 5.62 feet); minimum, 0.17 second-foot July 29 (gage height, 0.46 foot).

1934-36: Maximum discharge, that of Apr. 6, 1936; minimum, that of July 29, 1936.

Remarks.- Records good except those below 2 second-feet and those for periods of ice effect, Dec. 6, Jan. 24, Feb. 3, 7, which are fair. Discharge for Nov. 5, 6 based on staff-gage readings.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.67	1.3	2.5	2.4	6.0	7.6	14	5.2	1.4	1.9	2.7	0.79
2	1.1	1.2	2.1	36	5.5	7.4	223	5.2	1.2	2.1	2.1	.79
3	.74	1.1	2.0	346	11	8.7	36	4.9	1.2	15	1.7	2.1
4	.67	1.1	2.0	53	163	7.4	21	5.2	1.2	21	1.4	1.5
5	.55	1.4	2.0	31	50	7.4	18	4.4	1.1	2.6	1.1	1.1
6	.61	1.1	2.1	228	23	6.8	442	4.2	1.1	2.3	.95	.87
7	.74	27	1.9	48	18	6.5	160	3.9	1.1	1.8	130	.79
8	.67	5.8	1.9	83	16	6.2	38	3.7	1.4	1.5	57	.79
9	.74	2.8	2.5	60	22	6.0	83	3.7	1.5	1.4	27	18
10	.67	2.2	2.4	29	28	8.9	78	3.5	1.7	1.1	8.4	66
11	.74	2.1	2.2	18	18	16	36	3.7	1.4	2.6	5.7	7.8
12	.67	2.0	2.2	13	14	13	25	3.5	3.2	1.4	4.2	2.9
13	.61	51	9.5	11	172	10	18	3.1	3.2	1.1	3.1	2.1
14	.61	7.5	7.0	9.7	249	8.4	15	2.7	1.5	.95	2.6	1.7
15	.67	4.6	5.5	10	77	7.8	14	2.6	1.2	.87	2.6	1.7
16	.90	3.2	4.8	10	37	7.8	12	2.6	1.0	.71	2.6	1.5
17	.61	2.8	3.9	9.7	25	130	11	2.6	.86	.71	2.1	1.4
18	.67	2.5	3.2	11	34	55	10	2.4	.86	.71	1.8	1.0
19	.74	2.4	3.0	455	21	24	9.4	2.6	.94	.64	1.6	.87
20	.67	2.2	2.7	58	17	19	8.8	2.4	.78	.51	1.5	2.0
21	.67	2.0	2.5	20	15	16	8.4	2.1	.78	1.3	1.4	1.6
22	.74	2.0	2.4	16	13	12	8.4	2.0	3.6	1.1	1.2	1.1
23	.74	1.9	2.5	11	12	11	8.4	2.0	12	.57	1.1	.95
24	.99	1.7	2.5	9.0	11	12	7.8	1.8	19	.39	4.1	.95
25	.82	1.7	2.4	8.7	10	14	6.9	1.8	2.9	.45	1.6	1.0
26	.74	1.7	2.1	8.7	9.0	12	6.6	1.7	2.0	.57	1.1	.79
27	.74	1.7	1.7	7.8	9.4	107	6.3	1.6	1.7	.45	3.2	.79
28	.74	4.8	2.1	7.1	8.4	122	6.0	1.5	1.5	.30	5.8	.87
29	14	5.1	1.9	7.1	7.8	29	6.0	1.4	1.2	.23	1.5	.95
30	1.7	2.8	2.7	7.4	-	19	5.4	1.5	1.1	36	1.4	108
31	1.40	-	2.2	5.7	-	16	-	1.5	-	13	.95	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	37.35		14		0.55		1.20		0.106		0.12	
November.....	150.7		51		1.1		5.02		.444		.50	
December.....	90.4		9.5		1.7		2.92		.258		.30	
Calendar year 1935.....	3,472.40		209		.39		9.51		.842		11.43	
January.....	1,609.3		455		2.4		51.9		4.59		5.29	
February.....	1,101.1		249		6.0		39.0		3.36		3.62	
March.....	736.1		130		6.0		23.7		2.10		2.42	
April.....	1,344.4		442		5.4		44.8		3.96		4.42	
May.....	91.0		5.2		1.4		2.94		.260		.30	
June.....	73.62		19		.78		2.45		.217		.24	
July.....	115.26		36		.23		3.72		.329		.38	
August.....	283.50		130		.95		9.15		.809		.93	
September.....	232.70		108		.79		7.76		.686		.77	
Water year 1935-36.....	5,865.41		455		.23		16.0		1.42		19.29	



## Rocky River near Norwood, N. C.

Location.- Water-stage recorder, lat.  $35^{\circ}08'40''$ , long.  $80^{\circ}10'45''$ , at Hyatts Ford, 1,000 feet below Lanes Creek and 6 miles southwest of Norwood, Stanley County.

Drainage area.- 1,380 square miles.

Records available.- October 1929 to September 1936.

Extremes.- Maximum floodmark during year, 52,800 second-feet Apr. 7 (gage height, about 32.0 feet, from floodmarks), from rating curve extended above 29,000 second-feet; minimum, 50 second-feet July 21 (gage height, 0.28 foot).

1929-36: Maximum discharge, that of Apr. 7, 1936; minimum, 19 second-feet Oct. 28, 1931, Nov. 13, 1933.

Maximum stage known, about 35 feet in August 1908 (estimated discharge, 60,000 second-feet), from present rating curve extended above 29,000 second-feet.

Remarks.- Records good above 1,000 second-feet and fair below, except those for period of missing gage heights, Feb. 21-25, which are poor. Discharge for period of ice effect, Dec. 25 to Jan. 1, Jan. 31, Feb. 1, computed on basis of study of gage heights, weather records, and comparison with other discharge records. Slight diurnal fluctuation during low stages.

Rating table, water year 1935-36 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

0.3	54	6.0	5,500	20.0	28,100
.5	96	8.0	8,240	22.0	31,900
1.0	244	10.0	11,200	24.0	35,800
1.5	516	12.0	14,300	26.0	39,800
2.0	900	14.0	17,600	28.0	44,100
3.0	1,860	16.0	21,000	30.0	48,400
4.0	3,000	18.0	24,500	32.0	52,800

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	214	156	253	260	650	671	2,540	402	70	110	2,930	110
2	170	122	244	914	678	686	21,100	358	94	208	668	101
3	139	127	204	23,000	916	656	24,400	312	78	834	358	101
4	149	108	183	24,500	19,000	663	6,640	307	76	952	248	3,630
5	120	103	180	11,000	16,300	640	2,520	283	730	390	190	1,200
6	132	115	183	11,900	5,560	618	23,600	266	139	262	156	332
7	108	553	167	22,500	2,940	618	51,500	240	113	170	584	183
8	115	3,820	173	17,000	2,460	538	31,700	240	98	132	2,400	139
9	122	1,180	186	18,200	2,360	588	7,180	229	132	120	3,120	127
10	139	516	212	7,970	4,890	824	14,400	214	441	101	1,950	1,050
11	120	390	257	3,430	4,480	10,900	7,480	210	290	92	3,200	3,030
12	127	278	214	2,240	2,620	4,830	3,480	193	228	81	1,700	1,150
13	127	2,450	553	1,700	5,480	2,410	2,460	186	340	72	523	330
14	106	3,920	1,760	1,350	28,400	1,500	1,800	190	215	70	307	180
15	110	1,030	949	1,120	16,400	1,120	1,450	173	139	62	229	139
16	849	581	702	1,430	7,300	948	1,250	156	108	64	425	125
17	1,170	420	503	1,450	3,360	7,980	1,030	142	96	58	444	120
18	297	385	379	1,120	2,520	20,300	900	144	89	60	402	108
19	164	292	321	20,700	2,410	7,420	812	127	126	60	274	96
20	127	248	287	29,300	1,860	2,640	748	132	140	60	740	104
21	108	229	257	13,200	1,400	2,240	709	127	103	311	139	750
22	108	217	221	2,450	1,200	1,650	656	132	89	562	204	698
23	106	199	210	1,700	1,100	1,250	671	120	615	470	125	220
24	113	183	186	1,200	950	1,120	764	108	2,700	307	108	142
25	110	173	180	948	900	2,650	648	101	1,530	214	198	106
26	110	161	170	876	884	9,960	559	108	496	139	191	92
27	113	173	170	966	876	17,200	523	96	240	106	179	87
28	98	176	170	836	844	20,000	493	101	173	81	640	76
29	110	214	170	610	772	11,500	457	96	139	76	408	85
30	266	358	170	640	-	3,330	450	86	125	2,180	176	1,600
31	257	-	170	650	-	2,240	-	85	-	5,980	130	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	6,104	1,170	98	197	0.143	0.16
November.....	18,877	3,920	103	629	.456	.51
December.....	9,984	1,760	167	322	.233	.27
Calendar year 1935.....	418,337	22,900	70	1,146	.830	11.28
January.....	225,150	29,300	260	7,263	5.26	6.06
February.....	139,410	28,400	650	4,807	3.48	3.75
March.....	139,390	20,300	538	4,496	3.26	3.76
April.....	212,910	51,500	450	7,097	5.14	5.74
May.....	6,663	402	86	183	.133	.15
June.....	9,952	2,700	70	332	.241	.27
July.....	14,384	5,980	58	464	.336	.39
August.....	23,346	3,200	108	753	.546	.63
September.....	16,191	3,630	76	540	.391	.44
Water year 1935-36.....	821,361	51,500	58	2,244	1.63	22.13

## Little Brown Creek near Polkton, N. C.

Location.- Water-stage recorder, lat.  $34^{\circ}58'45''$ , long.  $80^{\circ}11'20''$ , 1 mile southwest of State Convict Camp on U. S. Highway 74,  $1\frac{1}{2}$  miles above confluence with Brown Creek, and 2 miles southeast of Polkton, Anson County.

Drainage area.- 13.5 square miles.

Records available.- March 1935 to September 1936.

Extremes.- Maximum discharge during period March to September 1935, 525 second-feet June 3 (gage height, 4.00 feet), from rating curve extended above 110 second-feet; minimum observed, 0.02 second-foot July 11 (gage height, 0.05 foot).

Maximum discharge during water year 1935-36, 1,170 second-feet Mar. 26 (gage height, 5.58 feet), from rating curve extended above 110 second-feet; no flow June 4, July 11-15, Aug. 21 to Sept. 2, Sept. 19.

Remarks.- Records fair except those for periods of no gage heights and those above 150 second-feet, which are poor. Discharge for period of ice effect, Dec. 23-27, Dec. 29 to Jan. 1, computed on basis of gage heights, weather records, and comparison with records for station on North Fork of Jones Creek near Wadesboro. Gage-height record collected in cooperation with U. S. Soil Conservation Service.

Rating table, March 1935 to September 1936 except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

0.0	0.00	.8	7.5	2.3	102
.1	.04	1.0	10.9	2.6	160
.2	.20	1.2	14.3	3.0	250
.3	.70	1.4	18	3.5	375
.4	1.5	1.6	23	4.0	525
.5	2.7	1.8	37	5.0	900
.6	4.3	2.0	59		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	9.7	0.94	0.18	*0.06	*0.03	*0.07
2						-	7.0	.65	.12	.05	*.03	*.05
3						-	4.6	.42	104	*.10	*.03	*.20
4						-	5.7	.28	64	*.04	*.02	*1.0
5						-	6.6	.20	7.2	*.04	*.02	*220
6						-	78	.20	*2.3	*5	*.02	*50
7						-	55	.20	*1.0	*.5	*1.0	*10
8						-	85	.16	*.6	*.06	*2.2	*7
9						-	24	.14	*.40	.04	*.10	*6
10						-	13	14.3	*.30	.03	*.06	*80
11						-	9.4	3.8	.24	.47	*.04	*70
12						-	9.2	.78	.20	*.42	*.03	*30
13						-	18	.32	*.18	*.04	*.03	*10
14						-	12	5.1	*.16	*24	*.02	*6
15						-	7.2	9.6	*.14	*4.0	*.02	*5
16						-	4.6	1.7	*.13	*.8	*.02	*4.0
17						-	3.3	1.4	*.35	*.30	*.02	*3.5
18						-	2.7	.59	*.20	*15	*.02	*3.0
19						4.0	2.5	.28	*.15	*1.5	*.02	*3.0
20						4.3	2.2	62	*.12	*.40	*.04	*2.5
21						3.8	9.9	95	*.10	*.10	*.07	*2.5
22						2.7	6.2	12	*.09	*.05	*.05	*2.0
23						2.5	3.3	4.8	*.08	*.04	*1.7	*200
24						2.7	2.1	2.6	*.08	*.04	*.10	*40
25						65	1.7	2.3	*.07	*.03	*.03	*18
26						108	1.3	1.3	*.07	*1.1	*.02	*15
27						19	1.2	.78	*.07	*1.5	*.02	*20
28						12	1.2	.59	*.06	*.10	*.10	*150
29						7.5	1.7	.42	*.06	*.07	*20	*15
30						5.4	2.3	.32	*.06	*.04	*5	*5
31						9.5	-	.24	-	*.04	*.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....						
November.....						
December.....						
Calendar year .....						
January.....	-	-	-	-	-	-
February.....	-	-	-	-	-	-
March 19-31.....	246.4	108	2.5	19.0	1.41	0.68
April.....	390.6	85	1.2	13.0	.963	1.07
May.....	223.61	95	.14	7.21	.534	.62
June.....	182.71	104	.06	6.09	.451	.50
July.....	55.78	24	.03	1.60	.133	.15
August.....	31.36	20	.02	1.01	.075	.09
September.....	978.82	220	.05	32.6	2.41	2.69
Water year .....						

\*Computed on basis of comparison with other discharge records, principally those for station on North Fork of Jones Creek near Wadesboro; gage-height record missing.

## Little Brown Creek near Polkton, N. C.

(Continued)

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*2.0	0.86	1.9	1.5	5.1	6.1	48	1.2	0.02	0.02	0.70	0
2	*1.0	.70	1.3	55	6.4	5.3	415	1.0	.02	.02	.14	0
3	*.8	.53	1.1	484	59	9.1	47	.94	.01	.02	.06	4.5
4	*.6	.53	1.0	78	312	6.9	19	.78	0	.02	.04	5.6
5	*.5	.65	.94	40	63	8.8	66	.68	.25	.02	.02	.78
6	*.46	8.4	.86	225	25	10	346	.53	.09	.02	.02	.10
7	*.40	69	.86	87	32	6.7	396	.48	.04	.02	2.0	.06
8	*.36	33	.94	248	34	5.3	48	.42	.02	.02	.78	.05
9	*.32	9.6	1.5	103	81	4.6	53	.37	18	.02	5.8	2.6
10	*.30	5.4	1.4	45	94	171	146	.37	1.3	.01	1.2	4.6
11	*.26	3.8	1.1	22	42	123	56	.28	.53	0	.53	.28
12	*.24	3.2	.86	15	30	35	22	.20	.18	0	.32	.08
13	*.24	179	32	13	203	17	15	1.9	2.3	0	.12	.03
14	*.22	23	28	11	203	12	12	.24	.59	0	.06	.02
15	*.20	10	12	12	60	9.2	9.7	.16	.20	0	.04	.02
16	*.20	7.0	8.0	14	26	8.2	7.8	.12	.08	2.1	.03	.01
17	*.18	5.4	5.4	11	18	229	6.2	.16	*.04	.42	.03	.01
18	*.17	3.8	3.8	9.7	19	73	5.3	.16	*.02	.06	.02	.01
19	*.16	3.0	3.2	381	14	22	4.6	.09	*.30	.03	.02	0
20	*.15	2.9	2.6	41	11	15	4.3	.09	*.24	.02	.01	3.3
21	*.15	3.5	1.7	18	11	12	3.7	.08	*.20	4.6	0	1.6
22	*.14	2.7	1.7	14	14	8.7	3.2	.05	*1.5	.83	0	.10
23	.14	2.2	1.5	11	15	7.5	8.5	.04	*4.0	.12	0	.04
24	.14	1.9	1.4	7.9	12	14	4.3	.04	*15	.04	0	.15
25	.16	1.9	1.3	7.2	9.9	25	2.9	.03	*3.0	.02	0	9.8
26	.16	1.9	1.2	8.4	8.5	383	2.5	.03	*.5	.06	0	.32
27	.16	1.9	1.1	8.7	10	88	2.1	.03	*.20	.08	0	.09
28	.14	2.0	1.1	5.2	9.4	200	1.9	.02	*.10	.02	0	.04
29	16	5.4	1.1	4.9	6.9	31	1.7	.02	*.06	.02	0	.68
30	3.7	2.9	1.0	6.2	-	17	1.5	.02	.04	1.4	0	34
31	1.3	-	1.0	5.8	-	16	-	.02	-	5.7	0	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October.....					50.95	16	0.14	0.998	0.074		0.09	
November.....					396.07	179	.53	13.2	.978		1.09	
December.....					122.86	32	.86	3.96	.293		.34	
Calendar year .....												
January.....					1,993.5	484	1.5	64.3	4.76		5.42	
February.....					1,444.2	312	5.1	49.8	3.65		3.92	
March.....					1,579.4	383	4.6	50.9	3.77		4.35	
April.....					1,759.2	415	1.5	58.6	4.34		4.84	
May.....					10.52	1.9	.02	.339	.025		.03	
June.....					48.83	18	0	1.63	.121		.14	
July.....					15.73	5.7	0	.507	.032		.04	
August.....					11.94	5.8	0	.385	.029		.03	
September.....					68.85	34	0	2.30	.170		.19	
Water year 1935-36.....					7,474.13	484	0	20.4	1.51		20.61	

\*Computed on basis of comparison with other discharge records, principally those for station on North Fork of Jones Creek near Wadesboro; gage-height record missing.

## PEE DEE RIVER BASIN

North Fork of Jones Creek near Wadesboro, N. C.

Location.- Water-stage recorder, lat. 34°55'20", long. 80°04'05", 300 feet below county highway bridge  $\frac{3}{4}$  miles south of Wadesboro, Anson County, and  $\frac{5}{8}$  miles above confluence with Jones Creek.

Drainage area.- 10.0 square miles.

Records available.- March 1935 to September 1936.

Extremes.- Maximum discharge for period March to September 1935, 625 second-feet Sept. 5 (gage height, 3.65 feet), from rating curve extended above 55 second-feet; minimum, 0.3 second-foot Aug. 26, 27.

Maximum discharge during water year 1935-36, 755 second-feet Mar. 26 (gage height, 3.90 feet), from rating curve extended above 55 second-feet; minimum, 0.4 second-foot Sept. 3, 20.

Remarks.- Records good between 3 and 60 second-feet except those for period of ice effect, Dec. 22 to Jan. 1, which are fair, and those for periods of missing gage heights, which are poor; others poor. Discharge during period of ice effect computed on basis of gage heights, weather records, and comparison with other discharge records, principally those for station on Little Brown Creek near Polkton. Gage-height record collected in cooperation with U. S. Soil Conservation Service.

Rating table, March 1935 to September 1936 except period of ice effect  
(gage height, in feet, and discharge, in second-feet)

0.2	0.3	.7	4.8	1.6	29
.3	.6	.8	6.3	1.8	46
.4	1.1	1.0	10	2.0	73
.5	2.2	1.2	15	2.3	128
.6	3.5	1.4	21	2.6	200

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	24	4.5	2.5	0.6	0.6	1.0
2						-	10	4.2	2.1	.9	.5	.8
3						-	8.5	3.5	69	1.1	.5	3.1
4						-	8.5	3.1	36	.8	.5	11
5						-	7.7	3.2	12	.8	.5	174
6						-	40	3.2	7.7	15	.4	51
7						-	23	2.8	6.3	2.2	3.0	19
8						-	28	2.5	5.2	1.8	5.0	13
9						-	19	2.3	4.8	2.7	1.1	10
10						-	13	13	4.2	1.3	.6	41
11						-	11	4.8	3.6	1.8	.6	28
12						-	12	3.1	3.4	1.1	.6	28
13						-	14	2.5	3.2	8.0	.5	17
14						-	10	6.0	2.8	16	.5	12
15						-	3.9	5.7	3.1	3.2	.4	10
16						-	7.6	4.5	3.2	2.0	.3	8.7
17						-	7.0	3.6	2.5	2.0	.3	7.4
18						-	6.7	2.7	2.2	4.2	.5	7.4
19						-	6.5	2.2	2.0	2.2	.5	7.2
20						-	6.8	50	1.4	1.6	.5	6.8
21						-	14	25	1.3	1.2	.8	*6
22						5.4	7.6	11	1.1	1.0	.5	*5
23						5.2	6.2	7.6	1.0	.8	3.8	*150
24						5.2	5.7	6.8	.9	.7	.6	*80
25						6.7	5.2	5.8	.8	.6	.4	*34
26						27	5.0	4.7	.9	2.4	.3	*30
27						12	4.5	4.0	.7	2.8	.3	*44
28						10	5.1	3.5	.6	1.0	.5	*100
29						7.7	7.2	3.2	.6	.8	34	*50
30						7.2	7.2	3.1	.6	.6	17	*20
31						10	-	2.8	-	.6	1.5	-
Month						Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches	
October.....												
November.....												
December.....												
Calendar year .....												
January.....						-	-	-	-	-	-	
February.....						-	-	-	-	-	-	
March 22-31 .....						96.4	27	5.2	9.64	0.964	0.36	
April.....						339.9	40	4.5	11.3	1.13	1.26	
May.....						204.9	50	2.2	6.61	.661	.76	
June.....						185.6	69	.6	6.19	.619	.69	
July.....						81.8	16	.6	2.64	.264	.30	
August.....						77.1	34	.3	2.49	.249	.29	
September.....						975.4	174	.8	32.5	3.25	3.63	
Water year .....												

\*Computed on basis of comparison with other discharge records, principally those for station on Little Brown Creek near Polkton; gage-height record missing.

North Fork of Jones Creek near Wadesboro, N. C.

(Continued)

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*10	2.7	4.2	4.0	9.3	12	39	7.7	1.6	1.5	2.5	0.5
2	*5	2.6	3.9	21	10	11	188	7.6	1.5	1.6	2.0	.5
3	*4.0	2.5	3.8	153	56	15	46	7.2	1.4	1.8	1.5	16
4	*3.8	2.6	3.8	44	115	*11	32	6.8	9.2	2.8	1.1	11
5	3.5	10	3.5	28	45	*13	62	6.3	11	2.2	1.0	1.8
6	3.8	7.7	3.5	91	33	*15	145	5.8	2.2	1.5	.8	.8
7	3.8	30	3.5	54	33	*12	201	5.6	2.3	1.3	12	.8
8	3.5	9.4	3.6	113	28	*10	53	5.4	2.7	1.2	3.4	.8
9	3.4	6.0	4.5	60	48	9.6	46	5.2	33	1.0	13	9.4
10	3.2	5.2	3.8	36	43	62	80	4.8	5.4	1.0	3.1	2.8
11	3.2	4.8	3.4	28	31	46	48	4.5	4.4	.8	2.6	1.0
12	3.1	4.5	3.5	23	28	28	35	4.7	43	.8	2.1	.8
13	3.1	79	15	20	106	22	30	4.4	12	.8	1.5	.8
14	3.2	16	8.2	17	101	19	26	4.0	5.3	.9	1.3	.6
15	2.8	10	6.2	20	50	16	24	3.8	4.0	.8	1.2	.7
16	2.6	8.7	5.4	17	34	15	21	3.6	3.2	21	1.0	.6
17	2.5	7.6	4.8	15	28	78	19	3.5	2.8	3.4	5.6	.5
18	2.5	6.7	4.5	15	28	*46	17	3.2	2.3	1.8	1.2	.5
19	2.3	6.0	4.4	101	22	*50	16	3.2	4.5	1.6	1.6	.5
20	2.2	5.8	4.2	32	21	*22	15	3.2	3.9	1.4	1.3	1.6
21	2.1	5.6	3.8	24	21	*18	14	2.7	3.6	23	1.0	1.7
22	2.2	5.2	3.8	22	21	*15	13	2.6	3.0	3.2	.8	.8
23	2.1	4.7	3.6	17	19	*14	16	2.5	2.4	1.9	.8	.7
24	2.3	4.4	3.6	14	17	*24	12	2.5	8.9	1.6	.8	17
25	2.2	4.4	3.6	14	16	20	11	2.2	5.4	1.6	.8	4.5
26	2.2	4.4	3.4	14	15	122	11	2.0	3.9	1.6	.8	
27	2.1	4.3	3.4	13	17	61	10	1.9	3.1	1.0	1.0	*1.0
28	2.0	5.1	3.4	10	14	91	9.4	1.9	2.7	.8	.8	*.8
29	20	6.2	3.2	10	12	36	9.2	1.9	2.3	.8	.8	*5
30	3.9	4.4	3.2	12	-	29	8.5	2.0	1.9	1.1	.7	*50
31	3.1	-	3.0	9.8	-	41	-	1.8	-	1.4	.5	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October.....					115.7	20	2.0	3.73	0.373	0.43		
November.....					276.5	79	2.5	9.22	.922	1.03		
December.....					135.7	15	3.0	4.38	.438	.50		
Calendar year .....												
January.....					1,051.8	153	4.0	33.9	3.39	3.91		
February.....					1,021.3	115	9.3	35.2	3.52	3.80		
March.....					963.6	122	9.6	31.1	3.11	3.58		
April.....					1,287.1	201	8.5	41.9	4.19	4.68		
May.....					124.5	7.7	1.8	4.02	.402	.46		
June.....					214.5	43	1.4	7.15	.715	.80		
July.....					99.8	23	.8	3.22	.322	.37		
August.....					68.6	13	.5	2.21	.221	.25		
September.....					134.3	50	.5	4.48	.448	.50		
Water year 1935-36.....					5,463.4	201	.5	14.9	1.49	20.31		

\*Computed on basis of comparison with other discharge records, principally those for station on Little Brown Creek near Polkton; gage-height record missing.

## Lynches River at Effingham, S. C.

Location.- Water-stage recorder, lat.  $34^{\circ}03'$ , long.  $79^{\circ}45'$ , at steel highway bridge on U. S. Highway 52, 75 feet upstream from Atlantic Coast Line Railroad bridge and 1 mile south of Effingham, Florence County. Zero of gage is 58.70 feet above mean sea level, unadjusted.

Drainage area.- 1,070 square miles.

Records available.- August 1929 to September 1936.

Extremes.- Maximum discharge during year, 14,400 second-feet Apr. 12 (gage height, 18.66 feet); minimum, 272 second-feet Oct. 28.

1929-36: Maximum discharge, 15,200 second-feet Oct. 7, 1929 (gage height, 19.25 feet); minimum, 116 second-feet July 1, 1935.

Maximum stage known, 20.0 feet Aug. 30, 1908 (discharge, estimated, 18,000 second-feet).

Remarks.- Records good. Discharge for periods May 23 to June 12 and Aug. 29 to Sept. 13 computed from graph based on partial recorder record and daily gage readings.

Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 10

Jan. 11 to Sept. 30

2.5	240	8.0	1,490	2.5	265	6.0	894	13.0	4,105
3.0	306	9.0	1,840	3.0	340	7.0	1,185	14.0	5,155
3.5	379	10.0	2,190	3.5	417	8.0	1,490	15.0	6,490
4.0	461	11.0	2,610	4.0	505	9.0	1,840	16.0	8,260
5.0	554	12.0	3,265	4.5	595	10.0	2,190	17.0	10,310
6.0	894	13.0	4,105	5.0	685	11.0	2,610	18.0	12,610
7.0	1,185	14.0	5,090	5.5	781	12.0	3,265	19.0	15,160

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	572	306	411	676	1,740	1,630	1,910	1,340	385	667	370	385
2	572	349	461	721	1,490	1,600	2,420	1,280	401	487	340	417
3	552	411	514	868	1,520	1,520	3,600	1,180	434	385	355	401
4	514	444	552	1,000	1,910	1,420	4,700	1,120	417	370	434	417
5	478	427	552	1,160	2,220	1,400	4,700	1,060	401	332	541	385
6	478	395	496	1,180	2,300	1,360	4,200	976	371	318	631	434
7	444	395	461	1,400	2,720	1,340	4,440	894	370	318	631	505
8	411	427	427	1,910	3,040	1,300	7,550	844	378	340	451	649
9	372	478	427	2,220	3,340	1,240	8,260	801	417	362	362	631
10	354	478	444	3,370	4,020	1,440	7,880	761	451	340	362	667
11	349	572	461	4,600	5,280	2,050	12,500	722	417	310	401	577
12	354	676	461	4,400	4,920	2,080	13,600	703	417	295	505	469
13	313	744	514	4,300	4,100	1,940	11,400	667	451	302	631	505
14	320	817	572	4,600	3,580	1,940	9,050	849	525	332	761	541
15	313	792	572	4,700	3,260	1,800	8,260	613	613	295	894	577
16	306	633	592	4,300	2,980	1,700	7,880	595	585	295	1,000	577
17	306	612	612	3,660	2,840	2,020	6,190	595	741	288	1,160	487
18	306	676	676	2,910	2,780	2,660	4,700	577	761	310	1,300	385
19	320	721	766	2,500	2,610	3,340	3,750	541	741	318	1,300	355
20	354	792	768	2,260	2,980	2,980	2,910	523	613	401	948	340
21	364	698	654	2,080	3,660	2,560	2,460	523	469	451	613	348
22	356	572	572	1,880	3,420	2,300	2,190	523	434	541	613	348
23	334	514	533	1,800	2,980	2,050	2,080	505	451	469	577	340
24	292	444	533	1,860	2,500	2,380	1,910	487	487	523	505	355
25	279	444	514	2,230	2,260	3,120	1,770	487	505	595	469	401
26	279	444	514	4,030	2,080	3,040	1,700	469	487	613	417	434
27	279	427	496	4,300	1,940	2,610	1,630	451	505	577	401	401
28	286	427	496	3,500	1,840	2,370	1,490	454	559	577	401	378
29	292	427	533	2,710	1,770	2,300	1,420	417	631	631	385	355
30	306	427	633	2,220	-	2,050	1,360	401	685	577	370	401
31	313	-	676	1,980	-	1,910	-	385	-	401	378	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	11,308	572	279	365	0.341	0.39
November.....	15,969	817	306	532	.497	.55
December.....	16,895	768	411	545	.509	.59
Calendar year 1935.....	222,373	3,660	120	609	.569	7.72
January.....	81,345	4,700	676	2,624	2.45	2.82
February.....	82,080	5,280	1,490	2,830	2.64	2.85
March.....	65,750	3,340	1,240	2,056	1.92	2.21
April.....	147,910	13,600	1,560	4,830	4.61	5.14
May.....	21,822	1,340	385	694	.649	.75
June.....	15,199	761	370	507	.474	.53
July.....	13,020	667	288	420	.393	.45
August.....	18,506	1,300	340	597	.558	.64
September.....	13,495	667	340	450	.421	.47
Water year 1935-36.....	501,000	13,600	279	1,369	1.28	17.39

## Lumber River at Boardman, N. C.

Location.-- Staff gage, lat. 34°28'40", long. 78°56'35", at State highway bridge 1½ mile below Big Swamp and 1 mile below Atlantic Coast Line Railroad bridge at Boardman, Columbus County.

Drainage area.-- 1,240 square miles.

Records available.-- September 1929 to September 1936.

Extremes.-- Maximum discharge observed during year, 10,800 second-feet Apr. 13 (gage height, 10.09 feet); minimum, 315 second-feet July 17, 18; minimum gage height, 1.79 feet, July 18.  
1929-36: Maximum discharge observed, that of Apr. 13, 1936; minimum (estimated), 132 second-feet Oct. 12, 1930.

Remarks.-- Records good.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.8	315	6.0	1,560
2.0	350	6.5	1,980
2.3	406	7.0	2,580
2.6	466	7.5	3,380
3.0	548	8.0	4,300
3.5	658	8.5	5,380
4.0	770	9.0	6,700
4.5	894	9.5	8,360
5.0	1,040	10.0	10,400
5.5	1,250		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,080	526	770	1,360	2,320	2,720	4,920	1,630	486	868	526	426
2	1,010	548	724	1,420	2,200	2,580	5,380	1,560	466	818	466	426
3	950	570	724	1,630	2,200	2,440	5,880	1,490	446	794	446	446
4	894	592	702	1,790	2,320	2,320	6,140	1,420	426	770	426	496
5	842	636	702	2,090	2,440	2,200	6,420	1,360	426	770	426	526
6	818	658	680	2,320	3,040	2,090	6,420	1,300	406	724	446	570
7	818	680	680	2,440	3,560	2,090	6,420	1,250	387	614	446	570
8	794	702	702	2,720	4,100	1,980	6,700	1,160	387	486	526	570
9	770	724	724	3,040	4,500	1,880	7,320	1,080	387	446	680	526
10	746	746	724	3,560	4,700	2,090	8,360	1,080	406	426	818	466
11	680	770	724	3,920	4,700	2,320	9,960	1,040	426	406	868	446
12	658	770	746	4,300	4,700	2,580	10,400	980	466	426	868	446
13	592	794	894	4,700	4,920	3,200	10,400	950	506	426	794	446
14	548	818	1,120	4,700	4,920	3,560	10,400	548	548	387	680	466
15	526	842	1,250	4,700	4,920	3,740	9,140	894	570	350	614	466
16	506	868	1,420	4,500	4,700	3,560	7,660	868	592	332	636	466
17	486	894	1,560	4,300	4,700	3,560	7,000	818	614	315	724	426
18	486	920	1,560	4,100	4,700	3,560	5,880	794	658	315	694	426
19	466	950	1,560	3,920	4,500	3,560	5,140	770	724	332	1,040	446
20	446	980	1,560	3,740	4,300	3,560	4,500	770	868	350	1,120	506
21	426	980	1,490	3,560	4,300	3,920	3,920	724	920	397	1,040	592
22	426	980	1,490	3,680	4,100	3,920	3,560	702	894	466	894	636
23	426	980	1,420	3,040	3,920	3,740	3,040	680	868	426	794	570
24	426	950	1,420	2,680	3,920	3,560	2,720	658	794	426	724	466
25	406	920	1,420	2,720	3,740	3,560	2,580	636	746	446	636	387
26	406	894	1,420	2,720	3,560	3,380	2,320	614	680	466	506	368
27	387	868	1,420	2,720	3,200	3,920	2,090	570	702	466	426	368
28	406	868	1,360	2,880	3,040	3,920	1,980	548	724	506	446	387
29	426	842	1,360	2,720	2,880	4,100	1,880	592	770	548	446	426
30	466	818	1,360	2,720	-	4,300	1,710	548	794	548	466	466
31	506	-	1,360	2,580	-	4,500	-	506	-	570	466	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	18,801	1,080	387	606	0.489	0.56
November.....	24,088	980	526	803	.648	.72
December.....	35,046	1,560	680	1,131	.912	1.05
Calendar year 1935.....	420,950	7,080	150	1,153	.930	12.63
January.....	97,170	4,700	1,360	3,135	2.53	2.92
February.....	111,100	4,920	2,200	3,831	3.09	3.33
March.....	98,410	4,500	1,880	3,175	2.56	2.95
April.....	170,640	10,800	1,710	5,688	4.59	5.12
May.....	28,912	1,630	506	938	.752	.87
June.....	18,077	920	387	603	.486	.54
July.....	15,610	868	315	504	.406	.47
August.....	20,268	1,120	426	654	.527	.61
September.....	14,278	636	368	476	.384	.43
Water year 1935-36.....	652,430	10,800	315	1,763	1.44	19.57

## Black River at Kingstree, S. C.

Location.- Water-stage recorder, lat. 33°40', long. 79°50', at highway bridge at Kingstree, Williamsburg County. Zero of gage is 25.86 feet above mean sea level, unadjusted.

Drainage area.- 1,240 square miles.

Records available.- August 1929 to September 1936.

Extremes.- Maximum discharge during year, 9,910 second-feet Apr. 13 (gage height, 13.07 feet); minimum, 8 second-feet Sept. 20.

1929-36: Maximum discharge, that of Apr. 13, 1936; minimum, 4 second-feet June 30, July 1, 4, 5, 1935.

Maximum stage known, 18.0 feet Sept. 21, 1928 (discharge, estimated, 26,300 second-feet).

Remarks.- Records good. Discharges for periods June 28 to July 19, July 28 to Aug 20, Sept. 4-14, 25-30, computed from graph based on partial recorder record and daily or twice-daily gage readings. Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	576	65	290	788	1,660	1,660	2,870	987	49	176	49	34
2	520	61	284	811	1,660	1,790	3,900	898	45	144	35	32
3	468	59	277	859	1,660	1,720	6,200	844	40	112	34	28
4	419	58	270	958	1,720	1,600	7,560	787	40	84	33	24
5	373	59	264	1,070	1,660	1,540	8,420	694	36	70	32	23
6	337	68	258	1,170	2,200	1,480	8,710	648	32	60	28	22
7	316	131	251	1,280	2,870	1,430	8,420	562	29	50	25	21
8	296	227	245	1,500	3,970	1,330	8,130	522	31	44	25	19
9	290	251	251	1,720	4,970	1,240	7,280	466	28	36	23	19
10	277	245	258	2,020	5,690	1,330	7,280	422	28	29	24	17
11	270	245	264	2,300	5,940	1,600	7,840	389	27	24	25	16
12	264	258	270	2,510	5,690	1,660	9,310	357	25	23	26	15
13	251	284	296	2,740	5,440	1,660	9,910	319	24	23	34	13
14	239	323	358	2,870	4,970	1,790	9,610	290	52	20	66	12
15	227	351	380	3,010	4,540	1,720	9,310	256	60	23	102	11
16	209	368	388	3,010	4,340	1,720	8,420	230	51	36	125	10
17	191	419	388	2,870	3,970	1,790	7,000	211	36	30	150	10
18	174	419	368	2,420	3,630	1,940	5,690	187	27	49	112	9
19	158	435	368	2,510	3,310	2,110	4,540	170	24	44	86	9
20	142	435	368	2,300	3,010	2,110	3,800	154	38	51	64	9
21	127	419	368	2,200	3,010	2,020	3,160	160	54	53	52	9
22	116	419	368	2,110	2,870	1,940	2,620	160	67	44	48	9
23	104	403	419	2,020	2,740	1,940	2,300	144	104	48	48	12
24	94	380	435	1,940	2,740	1,660	2,020	125	160	56	56	17
25	84	358	451	1,790	2,510	1,660	1,790	108	211	54	63	16
26	78	344	485	1,720	2,400	2,200	1,600	94	242	52	59	16
27	71	323	485	1,660	2,300	2,620	1,430	83	256	40	49	16
28	65	310	485	1,600	2,110	2,740	1,280	73	249	32	43	15
29	60	303	502	1,600	2,020	2,870	1,200	66	230	25	40	14
30	60	296	616	1,660	-	2,870	1,090	59	205	21	39	14
31	63	-	721	1,660	-	2,870	-	54	-	61	36	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	6,919		576		60		223		0.180		0.21	
November.....	8,336		435		58		278		.224		.25	
December.....	11,531		721		245		372		.300		.35	
Calendar year 1935.....	112,187		2,510		4		307		.248		3.38	
January.....	58,878		3,010		788		1,899		1.53		1.76	
February.....	95,800		5,940		1,660		3,303		2.66		2.87	
March.....	59,610		2,870		1,240		1,923		1.55		1.79	
April.....	162,690		9,910		1,090		5,423		4.37		4.68	
May.....	10,499		987		54		339		.273		.31	
June.....	2,500		256		24		83.3		.067		.07	
July.....	1,614		176		20		52.1		.042		.05	
August.....	1,611		130		23		52.0		.042		.05	
September.....	493		34		9		16.4		.013		.01	
Water year 1935-36.....	420,479		9,910		9		1,149		.227		12.60	



## Catawba River at Catawba, N. C.

Location.— Water-stage recorder, lat. 35°42'50", long. 81°04'10", just below bridge on U. S. Highway 70 a quarter of a mile above Lyle Creek, half a mile above Southern Railway bridge, and 1 mile northeast of Catawba, Catawba County.

Drainage area.— 1,540 square miles (including Lyle Creek).

Records available.— July 1896 to April 1902, November 1934 to September 1936

Extremes.— Maximum discharge during year, 28,600 second-feet Jan. 19 (gage height, 20.24 feet), from rating curve extended above 18,000 second-feet; minimum, 130 second-feet July 20 (gage height, 2.25 feet).  
1896-1902, 1934-36: Maximum discharge observed, 81,500 second-feet May 22, 1901 (gage height, 29.0 feet, former site and datum), from rating curve extended above 10,000 second-feet; minimum, that of July 20, 1936.  
Maximum stage known, 44.1 feet July 1916 (by levels of State Bridge Department).

Remarks.— Records excellent except those below 500 second-feet and those computed on basis of fragmentary gage-height record, Feb. 28, 29, which are fair. Records include the discharge of Lyle Creek. Large diurnal fluctuation from power operations upstream. Flow largely regulated by several reservoirs. Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.2	115	4.0	1,580	11.0	12,950
2.4	180	5.0	2,920	13.0	16,350
2.7	320	6.0	4,450	15.0	19,750
3.0	520	7.0	6,150	17.0	23,150
3.5	1,000	9.0	9,550		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,290	2,360	286	2,000	2,050	184	4,190	2,890	2,040	1,490	610	1,740
2	3,530	1,210	2,000	3,160	478	2,750	9,250	1,240	2,650	1,560	173	1,990
3	3,270	214	1,480	4,920	3,020	3,540	9,500	176	2,070	1,250	1,210	2,130
4	3,530	2,700	1,890	1,730	4,060	3,410	4,350	2,670	1,860	547	1,140	1,710
5	1,350	3,330	1,760	572	4,160	3,320	6,250	3,570	1,780	139	1,060	627
6	1,010	3,080	1,650	4,140	4,070	3,580	13,800	2,920	584	1,170	970	234
7	3,130	3,390	689	4,080	3,430	1,150	16,900	3,490	145	1,220	1,420	1,540
8	3,320	2,490	692	3,730	1,250	233	10,200	3,280	1,920	1,350	1,020	1,960
9	3,310	710	2,010	3,660	226	2,860	8,550	1,840	2,180	1,460	584	2,440
10	3,560	182	2,000	3,540	3,060	3,600	8,540	176	2,160	1,270	2,130	1,940
11	3,300	2,660	1,880	1,860	3,320	3,320	4,730	2,700	2,310	670	2,020	2,400
12	1,770	2,660	1,670	758	3,220	3,620	5,640	3,290	2,240	182	2,040	346
13	669	2,820	2,180	3,350	3,600	3,180	5,040	3,550	828	1,540	2,070	213
14	2,870	2,240	830	4,230	5,210	1,110	4,780	3,420	156	1,460	2,350	2,100
15	3,200	2,320	196	4,340	1,420	180	5,410	3,320	1,860	1,690	656	2,160
16	3,030	698	1,900	3,900	1,480	5,040	4,690	959	1,840	1,420	395	2,470
17	3,160	332	1,650	4,090	3,350	3,640	4,270	159	2,050	1,300	1,670	2,680
18	3,160	2,660	2,510	2,220	3,560	3,440	2,510	2,420	2,490	732	1,560	3,260
19	1,580	2,850	1,960	17,400	3,340	3,450	214	2,380	2,200	139	1,520	2,200
20	713	2,840	2,120	12,700	3,030	2,730	3,770	2,140	752	1,520	1,980	1,660
21	3,060	2,900	952	6,160	3,250	1,110	4,200	2,990	592	1,540	2,160	2,360
22	3,910	3,000	1,380	5,480	1,020	235	3,280	3,070	2,140	1,280	843	2,690
23	4,040	926	2,240	4,200	204	2,840	3,100	960	1,740	1,150	678	8,530
24	4,080	517	1,940	3,600	2,980	3,120	3,280	146	1,410	1,120	1,980	3,020
25	5,930	3,300	639	2,090	3,430	3,320	1,410	2,640	1,120	652	1,940	3,460
26	1,720	3,990	2,100	231	3,520	2,570	250	3,260	1,140	136	2,080	550
27	1,200	3,370	2,650	3,080	3,490	3,210	2,580	3,250	614	1,100	2,140	406
28	3,140	3,800	3,100	3,720	3,400	1,940	3,690	3,490	145	1,100	2,010	2,360
29	3,680	3,880	1,370	3,220	1,100	380	3,580	3,500	931	2,140	1,350	3,360
30	2,480	2,230	1,960	3,670	-	2,940	3,670	1,830	1,180	2,210	264	3,960
31	2,400	-	2,000	3,560	-	3,990	-	256	-	1,560	1,870	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	86,182	4,080	669	2,780	1.81	2.09
November.....	70,139	3,990	162	2,338	1.52	1.70
December.....	52,104	3,100	196	1,681	1.09	1.26
Calendar year .....						
January.....	125,281	17,400	231	4,041	2.62	3.02
February.....	79,738	5,210	204	2,750	1.79	1.93
March.....	77,392	3,840	180	2,497	1.62	1.87
April.....	161,794	16,900	214	5,393	3.50	3.90
May.....	72,181	3,570	145	2,328	1.51	1.74
June.....	45,137	2,650	145	1,604	.977	1.09
July.....	36,697	2,210	136	1,184	.769	.89
August.....	44,093	2,350	173	1,422	.923	1.06
September.....	61,466	3,960	213	2,080	1.33	1.46
Water year 1935-36 .....	912,224	17,400	156	2,492	1.62	22.05

## Wateree River near Camden, S. C.

Location.— Water-stage recorder, lat. 34°14'50", long. 80°39'20", at steel highway bridge 5,000 feet (revised) upstream from Seaboard Air Line Railroad bridge, 3 miles southwest of Camden, Kershaw County. Zero of gage is 119.735 feet above mean sea level.

Drainage area.— 5,010 square miles.

Records available.— January 1903 to June 1910, October 1929 to September 1936.

Extremes.— Maximum discharge during year, 165,000 second-feet Apr. 7 (gage height, 36.63 feet); minimum, about 180 second-feet Dec. 23 (gage height, 1.60 feet) caused by shutdown of power plant; minimum daily discharge, 270 second-feet Nov. 10.

1904-10: Maximum discharge (estimated) 198,000 second-feet Aug. 28, 1908 (gage height, 39.7 feet, from records of U. S. Weather Bureau, superseding figure previously published), at site 1½ miles downstream; minimum daily discharge, 690 second-feet Oct. 21, 1907.

1929-36: Maximum discharge, that of Apr. 7, 1936; minimum, about 153 second-feet Oct. 3, 1932, and Dec. 25, 1933 (gage height, 1.49 feet).

Maximum stage known, 40.4 feet July 18, 1916, from records of U. S. Weather Bureau at site 1½ miles downstream (discharge estimated, 207,000 second-feet).

Remarks.— Records fair. Discharge Nov. 28 to Dec. 12 computed on basis of power plant and weather records. Large diurnal fluctuation caused by operation of power plant at Wateree Reservoir (capacity, about 7,000,000,000 cubic feet). Gage-height record collected in cooperation with U. S. Weather Bureau.

## Revision of discharge, water year 1929-30

Revised daily discharge for Oct. 3, 1929, is 149,000 second-feet, revised maximum discharge, for Oct. 3, 1929, 163,000 second-feet, superseding figures published in Water-Supply Paper 727 (p. 107). Revised discharge for October and water year 1929-30 is given in the following table:

	Discharge in second-feet		Run-off in inches
	Mean	Per square mile	
October.....	18,690	3.73	4.30
Water year 1929-30..	7,143	1.43	19.33

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,620	3,960	950	3,510	7,080	3,540	14,100	9,250	4,520	3,860	1,280	5,980
2	7,040	1,990	4,000	3,240	4,910	6,530	26,300	6,600	4,690	5,390	702	6,330
3	5,400	503	3,600	6,670	6,160	8,590	70,800	2,130	3,870	3,140	2,450	6,240
4	5,330	4,160	4,000	2,670	11,500	8,600	49,000	6,070	3,960	1,480	3,680	4,330
5	5,120	5,650	3,800	922	31,000	7,780	26,700	7,780	4,300	666	3,220	2,300
6	2,810	4,800	3,000	4,100	31,900	8,650	40,300	7,370	2,150	3,420	2,600	3,680
7	4,360	4,330	2,000	9,620	23,400	5,820	134,000	5,870	2,940	5,210	3,240	5,360
8	6,010	3,740	460	39,500	16,600	3,320	137,000	5,220	4,850	3,690	1,650	5,480
9	6,930	1,400	4,800	47,600	8,960	6,080	66,300	2,690	5,060	3,570	1,100	7,070
10	6,980	270	5,600	39,300	8,400	8,450	49,100	1,540	4,220	2,850	4,430	6,750
11	7,130	3,550	4,440	21,900	12,000	9,040	42,100	4,420	3,670	2,690	8,670	6,440
12	6,840	3,720	4,000	9,640	13,400	8,660	28,300	5,760	3,900	874	8,900	6,900
13	2,640	4,020	3,860	8,940	12,200	8,680	22,800	6,340	2,830	2,790	8,990	4,960
14	4,370	4,340	2,370	8,630	18,000	6,500	16,800	6,060	2,960	3,480	9,620	6,840
15	6,200	4,230	455	8,390	32,200	3,660	14,800	5,580	4,240	3,390	5,990	6,820
16	5,920	2,070	2,430	9,230	30,000	8,040	12,200	4,180	3,060	3,510	1,130	5,840
17	5,970	573	3,670	8,630	20,400	9,250	10,100	3,030	3,890	3,960	3,750	6,560
18	5,680	3,570	4,760	6,990	14,300	10,500	7,480	5,610	5,290	2,060	5,840	6,250
19	4,760	4,910	5,640	14,800	11,100	18,500	5,050	6,000	3,800	968	6,400	3,050
20	974	5,420	5,210	83,600	9,670	16,200	9,640	6,390	2,770	3,310	6,170	1,020
21	4,150	5,540	2,400	86,600	8,320	9,900	10,200	6,640	866	4,000	5,370	4,600
22	5,380	5,670	514	38,700	4,870	7,100	9,900	6,550	4,240	2,990	4,010	5,620
23	5,830	2,310	3,120	19,800	3,620	9,720	9,280	3,540	4,010	3,040	907	5,930
24	6,100	446	2,870	13,900	7,240	11,800	9,670	3,120	3,650	3,760	5,080	6,690
25	5,210	4,120	574	8,770	9,670	11,100	4,610	6,250	3,390	1,710	5,180	6,800
26	2,180	5,690	3,910	8,540	9,390	9,360	1,890	6,980	3,690	800	4,790	2,690
27	457	5,710	4,660	7,490	9,660	17,600	6,800	7,680	2,150	2,700	4,650	744
28	3,970	5,500	2,260	8,120	8,760	27,500	9,690	7,860	2,580	3,130	4,290	4,520
29	4,030	5,500	474	7,630	6,920	33,200	8,900	7,140	3,210	3,840	1,920	5,650
30	3,990	4,600	2,360	7,600	7,500	-	25,300	3,870	2,990	5,600	1,470	4,580
31	4,000	-	3,240	7,500	-	17,800	-	1,020	-	3,950	4,970	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October.....				154,371	8,620	974	4,980	0.994		1.15		
November.....				112,292	5,710	270	3,743	.747		.85		
December.....				95,187	5,540	455	3,071	.613		.71		
Calendar year 1935.....				1,958,002	25,600	270	5,364	1.07		14.56		
January.....				551,532	86,600	922	17,790	3.55		4.09		
February.....				391,550	32,200	3,620	15,500	2.69		2.80		
March.....				544,760	33,200	5,620	11,120	2.22		2.66		
April.....				962,870	137,000	1,090	29,750	5.74		6.40		
May.....				169,910	9,250	1,020	5,449	1.09		1.26		
June.....				107,776	5,290	886	3,593	.717		.80		
July.....				96,818	5,600	656	3,091	.617		.71		
August.....				132,349	9,620	702	4,269	.852		.98		
September.....				155,944	7,070	744	5,198	1.04		1.16		
Water year 1935-36.....				3,173,059	137,000	270	8,670	1.73		23.55		

## Santee River at Ferguson, S. C.

Location.— Water-stage recorder, lat. 33°26'15", long. 80°16'20", at Ferguson, Orangeburg County, 4 miles downstream from mouth of Eutaw Creek. Zero of gage is 42.91 feet above mean sea level.

Drainage area.— 14,800 square miles.

Records available.— December 1907 to September 1936.

Average discharge.— 28 years (1908-36), 18,900 second-feet.

Extremes.— Maximum discharge during year, 245,000 second-feet Apr. 11 (gage height, 20.42 feet); minimum, 5,740 second-feet Dec. 10 (gage height, 3.75 feet).

1907-36: Maximum discharge, 368,000 second-feet July 22, 1916 (gage height, 24.5 feet), from rating curve extended above 260,000 second-feet; minimum, 2,570 second-feet Sept. 2, 1925 (gage height, -0.75 foot). Minimum stage caused by regulation of storage reservoirs upstream.

Remarks.— Records good. No daily fluctuation but very distinct weekly fluctuations during medium and low-water periods caused by power plants at Camden Reservoir, on Wateree River (capacity, about 7,000,000,000 cubic feet), and Lake Murray, on Saluda River (capacity, about 92,000,000,000 cubic feet). Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

3.0	4,920	7.0	9,740	11.0	16,720	16.0	113,000
4.0	5,960	8.0	11,180	12.0	20,030	18.0	173,000
5.0	7,140	9.0	12,740	13.0	27,250	20.0	233,000
6.0	8,400	10.0	14,520	14.0	53,000	22.0	293,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16,700	14,900	12,400	7,020	38,000	27,200	53,000	23,500	14,900	10,800	14,300	12,300
2	17,000	15,600	11,900	8,530	32,500	25,000	56,000	22,600	10,700	12,400	14,900	14,300
3	17,800	15,600	9,600	10,300	36,800	22,000	59,000	22,600	11,200	13,400	15,800	15,800
4	18,500	13,100	9,600	13,600	25,000	20,900	59,000	22,000	13,600	14,100	15,800	17,000
5	18,500	9,460	10,900	17,800	24,100	20,900	62,000	20,500	14,000	15,800	15,300	17,500
6	17,800	11,300	11,200	20,000	26,000	20,900	80,000	19,600	13,800	10,900	15,600	18,500
7	15,600	14,500	10,900	22,000	27,300	20,900	107,000	19,600	13,400	7,500	15,600	18,200
8	12,900	15,800	10,400	27,200	35,000	20,900	113,000	19,600	11,200	9,320	15,100	19,200
9	14,300	16,700	8,790	50,000	*47,000	19,200	128,000	19,600	9,320	12,400	14,500	18,800
10	16,000	16,700	6,300	59,000	53,000	17,000	197,000	18,800	11,900	15,600	14,900	18,800
11	16,700	14,100	7,620	62,000	53,000	17,500	242,000	16,500	14,000	13,800	14,900	19,200
12	17,200	10,600	11,000	65,000	53,000	19,200	239,000	11,900	14,500	13,400	16,700	19,200
13	17,500	11,500	12,100	65,000	53,000	20,500	212,000	12,700	15,100	11,500	17,800	19,200
14	16,000	13,800	12,100	68,000	47,000	22,000	179,000	15,300	15,100	8,530	19,200	18,800
15	12,900	14,500	12,600	65,000	47,000	23,500	140,000	16,000	13,400	9,460	20,000	16,700
16	13,600	16,700	12,400	52,000	44,000	23,500	104,000	*16,500	11,600	11,900	20,900	17,200
17	15,600	17,200	9,320	56,000	44,000	23,500	77,000	*16,200	12,400	13,200	21,400	18,500
18	16,200	17,200	9,460	50,000	44,000	22,600	59,000	14,700	13,800	14,000	19,600	19,200
19	18,700	14,600	10,900	47,000	47,000	23,500	53,000	11,500	14,000	14,100	18,500	19,600
20	16,500	14,500	11,500	41,000	50,000	24,100	47,000	13,100	14,500	*12,600	18,000	20,000
21	14,700	16,200	11,800	38,000	50,000	26,000	44,000	15,300	14,500	*9,880	19,200	18,100
22	11,200	17,200	11,600	38,000	50,000	28,800	41,000	15,800	11,900	*11,000	19,200	13,600
23	12,100	18,100	9,600	47,000	47,000	32,500	38,000	16,200	8,530	*14,000	18,800	14,900
24	14,300	18,100	7,020	59,000	44,000	38,000	35,000	16,200	10,500	*15,100	17,800	16,700
25	16,300	16,200	6,900	71,000	38,000	36,000	35,000	14,000	12,900	15,300	14,700	17,500
26	16,000	11,800	7,880	74,000	35,000	38,000	32,500	10,600	14,100	*14,900	14,700	18,100
27	15,800	10,900	6,300	65,000	30,500	38,000	30,500	13,100	14,900	*11,800	16,000	18,100
28	12,900	*12,900	6,660	56,000	28,800	41,000	27,200	15,100	14,900	*7,750	16,200	15,800
29	8,790	13,200	8,790	50,000	27,200	41,000	25,000	16,000	12,400	*9,050	16,200	11,600
30	11,000	12,700	8,270	47,000	-	47,000	24,100	16,700	8,790	*11,600	16,000	13,600
31	13,800	-	7,260	41,000	-	50,000	-	17,000	-	*13,400	13,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	469,890	18,500	8,790	15,160	1.02	1.18
November.....	436,160	18,100	9,460	14,540	.982	1.10
December.....	303,070	12,600	6,300	9,776	.661	.76
Calendar year 1935.....	5,794,900	35,000	6,300	15,980	1.07	14.59
January.....	1,399,450	74,000	7,020	45,140	3.05	3.52
February.....	1,169,100	53,000	24,100	40,310	2.72	2.93
March.....	852,300	50,000	17,000	27,490	1.86	2.14
April.....	2,598,300	242,000	24,100	86,610	5.85	6.53
May.....	518,500	23,500	10,600	16,730	1.13	1.30
June.....	385,540	15,100	8,530	12,850	.888	.97
July.....	374,590	15,300	7,500	12,080	.816	.94
August.....	521,300	21,400	13,900	16,820	1.14	1.31
September.....	517,000	20,000	11,600	17,230	1.16	1.29
Water year 1935-36.....	9,545,200	242,000	6,300	26,080	1.76	23.97

\*Discharge computed from graph drawn on basis of partial recorder record and daily gage readings.

## Linville River at Branch, N. C.

Location.- Staff gage, lat. 35°47'50", long. 81°53'20" (revised), at steel highway bridge 800 feet from Branch post office, Burke County, and a quarter of a mile above Lake James.

Drainage area.- 65 square miles.

Records available.- June 1922 to September 1936.

Average discharge.- 14 years, 136 second-feet.

Extremes.- Maximum discharge observed during year, 2,250 second-feet Jan. 19 (gage height, 4.50 feet); minimum, 28 second-feet July 1 (gage height, 1.62 feet).  
1922-36: Maximum discharge, 16,800 second-feet Aug. 15, 1928 (gage height, about 12.0 feet, from floodmarks), from rating curve extended above 1,500 second-feet; minimum observed, 7 second-feet Sept. 8, 1925 (gage height, 1.28 feet).

Remarks.- Records good except those for periods of ice effect, Dec. 21 to Jan. 1, Jan. 25 to Feb. 1, which are fair. Discharge for periods of ice effect based on gage heights, observer's notes, weather records, and comparison with other discharge records, principally those for station on North Toe River above Spruce Pine. Discharge for days of rapidly changing stage computed from graphs based on gage readings.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 3				Jan. 4 to Sept. 30			
1.7	34	2.6	307	1.6	26	3.0	551
1.8	48	3.0	535	1.8	54	3.5	915
2.0	87	3.5	910	2.0	95	4.0	1,390
2.3	174	4.0	1,390	2.3	186	5.0	2,490
				2.6	321		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	57	89	85	130	127	348	105	64	30	60	37
2	50	53	85	201	130	133	616	100	64	33	56	36
3	53	50	76	805	186	154	460	95	64	38	52	52
4	50	50	72	417	650	136	358	136	60	40	48	71
5	47	47	68	321	363	133	426	108	60	49	52	75
6	42	38	66	551	253	124	1,580	98	56	52	44	64
7	44	61	64	584	248	121	722	88	56	67	49	54
8	45	61	76	650	248	116	460	84	56	60	56	54
9	47	53	81	758	182	116	430	91	62	52	168	54
10	44	50	72	520	165	116	460	121	75	46	93	43
11	44	44	66	402	154	176	363	165	86	41	88	40
12	44	112	62	291	148	133	316	214	111	38	77	41
13	42	1,090	174	230	165	136	281	179	98	46	80	54
14	44	334	287	222	291	124	248	182	86	71	67	48
15	41	178	231	248	402	118	222	148	69	62	98	37
16	45	136	164	253	286	118	198	136	56	41	148	38
17	50	139	150	194	316	430	182	124	52	37	86	38
18	48	136	136	337	306	402	172	113	52	34	73	36
19	48	136	122	1,520	258	316	162	103	49	34	71	36
20	50	124	110	758	286	311	154	95	49	36	75	34
21	53	113	100	460	190	301	142	98	46	51	62	44
22	48	105	95	369	172	266	142	93	43	67	49	54
23	41	98	90	296	168	262	202	88	44	56	41	37
24	37	89	90	230	154	369	118	80	46	49	43	38
25	35	87	90	200	154	584	118	75	43	37	43	40
26	35	87	85	180	151	616	118	75	40	38	62	37
27	35	87	85	160	162	722	121	71	40	37	65	37
28	66	101	85	150	142	685	118	67	37	37	56	37
29	283	103	95	140	133	469	118	69	35	34	54	64
30	103	96	85	130	-	402	113	67	33	37	52	500
31	72	-	85	130	-	258	-	64	-	54	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	1,736	283	35	56.0	0.861	0.99
November.....	3,915	1,090	38	130	2.00	2.23
December.....	3,226	287	62	104	1.60	1.84
Calendar year 1935.....	56,799	3,280	35	156	2.40	32.49
January.....	11,792	1,520	85	380	5.85	6.74
February.....	6,533	650	130	225	3.46	3.73
March.....	8,494	722	116	274	4.22	4.86
April.....	9,466	1,560	113	316	4.86	5.42
May.....	3,332	214	64	107	1.65	1.90
June.....	1,735	111	33	57.8	.889	.99
July.....	1,404	71	30	45.3	.697	.80
August.....	2,147	168	41	69.3	1.07	1.23
September.....	1,630	300	34	54.3	.835	.93
Water year 1935-36.....	55,412	1,580	30	152	2.34	31.66

## Little Sugar Creek near Charlotte, N. C.

Location.— Water-stage recorder, lat. 35°09'15", long. 80°51'10", just above sewage-disposal plant of City of Charlotte, a quarter of a mile below mouth of Brier Creek, and 5 miles south of Charlotte, Mecklenburg County. Zero of gage is 571.6 feet above mean sea level (City of Charlotte, N. C., datum).

Drainage area.— 41.4 square miles.

Records available.— July 1924 to September 1936.

Average discharge.— 12 years, 46.8 second-feet.

Extremes.— Maximum discharge during year, 8,370 second-feet Apr. 6 (gage height, 16.2 feet, from floodmarks), from rating curve extended above 2,000 second-feet; minimum, 5.1 second-feet Dec. 29 (gage height, 1.64 feet).

1924-36: Maximum discharge, that of Apr. 6, 1936; minimum, 1.6 second-feet July 30, Aug. 1, 1925.

Remarks.— Records good between 200 and 2,500 second-feet; other records fair except those for periods of no gage heights, which are poor. Discharge for periods of ice effect, Dec. 21, 23-28, 30, computed on basis of gage heights, weather records, and comparison with other discharge records, principally those for stations on Little Brown Creek near Polkton and Rocky River near Norwood.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 13				Nov. 13 to Sept. 30			
1.7	7.4	2.4	96	1.6	3.6	2.6	154
1.8	12.5	2.6	148	1.7	7.4	3.0	254
1.9	19.5	2.8	208	1.8	13.6	3.5	340
2.0	29	3.0	254	2.0	32	4.0	426
2.2	58	3.3	308	2.3	82	5.0	638

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.4	7.9	13	†15	†28	33	93	30	11	10	47	†17
2	8.9	8.9	12	*360	†52	32	1,230	28	11	15	28	†17
3	8.4	7.9	12	*1,200	†113	41	384	28	11	13	24	†60
4	8.4	7.9	12	186	486	33	*264	27	11	26	20	†36
5	7.9	17	12	128	144	36	258	26	11	12	18	24
6	7.9	13	*12	989	76	35	3,560	24	11	14	18	19
7	8.9	184	*12	164	74	30	*917	23	11	11	146	17
8	9.4	33	*12	527	72	29	*146	22	11	9.9	171	15
9	9.4	15	35	183	126	28	356	20	14	8.6	70	14
10	8.9	12	18	97	144	83	237	20	12	8	28	19
11	8.9	11	15	60	82	162	133	20	12	7.4	783	54
12	8.4	19	14	48	72	64	91	20	36	7.4	60	16
13	8.4	269	87	41	406	45	78	20	21	9.3	33	14
14	8.4	29	32	36	449	36	68	19	12	11	26	13
15	8.9	20	22	63	147	33	60	18	12	7.4	22	13
16	10	17	20	57	86	148	54	17	12	7.4	31	13
17	10	15	19	28	70	748	48	17	11	7.4	101	12
18	9.4	15	48	74	202	44	17	10	7.4	7.4	41	11
19	8.4	14	17	3,030	54	86	42	18	10	7.4	26	11
20	8.4	14	16	*175	50	74	42	18	10	7.4	24	11
21	10	14	14	78	48	68	42	17	10	7.2	21	*30
22	10	13	14	62	48	48	40	17	25	16	18	*14
23	9.4	12	13	48	44	44	41	14	*100	15	17	†12
24	17	12	13	36	41	129	38	14	51	8	18	*9.3
25	10	12	12	35	42	91	35	14	21	7	20	*9.3
26	9.4	14	11	33	41	833	35	13	14	6.6	22	†10
27	7.4	12	11	38	47	448	35	13	12	7.4	34	†9
28	7.4	31	10	31	41	433	33	12	9.9	7.4	23	†9
29	27	27	9.3	29	37	95	42	12	9.9	14	19	†50
30	10	15	10	31	-	74	35	11	10	1,330	19	†200
31	8.4	-	†10	32	-	64	-	11	-	538	†18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	302.7	27	7.4	9.76	0.236	0.27
November.....	891.6	269	7.9	29.7	.717	.80
December.....	537.3	87	9.3	17.3	.418	.48
Calendar year 1935.....	14,866.7	760	6.6	40.7	.983	13.35
January.....	7,994	3,030	15	265	6.16	7.10
February.....	3,174	486	28	109	2.63	2.84
March.....	4,304	833	28	139	3.56	3.87
April.....	8,481	3,680	33	283	6.84	7.63
May.....	580	30	11	18.7	.462	.52
June.....	522.8	100	9.9	17.4	.420	.47
July.....	2,228.4	1,330	6.6	71.9	1.74	2.01
August.....	1,946	783	17	62.8	1.52	1.75
September.....	768.6	200	9	25.3	.611	.68
Water year 1935-36.....	31,620.4	3,580	6.6	86.4	2.09	28.42

\*Discharge computed on basis of partly estimated gage heights.

†Discharge computed on basis of comparison with other discharge records, principally those for stations on Little Brown Creek near Polkton and Rocky River near Norwood; gage-height record missing.

## Broad River near Chimney Rock, N. C.

Location.- Water-stage recorder, lat. 35°25'35", long. 82°10'45", 1,000 feet below Lake Lure Dam and 3 miles east of Chimney Rock, Rutherford County.

Drainage area.- 97 square miles.

Records available.- March 1927 to September 1936, May 1907 to June 1909 at Uree, 1 1/8 miles downstream.

Extremes.- Maximum discharge during year, 3,060 second-feet Apr. 6 (gage height, 4.70 feet); from rating curve extended above 1,000 second-feet; minimum, 2.0 second-feet Sept. 1 (gage height, 0.43 foot); minimum daily discharge, 2.2 second-feet Sept. 1, 23.

1907-9, 1927-36: Maximum discharge, 20,500 second-feet Aug. 15, 1928 (gage height, 15.0 feet), from rating curve extended above 1,000 second-feet; minimum, 0.7 second-foot Sept. 13, 1928 (gage height, 0.26 foot); minimum daily discharge, 0.8 second-foot Sept. 13, 14, 1928.

Remarks.- Records good between 5 and 1,500 second-feet, fair below and poor above these limits. Discharge Feb. 16-27 computed on basis of power-plant records; gage-height record missing. Large diurnal fluctuation caused by operation of power plant at dam. Flow below 200 second-feet regulated by storage in Lake Lure.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.4	1.5	1.0	54	2.3	630
.5	3.3	1.2	103	2.6	835
.6	6.3	1.4	170	3.0	1,165
.7	12	1.6	260	3.5	1,670
.8	22	1.8	345	4.0	2,280
.9	36	2.0	450	4.5	2,820

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	52	76	159	174	122	435	236	153	73	219	2.2
2	88	76	163	253	174	232	722	311	154	154	167	152
3	91	3.6	114	478	252	235	731	214	149	194	152	92
4	158	161	74	466	512	228	569	278	189	106	2.9	339
5	78	77	74	428	600	226	514	160	191	149	153	142
6	2.4	92	139	460	462	224	1,440	230	155	118	2.6	2.8
7	158	154	76	565	338	198	962	235	117	77	218	154
8	76	80	72	517	520	115	828	234	271	132	211	4.4
9	72	117	155	583	174	230	719	228	149	79	75	149
10	79	76	77	550	288	225	745	156	150	113	154	152
11	79	153	143	408	139	226	624	270	149	78	377	220
12	79	313	93	163	274	231	596	235	229	4.0	232	153
13	3.3	1,010	271	302	334	227	465	230	192	153	2.4	2.8
14	155	469	221	279	377	192	414	232	114	136	148	150
15	75	281	252	229	333	117	416	228	153	2.8	148	152
16	152	210	155	275	320	228	412	226	149	151	2.8	3.1
17	80	129	146	214	360	518	404	158	82	150	223	152
18	76	209	78	271	220	571	362	195	148	153	74	77
19	75	154	141	1,840	320	394	178	148	150	154	143	113
20	2.8	74	116	704	300	348	378	212	155	138	3.1	2.8
21	152	151	147	588	240	306	373	153	2.6	3.1	154	226
22	73	132	4.7	432	220	277	330	154	152	155	152	74
23	77	72	168	327	150	306	366	190	153	142	3.1	2.2
24	79	77	156	490	260	306	253	121	163	2.6	155	141
25	75	144	6.1	446	150	313	192	151	152	153	147	75
26	76	118	159	178	220	504	374	154	126	155	2.6	2.9
27	3.6	89	78	293	220	862	335	153	74	155	149	2.4
28	152	152	165	236	269	944	245	228	2.8	2.4	129	156
29	214	151	6.4	167	235	740	278	152	155	153	152	275
30	171	74	160	288	-	574	266	76	153	154	152	778
31	89	-	167	246	-	463	-	74	-	278	153	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	2,812.1	214	2.4	90.7	0.935	1.08
November.....	5,036.6	1,010	3.6	168	1.73	1.93
December.....	3,832.2	271	4.7	124	1.28	1.48
Calendar year 1935.....	64,819.0	1,450	2.4	178	1.84	24.86
January.....	12,840	1,840	159	414	4.27	4.92
February.....	8,235	600	139	284	2.93	3.16
March.....	10,682	944	115	345	3.56	4.10
April.....	14,846	1,440	178	498	5.13	5.72
May.....	6,020	311	74	194	2.00	2.31
June.....	4,322.4	271	2.6	144	1.48	1.65
July.....	3,515.5	278	2.4	113	1.16	1.34
August.....	4,056.8	377	2.4	131	1.56	1.56
September.....	4,020.7	778	2.2	134	1.58	1.54
Water year 1935-36.....	80,321.3	1,840	2.2	219	2.26	30.79

## Broad River near Boiling Springs, N. C.

Location.- Water-stage recorder, lat. 35°12'35", long. 81°41'55", half a mile above mouth of Sandy Run Creek and 3½ miles southwest of Boiling Springs, Cleveland County.

Drainage area.- 815 square miles.

Records available.- June 1925 to September 1936.

Average discharge.- 11 years, 1,398 second-feet.

Extremes.- Maximum discharge during year, 26,000 second-feet Apr. 6 (gage height, 14.75 feet); minimum, 232 second-feet Oct. 6 (gage height, 1.54 feet); minimum daily discharge, 322 second-feet Oct. 14.

1925-36: Maximum discharge, 56,800 second-feet Aug. 16, 1928 (gage height, 24.3 feet, present datum), from rating curve extended above 28,000 second-feet; minimum, 186 second-feet Sept. 21, 22, 1925; minimum daily discharge, 232 second-feet Sept. 20, 1925.

Remarks.- Records good except those below 500 second-feet, which are fair. Considerable diurnal fluctuation caused by power operations.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Feb. 8 to Mar. 25)

1.6	280	4.0	2,820
1.8	440	5.0	4,150
2.0	815	6.0	5,700
2.3	905	8.0	9,200
2.6	1,210	10.0	13,600
3.0	1,640	12.0	18,500
3.5	2,220	14.0	25,800

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	717	838	822	1,040	1,690	1,780	3,170	1,820	841	949	1,450	937
2	724	625	644	2,100	1,150	1,640	12,400	1,760	1,100	1,090	993	871
3	674	415	989	13,000	1,250	1,620	7,900	1,370	1,030	1,260	938	974
4	671	472	934	7,560	5,370	1,610	4,300	1,230	1,280	1,200	1,020	1,960
5	522	762	901	3,730	6,380	1,630	3,900	1,780	1,240	759	860	1,340
6	344	728	884	7,260	3,730	1,700	16,600	1,590	1,290	1,000	934	905
7	368	1,360	999	3,360	3,140	1,580	19,300	1,450	949	610	1,300	615
8	708	1,630	615	5,470	2,560	1,300	7,220	1,410	1,050	1,040	1,450	900
9	717	878	672	4,910	2,170	1,620	4,270	1,410	1,570	950	1,030	819
10	616	653	931	4,040	2,040	1,590	4,600	1,230	1,620	843	867	1,190
11	652	819	837	3,130	2,420	1,710	5,060	1,100	1,650	904	4,050	1,030
12	560	1,270	920	2,420	2,060	1,600	4,150	1,780	1,260	729	2,480	942
13	377	5,220	1,470	2,030	2,140	2,000	3,600	1,680	1,300	1,200	1,290	670
14	322	3,890	1,380	2,270	3,480	1,360	3,420	1,440	1,030	1,190	923	578
15	654	2,220	1,260	2,150	3,160	1,250	3,190	1,350	922	1,090	968	872
16	640	1,810	1,100	2,050	2,600	1,160	2,950	1,350	1,140	1,000	786	924
17	700	1,440	1,120	2,000	2,750	2,650	2,630	1,170	1,120	1,150	1,070	790
18	612	1,040	1,150	1,890	2,870	4,170	2,380	1,170	1,040	1,060	1,190	866
19	589	1,460	1,060	12,700	2,490	2,750	2,400	1,630	1,080	884	1,290	908
20	366	1,170	1,050	13,300	2,330	2,620	2,040	1,470	1,080	922	2,290	636
21	454	1,050	999	4,920	2,100	2,510	2,170	1,290	902	1,050	1,330	1,080
22	714	1,090	814	3,560	2,310	2,180	2,130	1,190	674	1,070	1,210	1,110
23	682	1,050	644	2,860	1,830	2,030	2,360	1,180	1,300	990	928	944
24	675	683	954	2,560	1,490	2,330	2,370	1,050	1,400	935	756	846
25	612	679	822	2,470	2,240	2,220	2,030	942	1,140	748	1,240	918
26	628	1,120	538	1,930	1,740	4,710	1,710	1,230	981	611	956	883
27	400	1,150	938	1,620	1,690	6,650	1,620	1,260	918	555	1,220	511
28	426	1,240	1,080	2,140	1,720	10,200	2,050	1,130	676	820	1,350	541
29	1,520	1,190	680	1,950	1,770	5,370	1,980	1,220	652	730	1,330	1,460
30	1,150	1,080	635	1,850	-	3,540	1,860	1,060	995	1,490	1,060	4,500
31	884	-	1,100	1,860	-	3,200	-	924	-	2,280	978	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	19,678	1,520	322	635	0.779	0.90
November.....	39,130	5,220	415	1,504	1.60	1.78
December.....	29,350	1,680	538	947	1.16	1.34
Calendar year 1935.....	508,551	9,440	322	1,393	1.71	25.17
January.....	122,210	13,300	1,040	4,168	5.11	5.99
February.....	72,670	6,380	1,150	2,506	3.07	3.51
March.....	82,780	10,200	1,160	2,670	3.28	3.78
April.....	135,760	19,300	1,620	4,525	5.55	6.19
May.....	41,646	1,820	924	1,343	1.66	1.90
June.....	33,131	1,650	652	1,104	1.35	1.51
July.....	31,299	2,280	555	1,010	1.24	1.43
August.....	39,857	4,050	756	1,286	1.58	1.82
September.....	31,420	4,500	511	1,047	1.28	1.43
Water year 1935-36.....	685,931	19,300	322	1,374	2.30	31.28

## Broad River at Richtex, S. C.

Location.— Water-stage recorder, lat. 34°11', long. 81°12', 1 mile upstream from mouth of Little River at Richtex, Fairfield County. Zero of gage is 184.98 feet above mean sea level.

Drainage area.— 4,800 square miles.

Records available.— November 1925 to September 1936.

Extremes.— Maximum discharge during year, 157,000 second-feet Apr. 8 (gage height, 24.96 feet); minimum, about 137 second-feet June 1 (gage height, 0.27 foot); minimum daily discharge, about 149 second-feet Oct. 13, caused by operation of power plants upstream.

1925-36: Maximum discharge, 228,000 second-feet Oct. 3, 1928 (gage height, 30.7 feet), from rating curve extended above 90,000 second-feet; minimum, about 113 second-feet Sept. 21, 1931 (gage height, 0.23 foot); minimum daily discharge, that of Oct. 13, 1935.

Remarks.— Records good except those for Nov. 27-30, Dec. 4-7, which are fair and were computed on basis of partial recorder record and power-plant records at Parr Shoals. Diurnal fluctuation caused by operation of Parr Shoals hydroelectric plant 11 miles upstream.

Rating table, 1935-36 (gage height, in feet, and discharge, in second-feet)

0.2	95	2.0	2,900	7.0	19,800	11.5	39,300	17.0	77,000
.4	225	2.5	4,220	8.0	23,750	12.0	42,000	18.0	85,500
.6	400	3.0	5,650	8.5	25,750	12.5	45,000	19.0	94,500
.8	615	3.5	7,100	9.0	27,800	13.0	48,000	20.0	104,000
1.0	895	4.0	8,580	10.0	32,100	14.0	54,500	22.0	124,000
1.3	1,405	5.0	12,200	10.5	34,400	15.0	61,500	25.0	157,000
1.6	2,000	6.0	16,000	11.0	36,800	16.0	69,000	30.0	219,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,100	3,390	1,460	3,110	4,680	4,130	12,600	6,420	1,880	3,040	15,600	3,660
2	2,100	2,540	2,670	4,510	4,500	6,120	36,800	5,400	4,140	2,760	12,900	3,740
3	2,320	965	3,260	24,000	6,680	5,540	64,600	5,180	3,330	3,200	7,680	3,200
4	2,300	2,270	3,000	51,000	26,600	6,160	55,200	6,660	3,330	3,640	4,830	13,400
5	2,600	2,860	3,000	55,200	37,300	6,350	29,100	5,700	3,180	2,640	3,860	15,400
6	1,040	2,000	3,200	42,000	32,700	6,470	42,200	5,650	3,750	3,260	4,700	10,600
7	1,900	4,760	2,800	55,200	21,800	4,800	112,000	5,640	2,460	2,920	3,210	5,010
8	2,180	6,040	1,000	60,100	14,900	3,930	145,000	5,750	2,540	3,220	6,410	4,520
9	2,060	4,990	2,230	55,900	12,000	5,650	79,300	5,450	3,960	3,190	12,400	3,220
10	1,920	4,120	3,560	42,800	14,700	5,690	43,200	1,980	4,480	3,140	10,500	2,800
11	1,460	3,260	3,080	26,200	13,500	8,230	32,100	5,260	4,920	3,380	6,900	4,020
12	515	3,480	3,120	15,400	10,600	9,780	22,800	5,220	5,060	1,480	14,100	7,240
13	149	4,430	4,330	10,800	9,680	7,420	16,800	4,880	4,960	1,200	9,100	2,750
14	1,240	12,500	6,200	8,500	21,700	5,220	13,600	4,950	4,720	1,920	6,770	2,830
15	2,200	11,900	2,940	8,120	28,600	5,340	11,600	4,620	2,320	3,380	5,280	3,300
16	1,620	7,940	4,720	8,420	19,600	6,220	10,400	5,650	3,820	3,420	1,380	3,300
17	1,780	5,420	4,260	7,730	12,400	7,580	9,540	5,420	3,340	3,360	3,450	3,040
18	2,030	4,940	3,920	6,560	10,200	18,400	8,360	3,660	3,060	3,960	6,060	2,820
19	2,000	3,800	3,610	39,700	10,400	19,700	8,370	4,240	3,560	1,900	5,640	2,490
20	600	3,920	3,310	72,200	9,510	13,800	8,450	4,120	3,660	3,810	4,540	910
21	1,900	3,920	3,040	56,800	8,540	11,800	7,660	4,540	2,060	5,050	5,700	2,460
22	2,190	3,260	1,600	24,400	7,460	11,500	6,260	4,210	1,490	4,210	6,810	2,370
23	1,750	3,880	2,870	12,900	6,940	9,310	7,150	3,900	2,550	3,780	5,730	2,620
24	2,030	950	3,300	9,360	7,800	7,980	7,230	1,710	5,370	3,820	3,000	2,980
25	2,080	2,240	1,400	7,340	6,990	11,200	6,680	4,780	5,840	3,860	4,420	2,900
26	2,410	3,650	3,810	7,340	6,650	14,900	6,520	3,650	5,260	1,020	3,920	2,960
27	580	2,800	2,810	6,890	6,680	24,200	6,720	3,620	3,340	2,080	3,850	985
28	1,820	3,200	2,220	6,390	6,390	31,600	6,810	4,400	1,710	2,960	4,560	2,340
29	2,360	3,400	2,090	6,290	5,200	37,800	6,750	4,000	2,300	2,500	4,180	2,540
30	3,830	3,400	1,700	6,120	-	26,000	6,780	4,540	2,800	2,090	6,180	3,240
31	4,300	-	1,780	6,000	-	15,100	-	940	-	4,740	5,880	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	59,364	4,300	149	1,915	0.399	0.46
November.....	126,205	12,500	930	4,207	.876	.98
December.....	92,290	6,200	1,000	2,977	.620	.71
Calendar year 1935.....	1,863,209	28,900	149	5,105	1.06	14.42
January.....	747,380	72,200	3,110	24,110	5.02	5.79
February.....	384,900	37,300	4,500	13,270	2.76	2.98
March.....	358,120	37,800	3,930	11,550	2.41	2.78
April.....	830,570	145,000	6,260	27,690	5.77	6.44
May.....	139,040	6,660	940	4,485	.934	1.08
June.....	105,190	5,840	1,490	3,506	.730	.81
July.....	94,930	5,050	1,020	3,062	.638	.74
August.....	199,540	15,600	1,580	6,437	1.34	1.54
September.....	124,285	15,400	910	4,143	.863	.96
Water year 1935-36.....	3,261,814	145,000	149	8,912	1.86	25.27



## Second Broad River at Cliffside, N. C.

Location.- Water-stage recorder, lat. 35°14'15", long. 81°46'25", at Cliffside, Rutherford County, 2 miles above mouth.

Drainage area.- 230 square miles.

Records available.- June 1925 to September 1936.

Average discharge.- 11 years, 301 second-feet.

Extremes.- Maximum discharge during year, 8,490 second-feet Apr. 7 (gage height, 10.10 feet); minimum, 12 second-feet Oct. 6 (gage height, 0.46 foot); minimum daily discharge, 67 second-feet Oct. 6, 13.

1925-36: Maximum discharge, 15,000 second-feet Aug. 16, 1928 (gage height, 17.26 feet), from rating curve extended above 9,100 second-feet; minimum, 8 second-feet July 26, 1934; minimum daily discharge, 11 second-feet Oct. 4, 1931.

Remarks.- Records good except those for periods of partly or wholly missing gage heights, Oct. 7-9, Dec. 26 to Feb. 4, Sept. 9-11, which are poor. Discharge for those periods computed on basis of partial gage-height record and comparison with other discharge records, principally those for station on Broad River near Boiling Springs. Large diurnal fluctuation caused by operation of Cliffside Mills, a quarter of a mile upstream.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.8	36	2.0	480	4.5	2,950
1.0	76	2.3	682	5.0	3,500
1.2	135	2.6	920	5.5	4,000
1.4	203	3.0	1,260	6.0	4,500
1.6	280	3.5	1,760	7.0	5,500
1.8	372	4.0	2,350	8.0	6,500

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	143	161	180	320	280	557	302	295	174	246	186
2	132	116	186	1,000	260	354	2,930	306	217	172	236	224
3	112	89	165	3,600	460	259	2,320	315	127	189	278	253
4	132	177	148	1,500	1,400	304	847	396	227	234	280	332
5	84	144	150	800	1,930	229	724	320	184	200	176	262
6	67	117	143	2,000	816	280	4,080	286	234	284	240	154
7	135	319	104	1,800	581	288	6,240	256	134	204	202	228
8	104	391	135	1,200	486	268	1,790	283	292	176	326	176
9	90	186	195	1,000	458	332	1,200	276	220	182	278	200
10	99	161	158	800	508	260	1,320	289	488	186	372	240
11	132	238	157	600	459	392	940	350	356	172	2,600	220
12	110	296	144	460	365	288	729	288	232	253	1,050	123
13	67	919	334	340	371	290	643	248	207	595	329	165
14	101	709	394	400	649	274	656	268	207	202	237	228
15	119	312	260	340	652	269	510	262	282	210	201	188
16	154	190	274	340	554	342	502	260	204	191	225	162
17	113	225	196	340	510	606	420	260	180	146	476	151
18	92	252	189	340	479	1,040	398	324	176	132	248	149
19	89	185	164	3,600	444	633	344	252	134	204	307	174
20	68	158	160	3,000	379	584	442	228	138	262	784	78
21	166	146	126	1,500	372	597	406	232	175	229	534	232
22	120	153	161	900	425	464	371	225	235	266	318	196
23	115	152	204	600	271	449	399	229	260	198	249	178
24	99	161	168	580	394	414	388	240	260	143	292	154
25	100	212	134	550	328	442	361	314	235	139	203	138
26	104	171	150	360	273	1,180	362	232	154	123	253	146
27	87	128	200	380	258	1,840	428	212	130	204	456	84
28	172	141	200	400	301	2,890	365	204	175	157	459	194
29	417	208	150	380	280	1,570	383	210	228	178	326	294
30	254	165	130	360	-	764	297	152	171	298	452	932
31	117	-	200	360	-	554	-	218	-	555	384	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October.....	5,859			417	67	124	0.539	0.62				
November.....	6,862			919	89	232	1.01	1.15				
December.....	5,640			394	104	182	.791	.91				
Calendar year 1935.....	98,091			1,910	41	269	1.17	15.86				
January.....	29,980			3,600	180	967	4.20	4.84				
February.....	14,981			1,930	258	517	2.25	2.43				
March.....	18,726			2,890	229	604	2.63	3.03				
April.....	31,322			6,240	297	1,044	4.54	5.06				
May.....	9,236			396	152	266	1.16	1.34				
June.....	6,557			488	127	219	.952	1.06				
July.....	6,587			555	123	212	.922	1.06				
August.....	12,967			2,600	176	418	1.82	2.10				
September.....	6,421			932	78	214	.930	1.04				
Water year 1935-36.....	152,238			6,240	67	416	1.81	24.62				

## North Pacolet River at Fingerville, S. C.

Location.- Water-stage recorder, lat. 35°07', long. 81°59', about 400 feet downstream from mouth of Obed Creek at McMillin Mill and 1 mile south of Fingerville, Spartanburg County. Zero of gage is 715.62 feet above mean sea level.

Drainage area.- 116 square miles.

Records available.- November 1929 to September 1936.

Extremes.- Maximum discharge during year, 6,120 second-feet Apr. 7 (gage height, 19.77 feet); from rating curve extended above 900 second-feet; minimum, 36 second-feet Dec. 29; minimum daily discharge, 72 second-feet Nov. 27.

1929-36: Maximum discharge, about 6,820 second-feet Oct. 17, 1932 (gage height, 15.73 feet, former site and datum), from rating curve extended above 1,400 second-feet; minimum, about 13 second-feet several times in October 1931; minimum daily discharge, about 34 second-feet Oct. 1, 2, 1931.

Remarks.- Records fair. Diurnal fluctuation caused by operation of mills upstream.

Discharge computed by use of shifting-control corrections determined by seven discharge measurements and comparison with records for Pacolet River near Fingerville, less discharge from power plant on South Pacolet River near Fingerville.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	101	86	112	209	209	767	241	161	130	520	102
2	87	100	84	488	209	202	2,080	233	160	143	306	90
3	87	99	81	2,790	267	217	1,710	241	153	154	202	163
4	86	95	80	1,670	799	202	510	241	178	154	187	402
5	83	97	77	508	1,250	194	530	225	174	179	161	149
6	83	98	73	1,060	494	194	3,150	225	165	154	129	130
7	83	328	74	1,550	410	187	5,580	225	196	150	256	117
8	83	301	74	917	373	180	1,130	225	194	145	510	117
9	83	148	102	944	361	180	987	217	224	136	226	105
10	83	124	86	582	361	184	1,140	217	268	128	180	118
11	84	263	82	436	306	272	786	231	284	157	211	221
12	84	235	80	350	276	217	640	233	200	167	183	131
13	81	700	329	306	301	194	520	220	194	161	149	120
14	81	764	272	265	438	180	436	226	174	161	141	114
15	83	217	194	276	410	174	410	209	167	145	131	110
16	82	162	174	276	361	174	385	209	155	141	126	113
17	82	135	161	241	327	336	361	202	147	131	194	108
18	82	116	151	244	361	426	338	194	142	193	153	98
19	82	107	141	1,200	327	310	327	187	136	144	265	102
20	83	103	124	1,790	295	349	316	187	130	219	392	95
21	87	96	111	591	286	348	306	174	136	239	371	145
22	92	88	122	423	276	267	306	181	140	174	225	119
23	86	81	118	350	258	260	316	174	259	163	209	109
24	90	75	114	306	250	269	295	174	243	171	155	105
25	83	74	106	295	241	343	286	174	203	150	208	107
26	82	75	98	276	233	485	276	167	174	122	167	99
27	84	72	90	267	241	641	267	174	161	116	148	89
28	106	92	105	241	225	1,080	258	171	141	111	172	101
29	296	123	78	239	217	624	246	162	145	101	161	181
30	136	95	120	239	-	338	241	167	138	326	131	815
31	106	-	105	225	-	506	-	167	-	708	117	-
Month				Second-foot-days		Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October.....				2,919		296	81	94.2	0.812		0.94	
November.....				5,164		764	72	172	1.48		1.65	
December.....				3,692		329	73	119	1.03		1.19	
Calendar year 1935.....				65,804		940	59	180	1.55		21.10	
January.....				19,457		2,790	112	628	5.41		6.24	
February.....				10,362		1,260	209	357	3.08		3.32	
March.....				9,732		1,080	174	314	2.71		3.12	
April.....				22,900		3,580	241	763	6.58		7.34	
May.....				6,272		241	162	202	1.74		2.01	
June.....				5,340		284	130	178	1.53		1.71	
July.....				5,472		708	101	177	1.53		1.76	
August.....				6,546		520	117	211	1.82		2.10	
September.....				4,575		815	89	152	1.31		1.46	
Water year 1935-36 .....				102,431		3,580	72	280	2.41		32.84	

## Pacolet River near Fingerville, S. C.

Location.- Water-stage recorder, lat. 35°07', long. 81°58', 100 feet above new county highway bridge, a quarter of a mile downstream from confluence of North and South Pacolet Rivers, and 2½ miles southeast of Fingerville, Spartanburg County. Zero of gage is 706.39 feet above mean sea level.

Drainage area.- 212 square miles.

Records available.- November 1929 to September 1936.

Extremes.- Maximum discharge during year, 10,100 second-feet Apr. 7 (gage height, 12.53 feet); minimum, 83 second-feet Dec. 29; minimum daily discharge, 116 second-feet Nov. 24.

1929-36: Maximum discharge, 11,000 second-feet Oct. 17, 1932 (gage height, 13.31 feet); minimum, about 28 second-feet Oct. 19, 1931; minimum daily discharge, 38 second-feet Oct. 4, 1931.

Remarks.- Records good. Diurnal fluctuation caused by operation of power plant on South Pacolet River and by mills on North Pacolet River. About 3,000,000 gallons a day diverted above station for Spartanburg water supply.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	165	124	180	329	267	1,170	405	229	196	770	202
2	146	152	206	263	442	374	229	210	357	181		
3	143	142	205	4,310	414	472	2,990	294	222	380	213	
4	146	152	178	3,220	1,060	407	940	427	245	226	382	500
5	143	147	176	1,180	2,080	298	866	450	244	235	403	248
6	132	160	190	1,760	396	304	5,220	429	235	215	288	163
7	129	380	187	2,970	660	304	6,000	354	254	214	373	174
8	137	401	129	1,600	588	217	1,880	350	305	216	508	178
9	140	206	210	1,690	462	297	1,340	332	309	207	357	166
10	138	192	146	1,040	633	308	1,650	285	388	199	424	191
11	150	420	140	688	541	394	1,140	349	397	226	453	285
12	155	384	141	495	518	338	830	354	325	223	391	196
13	128	993	452	545	536	312	782	312	301	240	272	168
14	146	1,270	398	507	660	304	695	301	219	283	258	182
15	152	458	258	513	636	243	636	331	294	269	230	175
16	150	408	300	523	402	289	612	308	279	222	178	179
17	136	188	279	461	577	454	593	262	267	199	276	175
18	146	359	279	471	607	554	574	315	244	254	276	165
19	152	292	272	1,390	574	529	406	316	237	197	368	169
20	126	227	260	2,740	546	590	569	323	207	337	540	164
21	146	217	203	928	532	591	550	308	210	415	551	213
22	154	208	172	670	523	330	546	284	210	297	428	188
23	145	166	168	588	308	500	550	241	361	279	266	176
24	160	116	181	555	374	525	532	234	363	294	345	174
25	152	130	154	532	366	535	518	349	321	272	455	173
26	139	132	164	331	362	659	343	271	293	179	320	170
27	128	134	140	479	374	919	504	293	283	229	249	148
28	148	133	157	350	358	1,600	495	282	196	176	249	159
29	346	180	118	370	346	1,070	478	231	270	178	236	254
30	190	150	180	370	-	681	472	235	256	454	184	995
31	169	-	165	358	-	775	-	219	-	956	229	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	4,708	346	126	152	0.717	0.83
November.....	8,662	1,270	116	289	1.56	1.52
December.....	6,312	452	118	204	.962	1.11
Calendar year 1935.....	105,745	1,360	116	290	1.37	18.55
January.....	32,417	4,310	180	1,046	4.93	5.68
February.....	16,545	2,080	283	571	2.69	2.90
March.....	15,508	1,600	217	500	2.56	2.72
April.....	37,481	6,000	343	1,249	5.89	6.57
May.....	9,719	450	219	314	1.48	1.71
June.....	8,193	397	196	273	1.29	1.44
July.....	8,330	956	176	269	1.27	1.46
August.....	10,985	770	178	354	1.67	1.92
September.....	6,712	995	148	224	1.06	1.18
Water year 1935-36.....	165,572	6,000	116	452	2.13	29.04

## South Pacolet River Reservoir near Fingerville, S. C.

Location.— Water-stage recorder, lat. 35°07', long. 81°59', at highway bridge across South Pacolet River Reservoir, 1 mile upstream from dam and 1 3/4 miles south of Fingerville, Spartanburg County. Zero of gage is 760 feet above mean sea level.

Drainage area.— 92 square miles.

Records available.— March 1930 to September 1936.

Extremes.— Maximum gage height during year, 17.29 feet Apr. 7; minimum, 7.31 feet Oct. 28.

1930-36: Maximum gage height, that of Apr. 7, 1936; minimum, 2.76 feet Oct. 8, 1930.

Remarks.— Records excellent. City of Spartanburg diverts about 3,000,000 gallons daily for water supply from reservoir, also uses water for power purposes. Elevation of crest of concrete spillway is 772 feet with 3 feet of flashboards used to increase storage during periods of low flow. Capacity of reservoir, 117,500,000 cubic feet at gage height of 15 feet.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11.22	9.90	13.12	12.08	13.30	13.94	15.52	11.15	11.02	11.28	15.52	11.66
2	11.08	9.55	12.99	12.68	13.53	13.73	16.38	11.25	11.11	11.22	15.33	11.51
3	10.93	9.93	12.54	16.22	13.90	13.02	16.16	11.64	11.18	11.22	14.95	11.51
4	10.81	9.92	12.11	16.23	14.53	12.23	15.48	11.99	11.31	11.28	15.04	12.06
5	10.61	9.94	11.91	15.74	15.89	12.02	15.62	11.32	11.44	11.60	14.45	11.82
6	10.50	9.99	11.69	15.77	15.43	12.11	16.70	10.57	11.70	12.00	13.57	11.92
7	10.39	10.43	11.19	16.21	15.23	12.02	16.70	10.37	12.12	12.10	13.40	12.03
8	10.22	12.21	11.18	15.75	15.10	12.17	15.79	10.56	12.55	12.13	14.19	12.07
9	10.16	12.80	11.19	15.82	15.28	12.49	15.53	10.37	12.65	12.10	15.16	12.12
10	10.02	12.99	11.33	15.53	15.21	12.39	15.66	10.77	12.84	12.02	14.87	12.15
11	9.91	13.17	11.45	15.30	14.92	12.66	15.44	11.06	13.08	12.11	13.90	12.35
12	9.62	14.29	11.58	15.40	14.42	12.81	15.47	11.09	12.98	12.34	13.06	12.35
13	9.53	15.08	12.02	15.08	13.95	12.78	15.29	11.03	12.78	12.56	12.57	12.35
14	9.38	15.60	12.51	14.50	14.12	12.69	15.16	11.36	12.93	12.33	12.18	12.29
15	9.10	14.99	12.78	13.88	14.58	12.77	15.07	11.38	12.83	11.88	11.62	12.20
16	8.79	14.17	12.87	13.39	15.04	12.87	14.95	11.17	12.50	11.47	11.90	12.13
17	8.46	14.12	12.58	12.61	15.15	13.17	14.74	11.38	12.16	11.50	12.39	12.04
18	8.34	13.82	12.25	11.84	14.88	14.07	14.46	11.43	11.90	12.80	13.17	11.95
19	8.01	12.82	11.85	14.22	14.65	14.20	14.67	11.22	11.70	14.52	13.03	11.82
20	7.93	12.40	11.40	15.96	14.20	13.68	14.83	11.03	11.64	14.45	14.76	11.69
21	7.82	12.08	11.00	15.41	13.64	13.60	14.44	10.76	11.66	14.57	15.22	12.14
22	7.78	11.68	11.12	15.20	13.13	13.70	13.99	10.54	11.64	14.20	14.27	12.27
23	7.68	11.38	11.27	14.98	13.17	13.71	13.62	10.68	12.02	13.75	14.41	12.22
24	7.67	11.52	11.40	14.33	13.52	12.92	13.23	10.97	12.72	13.37	14.24	12.11
25	7.64	11.69	11.55	13.68	13.62	12.54	12.77	11.16	12.82	12.85	13.28	12.06
26	7.48	11.80	11.58	13.65	13.70	12.96	12.87	11.25	12.57	12.58	12.12	11.94
27	7.41	11.90	11.68	13.66	13.75	14.68	13.02	10.97	12.21	12.31	11.75	11.93
28	7.44	12.13	11.80	13.43	13.61	15.64	12.51	10.66	12.18	12.06	11.91	11.94
29	8.75	12.65	11.90	13.40	13.77	15.68	12.00	10.61	12.00	11.92	12.09	12.14
30	9.78	12.89	11.95	13.39	-	15.24	11.52	10.71	11.51	12.49	12.21	13.83
31	9.88	-	12.02	13.38	-	15.11	-	10.90	-	15.02	12.08	-

## North Tyger River near Moore, S. C.

Location.- Water-stage recorder, lat.  $34^{\circ}48'$ , long.  $81^{\circ}58'$ , at Ott's Shoals,  $1\frac{1}{4}$  miles upstream from mouth of Wards Creek,  $2\frac{1}{2}$  miles southeast of Moore, Spartanburg County, and  $3\frac{7}{8}$  miles upstream from confluence of North and South Tyger Rivers. Zero of gage is 564.85 feet above mean sea level, unadjusted.

Drainage area.- 162 square miles.

Records available.- April 1934 to September 1936.

Extremes.- Maximum discharge during year, 8,640 second-feet Apr. 7 (gage height, 6.15 feet); minimum (estimated), 9.2 second-feet Dec. 29; minimum daily discharge, 29 second-feet Dec. 29.

1934-36: Maximum discharge, that of Apr. 7, 1936; minimum, that of Dec. 29, 1935; minimum daily discharge, that of Dec. 29, 1935.

Remarks.- Records excellent except those estimated for period of ice effect, Dec. 29 to Jan. 2, which are good. Diurnal fluctuation caused by operation of power plants upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	127	98	117	164	159	209	411	238	169	118	1,350	134
2	102	98	132	389	203	232	1,980	213	162	150	570	116
3	86	66	117	2,460	272	250	2,680	232	135	223	299	237
4	67	95	116	3,920	770	230	982	242	164	112	283	1,950
5	67	101	114	1,490	1,530	233	648	256	150	115	182	411
6	43	99	112	1,380	1,010	217	4,400	231	124	218	174	201
7	82	178	122	3,010	554	156	6,760	192	214	132	154	202
8	102	280	88	1,910	415	189	2,350	190	300	118	344	164
9	89	212	152	1,810	387	219	978	179	368	129	454	133
10	52	142	136	1,120	458	236	1,280	195	268	126	466	159
11	72	140	182	658	408	278	904	216	312	99	230	166
12	85	378	136	448	336	233	622	227	304	106	220	116
13	63	660	205	366	395	228	510	214	240	166	175	93
14	71	613	158	316	732	162	452	190	152	155	155	162
15	61	535	170	294	616	170	410	174	190	118	112	126
16	83	244	175	299	433	216	383	140	200	110	110	125
17	87	205	150	277	358	310	352	150	150	194	476	121
18	79	192	123	245	361	345	322	195	114	228	470	107
19	66	164	114	1,270	367	301	316	208	124	320	264	87
20	62	135	148	1,660	318	330	316	179	106	199	516	67
21	85	135	108	892	301	359	299	152	87	160	662	130
22	84	131	83	474	279	284	294	166	151	142	309	128
23	85	140	144	354	268	257	305	125	204	116	227	119
24	88	108	113	292	274	265	305	126	211	118	218	112
25	84	138	90	246	249	324	272	178	146	92	161	108
26	102	133	141	250	268	538	272	198	180	54	144	80
27	63	119	149	266	242	1,660	283	156	118	114	161	60
28	68	118	105	244	236	1,710	283	132	86	124	245	119
29	171	146	29	241	168	1,090	256	142	140	90	258	166
30	197	146	120	211	-	606	256	108	160	226	156	864
31	136	-	158	207	-	415	-	98	-	1,350	160	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	2,741	197	43	88.4	0.546	0.63
November.....	6,149	813	66	205	1.27	1.42
December.....	4,007	205	29	129	.796	.92
Calendar year 1935.....	65,813	1,650	29	180	1.11	15.11
January.....	27,163	3,920	164	876	5.41	6.24
February.....	12,387	1,530	159	427	2.64	2.85
March.....	12,254	1,710	156	395	2.44	2.81
April.....	29,881	6,760	256	996	6.15	6.86
May.....	5,644	256	96	182	1.12	1.29
June.....	5,467	356	86	162	1.12	1.25
July.....	5,722	1,350	54	185	1.14	1.31
August.....	9,735	1,350	110	314	1.94	2.24
September.....	6,763	1,950	60	225	1.39	1.55
Water year 1935-36.....	127,913	6,760	29	349	2.15	29.37

## Tyger River near Woodruff, S. C.

Location.- Water-stage recorder, lat. 34°45', long. 81°55', at Nesbitts Bridge, half a mile downstream from confluence of North and South Tyger Rivers and 6½ miles east of Woodruff, Spartanburg County. Zero of gage is 489.69 feet above mean sea level (from partly adjusted network of levels).

Drainage area.- 351 square miles.

Records available.- October 1929 to September 1936.

Extremes.- Maximum discharge during year, 17,100 second-feet Apr. 6 (gage height, 13.16 feet); minimum, 77 second-feet Oct. 6 (gage height, 1.81 feet); minimum daily discharge, 87 second-feet Oct. 6.

1929-36: Maximum discharge, that of Apr. 6, 1936; minimum, 50 second-feet Sept. 19, 1932 (gage height, 1.63 feet); minimum daily discharge, 61 second-feet Sept. 19, 1932.

Maximum stage known, about 20.0 feet during flood of August 1928 (discharge not determined). Maximum stage during flood of September 1929, 14.65 feet (discharge, 19,600 second-feet, revised).

Remarks.- Records good except those for period of ice effect, Dec. 29 to Jan. 2, which are fair and were computed on basis of one discharge measurement, gage heights, and weather records. Diurnal fluctuation caused by operation of power plants upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	246	262	230	340	431	383	1,020	554	286	296	2,220	325
2	232	246	255	1,060	412	400	4,450	456	360	319	1,000	298
3	201	125	272	4,370	520	562	4,810	445	310	474	576	482
4	170	144	251	6,870	2,130	456	2,520	460	352	272	615	3,090
5	160	217	262	3,550	2,740	484	1,530	560	330	202	498	962
6	87	224	252	3,180	2,260	478	8,880	594	318	384	425	380
7	136	414	228	5,730	1,290	440	14,600	502	331	270	672	356
8	211	575	155	4,460	1,040	357	5,850	464	484	248	924	358
9	187	424	236	3,710	978	397	2,360	405	765	270	639	312
10	163	266	310	2,310	936	457	2,650	365	651	275	796	452
11	160	244	333	1,420	902	602	2,020	404	641	236	576	537
12	149	581	305	1,000	826	498	1,350	497	572	206	556	306
13	103	1,270	420	748	1,060	476	1,090	484	482	304	429	233
14	103	1,410	341	784	1,770	431	1,040	458	288	335	368	310
15	168	1,470	309	704	1,250	337	911	416	319	278	298	240
16	160	692	316	758	790	402	833	364	378	294	242	238
17	163	510	314	714	786	640	892	298	344	442	870	246
18	164	351	296	593	965	772	832	368	296	549	747	232
19	146	354	266	3,380	886	708	624	418	291	453	536	210
20	104	294	306	2,950	816	875	650	375	279	348	924	154
21	133	276	271	2,330	770	717	724	374	195	422	1,030	207
22	231	271	204	1,090	730	492	760	350	276	336	765	262
23	202	262	226	852	508	454	766	329	492	304	411	248
24	191	202	249	795	532	618	652	257	464	292	387	240
25	186	218	150	748	564	617	598	302	351	258	423	236
26	244	285	207	524	592	1,240	524	441	356	168	348	210
27	111	270	287	566	500	3,020	572	391	297	176	342	168
28	117	268	292	546	651	3,460	722	330	203	292	557	168
29	137	278	108	565	466	2,220	690	308	260	246	868	318
30	363	315	243	530	-	1,370	688	302	330	380	310	2,180
31	308	-	410	594	-	1,060	-	220	-	2,040	296	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	5,612		363		87		181		0.516		0.59	
November.....	12,708		1,470		125		424		1.21		1.35	
December.....	8,317		420		108		268		.764		.88	
Calendar year 1935.....	140,773		2,980		87		386		1.10		14.94	
January.....	59,274		6,870		340		1,680		5.36		6.18	
February.....	28,081		2,740		412		968		2.76		2.98	
March.....	25,653		3,460		337		628		2.36		2.72	
April.....	65,338		14,600		524		2,178		6.21		6.93	
May.....	12,554		594		220		405		1.15		1.33	
June.....	11,296		768		195		377		1.07		1.19	
July.....	11,401		2,040		168		368		1.06		1.21	
August.....	19,851		2,230		242		640		1.82		2.10	
September.....	13,948		3,090		154		465		1.32		1.47	
Water year 1935-36.....	273,033		14,600		87		746		2.13		28.93	

South Tyger River near Reidville, S. C.

Location.- Water-stage recorder, lat. 34°52', long. 82°05', about a quarter of a mile upstream from county highway bridge, 1½ miles downstream from Berry Shoals, and 1 3/4 miles northeast of Reidville, Spartanburg County. Zero of gage is 626.05 feet above mean sea level, unadjusted.

Drainage area.- 106 square miles.

Records available.- April 1934 to September 1936.

Extremes.- Maximum discharge during year, 6,080 second-feet Apr. 6 (gage height, 13.66 feet); minimum, 8.7 second-feet Oct. 11-13 (gage height, 0.70 foot), caused by shut-down of power plants upstream; minimum daily discharge, 8.7 second-feet Oct. 12, 13, 1934-36: Maximum discharge, that of Apr. 6, 1936; minimum, 8.5 second-feet Oct. 26, 29, 1934 (gage height, 0.70 foot); minimum daily discharge, 8.5 second-feet Oct. 28, 1934.

Remarks.- Records excellent. Discharge for Jan. 16 computed from graph drawn on basis of inside gage readings and records for station near Woodruff. Large diurnal fluctuation caused by operation of power plants above station.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	117	71	93	92	76	372	179	118	128	414	123
2	84	15	110	243	56	140	1,290	94	121	124	208	112
3	82	11	96	1,730	161	250	1,430	80	126	104	237	513
4	70	70	92	2,080	611	174	486	155	140	53	279	587
5	12	78	101	654	1,010	174	407	260	134	71	246	210
6	33	115	86	1,330	596	168	3,580	263	83	72	204	81
7	84	170	28	1,360	472	159	3,170	214	75	70	158	127
8	74	210	11	1,100	359	83	1,130	177	279	99	183	130
9	75	83	139	962	219	159	710	84	353	111	172	130
10	85	74	122	624	248	145	746	70	304	109	249	130
11	49	104	123	423	279	279	589	189	289	103	281	119
12	8.7	378	108	195	314	154	371	200	193	65	264	81
13	8.7	554	122	271	242	185	406	197	78	141	181	88
14	53	783	89	239	356	119	336	182	66	118	124	85
15	57	406	85	219	245	83	290	192	132	112	84	52
16	53	326	138	286	114	169	341	94	134	132	66	76
17	67	137	123	257	260	155	401	70	129	212	245	79
18	56	153	132	155	321	301	225	171	131	119	193	71
19	13	122	134	621	310	301	93	128	134	68	172	57
20	13	99	107	1,440	304	274	199	120	75	125	282	38
21	92	110	83	492	300	95	285	182	65	127	377	77
22	84	112	46	316	230	82	312	137	130	128	234	88
23	85	51	76	327	90	151	311	89	143	130	74	89
24	75	38	42	359	199	296	158	48	143	109	162	94
25	115	107	9.4	224	262	302	152	135	141	70	192	90
26	15	111	76	84	167	659	87	220	116	35	153	88
27	11	106	113	206	180	818	229	153	70	112	139	30
28	82	107	85	161	294	994	236	108	61	116	133	75
29	136	125	64	188	98	668	291	133	127	120	86	89
30	114	90	121	188	-	410	280	62	121	224	75	914
31	115	-	140	271	-	320	-	70	-	615	120	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				2,002.4	136	8.7	64.6	0.609	0.70			
November.....				4,942	763	11	165	1.56	1.74			
December.....				2,672.4	140	9.4	92.7	.875	1.01			
Calendar year 1935.....				48,080.8	1,610	8.7	132	1.25	16.88			
January.....				17,154	2,080	84	553	5.22	6.02			
February.....				8,389	1,010	56	289	2.73	2.94			
March.....				8,341	994	78	269	2.64	2.93			
April.....				18,964	3,580	87	632	5.96	6.65			
May.....				4,434	263	49	143	1.35	1.56			
June.....				4,209	353	61	140	1.32	1.47			
July.....				3,922	615	35	127	1.20	1.38			
August.....				5,997	414	66	193	1.82	2.10			
September.....				4,553	914	30	151	1.42	1.58			
Water year 1935-36.....				85,759.8	3,580	8.7	234	2.21	30.06			

## South Tyger River near Woodruff, S. C.

Location.- Water-stage recorder, lat. 34°45', long. 81°56', at Chesnee Shoals, three-eighths of a mile upstream from confluence of North and South Tyger Rivers and 5 3/4 miles east of Woodruff, Spartanburg County. Zero of gage is 508.38 feet above mean sea level, unadjusted.

Drainage area.- 174 square miles.

Records available.- March 1934 to September 1936.

Extremes.- Maximum discharge during year, 9,510 second-feet Apr. 6 (gage height, 9.78 feet), from rating curve extended above 1,900 second-feet; minimum, 32 second-feet Oct. 14 (gage height, 1.59 feet); minimum daily discharge, 33 second-feet Oct. 13, 1934-36: Maximum discharge, that of Apr. 6, 1936; minimum, that of Oct. 14, 1935; minimum daily discharge, that of Oct. 13, 1935.

Remarks.- Records excellent. Diurnal fluctuation caused by operation of power plants upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	117	143	111	137	220	166	459	269	122	153	725	164
2	121	130	125	528	164	164	2,280	201	167	172	394	155
3	108	45	135	2,340	208	316	2,000	168	165	226	258	204
4	99	52	126	2,810	1,200	234	1,300	178	190	121	336	1,020
5	74	99	131	1,890	1,180	242	830	264	182	106	299	434
6	34	111	124	1,610	1,180	245	4,610	334	173	150	243	158
7	76	231	93	2,630	704	252	7,480	279	127	106	492	155
8	99	283	62	2,270	568	161	2,970	261	207	123	476	170
9	96	177	94	1,840	515	182	1,300	197	392	141	382	168
10	107	116	161	1,120	412	214	1,260	149	384	139	302	293
11	103	120	157	728	430	322	1,070	181	343	131	339	325
12	54	235	157	491	458	246	696	256	266	99	324	153
13	33	581	213	310	551	241	538	256	215	130	232	133
14	40	626	166	410	993	221	550	251	129	158	197	149
15	79	736	141	339	609	155	449	242	131	144	152	88
16	75	413	149	384	296	178	398	194	174	173	123	106
17	76	298	162	372	324	304	497	144	175	250	431	114
18	87	169	165	274	489	392	448	169	171	317	261	112
19	73	177	169	1,840	440	366	218	195	175	129	264	102
20	37	150	166	1,250	410	481	256	184	153	130	437	81
21	58	137	136	1,350	414	306	344	212	108	240	361	80
22	121	141	119	546	398	184	400	193	125	175	394	122
23	112	116	86	414	208	182	414	180	253	168	168	118
24	98	99	109	430	244	344	294	134	235	164	159	121
25	101	95	57	406	304	456	262	121	197	136	235	124
26	127	138	76	196	290	606	189	236	176	99	193	114
27	41	145	146	232	226	1,260	238	217	142	76	180	108
28	52	149	174	224	374	1,680	364	186	106	142	306	62
29	152	147	71	264	228	1,050	363	155	111	137	493	130
30	154	151	147	243	-	642	380	155	155	192	148	1,170
31	-	-	216	334	-	532	-	120	-	788	139	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October.....					2,746	154	33	88.6	0.509		0.59	
November.....					6,209	736	45	207	1.19		1.33	
December.....					4,144	216	57	134	.770		.89	
Calendar year 1935.....					69,240	1,190	33	190	1.09		14.80	
January.....					28,212	2,810	137	910	5.23		6.03	
February.....					14,037	1,200	164	484	2.78		3.00	
March.....					12,323	1,680	155	398	2.29		2.64	
April.....					32,861	7,480	189	1,095	6.29		7.02	
May.....					6,301	334	120	203	1.17		1.35	
June.....					5,649	392	106	188	1.08		1.20	
July.....					5,415	788	76	175	1.01		1.16	
August.....					9,443	725	123	305	1.75		2.02	
September.....					6,433	1,170	62	214	1.23		1.37	
Water year 1935-36.....					133,773	7,480	33	366	2.10		28.60	



## Enoree River near Enoree, S. C.

Location.— Water-stage recorder, lat.  $34^{\circ}36'$ , long.  $81^{\circ}54'$ , half a mile upstream from Yarbroughs Bridge, three-quarters of a mile upstream from mouth of Warrior Creek, and 4 miles southeast of Enoree, Spartanburg County. Zero of gage is 447.96 feet above mean sea level, from partly adjusted network of levels.

Drainage area.— 307 square miles.

Records available.— August 1929 to September 1936.

Extremes.— Maximum discharge during year, 17,200 second-feet Apr. 7 (gage height, 7.86 feet); minimum, about 4 second-feet Oct. 20, caused by shut-down of power plants upstream; minimum daily discharge, 112 second-feet Oct. 6.  
1929-36: Maximum discharge, about 30,000 second-feet (revised) Oct. 2, 1929 (gage height, 10.5 feet); minimum, that of Oct. 20, 1935; minimum daily discharge, 50 second-feet July 24, 1932.

Remarks.— Records good except those for June 7-9, which are fair. Diurnal fluctuation caused by operation of power plants upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	156	215	188	298	351	438	716	428	248	160	1,360	177
2	144	180	254	873	328	438	4,560	408	242	161	659	169
3	166	121	216	4,710	477	468	5,040	418	244	342	428	188
4	154	174	198	7,240	2,350	478	1,640	428	272	282	317	693
5	187	166	212	4,140	3,160	448	1,860	386	300	228	217	482
6	112	198	211	3,050	1,800	438	7,240	380	215	224	252	286
7	172	395	224	6,370	914	419	15,300	380	*220	226	1,090	209
8	138	500	188	4,980	776	366	6,750	371	*280	197	1,700	182
9	141	390	238	4,570	830	428	2,100	358	*400	162	1,380	194
10	148	254	260	2,060	1,030	418	2,350	362	359	169	674	344
11	160	216	208	950	776	488	1,660	362	292	156	418	856
12	169	376	219	679	635	428	1,050	362	296	141	314	270
13	158	1,270	422	587	869	398	643	362	344	288	353	214
14	180	960	354	455	2,050	389	748	350	344	188	181	193
15	165	608	242	544	1,090	354	685	318	268	180	282	120
16	150	402	251	427	802	418	635	305	237	192	216	158
17	145	326	243	418	672	599	599	286	228	259	538	250
18	140	276	224	456	789	804	565	304	242	614	494	167
19	167	271	216	4,320	762	599	543	345	189	380	353	146
20	120	245	218	3,340	635	775	532	282	193	352	350	120
21	162	264	204	1,380	588	735	498	285	197	356	498	280
22	198	231	214	854	588	554	498	292	205	563	554	169
23	172	254	180	555	545	520	509	250	524	311	458	207
24	162	186	217	465	520	492	498	282	354	184	362	130
25	166	217	176	458	488	748	468	284	305	160	280	142
26	174	205	224	388	478	762	468	268	260	158	210	146
27	140	208	171	400	478	1,650	458	262	181	120	242	142
28	180	245	148	373	468	2,930	448	242	206	168	194	139
29	272	268	113	347	448	1,860	448	270	192	132	292	156
30	345	267	177	347	-	642	458	230	192	176	258	1,490
31	206	-	206	355	-	722	-	276	-	1,210	353	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	5,128	345	112	165	0.537	0.62
November.....	9,842	1,270	121	328	1.07	1.19
December.....	6,816	422	113	220	.717	.85
Calendar year 1935.....	137,856	7,120	101	378	1.23	16.71
January.....	56,159	7,240	298	1,812	5.90	6.80
February.....	25,675	3,160	328	885	2.88	3.11
March.....	21,506	2,930	354	694	2.26	2.61
April.....	60,127	15,300	438	2,004	6.53	7.29
May.....	10,156	428	230	327	1.07	1.25
June.....	8,009	524	181	267	.870	.97
July.....	8,459	1,210	120	272	.886	1.02
August.....	15,207	1,700	181	491	1.60	1.84
September.....	8,419	1,490	120	281	.915	1.02
Water year 1935-36.....	235,458	15,300	112	643	2.09	28.53

\*Discharge computed on basis of records for station on Tyger River near Woodruff and weather records.

## Saluda River near Pelzer, S. C.

Location.— Water-stage recorder, lat. 34°40', long. 82°28', half a mile downstream from mouth of Hurricane Creek and 2 miles north of Pelzer, Anderson County. Zero of gage is 727.75 feet above mean sea level (from partly adjusted network of levels).

Drainage area.— 411 square miles.

Records available.— September 1929 to September 1936.

Extremes.— Maximum discharge during year, 13,300 second-feet Apr. 7 (gage height, 10.26 feet); minimum, 86 second-feet Dec. 29; minimum daily discharge, 251 second-feet Sept. 27.

1929-36: Maximum discharge, that of Apr. 7, 1936; minimum, 27 second-feet Oct. 20, 1930 (gage height, about 0.82 foot); minimum daily discharge, 62 second-feet Oct. 25, 1931.

Remarks.— Records good except those for Oct. 16-22, which were computed on basis of records for station at Chappells and weather records and are fair. Diurnal fluctuation caused by operation of power plants at Piedmont and near Greenville.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 13			Nov. 14 to Sept. 30		
1.3	135	2.5 980	1.0	64	5.0 1,554
1.5	222	3.0 1,510	1.2	125	4.0 2,890
1.8	391	3.5 2,150	1.5	252	5.0 4,440
2.1	612	4.0 2,910	1.8	423	6.0 6,040
			2.1	637	8.0 9,390
			2.5	994	10.5 13,640

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	347	334	537	437	912	862	1,410	1,140	660	370	1,040	388
2	349	290	459	1,480	1,010	943	3,740	1,060	586	498	700	354
3	321	294	479	7,130	1,090	1,030	4,830	1,030	654	463	638	340
4	280	323	485	7,180	3,030	931	3,350	1,180	589	561	560	588
5	280	316	478	3,470	4,820	934	2,470	932	688	574	464	668
6	314	315	450	4,170	3,440	890	5,870	1,060	1,390	710	468	448
7	311	588	438	5,020	2,070	861	12,100	881	1,050	664	538	406
8	323	928	493	4,200	1,890	844	5,620	1,060	692	564	480	346
9	314	618	676	3,950	1,600	556	4,490	926	710	473	518	398
10	302	372	444	2,790	1,670	842	4,440	1,000	715	534	570	646
11	305	650	466	1,920	1,510	856	3,880	1,050	684	455	480	822
12	294	1,300	468	1,670	1,350	872	2,950	948	812	408	401	440
13	289	2,440	712	1,560	1,300	778	2,470	923	1,050	494	448	346
14	305	4,200	724	1,320	1,600	774	2,270	928	715	516	388	338
15	281	2,260	792	1,270	1,590	778	2,140	875	670	542	404	391
16	300	1,340	554	1,240	1,490	807	2,000	794	588	413	434	314
17	300	878	566	642	1,270	1,030	1,940	834	594	481	630	287
18	320	698	540	1,110	1,540	1,520	1,820	824	587	486	644	350
19	280	481	538	3,970	1,580	1,330	1,740	889	512	442	428	325
20	260	644	529	5,450	1,420	1,180	1,680	722	516	492	1,030	544
21	400	570	506	3,980	1,320	990	1,540	874	530	488	522	394
22	380	407	502	2,020	1,240	976	1,470	708	542	442	494	347
23	355	616	375	1,710	1,130	1,040	1,240	774	581	454	635	308
24	361	423	549	1,450	1,160	930	928	665	664	398	546	272
25	344	449	554	1,330	1,080	1,160	1,410	838	582	386	713	272
26	334	478	415	1,250	1,050	1,240	1,210	726	548	386	536	270
27	300	553	382	1,210	1,040	2,050	1,300	558	494	395	468	261
28	261	531	392	1,130	1,020	2,950	1,300	630	525	370	475	282
29	642	640	310	1,040	956	2,610	1,200	666	510	344	418	280
30	458	544	554	1,040	—	1,990	1,120	652	482	426	524	5,260
31	360	—	412	1,010	—	1,500	—	647	—	1,580	372	—

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	10,260	642	260	331	0.805	0.93
November.....	24,868	4,200	290	815	1.98	2.21
December.....	18,779	792	310	509	1.24	1.43
Calendar year 1935.....	263,846	4,640	240	723	1.76	23.86
January.....	77,379	7,180	437	2,486	6.07	7.00
February.....	45,978	4,820	912	1,566	3.86	4.16
March.....	36,354	2,950	774	1,173	2.85	3.29
April.....	39,738	12,100	928	2,691	7.28	8.12
May.....	26,744	1,180	558	863	2.10	2.42
June.....	19,790	1,390	482	660	1.61	1.80
July.....	15,809	1,680	344	510	1.24	1.43
August.....	16,986	1,040	372	547	1.33	1.53
September.....	16,450	5,250	251	548	1.33	1.48
Water year 1935-36.....	396,696	12,100	251	1,061	2.63	35.80

## Saluda River at Chappells, S. C.

Location.— Water-stage recorder, lat. 34°11', long. 81°52', 300 feet below highway bridge on State Highway 39 at Chappells, Newberry County, and 8½ miles upstream from mouth of Little River. Zero of gage is 363.80 feet above mean sea level (from partly adjusted network of levels).

Drainage area.— 1,290 square miles.

Records available.— May 1927 to September 1936.

Extremes.— Maximum discharge during year, 49,400 second-feet Apr. 6 (gage height, 38.6 feet); minimum, 224 second-feet Sept. 22 (gage height, 1.08 feet); minimum daily discharge, 293 second-feet Sept. 21.

1927-36: Maximum discharge, 63,700 second-feet Oct. 2, 1929 (gage height, 31.5 feet), from rating curve extended above 27,000 second-feet; minimum, 184 second-feet Oct. 20, 1931 (gage height, 0.88 foot); minimum daily discharge, 222 second-feet Oct. 3, 1927.

Maximum stage known, 34.7 feet Aug. 26, 1908, from U. S. Weather Bureau records (approximately 35.7 feet, Geological Survey gage datum).

Remarks.— Records good. Discharge Apr. 6-15, 18-25 computed from graph drawn on basis of partial recorder record and daily gage readings. Some regulation caused by operation of Ware Shoals power plant.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 4 and June 5 (5:40 p.m.) to Sept. 30				Jan. 5 to June 5 (5:40 p.m.)			
1.0	207	5.0	1,440	3.0	762	10.0	3,820
1.5	318	6.0	1,850	4.0	1,120	12.0	4,960
2.0	444	7.0	2,300	5.0	1,510	14.0	6,480
2.5	584	8.0	2,790	6.0	1,940	16.0	8,400
3.0	736	10.0	3,810	7.0	2,390	18.0	10,800
4.0	1,070	12.0	4,960	8.0	2,840		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	752	898	884	1,140	2,080	2,030	4,280	2,390	1,040	932	3,370	1,070
2	674	832	800	1,530	1,720	1,850	14,800	2,390	1,390	1,070	2,340	898
3	704	898	1,110	6,560	2,940	2,210	24,500	2,080	1,200	898	1,800	784
4	752	501	832	10,900	8,780	2,390	18,600	1,980	1,200	1,030	1,760	800
5	800	775	932	19,800	13,200	2,340	18,200	2,390	1,320	932	1,360	1,300
6	736	832	864	21,400	12,400	2,570	18,100	2,160	1,260	932	1,000	904
7	442	955	932	19,800	10,600	2,080	38,100	2,030	1,530	1,400	1,000	629
8	700	1,990	898	21,400	8,110	1,720	46,200	2,030	1,980	1,140	1,870	1,250
9	704	1,830	781	22,800	4,720	1,760	32,200	1,900	1,560	1,030	3,740	800
10	689	1,030	1,290	18,900	4,960	2,300	20,100	1,940	1,520	1,030	2,410	1,070
11	629	1,000	1,070	12,900	4,420	2,570	14,300	1,590	1,520	966	2,120	966
12	752	1,210	898	7,540	3,570	2,210	9,700	2,120	1,400	939	1,290	1,620
13	784	2,280	1,180	3,650	3,320	1,980	7,380	1,940	1,600	669	966	977
14	466	3,480	1,640	3,270	5,680	1,940	5,170	1,720	1,800	1,360	1,070	752
15	683	4,720	1,250	3,070	5,920	1,270	4,250	1,940	1,330	966	1,140	1,520
16	704	4,190	1,440	3,120	4,260	1,720	3,850	1,800	1,440	898	846	1,030
17	704	2,210	1,290	2,660	3,420	2,540	3,620	1,590	1,210	1,070	689	784
18	689	1,640	1,210	2,300	3,470	4,210	3,370	1,590	1,070	1,000	1,890	784
19	768	1,640	1,070	18,200	3,420	3,950	3,220	1,760	1,330	1,030	1,430	784
20	801	1,140	1,110	21,800	3,320	3,730	3,120	1,590	1,180	864	1,070	644
21	436	1,080	1,140	16,500	3,020	4,240	3,120	1,630	1,070	1,490	1,340	293
22	652	1,250	832	11,500	2,930	3,060	2,980	1,590	736	1,290	1,520	805
23	664	1,030	898	7,350	2,670	2,390	2,640	1,590	1,390	1,210	1,070	966
24	736	864	1,070	3,420	2,520	2,520	2,750	1,350	2,120	842	898	800
25	704	800	898	2,930	2,660	5,940	2,390	1,160	1,760	987	1,600	752
26	864	1,180	800	2,620	2,440	11,500	2,480	1,720	1,210	872	1,360	689
27	832	932	1,110	2,570	2,340	9,690	2,440	1,390	1,210	385	1,110	468
28	466	1,030	864	2,620	2,340	6,000	2,670	1,390	998	999	1,030	306
29	764	1,140	832	2,390	2,210	7,400	2,620	1,270	720	725	1,070	558
30	1,110	1,210	418	2,300	-	6,950	2,340	1,350	1,180	644	828	690
31	1,070	-	1,040	2,210	-	4,280	-	1,310	-	1,350	556	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	22,620	1,110	436	730	0.566	0.65
November.....	44,567	4,720	501	1,486	1.15	1.28
December.....	31,363	1,640	418	1,012	.784	.90
Calendar year 1935.....	612,355	9,340	418	1,678	1.30	17.65
January.....	274,150	22,800	1,140	8,844	6.86	7.91
February.....	133,330	13,200	1,720	4,598	3.56	3.84
March.....	111,320	11,500	1,270	3,591	2.78	3.20
April.....	314,390	46,200	2,340	10,480	8.12	9.06
May.....	54,680	2,390	1,160	1,764	1.37	1.68
June.....	40,264	2,120	720	1,342	1.04	1.16
July.....	30,950	1,490	355	995	.774	.89
August.....	45,293	3,740	566	1,461	1.13	1.30
September.....	25,783	1,620	293	859	.666	.74
Water year 1935 .....	1,128,710	46,200	293	3,084	2.39	32.51

## Saluda River near Silverstreet, S. C.

**Location.**— Water-stage recorder, lat. 34°11', long. 81°44', 200 feet upstream from new Higgins Ferry Bridge on State Highway 19, 1 mile downstream from mouth of Little River, and 2½ miles south of Silverstreet, Newberry County. Zero of gage is 345.13 feet above mean sea level (from partly adjusted network of levels).

**Drainage area.**— 1,570 square miles.

**Records available.**— January 1927 to September 1936.

**Extremes.**— Maximum discharge during year, 63,000 second-feet Apr. 8 (gage height, 33.89 feet, affected by backwater from Lake Murray), from rating curve extended above 19,000 second-feet on basis of discharge measurements made at Chappells and near Chapin; minimum, 328 second-feet Sept. 22 (gage height, 3.69 feet); minimum daily discharge, 404 second-feet Sept. 28.

1927-36: Maximum discharge, 63,800 second-feet Oct. 3, 1929 (gage height, 33.97 feet), from rating curve extended above 19,000 second-feet on basis of discharge measurements made at Chappells and near Chapin; minimum, 248 second-feet Sept. 29, 1927 (gage height, 3.45 feet); minimum daily discharge, 274 second-feet Sept. 29, 1927.

**Remarks.**— Records good except those for periods of backwater from Lake Murray, Jan. 28 to Feb. 3, Feb. 7 to Mar. 18, Mar. 25 to Apr. 23, May 14 to July 31 (computed on basis of five discharge measurements, gage heights, and records for station at Chappells), and those for Mar. 19-24, Apr. 24 to May 13 (computed on basis of partial recorder record and records for station at Chappells), which are fair. Slight regulation from operation of power plants upstream.

Rating tables, water year 1935-36, except periods of backwater from Lake Murray (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 16 and Jan. 9 to Sept. 30				Nov. 17 to Jan. 8			
4.0	440	12.0	5,410	4.0	430	12.0	5,410
5.0	585	15.0	8,480	5.0	575	15.0	8,480
6.0	1,425	18.0	12,800	6.0	1,405	18.0	12,800
8.0	2,570	21.0	18,410	8.0	2,570	21.0	18,410
10.0	3,895	24.0	26,980	10.0	3,895	24.0	26,980

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	718	960	1,200	1,460	2,200	2,200	4,400	2,600	1,200	1,100	3,820	978
2	762	885	850	1,690	2,000	2,000	14,000	2,600	1,400	1,100	3,080	1,040
3	740	1,010	1,180	7,270	3,400	2,400	30,000	2,400	1,400	950	2,270	810
4	706	653	950	10,700	9,650	2,600	24,000	2,200	1,300	1,100	2,030	935
5	835	713	1,000	17,000	15,800	2,600	15,000	2,600	1,400	1,000	1,760	1,260
6	860	935	1,000	22,500	15,600	3,000	18,000	2,400	1,400	1,000	1,290	1,220
7	582	960	1,000	25,000	13,000	2,400	42,000	2,200	1,500	1,500	1,120	650
8	629	2,100	1,050	25,000	11,000	2,000	60,000	2,200	2,200	1,500	1,620	1,230
9	810	2,270	825	26,600	6,000	1,900	42,000	2,000	1,700	1,200	3,850	968
10	740	1,410	1,580	24,200	5,500	2,400	28,000	2,000	1,600	1,100	3,230	1,140
11	695	1,120	1,270	17,500	5,000	3,000	15,000	1,700	1,600	1,100	2,450	1,150
12	740	1,290	1,020	11,900	4,000	2,600	12,000	2,200	1,600	1,100	1,760	1,570
13	885	2,080	1,230	5,030	3,800	2,200	8,500	2,000	1,700	750	1,200	1,290
14	605	3,750	1,970	3,620	5,500	2,200	6,000	1,800	1,900	1,500	1,290	765
15	620	4,640	1,600	3,400	7,000	1,400	4,800	2,000	1,400	1,200	1,260	1,610
16	762	4,860	1,620	3,480	5,000	1,900	4,200	1,900	1,500	1,100	1,180	1,320
17	740	2,660	1,620	3,020	3,800	2,800	4,000	1,700	1,300	1,200	810	860
18	718	1,810	1,350	2,450	3,800	5,000	3,800	1,700	1,200	1,100	1,920	835
19	785	1,850	1,270	12,600	3,800	4,400	3,600	1,900	1,400	1,100	1,610	835
20	910	1,400	1,270	26,600	3,800	4,200	3,400	1,800	1,300	950	1,340	740
21	533	1,080	1,270	22,400	3,400	5,000	3,400	1,700	1,200	1,400	1,340	448
22	820	1,400	1,080	15,400	3,200	3,600	3,200	1,700	850	1,600	1,640	696
23	935	1,180	950	11,200	3,000	2,600	3,200	1,700	1,300	1,300	1,320	1,040
24	835	1,020	1,210	4,740	2,800	2,600	3,000	1,500	2,400	1,000	985	910
25	762	850	1,020	3,340	3,000	6,000	2,800	1,200	1,900	1,000	1,560	785
26	860	1,210	925	2,880	2,800	11,000	2,600	1,600	1,300	1,100	1,590	740
27	960	1,100	1,180	2,800	2,600	13,000	2,600	1,600	1,300	480	1,250	560
28	615	1,080	1,050	3,000	2,600	8,500	2,800	1,500	1,100	1,000	1,150	404
29	666	1,300	1,020	2,600	2,400	8,000	2,800	1,300	900	1,000	1,180	603
30	1,180	1,350	510	2,600	-	7,500	2,600	1,400	1,100	700	1,070	718
31	1,260	-	918	2,400	-	6,000	-	1,400	-	1,200	605	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	24,547	1,260	533	785	0.500	0.58
November.....	49,036	4,860	653	1,635	1.04	1.16
December.....	35,688	1,970	510	1,151	.733	.85
Calendar year 1935 .....	709,504	9,000	504	1,944	1.24	16.83
January.....	324,590	26,600	1,460	10,460	6.66	7.68
February.....	155,430	15,800	2,000	5,360	3.41	3.68
March.....	127,000	13,000	1,400	4,097	2.61	3.01
April.....	374,700	60,000	2,600	12,490	7.96	8.88
May.....	58,500	2,600	1,200	1,887	1.20	1.38
June.....	43,250	2,400	850	1,442	.918	1.02
July.....	34,130	1,600	480	1,101	.701	.81
August.....	52,790	3,850	605	1,705	1.08	1.24
September.....	28,130	1,610	404	858	.597	.67
Water year 1935-36.....	1,307,381	60,000	404	3,572	2.28	30.96

## Lake Murray near Columbia, S. C.

Location.- Water-stage recorder, lat. 34°03', long. 81°13', in intake tower about 500 feet above dam, 10 miles upstream from mouth of Saluda River, and 11 miles northwest of Columbia, Richland County. Zero of gage is 0.62 foot below mean sea level (general adjustment of 1929).

Drainage area.- 2,400 square miles.

Records available.- August 1929 to September 1936.

Extremes.- Maximum gage height during year, 361.61 feet Apr. 10; minimum, 327.37 feet Dec. 14.

1929-36: Maximum gage height, that of Apr. 10, 1936; minimum, 173.2 feet Aug. 31, 1929, when impounding of water started.

Remarks.- Record excellent.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	344.6	333.9	328.6	327.9	349.8	357.6	360.0	360.0	358.1	354.4	349.6	346.2
2	344.2	333.6	328.5	328.0	350.0	357.7	360.3	360.0	357.9	354.1	349.8	345.9
3	343.8	333.4	328.3	328.7	350.1	357.8	360.2	360.0	357.7	353.9	349.9	345.5
4	343.4	333.2	328.2	329.7	350.9	357.8	360.1	360.0	357.6	353.8	349.7	345.4
5	343.1	332.8	328.0	330.6	351.6	357.8	360.1	360.0	357.4	353.8	349.5	345.3
6	342.9	332.4	327.9	332.0	352.6	357.9	360.3	359.9	357.4	353.8	349.3	345.3
7	342.7	332.0	327.8	333.9	353.3	358.0	360.9	359.8	357.4	353.6	349.0	345.3
8	342.2	331.7	327.8	336.2	353.9	358.1	361.2	359.8	357.3	353.4	348.9	345.0
9	341.8	331.7	327.8	338.0	354.5	358.2	361.1	359.7	357.2	353.2	349.1	344.8
10	341.4	331.8	327.7	339.6	354.9	358.2	361.4	359.7	357.0	352.9	349.2	344.5
11	340.9	331.8	327.6	340.8	355.1	358.5	361.2	359.8	356.9	352.7	349.3	344.3
12	340.6	331.5	327.5	341.8	355.2	358.7	360.4	359.7	356.7	352.6	349.4	344.1
13	340.4	331.2	327.4	342.3	355.4	358.7	360.0	359.6	356.6	352.5	349.3	344.1
14	340.2	331.2	327.4	342.4	355.7	358.7	360.0	359.5	356.6	352.3	349.1	343.9
15	339.7	331.1	327.5	342.6	356.0	358.7	360.0	359.4	356.6	352.1	348.9	343.7
16	339.3	331.3	327.6	342.7	356.4	358.8	360.0	359.4	356.4	351.8	348.8	343.3
17	338.8	331.5	327.6	342.8	356.6	359.0	360.0	359.4	356.2	351.6	348.6	342.8
18	338.4	331.5	327.5	342.9	356.7	359.4	360.1	359.4	356.0	351.5	348.4	342.3
19	338.1	331.2	327.5	344.1	356.8	359.6	360.2	359.3	355.8	351.4	348.3	341.9
20	337.9	330.7	327.5	346.0	356.9	359.8	360.3	359.2	355.7	351.4	348.1	341.7
21	337.7	330.2	327.5	347.4	357.0	359.9	360.0	359.1	355.7	351.3	347.8	341.5
22	337.3	329.7	327.5	348.5	357.1	360.0	360.0	358.9	355.6	351.2	347.7	341.1
23	336.9	329.4	327.3	348.9	357.3	360.0	360.0	358.9	355.4	351.0	347.7	340.6
24	336.4	329.2	327.6	349.2	357.4	360.0	360.0	358.9	355.3	350.8	347.6	340.2
25	336.0	329.0	327.7	349.4	357.4	360.1	360.0	358.9	355.2	350.6	347.3	339.8
26	335.7	328.8	327.8	349.5	357.4	360.2	360.0	358.7	355.1	350.6	347.1	339.4
27	335.6	328.7	327.8	349.7	357.5	360.2	360.0	358.6	355.0	350.5	346.9	339.3
28	335.4	328.7	327.9	349.7	357.5	360.2	360.0	358.4	354.9	350.3	346.6	339.0
29	335.0	328.7	328.0	349.7	357.5	360.0	360.0	358.3	354.8	350.0	346.4	338.6
30	334.6	328.6	328.0	349.7	-	360.0	360.0	358.2	354.6	349.7	346.5	338.2
31	334.3	-	327.8	349.8	-	360.0	-	358.2	-	349.5	346.4	-

## Saluda River near Columbia, S. C.

Location.- Water-stage recorder, lat. 34°01', long. 81°06', a quarter of a mile upstream from Site of old Saluda mill and 2 miles upstream from mouth at Columbia, Richland County. Zero of gage is 149.53 feet above sea level (general adjustment of 1929).

Drainage area.- 2,450 square miles.

Records available.- August 1925 to September 1936.

Average discharge.- 11 years, 3,201 second-feet.

Extremes.- Maximum discharge during year, 61,600 second-feet Apr. 7 (gage height, 14.53 feet); minimum, 68 second-feet June 29 and Aug. 2; minimum daily discharge, 81 second-feet Aug. 2, caused by shut-down of power plant at Lake Murray.  
1925-36: Maximum discharge, 67,000 second-feet Oct. 2, 1929 (gage height, 15.22 feet); minimum, 11 second-feet July 13, 1930; minimum daily discharge, 12 second-feet July 13, 1930, due to impounding of water in Lake Murray.

Remarks.- Records good. Discharge Aug. 25 computed from graph drawn on basis of power-plant and tailrace gage records at Lake Murray. Considerable regulation from storage and power-plant operations at Lake Murray (capacity, about 92,000,000,000 cubic feet).

## Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 25				Mar. 26 to Sept. 30			
1.0	92	4.0	3,675	1.8	62	2.6	1,045
1.3	155	5.0	6,575	1.9	92	3.0	1,760
1.6	265	6.0	9,950	1.3	155	4.0	3,640
2.0	540	7.0	13,900	1.6	265	5.0	6,910
2.5	1,030	8.0	18,780	2.0	540	6.0	10,460
3.0	1,705	10.0	30,600			15.0	65,400

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,850	7,160	2,470	1,540	433	150	9,930	2,180	4,690	6,400	682	5,630
2	7,870	3,980	3,330	2,160	145	1,820	46,900	2,490	4,860	6,720	81	6,770
3	7,940	2,650	2,840	1,740	2,250	2,320	44,200	3,090	5,380	5,580	3,880	7,060
4	7,660	6,010	3,280	1,120	3,120	2,100	29,900	2,760	5,350	2,680	6,370	5,530
5	4,540	7,320	2,660	434	2,850	2,500	26,800	3,450	4,990	664	6,840	978
6	1,960	7,530	2,760	3,120	2,860	2,100	48,500	3,950	1,500	3,770	5,730	201
7	7,800	7,370	960	3,170	3,610	468	59,000	3,880	1,210	5,230	6,540	3,870
8	8,560	5,270	828	3,970	863	138	59,400	4,090	5,050	6,600	1,220	6,580
9	8,270	647	2,770	3,200	385	1,710	57,100	2,000	5,460	6,560	689	6,690
10	8,180	131	2,790	2,760	2,230	2,630	57,800	706	4,860	6,560	3,360	6,650
11	7,920	4,350	2,740	782	2,530	2,320	55,700	2,960	5,450	3,370	2,970	7,390
12	5,470	5,870	2,730	280	2,580	2,410	37,500	4,170	5,890	1,830	2,730	2,900
13	3,240	4,880	2,840	1,880	2,820	2,560	12,300	4,200	1,910	5,910	3,660	974
14	7,220	4,210	1,170	2,500	3,320	531	10,600	4,340	647	7,190	5,480	6,550
15	8,210	4,270	440	2,460	615	155	5,770	4,060	5,010	6,600	4,720	9,580
16	8,270	1,180	2,080	2,470	267	1,680	6,880	1,250	6,300	6,750	4,710	9,590
17	8,550	306	1,950	2,390	1,910	2,370	2,130	590	6,130	6,620	7,730	9,780
18	7,870	5,210	1,490	714	2,500	2,420	668	3,750	5,820	3,840	6,080	9,810
19	4,630	7,650	1,480	2,130	2,050	1,830	238	4,720	5,700	1,220	5,520	6,230
20	3,230	7,950	1,590	3,650	2,230	3,920	9,190	3,910	2,540	4,720	5,700	2,230
21	6,700	8,320	422	3,650	2,120	2,030	6,990	4,250	828	5,290	5,470	7,520
22	7,460	8,040	846	2,720	488	4,000	2,280	4,430	5,400	6,600	2,820	8,380
23	7,670	3,790	1,300	2,460	181	4,530	2,260	1,930	6,220	6,890	788	8,280
24	7,840	3,070	213	1,790	2,010	3,470	5,730	390	4,880	6,270	5,950	8,260
25	7,450	3,550	105	500	3,090	15,900	586	3,230	5,230	987	6,580	8,160
26	3,530	3,010	126	180	2,660	24,700	3,760	4,980	5,150	528	6,170	4,190
27	1,640	2,920	303	1,830	2,920	18,700	3,750	4,990	2,940	5,170	6,020	2,200
28	6,580	1,420	176	2,950	2,830	18,200	2,550	4,970	729	5,920	6,380	7,470
29	7,430	1,830	1,480	3,090	486	11,200	2,500	5,040	5,340	6,710	1,550	8,510
30	6,860	1,800	1,980	2,780	-	13,200	2,530	2,320	6,170	6,820	387	6,580
31	6,720	-	1,950	1,900	-	8,910	-	2,060	-	3,810	4,530	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	204,900	8,560	1,640	6,610	2.70	3.11
November.....	131,494	8,320	131	4,383	1.79	2.00
December.....	52,309	3,330	105	1,687	.689	.79
Calendar year 1935.....	1,036,771	10,700	55	2,840	1.16	15.72
January.....	66,520	3,970	180	2,146	.876	1.01
February.....	56,253	3,610	145	1,940	.792	.85
March.....	160,972	24,700	138	5,193	2.12	2.44
April.....	613,430	59,400	238	20,460	8.35	9.32
May.....	101,136	5,040	390	3,262	1.33	1.53
June.....	131,654	6,300	647	4,388	1.79	2.00
July.....	153,729	7,190	528	4,959	2.02	2.33
August.....	131,335	7,730	81	4,237	1.73	1.99
September.....	184,133	9,610	201	6,138	2.51	2.80
Water year 1935-36.....	1,987,865	59,400	81	5,431	2.22	30.17

## South Fork of Edisto River near Denmark, S. C.

Location.- Water-stage recorder, lat. 33°23'35", long. 81°08'00", at bridge on State Highway 6, 200 feet downstream from Seaboard Air Line Railway bridge, 1½ miles downstream from mouth of Little River, and 4 3/4 miles north of Denmark, Bamberg County. Zero of gage is 165.19 feet above mean sea level, unadjusted.

Drainage area.- 720 square miles.

Records available.- August 1931 to September 1936.

Extremes.- Maximum discharge during year, 13,500 second-feet Apr. 11 (gage height, 10.91 feet) from rating curve extended above 4,720 second-feet; minimum, 306 second-feet July 12.

1931-36: Maximum discharge, that of Apr. 11, 1936; minimum, 183 second-feet June 30 to July 3, 1935.

Remarks.- Records good.

Rating tables, water year 1935-36 (gage heights, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 8

Feb. 9 to Sept. 30

5.0	332	4.8	306	7.5	1,590
5.5	404	5.0	332	8.0	2,190
6.0	482	5.5	404	8.5	3,090
6.5	560	6.0	513	9.0	4,690
7.0	1,060	6.5	721	10.0	8,730
7.5	1,580	7.0	1,090	11.0	14,070
8.0	2,190				

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	482	458	578	845	1,020	1,050	1,640	1,000	499	499	922	499
2	474	450	578	885	970	1,000	1,940	962	485	513	922	513
3	458	450	600	1,020	1,020	962	2,470	922	485	485	1,090	513
4	442	442	578	1,110	1,160	922	2,740	885	499	421	1,230	529
5	419	442	578	1,200	1,360	922	2,640	848	485	374	1,050	622
6	412	450	578	1,260	1,520	885	4,520	848	473	355	922	781
7	396	474	578	1,360	1,820	885	4,890	781	473	346	814	922
8	382	643	555	1,360	1,940	885	3,550	751	461	339	781	922
9	374	970	555	1,470	2,060	848	3,240	721	473	332	814	848
10	374	1,060	555	1,580	2,000	848	7,500	721	485	326	781	814
11	374	1,110	539	1,520	1,820	1,000	12,700	694	499	319	721	721
12	382	1,060	539	1,420	1,590	1,090	7,790	668	513	312	814	668
13	382	970	555	1,360	1,480	1,090	4,860	668	581	326	814	602
14	389	885	578	1,360	1,430	1,050	5,750	645	781	389	668	545
15	396	805	600	1,360	1,430	1,000	3,870	668	1,050	396	668	485
16	396	768	600	1,310	1,330	962	2,470	622	1,230	404	694	461
17	389	694	600	1,260	1,280	1,050	1,940	602	1,090	404	694	440
18	389	660	600	1,160	1,280	1,230	1,700	581	922	396	668	421
19	389	600	600	1,160	1,230	1,330	1,540	581	781	412	602	404
20	389	578	600	1,260	1,190	1,280	1,380	721	668	440	529	396
21	389	578	600	1,360	1,180	1,230	1,330	922	622	499	499	461
22	382	539	600	1,470	1,230	1,180	1,280	885	581	622	499	581
23	382	523	600	1,420	1,140	1,180	1,230	781	529	645	545	645
24	382	523	578	1,360	1,180	1,180	1,180	694	513	721	581	721
25	382	512	578	1,520	1,190	1,280	1,180	668	513	585	622	751
26	382	500	578	1,470	1,140	1,330	1,140	622	529	781	602	721
27	389	500	578	1,360	1,090	1,330	1,090	602	529	694	545	622
28	396	500	555	1,260	1,090	1,330	1,090	563	513	645	499	581
29	412	539	600	1,110	1,050	1,330	1,050	545	499	622	473	563
30	450	578	730	1,080	-	1,330	1,000	529	485	581	485	581
31	466	-	805	1,060	-	1,590	-	513	-	721	499	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	12,500	482	374	403	0.560	0.65
November.....	19,262	1,110	442	642	.892	1.00
December.....	18,346	805	539	592	.822	.95
Calendar year 1935.....	217,722	2,580	183	596	.828	11.25
January.....	39,710	1,580	845	1,281	1.78	2.05
February.....	39,200	2,060	970	1,352	1.88	2.03
March.....	34,579	1,590	848	1,115	1.55	1.79
April.....	90,500	12,700	1,000	3,017	4.19	4.68
May.....	22,213	1,000	513	717	.996	1.15
June.....	18,246	1,230	461	608	.844	.94
July.....	15,202	885	312	490	.661	.79
August.....	22,047	1,250	475	711	.868	1.14
September.....	18,553	922	396	511	.849	.95
Water year 1935-36.....	350,138	12,700	312	957	1.33	18.12

## Seneca River near Anderson, S. C.

Location.— Water-stage recorder, lat. 34°30', long. 82°50', at highway bridge 1½ miles downstream from mouth of Deep Creek, 4 miles upstream from confluence of Seneca and Tugaloo Rivers, and 10½ miles west of Anderson, Anderson County.

Drainage area.— 1,026 square miles.

Records available.— October 1931 to September 1936.

Extremes.— Maximum discharge during year, 53,600 second-feet Sept. 30 (gage height, 19.76 feet), from rating curve extended above 16,000 second-feet; minimum, about 110 second-feet Sept. 20; minimum daily discharge, 499 second-feet Sept. 20.

1931-36: Maximum discharge, that of Sept. 30, 1936; minimum, about 90 second-feet Nov. 18, 1934; minimum daily discharge, 371 second-feet Oct. 15, 1931.

Maximum stage known, 25 feet Aug. 17, 18, 1928 (discharge estimated, 77,000 second-feet).

Remarks.— Records good except those above 25,000 second-feet and those for periods of partial gage-height record, which are fair. Diurnal fluctuation caused by operation of power plant upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	795	878	1,230	1,190	1,780	2,100	3,040	2,380	1,360	1,040	*2,400	*1,100
2	735	825	1,230	5,210	1,900	1,970	12,500	2,380	1,360	1,040	*1,900	*900
3	735	745	1,200	26,700	2,370	2,170	15,200	2,340	1,340	1,480	*1,500	926
4	725	805	1,120	21,500	11,000	2,090	5,240	2,380	1,320	1,460	*1,200	1,270
5	735	825	1,040	7,220	20,500	1,980	5,830	*2,400	1,550	1,720	1,150	1,250
6	585	815	1,070	10,300	6,990	1,980	22,800	*2,200	1,730	1,970	1,020	*1,000
7	668	1,160	1,030	16,300	4,420	1,900	42,600	*2,200	2,710	1,320	1,590	*900
8	735	2,470	1,050	9,840	3,840	1,780	16,500	*2,200	1,720	1,180	1,380	*1,200
9	678	1,300	1,240	11,000	3,840	1,940	8,250	*2,000	1,720	1,150	1,620	*900
10	668	1,020	1,330	6,150	4,420	1,850	11,000	*2,000	1,650	1,100	1,360	1,800
11	725	1,740	1,130	3,900	3,520	1,860	7,390	*2,000	1,490	1,120	1,300	1,600
12	695	4,480	1,080	3,310	1,820	1,820	5,480	*1,900	1,550	1,110	1,160	1,060
13	630	15,100	2,040	2,820	2,970	1,750	4,760	*1,900	2,310	1,260	999	885
14	578	14,500	2,620	2,500	3,920	1,690	4,260	1,900	1,900	1,250	948	895
15	678	3,260	1,780	2,440	3,680	1,650	4,010	1,840	1,490	1,130	915	825
16	658	2,500	1,580	2,750	3,280	1,830	3,760	1,780	1,390	1,030	936	835
17	630	2,190	1,330	2,370	2,970	2,150	3,520	1,780	1,320	1,150	1,650	825
18	603	1,840	1,280	2,310	3,760	2,660	3,360	1,720	1,260	1,480	1,110	777
19	649	1,620	1,240	12,700	3,520	2,040	3,200	1,720	1,940	1,080	968	998
20	585	1,520	1,190	17,400	2,970	2,060	3,120	1,720	1,370	1,090	1,330	499
21	1,020	1,480	1,100	5,230	2,820	2,310	2,970	1,650	1,260	1,120	1,470	670
22	1,050	1,330	1,070	3,550	2,740	1,970	2,970	1,580	1,220	1,360	1,010	845
23	815	1,330	1,140	3,010	2,600	1,940	2,970	1,720	1,250	1,110	1,020	748
24	755	1,120	1,070	2,680	2,520	1,890	2,820	1,570	1,590	936	1,120	757
25	735	1,230	1,030	2,440	2,380	3,240	2,820	1,400	1,450	999	1,290	767
26	716	1,170	1,330	2,310	2,310	3,050	2,670	1,520	1,270	826	1,180	777
27	649	1,160	1,010	2,310	2,310	3,410	2,670	1,480	1,180	862	1,040	836
28	745	1,240	1,000	2,070	2,240	7,020	2,520	1,470	1,150	825	*1,000	882
29	1,720	1,840	760	2,010	2,170	5,190	2,450	1,450	1,080	796	*1,400	1,290
30	1,600	1,380	1,210	2,070	-	3,440	2,450	1,420	1,090	767	*1,600	27,700
31	952	-	1,390	1,950	-	2,900	-	1,410	-	*2,000	*1,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	24,348	1,720	585	785	0.765	0.88
November.....	72,873	15,100	745	2,429	2.37	2.64
December.....	38,620	2,620	760	1,246	1.21	1.40
Calendar year 1935.....	672,032	15,100	585	1,841	1.79	24.37
January.....	197,440	26,700	1,190	6,369	6.21	7.16
February.....	116,790	20,500	1,780	4,027	3.92	4.23
March.....	75,630	7,020	1,650	2,440	2.38	2.74
April.....	213,230	42,600	2,450	7,108	6.93	7.73
May.....	57,320	2,400	1,400	1,849	1.80	2.08
June.....	45,120	2,710	1,080	1,504	1.47	1.64
July.....	36,741	2,000	767	1,185	1.15	1.33
August.....	39,864	2,400	915	1,286	1.25	1.44
September.....	55,317	27,700	499	1,844	1.80	2.01
Water year 1935-36.....	973,293	42,600	499	2,659	2.59	35.28

\*Discharge computed on basis of partial record, records for station on Saluda River near Pelzer, and weather records.



## Augusta Canal near Augusta, Ga.

Location.- Two water-stage recorder at upper end of Augusta Canal. Upper gage, lat.  $33^{\circ}32'55''$ , long.  $82^{\circ}02'15''$ , is 1,000 feet below diversion dam,  $1\frac{1}{4}$  miles downstream from Stevens Creek power dam, and 5  $\frac{3}{8}$  miles northwest of Augusta, Richmond County. Lower gage, lat.  $33^{\circ}30'50''$ , long.  $82^{\circ}00'15''$ , is 3  $\frac{3}{8}$  miles downstream from upper gage. Elevation of zero of gages is 46.58 feet (city of Augusta datum) and 149.417 feet above mean sea level (general adjustment of 1929).

Records available.- November 1930 to September 1936.

Extremes.- Maximum daily discharge during year, 3,550 second-feet June 26; no flow Apr. 8 to May 10 (canal closed).

1930-36: Maximum daily discharge, that of June 26, 1936; no flow Apr. 8 to May 10, 1936.

Remarks.- Records good. Daily discharge obtained by slope method except period Nov. 16, 17, when it was computed from partial recorder record and comparison with record for similar periods. Canal diverts water for power and water-supply purposes from the Savannah River at dam 1 mile downstream from Stevens Creek Dam. Waste water from power houses returns to river by three connections above Thirteenth Street highway bridge. Water is also pumped from canal for water supply for city of Augusta, and a small amount of water entering Beaverdam Ditch is discharged into river about 13 miles downstream from Augusta.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,370	3,230	1,810	3,170	1,910	1,800	3,320	0	3,180	3,180	2,390	3,240
2	2,420	2,020	3,120	3,120	1,480	3,020	1,700	0	3,580	3,260	1,820	3,250
3	2,610	1,950	3,120	2,970	2,850	3,010	550	0	3,420	2,930	3,000	3,130
4	2,770	3,080	3,290	842	2,820	3,080	638	0	3,420	2,360	3,190	3,180
5	1,790	2,500	3,360	481	505	3,100	1,150	0	3,420	2,380	3,170	2,070
6	1,520	2,640	3,360	2,690	760	3,180	736	0	2,610	3,290	3,180	2,010
7	2,950	3,180	2,070	1,750	2,120	1,960	1,340	0	2,310	3,380	3,260	1,920
8	1,960	3,400	1,660	300	1,670	1,460	0	0	3,300	3,370	2,230	3,100
9	1,700	2,270	3,030	380	1,300	3,160	0	0	3,400	3,310	1,680	2,950
10	2,880	1,770	3,080	1,100	3,150	3,350	0	0	3,480	3,290	3,190	3,100
11	2,860	3,170	3,240	1,480	3,460	3,300	0	2,900	3,440	2,490	3,340	3,460
12	1,650	3,230	3,310	1,250	3,390	3,320	0	3,090	3,400	2,380	3,330	2,420
13	1,330	3,370	3,460	2,720	3,330	3,280	0	3,160	2,430	3,230	3,320	1,780
14	2,680	3,520	2,150	3,100	3,420	1,920	0	3,050	1,970	3,380	3,250	3,080
15	1,820	3,300	1,990	2,990	1,910	1,220	0	3,090	3,160	3,400	2,260	3,100
16	1,680	1,400	3,240	3,070	1,440	2,940	0	2,340	3,370	3,350	1,620	3,090
17	2,340	800	3,350	3,090	3,130	3,120	0	1,890	3,390	3,320	2,990	3,250
18	2,860	3,110	1,850	2,970	3,270	3,270	0	3,060	3,340	3,560	3,380	3,180
19	1,840	2,940	3,350	1,170	3,040	3,200	0	3,310	3,390	2,460	3,300	2,370
20	1,850	3,080	3,420	495	2,970	3,290	0	3,350	2,450	3,250	3,250	1,650
21	2,940	3,150	2,170	562	2,900	1,800	0	3,330	1,910	3,400	3,280	3,240
22	2,250	3,160	1,940	2,000	1,860	1,330	0	3,410	3,170	3,440	2,230	3,290
23	2,890	1,700	2,770	2,570	1,500	3,110	0	2,620	3,160	3,340	1,740	2,980
24	3,110	1,770	1,980	2,850	2,900	3,230	0	2,340	3,530	3,520	3,030	3,010
25	3,080	2,990	1,920	2,320	3,040	3,390	0	3,240	3,480	2,560	3,330	3,030
26	1,320	2,960	3,040	1,760	3,150	2,510	0	3,400	3,550	2,560	3,210	2,250
27	1,440	3,120	3,200	2,870	3,100	2,160	0	3,350	2,310	2,990	3,190	1,770
28	2,820	3,030	2,370	2,980	3,080	1,750	0	3,410	1,340	2,780	3,140	3,140
29	2,320	3,180	2,100	3,030	2,020	1,600	0	3,440	3,080	2,710	2,280	2,880
30	2,580	2,030	3,140	3,070	-	3,130	0	2,690	3,160	2,670	1,890	3,290
31	3,150	-	3,070	3,140	-	3,250	-	2,310	-	3,210	3,120	-
Month	Second-foot-days		Maximum		Minimum		Mean					
October.....	72,260		3,150		1,330		2,331					
November.....	81,050		3,520		800		2,702					
December.....	86,530		3,460		1,660		2,791					
Calendar year 1935.....	949,235		3,520		500		2,601					
January.....	65,190		3,170		300		2,103					
February.....	71,215		3,460		505		2,456					
March.....	83,140		3,390		1,220		2,682					
April.....	9,434		3,320		0		314					
May.....	62,670		3,440		0		2,022					
June.....	90,950		3,550		1,340		3,032					
July.....	93,550		3,440		2,360		3,018					
August.....	87,640		3,380		1,620		2,827					
September.....	84,210		3,460		1,650		2,807					
Water year 1935-36.....	887,829		3,550		0		2,426					

## Ocmulgee River at Macon, Ga.

Location.- Water-stage recorder, lat. 32°51', long. 83°34', at Fifth Street Bridge, in Macon, Bibb County. U. S. Weather Bureau gage at same site and datum. Zero of gages is 269.38 feet above mean sea level.

Drainage area.- 2,290 square miles.

Records available.- January 1893 to September 1913, October 1931 to September 1936.

Average discharge.- 23 years (1893-1911, 1931-36), 2,877 second-feet.

Extremes.- Maximum discharge during year, 63,700 second-feet Apr. 9 (gage height, 25.23 feet); minimum, 420 second-feet Oct. 5 (gage height, 1.73 feet).  
1893-1913, 1931-36: Maximum discharge, that of Apr. 9, 1936; minimum, 192 second-feet Nov. 9, 16, 23, 1931; minimum gage height, -1.0 foot Oct. 5, 1904, July 27, 1914.  
Maximum stage known, some uncertainty as to whether 1929 flood exceeded 1925 flood, as gages were at different bridges about 1 mile apart. From floodmarks at Central of Georgia Railway bridge and all available data, computed crest stage at Fifth Street Bridge was 26.10 feet on Feb. 28, 1929, and 26.02 feet (revised) on Jan. 19, 1925 (discharge, 70,000 second-feet, revised).

Remarks.- Records fair below 10,000 second-feet and good above. Discharge for Jan. 7, 8, Aug. 5-10 computed from gage-height graph constructed on basis of once-daily gage readings furnished by U. S. Weather Bureau. Flow partly regulated by power plant near Jackson, Ga. Gage-height record collected in cooperation with U. S. Weather Bureau.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	478	600	1,130	2,650	2,870	3,140	4,620	2,870	915	1,110	1,410	1,560
2	502	735	735	4,740	1,880	2,620	21,000	2,190	1,720	1,060	9,200	1,720
3	490	537	940	11,100	6,940	3,330	39,200	1,560	1,790	1,160	10,700	1,700
4	482	498	1,220	18,200	23,100	3,320	29,400	1,560	1,840	848	5,680	1,870
5	482	589	1,370	25,100	31,100	3,150	20,500	2,590	1,140	780	3,960	2,460
6	462	600	758	18,900	33,800	3,070	19,700	2,730	1,160	735	3,420	1,810
7	462	712	915	25,100	27,100	2,820	33,200	2,690	958	780	3,200	1,060
8	914	780	690	20,500	18,800	1,770	53,200	2,810	960	1,020	3,090	2,130
9	1,260	758	690	20,100	6,890	1,980	58,100	2,510	1,210	802	2,600	2,040
10	1,110	780	690	20,500	6,640	3,010	50,400	1,260	1,560	802	2,940	1,790
11	1,020	802	735	16,300	7,080	3,090	29,800	1,240	2,040	758	11,200	1,880
12	902	1,020	802	7,220	6,240	3,040	13,200	2,240	1,940	735	8,210	1,720
13	528	1,440	1,150	5,920	5,120	2,980	8,460	2,220	2,200	735	4,990	1,030
14	490	2,340	1,890	5,300	8,900	2,720	5,900	2,300	1,040	1,010	3,640	1,040
15	886	2,780	1,310	4,810	7,620	1,460	4,620	2,720	958	1,560	2,500	2,100
16	1,080	2,950	938	5,160	6,320	1,410	4,440	2,650	1,990	2,060	2,450	1,880
17	1,130	2,680	1,980	4,950	5,300	3,310	4,600	1,240	1,360	1,110	1,450	1,940
18	1,140	1,360	1,720	4,620	5,840	3,310	4,020	1,160	1,350	1,040	1,990	1,410
19	876	2,380	1,040	32,400	4,840	3,200	3,200	2,510	1,140	825	1,680	1,260
20	544	2,470	870	40,100	4,120	2,920	2,540	2,730	1,210	790	1,580	985
21	502	2,510	825	23,500	4,080	2,760	4,020	2,870	848	1,550	1,740	985
22	1,000	2,670	825	15,400	4,500	1,410	3,960	2,760	1,310	1,420	1,460	1,110
23	918	2,980	802	7,360	4,380	1,410	3,780	2,670	1,460	1,390	1,260	1,080
24	1,030	2,550	1,210	5,300	4,080	2,820	3,660	1,080	1,700	1,080	1,210	1,040
25	1,080	1,370	1,060	4,620	3,750	3,940	3,360	1,010	1,960	1,010	1,240	1,010
26	888	2,280	802	4,320	3,600	6,300	1,880	2,070	1,700	735	1,250	985
27	528	1,870	1,230	3,130	3,790	9,850	1,610	2,410	1,730	712	1,550	1,310
28	490	1,650	1,410	3,340	3,960	12,500	1,720	2,450	1,110	960	1,470	985
29	678	915	1,590	3,180	3,380	10,800	1,920	2,080	780	825	1,210	1,260
30	622	1,270	1,920	3,220	-	4,360	2,550	1,950	1,170	892	1,310	1,850
31	622	-	2,240	3,180	-	4,020	-	960	-	960	1,240	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October.....					23,596	1,260	462	761	0.332	0.38		
November.....					46,876	2,980	498	1,563	.683	.76		
December.....					35,487	2,240	690	1,145	.500	.58		
Calendar year 1935.....					629,322	19,800	462	1,724	.753	10.20		
January.....					368,220	40,100	2,650	11,880	5.19	5.98		
February.....					266,790	33,600	1,880	8,855	3.87	4.17		
March.....					116,810	12,600	1,410	3,756	1.63	1.88		
April.....					438,280	58,100	1,610	14,510	6.38	7.12		
May.....					65,690	9,870	960	2,119	.925	1.07		
June.....					42,189	2,200	780	1,406	.614	.68		
July.....					31,044	2,060	712	1,001	.437	.50		
August.....					100,890	11,200	1,210	3,255	1.42	1.64		
September.....					44,430	2,460	985	1,481	.647	.72		
Water year 1935-36.....					1,569,282	58,100	462	4,288	1.87	25.48		

## Altamaha River at Doctortown, Ga.

Location.— Water-stage recorder, lat.  $31^{\circ}39'$ , long.  $81^{\circ}50'$ , at Atlantic Coast Line Railroad bridge at Doctortown, Wayne County, about  $4\frac{1}{2}$  miles northeast of Jesup. Zero of gage is 28.77 feet above mean sea level.

Drainage area.— 13,900 square miles.

Records available.— October 1931 to September 1936.

Extremes.— Maximum discharge during year, 178,000 second-feet Apr. 18 (gage height, 12.03 feet); minimum discharge, 2,890 second-feet Oct. 27, 28, Nov. 4, 5; minimum gage height, -1.65 feet Nov. 4.

1931-36: Maximum discharge, that of Apr. 18, 1936; minimum, 1,760 second-feet Oct. 8, 9, 14, 15, 1931 (gage height, -2.3 feet).

Maximum stage known, 14.6 feet Jan. 23, 1925 (discharge, 350,000 second-feet, from revised rating curve extended above 180,000 second-feet).

Remarks.— Records excellent except those for May to September, which are good.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,380	3,100	4,760	4,090	70,500	36,100	22,400	22,700	5,920	5,800	5,970	4,750
2	5,160	3,030	4,660	4,360	65,600	35,300	23,400	20,600	5,800	5,680	4,060	4,520
3	4,860	2,960	4,560	5,390	58,600	30,500	25,600	18,600	5,900	5,320	5,320	4,520
4	4,560	2,890	4,560	6,660	52,000	27,900	29,100	16,800	5,680	4,960	6,970	4,960
5	4,270	2,890	4,560	7,260	46,000	26,700	36,100	16,000	5,560	4,620	8,180	5,920
6	4,000	3,100	4,360	7,900	40,900	25,600	42,600	14,500	5,320	4,240	8,950	7,470
7	3,740	3,100	4,180	8,860	36,100	23,400	50,000	13,800	5,080	4,150	9,360	8,370
8	3,680	3,100	4,000	9,900	34,700	22,400	54,200	12,200	5,320	4,060	9,580	8,000
9	3,500	3,100	3,910	10,600	34,700	21,400	55,600	11,400	5,560	3,970	9,810	7,130
10	3,340	3,100	3,820	11,400	36,100	21,400	63,200	10,800	5,800	3,890	10,000	6,340
11	3,260	3,180	3,820	12,000	40,900	20,400	76,000	10,300	6,190	3,800	10,300	5,920
12	3,180	3,260	3,820	13,300	48,000	19,500	88,200	9,810	6,490	3,720	10,000	5,560
13	3,100	3,500	3,910	17,800	56,400	19,500	106,000	9,360	6,490	3,720	9,810	5,080
14	3,030	3,740	3,910	19,500	63,200	19,500	121,000	9,150	6,650	3,720	9,810	5,080
15	3,100	3,910	4,000	18,600	70,600	18,600	140,000	8,950	6,650	3,720	10,300	5,320
16	3,180	3,910	4,180	22,400	78,600	18,600	157,000	8,750	6,970	3,800	10,600	5,560
17	3,260	3,740	4,180	29,100	81,800	17,800	170,000	8,370	7,300	3,890	11,100	5,920
18	3,260	3,820	4,460	39,300	85,000	17,800	178,000	8,000	7,300	3,890	11,400	6,050
19	3,180	4,560	4,860	50,000	81,800	17,000	170,000	7,640	7,300	4,150	11,800	5,560
20	3,030	5,610	5,270	54,200	78,600	16,300	153,000	7,820	7,300	4,730	11,800	4,840
21	2,960	6,380	5,270	58,600	70,600	16,300	132,000	7,820	6,650	5,080	11,400	4,620
22	2,960	6,520	4,960	58,600	65,600	16,300	114,000	7,820	6,190	5,200	11,100	4,620
23	3,030	5,990	4,860	54,200	58,600	17,000	91,800	7,640	6,050	5,560	10,800	4,750
24	3,030	5,380	4,860	50,000	54,200	17,800	76,000	7,300	6,050	5,800	10,800	4,620
25	3,100	4,860	4,760	46,000	50,000	17,800	65,600	6,970	5,920	5,680	10,600	4,620
26	3,030	4,760	4,560	44,300	46,000	17,800	50,000	6,810	5,680	5,320	10,600	4,420
27	2,890	4,660	4,360	46,000	44,300	17,800	42,600	6,810	5,320	5,080	9,580	4,420
28	2,890	4,760	4,180	54,200	40,900	17,800	36,000	6,650	5,080	4,840	7,820	4,620
29	2,960	4,760	4,090	63,200	39,300	17,800	30,200	6,650	5,320	4,620	6,190	4,620
30	3,100	4,860	4,000	70,600	-	19,500	26,300	6,490	5,800	4,330	5,560	4,420
31	3,100	-	4,090	70,600	-	20,400	-	6,340	-	4,150	5,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	107,020	5,380	2,890	3,452	0.248	0.29
November.....	122,530	6,520	2,890	4,084	.294	.33
December.....	135,770	5,270	3,820	4,380	.315	.36
Calendar year 1935.....	2,679,670	20,500	2,890	7,342	.522	7.17
January.....	966,910	70,600	4,090	31,260	2.25	2.59
February.....	1,629,700	85,000	34,700	56,200	4.04	4.36
March.....	650,000	36,100	16,300	20,970	1.51	1.74
April.....	2,428,800	178,000	22,400	80,960	5.82	6.49
May.....	322,850	22,700	6,340	10,410	.749	.86
June.....	182,540	7,300	5,080	6,085	.432	.49
July.....	141,460	5,800	3,720	4,563	.328	.38
August.....	232,650	11,800	3,970	9,118	.656	.76
September.....	162,560	8,370	4,420	5,419	.390	.44
Water year 1935-36.....	7,134,790	178,000	2,890	19,490	1.40	19.09

## Oconee River at Dublin, Ga.

Location.- Wire-weight gage, lat. 32°32', long. 82°54', at bridge on U. S. Highway 80 in Dublin, Laurens County. Prior to Apr. 14, 1936, water-stage recorder at same site and datum. Zero of gage is 148.58 feet above mean sea level.

Drainage area.- 4,350 square miles.

Records available.- 1894 to 1898 (fragmentary); February 1898 to December 1913, October 1931 to September 1936.

Average discharge.- 19 years (1898-1912, 1931-36), 5,282 second-feet.

Extremes.- Maximum discharge during year, 96,700 second-feet from 11 p.m. Apr. 12 to 2 a.m. Apr. 13 (gage height, 32.97 feet); minimum, 510 second-feet Oct. 11 (gage height, 0.88 foot).  
1898-1913, 1931-36: Maximum discharge, that of Apr. 12-13, 1936; minimum, that of Oct. 11, 1935.

Maximum stage known, that of Apr. 12-13, 1936.

Remarks.- Records good. Gage read once daily Oct. 1-24, 28-30, Apr. 13 to Sept. 30. Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	810	1,020	1,790	4,120	6,600	6,900	18,600	5,240	2,140	1,860	1,540	3,140
2	710	1,580	1,860	3,700	6,200	6,400	19,800	4,880	2,070	1,790	2,220	3,780
3	630	1,340	1,720	5,060	6,200	6,000	18,600	4,540	2,000	1,620	5,800	3,060
4	700	1,150	1,580	7,990	9,560	5,700	17,900	4,370	2,220	1,510	7,330	2,070
5	650	1,050	1,540	9,180	12,600	5,510	29,600	4,200	2,740	1,510	7,770	1,760
6	610	990	1,480	10,100	15,300	5,420	43,900	4,030	2,440	1,510	7,110	1,480
7	585	1,080	1,410	12,000	27,100	5,330	47,600	4,030	2,220	1,510	4,370	1,440
8	570	1,240	1,440	15,300	37,000	5,330	49,700	3,860	2,290	1,650	2,980	1,580
9	550	1,790	1,480	22,000	38,200	5,150	58,500	3,700	2,220	1,760	2,360	1,410
10	525	2,070	1,480	28,200	36,700	4,880	70,600	3,460	2,590	1,540	2,360	1,410
11	510	2,290	1,510	31,000	33,600	4,970	81,300	3,300	3,300	1,480	3,700	1,410
12	555	2,070	1,650	31,900	29,400	5,060	91,400	3,220	2,980	1,310	4,200	1,650
13	545	1,760	1,760	31,600	24,600	4,880	94,900	3,060	3,380	1,280	5,240	2,520
14	555	1,510	1,930	30,400	20,700	4,710	76,600	3,060	3,940	1,280	5,060	3,380
15	590	2,480	2,660	27,400	18,200	4,460	57,400	2,980	3,540	1,280	3,860	2,740
16	595	4,970	3,300	23,200	16,400	4,200	42,600	2,980	3,380	1,720	2,890	1,930
17	560	5,800	2,900	18,600	15,400	4,370	31,300	2,820	3,540	1,790	2,440	1,660
18	545	4,980	2,440	14,600	15,600	5,700	28,200	2,660	2,820	1,540	2,440	1,510
19	575	3,060	2,140	12,800	15,600	6,800	16,800	2,590	2,360	1,680	2,520	1,540
20	580	2,220	1,930	13,700	14,500	6,500	11,300	2,660	2,360	2,290	2,140	1,540
21	650	1,930	1,790	15,100	12,800	6,000	8,340	2,660	3,060	3,140	1,860	1,440
22	650	1,790	1,720	30,200	11,200	5,420	7,440	2,660	2,440	1,790	1,680	1,860
23	610	1,650	1,720	45,300	10,300	4,970	6,900	2,660	2,660	1,650	1,790	1,380
24	605	1,580	1,650	43,900	9,560	4,620	6,600	2,520	2,140	1,510	1,790	2,590
25	1,210	1,510	1,620	36,700	8,940	5,060	6,500	2,560	2,290	1,440	1,650	2,590
26	1,120	1,440	1,720	30,000	8,100	7,220	6,400	2,290	3,620	1,340	1,360	2,000
27	930	1,380	1,620	23,000	7,440	9,060	6,200	2,220	3,540	1,240	1,930	1,510
28	870	1,480	1,540	16,300	7,110	10,200	7,000	2,290	2,980	1,150	1,580	1,310
29	796	1,580	1,720	9,670	7,110	11,400	6,500	2,220	2,440	990	1,440	1,240
30	740	1,680	2,440	6,900	-	14,800	5,700	2,220	2,070	990	1,410	1,080
31	804	-	4,640	6,600	-	15,800	-	2,140	-	990	1,380	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	20,905		1,210		510		674		0.155		0.18	
November.....	60,470		5,800		990		2,016		.463		.52	
December.....	60,080		4,540		1,410		1,938		.446		.51	
Calendar year 1935.....	1,061,015		14,800		510		2,907		.668		9.08	
January.....	616,510		45,300		3,700		19,890		4.87		5.27	
February.....	482,020		38,200		6,200		16,620		3.82		4.12	
March.....	202,820		15,800		4,200		6,543		1.50		1.73	
April.....	969,180		94,900		5,700		32,510		7.43		8.29	
May.....	97,880		5,240		2,140		3,157		.726		.84	
June.....	81,770		3,940		2,000		2,726		.627		.70	
July.....	48,140		3,140		990		1,553		.357		.41	
August.....	96,430		7,770		1,580		3,111		.715		.82	
September.....	58,030		3,780		1,080		1,934		.445		.50	
Water year 1935-36.....	2,794,235		94,900		510		7,635		1.76		23.89	

## Satilla River at Atkinson, Ga.

Location.- Water-stage recorder, lat. 31°13', long. 81°52', at bridge on U. S. Highway 84 about 400 feet downstream from Atlantic Coast Line Railroad bridge and 1 mile west of Atkinson, Brantley County.

Drainage area.- 2,970 square miles.

Records available.- October 1931 to September 1936.

Extremes.- Maximum discharge during year, 8,770 second-feet Feb. 17, 18; maximum gage height, 14.50 feet Feb. 17; minimum discharge, 92 second-feet Nov. 30, Dec. 1 (gage height, 3.37 feet).  
1931-36: Maximum discharge observed, 15,200 second-feet Feb. 18, 1933 (gage height, 16.96 feet); minimum, 4.5 second-feet Nov. 19, 20, 1931 (gage height, 1.9 feet).

Remarks.- Records good except those for October, which are fair.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,870	144	95	346	1,450	6,400	2,750	1,680	492	1,170	2,990	680
2	2,070	137	110	346	1,500	6,030	2,670	1,720	638	1,060	2,730	570
3	1,830	131	131	381	1,580	5,680	2,670	1,720	652	840	2,730	479
4	1,330	125	144	417	1,720	5,350	2,670	1,680	570	624	2,130	417
5	1,100	122	144	492	1,910	4,890	2,730	1,630	492	492	2,310	369
6	930	118	137	624	2,250	4,460	2,790	1,580	429	405	2,610	334
7	810	112	129	750	2,790	3,960	2,990	1,500	381	346	3,060	322
8	694	110	122	840	3,460	3,550	3,130	1,370	346	288	3,750	300
9	610	107	125	870	4,070	3,210	3,370	1,210	300	254	4,500	311
10	543	104	122	930	4,690	3,060	3,460	990	300	224	5,190	393
11	492	129	118	960	5,650	3,130	3,650	810	322	198	5,610	504
12	454	185	125	990	6,790	3,130	3,850	652	334	178	5,850	624
13	417	203	150	1,060	7,410	3,210	3,850	543	311	153	6,030	722
14	393	192	154	1,060	7,850	3,290	3,850	479	300	228	6,030	780
15	369	170	170	1,130	8,300	3,550	3,850	417	286	185	5,850	870
16	346	150	198	1,210	8,530	3,650	3,750	361	253	228	5,350	870
17	322	142	228	1,290	8,770	3,850	3,550	346	242	351	4,890	810
18	300	137	247	1,450	8,770	3,850	3,460	322	219	454	4,460	666
19	288	135	251	1,540	8,530	3,750	3,370	300	198	666	3,850	517
20	270	131	247	1,580	8,300	3,650	3,460	300	219	990	3,550	429
21	256	125	237	1,580	7,850	3,550	3,370	286	258	1,450	3,290	369
22	242	118	235	1,580	7,630	3,550	3,370	288	279	1,960	3,210	334
23	230	112	242	1,580	7,200	3,550	3,210	300	300	2,610	3,130	322
24	219	107	240	1,580	6,790	3,460	2,990	300	351	3,060	2,850	300
25	210	105	258	1,630	6,590	3,460	2,610	300	442	3,290	2,610	270
26	196	102	300	1,720	6,400	3,370	2,250	300	556	3,290	2,370	242
27	185	98	346	1,720	6,400	3,290	1,860	281	722	3,210	2,010	224
28	176	98	357	1,720	6,590	3,130	1,720	288	870	3,130	1,720	212
29	170	98	357	1,630	6,400	3,130	1,630	357	1,020	3,130	1,370	194
30	161	94	357	1,540	-	2,990	1,680	405	1,130	3,130	1,100	181
31	154	-	346	1,500	-	2,850	-	405	-	3,060	840	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October.....	18,237			2,670	154	588	0.198	0.23				
November.....	3,841			203	94	128	.043	.05				
December.....	6,422			357	95	207	.070	.08				
Calendar year 1935.....	305,756			13,000	32	838	.282	3.83				
January.....	36,046			1,720	346	1,163	.392	.45				
February.....	166,570			8,770	1,450	5,744	1.93	2.08				
March.....	117,960			6,400	2,850	3,806	1.28	1.48				
April.....	90,540			3,850	1,630	3,018	1.02	1.14				
May.....	23,140			1,720	281	746	.251	.29				
June.....	13,252			1,130	198	442	.149	.17				
July.....	40,694			3,290	163	1,313	.442	.51				
August.....	107,610			6,030	840	3,471	1.17	1.35				
September.....	13,615			870	181	454	.153	.17				
Water year 1935-36.....	637,947			8,770	94	1,743	.587	8.00				

## St. Marys River near Macclenny, Fla.

Location.- Staff gage, lat. 30°21'55", long. 82°04'55", in sec. 2, T. 2 S., R. 22 E., at Stokes bridge, 1 mile below junction of North and South Prongs and 6 miles north-east of Macclenny. Zero of gage is 40.00 feet above mean sea level.

Drainage area.- 358 square miles. Watershed in Okefenokee Swamp indeterminate.

Records available.- October 1926 to September 1936.

Average discharge.- 10 years, 646 second-feet.

Extremes.- Maximum discharge observed during year, 1,540 second-feet Feb. 23 (gage height, 9.40 feet); minimum, 25 second-feet July 18 (gage height, 0.52 foot).  
1926-36: Maximum discharge observed, about 18,500 second-feet Sept. 20, 1928 (gage height, 21.9 feet), from rating curve extended above 11,000 second-feet; minimum discharge observed, 12 second-feet May 22, 1932; minimum gage height observed, 0.04 foot June 4, 5, 1927.

Remarks.- Records good except those for July 18 to Aug. 31, which are fair. Gage read to hundredths once a day.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,410	100	42	59	184	795	361	104	49	59	164	64
2	1,235	95	42	64	174	715	495	104	48	51	250	55
3	1,030	90	59	82	154	637	795	95	46	45	284	47
4	905	86	39	154	144	565	1,200	66	68	40	284	45
5	775	82	36	174	164	511	1,130	77	174	39	250	43
6	655	82	37	154	321	495	1,080	72	134	36	206	39
7	565	77	37	144	880	463	980	64	95	33	206	39
8	511	72	37	239	1,350	431	835	59	77	29	174	39
9	463	72	37	239	1,290	403	715	55	184	28	154	37
10	417	68	39	195	1,290	529	601	46	195	28	144	36
11	389	68	39	174	1,290	1,080	511	43	164	27	144	36
12	347	64	39	154	1,230	1,440	447	39	134	27	154	35
13	347	64	48	144	1,080	1,350	369	36	184	26	144	90
14	308	59	55	129	1,000	1,160	334	34	195	26	321	144
15	296	59	59	124	950	1,080	284	36	184	26	321	114
16	272	55	55	124	955	835	250	36	174	25	296	95
17	261	55	51	144	930	795	217	35	134	26	272	90
18	261	55	47	144	855	515	195	31	104	55	250	82
19	228	51	47	134	735	755	174	30	82	134	206	64
20	217	50	46	144	675	655	154	30	72	655	174	51
21	206	49	42	144	735	583	144	33	82	463	144	45
22	184	47	40	134	1,260	529	129	37	104	361	124	41
23	174	46	48	124	1,540	479	114	39	95	417	109	37
24	164	44	48	114	1,480	431	109	36	134	403	109	36
25	154	42	59	109	1,230	403	104	31	272	334	86	34
26	154	41	59	104	1,100	361	100	30	206	272	77	32
27	129	41	55	95	955	334	100	30	164	228	68	31
28	124	41	55	86	880	308	100	28	124	195	68	31
29	116	42	55	86	835	296	100	30	95	164	86	30
30	109	42	55	95	-	308	100	51	77	154	86	29
31	104	-	55	144	-	308	-	49	-	144	77	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				12,508	1,410	104	403	0.469	0.54			
November.....				1,839	100	41	61.3	.071	.08			
December.....				1,445	59	37	46.6	.054	.06			
Calendar year 1935.....				150,091	4,990	18	411	.478	6.47			
January.....				4,154	239	59	134	.156	.18			
February.....				25,646	1,540	144	884	1.03	1.11			
March.....				19,849	1,440	296	640	.745	.86			
April.....				12,247	1,200	100	408	.475	.53			
May.....				1,506	104	28	48.6	.057	.07			
June.....				3,850	272	46	128	.149	.17			
July.....				4,550	655	26	147	.171	.20			
August.....				5,432	321	68	175	.204	.24			
September.....				1,591	144	29	53.0	.062	.07			
Water year 1935-36.....				94,617	1,540	25	259	.302	4.11			

## St. Johns River near Christmas, Fla.

Location.- Water-stage recorder, lat.  $28^{\circ}33'$ , long.  $80^{\circ}57'$ , in sec. 29 or 32, T. 22 S., R. 34 E., at bridge on State Highway 22 about 5 miles east of Christmas. Zero of gage is 1.68 feet above mean sea level.

Drainage area.- 1,320 square miles.

Records available.- December 1933 to September 1936.

Extremes.- Maximum discharge during year, 4,700 second-feet Oct. 16, 17; maximum gage height, 8.58 feet Oct. 16; minimum discharge, 578 second-feet May 27, 28, June 2; minimum gage height, 5.00 feet May 28.

1933-36: Maximum discharge, 4,800 second-feet June 20, 1934 (gage height, 8.9 feet, from high-water mark); minimum, 29 second-feet June 4, 1935 (gage height, 1.35 feet).

Flood of September 1926 reached a stage of 10.8 feet (discharge, estimated, 10,000 second-feet).

Remarks.- Records fair. Discharge Oct. 19 to Nov. 6 computed from gage heights interpolated on basis of range of stage as shown by recorder graph.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,510	3,680	1,980	1,350	1,440	2,960	3,350	1,400	596	1,490	1,180	1,100
2	3,510	3,600	1,920	1,300	1,490	2,890	3,270	1,350	596	1,440	1,140	1,020
3	3,510	3,510	1,860	1,300	1,490	2,890	3,190	1,300	634	1,440	1,100	985
4	3,510	3,430	1,800	1,350	1,490	2,860	3,120	1,260	675	1,400	1,060	950
5	3,430	3,430	1,750	1,400	1,490	2,960	3,120	1,220	698	1,400	1,020	950
6	3,430	3,350	1,750	1,490	1,700	2,960	2,960	1,180	720	1,350	1,020	916
7	3,430	3,270	1,700	1,490	1,800	3,040	2,890	1,100	720	1,300	1,020	883
8	3,350	3,190	1,640	1,490	1,860	3,190	2,820	1,060	744	1,300	1,020	916
9	3,350	3,190	1,640	1,490	2,040	3,350	2,750	1,020	744	1,280	985	916
10	3,270	3,040	1,640	1,540	2,160	3,600	2,630	965	744	1,260	985	916
11	3,270	3,040	1,590	1,590	2,280	3,850	2,610	950	769	1,220	1,020	916
12	3,270	2,960	1,590	1,590	2,420	4,030	2,480	916	796	1,220	1,020	916
13	3,430	2,890	1,590	1,540	2,480	4,030	2,420	883	796	1,260	985	916
14	4,120	2,820	1,590	1,540	2,610	4,030	2,420	853	883	1,300	950	950
15	4,500	2,820	1,590	1,590	2,680	4,030	2,280	823	965	1,350	950	950
16	4,600	2,750	1,540	1,590	2,820	3,940	2,220	796	1,020	1,400	1,020	950
17	4,600	2,680	1,490	1,540	2,820	3,940	2,160	769	1,060	1,400	1,020	916
18	4,500	2,610	1,490	1,540	2,890	3,850	2,040	744	1,100	1,440	950	916
19	4,500	2,540	1,440	1,590	2,820	3,850	2,040	744	1,140	1,440	916	883
20	4,400	2,480	1,440	1,540	2,820	3,760	1,980	720	1,180	1,440	883	883
21	4,300	2,480	1,400	1,540	2,890	3,680	1,880	698	1,180	1,440	1,040	853
22	4,210	2,350	1,440	1,540	2,890	3,680	1,860	698	1,190	1,490	1,590	823
23	4,210	2,350	1,490	1,490	2,820	3,680	1,800	675	1,180	1,440	1,600	798
24	4,120	2,280	1,440	1,490	2,820	3,600	1,700	654	1,260	1,400	1,860	769
25	4,030	2,220	1,440	1,490	2,820	3,600	1,700	634	1,350	1,350	1,860	769
26	4,030	2,160	1,400	1,490	2,820	3,510	1,700	615	1,440	1,350	1,750	744
27	3,940	2,160	1,400	1,440	2,820	3,510	1,590	596	1,440	1,300	1,590	744
28	3,850	2,100	1,400	1,440	2,890	3,430	1,540	596	1,490	1,260	1,440	720
29	3,850	2,040	1,400	1,440	2,890	3,430	1,540	634	1,490	1,220	1,350	698
30	3,760	1,980	1,350	1,440	-	3,430	1,490	634	1,490	1,220	1,260	698
31	3,680	-	1,350	1,440	-	3,430	-	615	-	1,180	1,180	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	119,470		4,600		3,270		3,854		2.92		3.37	
November.....	83,400		3,680		1,920		2,780		2.11		2.35	
December.....	48,540		1,980		1,350		1,566		1.19		1.37	
Calendar year 1935.....	416,621		4,600		31		1,141		.864		11.73	
January.....	46,090		1,590		1,300		1,497		1.13		1.30	
February.....	69,260		2,890		1,440		2,388		1.81		1.95	
March.....	109,090		4,030		2,890		3,519		2.67		3.08	
April.....	69,580		3,350		1,490		2,319		1.76		1.96	
May.....	27,122		1,400		596		875		.663		.76	
June.....	30,100		1,490		596		1,003		.760		.85	
July.....	41,760		1,490		1,180		1,347		1.02		1.18	
August.....	36,964		1,860		883		1,122		.903		1.04	
September.....	26,362		1,100		698		879		.666		.74	
Water year 1935-36.....	707,738		4,600		596		1,934		1.47		19.95	

## St. Johns River near De Land, Fla.

Location.— Slope station with two gages in T. 17 S., R. 29 E.; upstream water-stage recorder at Hawkinsville, 1 mile above Crows Bluff Bridge, which is 5 miles west of De Land, lat. 29°01', long. 81°23'; downstream water-stage recorder 3½ miles below this bridge, at St. Francis Landing. Zero of gages is 1.106 feet and 0.716 foot, respectively, below mean sea level.

Drainage area.— 2,830 square miles.

Records available.— January 1934 to September 1936.

Extremes.— Maximum daily discharge during year, 7,900 second-feet Oct. 23; minimum daily discharge, 870 second-feet May 23.

1934-36: Maximum daily discharge, 10,600 second-feet July 4-6, 1934; minimum daily discharge, about 30 second-feet Feb. 1, 1935 (strong upstream wind).  
Maximum stage known, 6.8 feet in 1910.

Remarks.— Records good above 1,500 second-feet and fair below. Discharge computed by use of the slope method. Slope for period Aug. 14-18, when upstream recorder was inoperative, computed by use of gage record at bridge.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,610	7,400	4,320	3,160	2,980	5,380	4,900	2,700	1,770	3,760	3,360	2,500
2	5,700	7,200	4,250	3,280	3,170	5,460	4,860	2,610	2,030	3,940	3,040	2,560
3	5,980	7,000	4,100	3,340	3,300	5,520	4,850	2,630	2,420	4,030	2,590	2,600
4	6,110	6,710	3,950	3,310	3,450	5,530	4,720	2,730	2,620	4,000	2,590	2,610
5	6,200	6,670	3,880	3,560	3,240	5,540	4,730	2,640	2,590	4,000	2,410	2,620
6	6,310	6,620	3,680	3,430	2,830	5,520	4,730	2,680	2,510	4,000	2,450	2,690
7	6,210	6,580	3,780	3,420	2,640	5,550	4,630	2,680	2,450	4,070	2,430	2,540
8	6,120	6,520	3,750	3,450	2,590	5,410	4,480	2,630	2,410	3,940	2,430	2,520
9	6,080	6,420	3,660	3,420	2,800	5,740	4,520	2,600	2,370	3,810	2,320	2,620
10	5,740	6,300	3,600	3,160	2,870	5,700	4,640	2,580	2,360	3,650	2,250	2,650
11	5,730	6,210	3,500	3,150	2,970	5,600	4,610	2,570	2,420	3,600	2,310	2,700
12	6,250	6,150	3,500	3,090	3,150	5,570	4,520	2,420	2,310	3,660	2,320	2,800
13	6,760	6,030	3,490	3,170	3,530	5,570	4,510	2,260	2,120	3,840	2,260	2,720
14	6,930	5,880	3,300	3,220	3,710	5,730	4,540	2,150	2,060	3,730	2,280	2,630
15	7,040	5,760	3,340	3,270	3,950	5,780	4,530	2,130	1,430	3,480	2,310	2,490
16	7,140	5,620	3,230	3,380	4,190	5,880	4,430	1,880	1,830	3,440	2,270	2,330
17	7,260	5,430	3,170	3,460	4,280	5,950	4,370	1,760	2,250	3,460	2,320	2,100
18	7,350	5,240	3,220	3,640	4,370	5,730	4,070	1,620	2,370	3,500	2,320	2,220
19	7,510	5,180	3,340	3,880	4,340	5,730	3,700	1,770	2,590	3,540	2,350	2,330
20	7,620	5,250	3,400	3,620	4,440	5,850	3,640	1,580	2,760	3,570	2,280	2,310
21	7,770	5,190	3,490	3,620	4,840	5,690	3,650	1,470	2,820	3,560	1,930	2,430
22	7,860	5,010	3,660	3,580	4,770	5,630	3,770	1,360	2,760	3,470	2,270	2,380
23	7,900	4,900	3,600	3,500	4,870	5,530	3,680	870	2,550	3,280	2,390	2,300
24	7,890	4,790	3,670	3,500	4,990	5,560	3,390	930	2,620	3,240	2,460	2,350
25	7,720	4,440	3,500	3,420	5,120	5,460	3,130	1,110	2,570	3,230	2,610	2,380
26	7,630	4,450	3,430	3,380	5,310	5,370	3,000	1,710	2,490	3,270	2,650	2,010
27	7,580	4,570	3,310	3,130	5,370	5,320	2,940	1,740	2,590	3,330	2,710	1,340
28	7,630	4,720	3,410	2,870	5,510	5,220	3,020	1,770	2,950	3,280	2,750	1,500
29	7,580	4,450	3,520	3,050	5,330	5,100	3,030	1,820	3,260	3,290	2,660	1,980
30	7,580	4,340	3,320	3,210	-	5,020	2,930	1,890	3,580	3,470	2,550	2,200
31	7,470	-	3,230	2,870	-	4,900	-	1,750	-	3,420	2,560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	214,230	7,900	5,610	6,911	2.44	2.81
November.....	171,030	7,400	4,340	5,701	2.01	2.24
December.....	110,700	4,320	3,170	3,571	1.26	1.45
Calendar year 1935.....	862,325	7,900	30	2,363	.835	11.31
January.....	103,360	3,880	2,870	3,334	1.18	1.36
February.....	114,910	5,510	2,590	3,982	1.40	1.51
March.....	171,540	5,950	4,900	5,534	1.96	2.26
April.....	122,520	4,900	2,930	4,084	1.44	1.61
May.....	63,660	2,880	870	2,054	.726	.84
June.....	73,960	3,580	1,430	2,465	.871	.97
July.....	111,860	4,070	3,230	3,608	1.27	1.46
August.....	76,210	3,360	1,930	2,458	.869	1.00
September.....	77,410	2,800	1,340	2,380	.641	.94
Water year 1935-36.....	1,405,390	7,900	870	3,840	1.36	18.45



## Econlockhatchee River near Chuluota, Fla.

Location.- Staff gage, lat.  $81^{\circ}07'$ , long.  $28^{\circ}41'$ , in sec. 9 or 10, T. 21 S., R. 32 E., at highway bridge 3 miles northeast of Chuluota. Zero of gage is 2.135 feet above mean sea level.

Drainage area.- 296 square miles.

Records available.- November 1935 to September 1936.

Extremes.- Maximum discharge observed during year, 1,450 second-feet Mar. 13 (gage height, 9.70 feet); minimum observed, 15 second-feet May 11; minimum gage height observed, 1.05 feet May 28, 27.  
Maximum stage known, 16.7 feet in 1928.

Remarks.- Records fair above 500 second-feet and poor below. Gage read to hundredths once daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	43	85	154	489	163	30	36	670	66	119
2		-	40	91	154	489	163	30	43	455	66	111
3		-	38	91	163	455	183	26	68	265	63	97
4	*750	-	32	119	164	422	163	24	73	226	60	85
5		-	30	173	226	373	145	21	85	304	58	79
6		145	30	204	304	360	127	20	111	304	56	119
7		136	28	332	376	360	127	18	163	304	127	163
8		127	28	360	472	390	119	17	183	278	193	360
9		127	26	332	541	422	103	16	154	265	193	346
10		127	25	332	773	708	97	16	136	226	183	332
11		119	24	278	1,010	1,120	91	15	103	163	215	304
12		103	25	318	1,150	1,420	86	16	85	145	318	291
13		97	28	291	978	1,450	75	16	145	127	346	226
14		97	34	252	978	1,290	68	16	154	119	318	226
15		97	40	252	898	1,060	66	16	304	127	239	215
16		85	48	252	1,120	846	63	17	375	163	204	226
17		85	43	239	1,200	689	60	18	651	265	173	183
18		85	36	239	1,200	577	58	18	773	278	145	163
19		79	36	226	1,030	541	50	18	689	252	183	184
20		73	36	215	924	489	43	19	506	226	239	136
21		70	32	204	846	455	38	18	375	204	304	119
22		66	32	204	820	375	38	19	278	226	390	103
23		63	85	183	820	346	38	19	304	239	455	97
24		60	111	183	751	318	36	19	438	215	613	97
25		58	119	163	729	265	30	19	846	183	670	91
26		56	136	163	613	239	30	18	1,120	145	632	97
27		53	145	145	523	226	28	19	1,120	127	577	103
28		50	132	136	489	204	30	22	1,170	97	455	119
29		50	119	119	489	193	34	30	978	85	265	119
30		48	103	111	-	183	34	30	872	73	215	127
31		-	97	136	-	173	-	30	-	68	163	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				-	-	-	-	-	-			
November 6-30.....				2,156	145	48	66.2	0.291	0.27			
December.....				1,779	145	24	57.4	0.194	.22			
Calendar year .....												
January.....				6,423	360	85	207	.699	.61			
February.....				19,884	1,200	154	686	2.32	2.60			
March.....				16,929	1,450	173	546	1.84	2.12			
April.....				2,381	183	28	79.4	.268	.30			
May.....				630	30	15	20.3	.069	.08			
June.....				12,338	1,170	36	411	1.39	1.55			
July.....				6,824	670	68	220	.743	.86			
August.....				8,184	670	56	264	.892	1.03			
September.....				5,007	360	79	167	.564	.63			
Water year .....												

\*Discharge measurement.

## Wekiva River near Sanford, Fla.

Location.- Staff gage, lat. 28°49', long. 81°25', on line between secs. 21 and 28, T. 19 S., R. 29 E., at highway bridge 9 miles west of Sanford.

Records available.- October 1935 to September 1936. Discharge measurements only from October 1931 to September 1935.

Extremes.- Maximum discharge observed during year, 912 second-feet June 5 (gage height, 4.36 feet), from curve extended above 550 second-feet; minimum observed, 156 second-feet Apr. 23; minimum gage height observed, 3.02 feet Dec. 11, 12.

Remarks.- Records poor. Discharge Oct. 1-3, Oct. 5 to Nov. 5 computed on basis of comparison with records for St. Johns River near Christmas, Econlockhatchee River near Chuluota, and rainfall records. Gage read to hundredths twice daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	230	190	188	210	318	372	264	188	302	291	237	199
2			188	210	313	345	259	188	318	269	232	199
3			188	199	291	318	345	188	534	242	226	199
4			221	188	199	286	318	372	188	642	237	221
5	188			210	345	307	345	194	912	253	226	253
6	215	178	168	237	507	318	318	199	858	246	232	253
7		172	188	259	561	345	291	199	696	242	232	253
8		167	183	259	534	318	275	205	588	226	226	248
9		167	183	242	561	399	264	199	507	210	232	237
10		167	183	237	534	534	253	210	426	205	226	226
11	240	172	178	242	507	534	242	210	345	194	232	232
12		172	172	345	480	480	232	215	318	215	221	221
13		172	226	399	426	453	221	215	318	232	210	242
14		172	226	372	399	426	215	221	372	269	242	242
15		172	226	345	372	399	210	221	534	269	232	232
16	280	178	210	372	453	372	205	226	534	269	215	226
17		178	205	372	453	345	199	226	507	264	215	215
18		178	205	345	426	345	194	232	480	253	210	210
19		178	199	318	399	318	188	232	426	280	194	205
20		178	194	345	372	318	178	237	399	286	194	205
21	200	183	188	313	426	318	167	237	372	275	253	199
22		183	194	296	426	307	161	259	372	259	399	199
23		205	280	264	426	302	156	259	372	242	426	199
24		205	296	253	399	286	161	253	399	232	426	232
25		194	291	232	372	286	167	253	426	215	372	242
26	200	194	275	215	345	275	248	248	426	215	318	232
27		194	253	215	318	264	242	248	426	215	264	226
28		188	226	210	372	264	226	275	399	210	237	226
29		188	221	205	372	269	210	345	372	221	215	248
30		188	221	226	-	269	205	318	345	237	205	242
31		-	215	318	-	264	-	302	-	232	199	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				7,401	-	-	239					
November.....				5,473	-	167	182					
December.....				6,566	296	172	212					
Calendar year .....												
January.....				8,464	399	199	273					
February.....				11,993	561	286	414					
March.....				10,668	534	264	344					
April.....				7,013	372	156	234					
May.....				7,190	345	188	232					
June.....				13,925	912	302	464					
July.....				7,507	291	194	242					
August.....				7,769	426	194	251					
September.....				6,747	253	199	225					
Water year 1935-36.....				100,716	912	156	275					

## Blue Spring near Orange City, Fla.

Location.- Lat. 28°56', long. 81°21', in sec. 7, T. 18 S., R. 30 E., about 2½ miles west of Orange City.

Records available.- Discharge measurements from March 1932 to September 1936.

Extremes.- 1932-33: Maximum discharge measured, 188 second-feet Dec. 5, 1932; minimum, 62.7 second-feet Nov. 6, 1935, uncertain owing to adverse measuring conditions and abnormal backwater from St. Johns River.

Remarks.- Measurements are made about monthly in the spring run above junction with St. Johns River, a quarter of a mile below spring.

Discharge measurements, in second-feet, water year October 1935 to September 1936

Oct. 3	135	Feb. 18	156	June 12	163
Nov. 6	*62.7	Mar. 10	168	July 16	173
Dec. 4	165	Apr. 2	143	Aug. 6	171
Jan. 2	178	May 7	151	Sept. 4	164

\*Poor, owing to adverse measuring conditions and abnormal backwater from St. Johns River.

## Oklawaha River near Ocala, Fla.

Location.- Water-stage recorder, lat. 29°11', long. 82°00' (revised), in sec. 15, T. 15 S., R. 23 E., at county highway bridge known as Sharpes Ferry, 2 miles upstream from Silver River and 9 miles east of Ocala. Zero of gage is 36.24 feet above mean sea level.

Records available.- February 1930 to September 1936.

Extremes.- Maximum discharge during year, 862 second-feet Apr. 1; maximum gage height, 3.40 feet Feb. 21; minimum discharge, 226 second-feet Nov. 4, 5; minimum gage height, 0.97 foot Dec. 6, 7, 8, 21, 22.  
1930-36: Maximum discharge, 1,810 second-feet June 15, 1934; maximum gage height, 5.52 feet Sept. 6, 1933; minimum discharge, 48 second-feet June 4, 1933; minimum gage height, -1.76 feet Aug. 2, 1931.

Remarks.- Records fair October to January and good thereafter. Recorder inoperative Jan. 14-17, Feb. 15-21, Apr. 3, 12, June 2, 3, Sept. 28-30; records computed on basis of flow of Oklawaha River near Connor, Fla. Low-water flow regulated by power plant at Moss Bluff, 12 miles upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	488	236	246	290	415	730	862	507	507	437	395	395
2	488	231	241	295	415	730	814	507	550	422	383	399
3	470	231	241	300	422	730	814	507	650	415	372	383
4	437	226	246	305	422	693	814	488	659	415	361	378
5	422	226	246	305	470	693	814	488	597	422	361	389
6	402	231	246	310	730	693	770	488	597	437	372	395
7	383	231	246	315	770	693	770	488	571	437	383	395
8	372	231	246	320	770	659	730	470	548	422	389	395
9	366	236	256	320	770	693	730	453	548	415	378	395
10	350	241	251	315	770	770	693	453	548	402	378	402
11	350	236	251	325	770	814	693	453	527	395	378	402
12	345	236	261	335	770	814	659	437	507	389	383	402
13	340	236	266	335	770	770	659	437	507	383	378	402
14	340	241	266	315	770	770	626	422	507	369	383	395
15	340	236	266	370	770	770	626	422	507	395	383	389
16	330	231	266	400	814	770	597	437	488	389	383	383
17	330	231	266	395	770	770	597	422	470	389	383	372
18	315	231	261	589	770	770	571	422	453	389	383	361
19	315	231	266	395	730	730	571	415	437	395	378	356
20	310	231	266	402	693	750	548	408	437	422	372	361
21	300	231	266	402	730	730	548	402	437	437	378	372
22	295	236	270	395	814	693	527	395	437	437	395	372
23	290	236	280	383	814	693	527	389	453	437	402	378
24	275	236	290	383	770	693	527	369	470	437	408	383
25	275	236	285	378	770	693	507	383	470	422	408	402
26	266	241	280	378	770	693	507	383	488	415	408	402
27	251	241	280	378	770	693	507	383	488	402	408	389
28	251	241	285	378	770	659	507	415	470	395	408	383
29	246	241	285	372	770	659	507	488	470	389	408	378
30	236	241	290	389	-	659	507	507	453	389	408	378
31	236	-	290	415	-	711	-	507	-	595	402	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	10,414		488		236		336					
November.....	7,040		241		226		235					
December.....	8,201		290		241		264					
Calendar year 1935.....	104,508		662		100		286					
January.....	10,987		415		290		354					
February.....	20,559		814		415		709					
March.....	22,368		814		659		722					
April.....	19,129		862		507		638					
May.....	13,765		507		383		444					
June.....	15,251		659		437		508					
July.....	12,714		437		383		410					
August.....	12,009		408		361		387					
September.....	11,576		402		356		386					
Water year 1935-36.....	164,013		862		226		448					

## Oklawaha River near Connor, Fla.

Location.— Water-stage recorder, lat. 29°13', long. 81°59' (revised), in sec. 3, T. 15 S., R. 23 E., at bridge on Ocala-Daytona highway a quarter of a mile downstream from mouth of Silver River and 8 miles east of Ocala. Zero of gage is 31.80 feet above mean sea level.

Records available.— February 1930 to September 1936.

Extremes.— Maximum discharge during year, 1,860 second-feet June 3 (gage height, 6.78 feet); minimum discharge, 1,130 second-feet Dec. 2-12, 20-22, 27-31, Jan. 1-3; minimum gage height, 5.28 feet Dec. 22.

1930-36: Maximum discharge, 3,700 second-feet Sept. 6, 1933 (gage height, 9.14 feet); minimum, 631 second-feet Feb. 1, 1933 (gage height, 2.88 feet).

Remarks.— Records good. Operation of power plant at Moss Bluff affects flow at low stages.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,540	1,220	1,150	1,130	1,260	1,590	1,680	1,410	1,440	1,300	1,260	1,200
2	1,540	1,220	1,150	1,130	1,240	1,590	1,680	*1,410	1,460	1,280	1,240	*1,200
3	1,510	1,220	1,130	1,150	1,240	1,560	1,650	*1,410	1,740	1,280	1,240	*1,200
4	1,460	1,220	1,130	1,150	1,240	1,560	1,650	*1,410	1,770	1,280	1,240	*1,200
5	1,440	1,220	1,130	1,160	1,500	1,560	1,650	*1,410	1,650	1,300	1,220	1,220
6	1,410	1,220	1,130	1,160	1,540	1,560	*1,650	*1,380	1,590	1,300	1,240	*1,220
7	1,410	1,220	1,130	1,160	1,600	1,560	*1,650	*1,380	1,560	1,300	1,240	*1,220
8	1,360	1,220	1,130	1,160	1,650	1,540	*1,620	*1,380	1,540	1,300	1,240	*1,220
9	1,360	1,220	1,130	1,160	1,620	1,560	*1,620	*1,360	1,540	1,280	1,240	*1,220
10	1,360	1,200	1,130	1,150	1,620	1,680	1,620	*1,340	1,510	1,260	1,240	*1,220
11	1,360	1,180	1,130	1,160	1,590	1,710	1,620	*1,340	1,510	1,260	1,220	*1,220
12	1,340	*1,180	1,150	1,160	1,590	1,710	1,590	*1,320	1,510	1,240	1,220	1,220
13	1,360	*1,180	1,160	1,180	1,590	1,680	1,590	*1,320	1,510	1,240	1,220	*1,220
14	1,360	*1,180	1,160	1,160	1,590	1,650	1,550	*1,300	1,510	1,240	1,240	*1,220
15	1,360	*1,180	1,160	1,220	1,590	1,650	1,560	*1,320	1,510	1,240	1,220	*1,220
16	1,360	1,180	1,150	1,280	1,620	1,620	1,540	*1,340	1,480	1,240	1,220	*1,220
17	1,360	1,180	1,160	1,260	1,620	1,650	1,540	*1,320	1,460	1,240	1,220	*1,200
18	1,340	1,180	1,150	1,260	1,590	1,620	*1,510	*1,320	1,460	1,240	1,220	*1,200
19	1,340	1,160	1,150	*1,280	1,590	1,620	1,480	1,300	1,440	1,240	1,200	1,200
20	1,320	1,160	1,130	*1,240	1,560	1,620	1,480	1,300	1,410	1,280	1,200	1,200
21	1,320	1,160	1,130	*1,240	1,710	1,590	1,460	1,280	1,380	1,300	1,180	1,200
22	1,300	1,160	1,150	*1,220	1,740	1,590	1,460	1,280	1,380	1,300	1,220	1,200
23	1,300	1,160	1,160	*1,220	1,710	1,560	1,460	1,280	1,380	1,300	*1,220	1,200
24	*1,280	1,150	1,150	*1,220	1,680	1,560	1,440	1,280	1,380	1,300	*1,220	1,200
25	*1,280	1,150	1,150	1,220	1,650	1,560	1,440	1,260	1,360	1,280	*1,220	1,220
26	1,280	1,150	1,150	1,200	1,620	1,560	1,410	1,260	1,360	1,260	*1,220	1,200
27	1,280	1,150	1,150	1,200	1,620	1,560	1,440	1,260	1,360	1,240	*1,220	1,200
28	1,240	1,150	1,130	1,200	1,620	1,540	1,410	1,360	1,340	1,240	*1,200	1,200
29	1,240	1,150	1,130	1,180	1,620	1,540	1,410	1,460	1,320	1,240	1,200	1,200
30	1,240	1,150	1,150	1,220	-	1,540	1,410	1,460	1,320	1,240	*1,200	1,200
31	1,240	-	1,130	1,240	-	1,590	-	1,460	-	1,240	*1,200	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October.....	41,850			1,540	1,240	1,350						
November.....	39,470			1,220	1,150	1,182						
December.....	35,420			1,160	1,130	1,143						
Calendar year 1935.....	405,116			1,800	709	1,110						
January.....	37,030			1,260	1,130	1,195						
February.....	45,290			1,740	1,240	1,562						
March.....	49,490			1,710	1,540	1,596						
April.....	46,280			1,680	1,410	1,543						
May.....	41,710			1,460	1,260	1,345						
June.....	44,180			1,770	1,320	1,473						
July.....	39,280			1,300	1,240	1,267						
August.....	37,880			1,260	1,180	1,222						
September.....	36,260			1,220	1,200	1,209						
Water year 1935-36.....	490,130			1,770	1,180	1,339						

\*Computed on basis of records of other stations on Oklawaha River.

## Oklawaha River near Orange Springs, Fla.

Location.- Staff gage, lat. 29°30'20", long. 81°54'35", in sec. 28, T. 11 S., R. 24 E., a quarter of a mile downstream from Jordans Ferry and mouth of Orange Creek and 2½ miles east of Orange Springs. Zero of gage is 5.36 feet above mean sea level.

Records available.- February 1930 to September 1936.

Extremes.- Maximum discharge observed during year, 3,880 second-feet Feb. 10 (gage height, 8.15 feet); minimum, 1,330 second-feet Dec. 7, 8, May 27: minimum gage-height observed, 4.78 feet Sept. 30.

1930-36: Maximum discharge, 9,760 second-feet Sept. 9, 1933 (gage height, 11.60 feet); minimum discharge observed, 741 second-feet on several days from January to June 1933; minimum gage height observed, 2.40 feet Feb. 2, 1933.

Remarks.- Records good. Gage read to hundredths twice daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,660	1,650	1,360	1,350	1,680	3,040	2,400	1,650	1,890	1,560	1,460	1,400
2	2,620	1,620	1,360	1,350	1,650	2,940	2,400	1,650	1,920	1,530	1,450	1,380
3	2,520	1,590	1,350	1,360	1,650	2,840	2,480	1,650	1,920	1,500	1,420	1,380
4	2,400	1,590	1,350	1,360	1,680	2,840	2,480	1,620	1,980	1,480	1,420	1,360
5	2,320	1,590	1,350	1,380	2,090	2,840	2,480	1,620	1,950	1,480	1,400	1,400
6	2,260	1,590	1,350	1,380	2,750	2,750	2,440	1,590	2,020	1,480	1,400	1,420
7	2,240	1,560	1,330	1,380	3,440	2,750	2,440	1,590	2,090	1,480	1,420	1,420
8	2,120	1,560	1,330	1,360	3,660	2,660	2,400	1,560	2,160	1,480	1,450	1,420
9	2,090	1,560	1,350	1,360	3,770	2,750	2,400	1,560	2,120	1,450	1,420	1,420
10	2,060	1,560	1,350	1,380	3,770	3,140	2,360	1,530	2,020	1,420	1,590	1,450
11	2,020	1,560	1,350	1,350	3,660	3,240	2,320	1,500	1,950	1,420	1,680	1,450
12	2,020	1,560	1,350	1,380	3,440	3,340	2,240	1,500	1,880	1,420	1,620	1,420
13	2,060	1,560	1,420	1,400	3,240	3,340	2,200	1,480	1,880	1,420	1,560	1,450
14	2,060	1,530	1,420	1,400	3,140	3,340	2,160	1,480	2,020	1,420	1,590	1,480
15	2,060	1,530	1,420	1,500	3,040	3,240	2,120	1,480	2,020	1,420	1,680	1,480
16	2,020	1,530	1,400	1,530	2,940	3,140	2,090	1,450	1,950	1,420	1,680	1,480
17	2,020	1,500	1,400	1,530	2,940	3,040	2,060	1,450	1,880	1,420	1,650	1,450
18	1,960	1,500	1,380	1,530	2,940	3,040	2,020	1,450	1,840	1,420	1,620	1,420
19	1,950	1,500	1,360	1,560	2,840	2,940	1,980	1,420	1,780	1,530	1,620	1,400
20	1,920	1,480	1,350	1,560	2,840	2,840	1,950	1,420	1,740	1,560	1,560	1,400
21	1,880	1,480	1,350	1,560	3,040	2,750	1,920	1,400	1,710	1,590	1,500	1,380
22	1,840	1,450	1,350	1,530	3,240	2,660	1,840	1,400	1,680	1,620	1,500	1,360
23	1,840	1,450	1,400	1,530	3,340	2,660	1,840	1,400	1,710	1,650	1,480	1,380
24	1,810	1,420	1,420	1,500	3,440	2,660	1,840	1,400	1,740	1,650	1,480	1,350
25	1,780	1,400	1,420	1,500	3,440	2,570	1,810	1,380	1,840	1,650	1,450	1,350
26	1,780	1,400	1,400	1,500	3,340	2,480	1,810	1,350	1,810	1,620	1,420	1,350
27	1,740	1,400	1,400	1,480	3,240	2,480	1,740	1,330	1,780	1,590	1,420	1,380
28	1,710	1,400	1,400	1,480	3,140	2,480	1,710	1,420	1,740	1,530	1,400	1,350
29	1,680	1,400	1,400	1,460	3,040	2,480	1,710	1,560	1,710	1,480	1,400	1,350
30	1,680	1,580	1,380	1,530	-	2,480	1,680	1,710	1,620	1,480	1,400	1,350
31	1,650	-	1,480	1,650	-	2,440	-	1,780	-	1,480	1,400	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	62,810		2,660		1,650		2,026					
November.....	45,300		1,650		1,380		1,510					
December.....	42,690		1,420		1,330		1,377					
Calendar year 1935.....	514,824		4,100		767		1,410					
January.....	45,190		1,650		1,350		1,458					
February.....	86,420		3,770		1,650		2,960					
March.....	88,190		3,340		2,440		2,845					
April.....	63,320		2,480		1,680		2,111					
May.....	46,780		1,780		1,330		1,509					
June.....	56,340		2,160		1,620		1,878					
July.....	46,650		1,650		1,420		1,506					
August.....	46,530		1,660		1,400		1,501					
September.....	42,090		1,480		1,350		1,403					
Water year 1935-36.....	672,310		3,770		1,330		1,637					

## North Fork of Black Creek near Middleburg, Fla.

Location.- Staff gage, lat. 30°07'10", long. 81°54'35", in sec. 28, T. 4 S., R. 24 E., about 4 miles northwest of Middleburg.

Drainage area.- 207 square miles.

Records available.- November 1931 to September 1936.

Extremes.- Maximum discharge observed during year, 1,190 second-feet Feb. 8, Apr. 4; maximum gage height observed, 10.72 feet Feb. 8; minimum discharge, 9.6 second-feet May 13-14; minimum gage height observed, 0.54 foot Sept. 30.  
1931-36: Maximum discharge, 8,720 second-feet Sept. 6, 1933 (gage height, 19.35 feet); minimum, 3.6 second-feet June 8, 1935 (gage height, 0.26 foot).  
Maximum stage known, 25.3 feet in June 1919 (discharge, 18,000 second-feet, from rating curve extended above 3,200 second-feet).

Remarks.- Records good. Gage read to hundredths twice daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	247	19	18	50	112	121	574	17	13.0	38	30	70
2	177	19	17	58	108	103	654	15	11.5	26	45	44
3	130	24	16	66	94	90	952	15	12.1	22	58	27
4	108	39	16	94	90	78	1,130	14	90	19	43	19
5	78	33	15	82	167	78	654	13	112	18	32	15
6	70	23	16	78	438	86	312	12.4	58	19	26	14
7	62	20	16	74	911	86	187	11.8	44	22	26	13.0
8	62	13	16	70	1,150	78	139	11.2	41	19	20	14
9	58	19	18	62	695	130	112	11.2	74	15	19	12.1
10	54	20	18	54	458	466	90	10.9	103	13	19	12.4
11	54	20	19	46	348	722	86	10.6	121	11.5	20	12.4
12	54	19	22	42	237	654	74	10.3	94	11.5	22	11.8
13	62	17	39	39	187	373	62	9.8	103	11.8	24	13.0
14	74	15	45	35	139	217	50	9.6	227	11.2	27	19
15	82	16	41	38	157	157	43	11.2	287	13.0	26	17
16	74	19	39	47	177	121	36	28	278	14	24	20
17	76	22	36	50	157	108	31	19	157	17	25	21
18	70	19	34	45	130	90	27	15	90	30	24	21
19	54	17	31	62	112	82	24	13.0	58	66	21	19
20	46	17	28	98	98	70	22	11.8	37	167	17	17
21	41	14	26	96	247	66	22	13.0	34	217	15	15
22	36	14	26	78	574	62	21	12.7	37	187	20	12.7
23	32	13	36	70	628	54	21	23	37	267	26	15
24	30	13	44	62	412	50	20	21	90	167	24	15
25	30	14	41	54	247	47	22	15	112	121	19	14
26	27	14	39	47	167	45	24	11.8	94	86	15	16
27	24	15	36	44	121	42	23	10.0	197	62	16	18
28	24	16	34	39	121	43	21	10.6	157	46	26	13
29	26	15	34	35	130	86	20	12.4	94	38	22	11.2
30	20	17	39	62	-	187	19	14	58	31	24	10.0
31	19	-	45	121	-	399	-	15	-	27	66	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				1,999	247	19	64.5	0.312	0.36			
November.....				559	39	13	18.6	.090	.10			
December.....				899	45	15	29.0	.140	.16			
Calendar year 1935.....				33,926	3,000	3.7	92.9	.449	6.10			
January.....				1,890	121	35	61.0	.295	.34			
February.....				8,572	1,150	90	296	1.43	1.54			
March.....				4,991	722	42	161	.778	.90			
April.....				5,471	1,130	18	182	.879	.98			
May.....				428.3	28	9.6	13.8	.087	.08			
June.....				2,370.6	273	11.5	95.7	.452	.52			
July.....				1,813.0	267	11.2	58.5	.283	.33			
August.....				821	66	15	26.5	.128	.15			
September.....				551.6	70	10.0	18.4	.089	.10			
Water year 1935-36.....				30,865.6	1,150	9.6	84.3	.407	5.56			

## Lake Okeechobee at St. Lucie Canal, Fla.

Location.- Staff gage, lat.  $26^{\circ}59'$ , long.  $80^{\circ}37'$ , in sec. 22, T. 40 S., R. 37 E., on east shore of Lake Okeechobee at entrance to St. Lucie Canal, 8 miles north of Canal Point. Zero of gage is at mean sea level, Punta Rassa datum.

Records available.- October 1931 to September 1936 in reports of Geological Survey; 1915 to 1931 in reports or in office of Everglades Drainage District.

Extremes.- Maximum stage observed during year, 16.85 feet July 20; minimum, 14.65 feet May 22.

1931-36: Maximum stage observed, 21.5 feet (Punta Rassa datum) Sept. 4, 1933; minimum stage observed, 11.7 feet (Punta Rassa datum) May 17, 1932.

Remarks.- Abrupt changes in stage frequently caused by wind. Gage-height record furnished by Okeechobee Flood Control District. Gage read to half-tenths once daily.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15.90	16.20	16.05	15.85	15.85	16.25	16.25	15.40	15.15	16.45	16.25	16.10
2	15.90	16.25	16.05	15.90	15.85	16.25	16.30	15.45	15.15	16.50	16.25	16.10
3	15.95	16.50	16.05	15.95	15.85	16.25	16.55	15.45	15.15	16.45	16.25	16.10
4	15.95	16.40	16.00	16.95	15.90	16.30	16.55	15.45	15.35	16.40	16.15	16.15
5	16.00	16.30	16.00	16.00	15.95	16.25	16.05	15.45	15.30	16.50	16.15	16.10
6	16.00	16.35	15.95	16.00	15.95	16.25	16.00	15.45	15.25	16.50	16.25	16.12
7	16.05	16.35	15.95	15.95	16.05	16.20	16.05	15.30	15.25	16.50	16.20	16.20
8	16.00	16.35	15.85	15.95	15.55	16.20	16.02	15.30	15.20	16.45	16.20	16.30
9	15.90	16.40	15.95	15.95	15.90	16.20	15.90	15.30	15.20	16.50	16.25	16.30
10	16.05	16.40	16.00	16.00	16.15	16.70	16.00	15.24	15.20	16.45	16.40	16.30
11	16.05	16.40	15.95	15.95	16.10	16.60	16.10	15.20	15.10	16.55	16.30	16.25
12	16.20	16.30	15.90	16.05	15.90	16.40	15.95	15.15	15.10	16.65	16.25	16.15
13	16.30	16.35	16.35	15.95	15.90	16.35	15.95	15.15	15.20	16.75	16.25	16.15
14	16.40	16.40	16.05	15.95	16.06	16.25	15.85	15.10	15.15	16.60	16.15	16.10
15	16.40	16.30	16.05	16.05	16.15	16.30	15.85	15.05	15.20	16.60	16.15	16.05
16	16.40	16.25	16.05	16.00	16.05	16.45	15.80	15.00	15.65	16.60	16.15	15.85
17	16.20	16.30	16.05	15.95	16.10	16.45	15.85	14.95	15.90	16.60	16.20	16.10
18	16.25	16.25	16.05	15.90	16.05	16.55	15.80	14.95	15.90	16.65	16.20	16.05
19	16.40	16.25	15.95	16.00	16.15	16.50	15.70	14.95	15.90	16.65	16.15	16.05
20	16.35	16.20	16.10	16.00	16.10	16.45	15.60	15.00	16.00	16.65	16.10	16.05
21	16.40	16.25	15.95	15.90	16.20	16.45	15.60	15.00	16.10	16.60	16.10	16.00
22	16.35	16.20	15.85	16.00	16.25	16.35	15.60	14.65	16.10	16.55	16.10	16.00
23	16.40	16.25	15.95	15.95	16.20	16.25	15.60	14.70	16.10	16.45	16.00	16.00
24	16.40	16.15	15.95	15.95	16.15	16.25	15.60	14.80	16.30	16.40	16.10	16.00
25	16.45	16.10	15.90	15.95	16.15	16.25	15.55	14.80	16.30	16.35	16.10	16.10
26	16.40	16.05	15.90	15.95	16.20	16.25	15.65	14.80	16.25	16.35	16.10	16.00
27	16.40	16.05	15.85	15.95	16.20	16.25	15.55	14.80	16.30	16.35	16.05	16.00
28	16.40	16.10	15.85	15.95	16.30	16.25	15.45	14.95	16.40	16.30	16.10	16.05
29	16.35	16.10	16.85	15.95	16.20	16.25	15.50	16.10	16.40	16.00	16.05	16.00
30	16.40	16.10	16.00	15.95	-	16.30	15.45	15.10	16.45	16.25	16.10	16.10
31	16.45	-	15.85	15.95	-	16.25	-	15.20	-	16.25	16.10	-

## Kissimmee River below Lake Kissimmee, Fla.

Location.- Water-stage recorder, lat. 27°46', long. 81°11', in sec. 24, T. 31 S., R. 31 E., 3 miles below Vero Bridge on State Highway 30 and 3 miles below Lake Kissimmee. Zero of gage is 1.14 feet below mean sea level (unadjusted). Auxiliary staff gage at highway bridge.

Drainage area.- 1,850 square miles.

Records available.- October 1933 to September 1936. Record of stage only at highway bridge from January 1930 to September 1933.

Extremes.- Maximum discharge during year, 1,940 second-feet Mar. 17 (gage height, 53.92 feet); minimum daily flow, 613 second-feet Jan. 2 (minimum measured flow, 75 second-feet at 3:00 p.m. Oct. 11, owing to abnormal slope condition).

1933-36: Maximum discharge, 7,150 second-feet June 24, 1934 (gage height, 56.26 feet); no flow Sept. 3, 4, 1935, owing to hurricane wind blowing upstream; minimum gage height observed, 46.10 feet Sept. 4, 1935.

Remarks.- Records good except those for Oct. 10-12, which are poor. Discharge for period Apr. 27 to May 8 computed on basis of gage-height record at bridge. Gage-height record at bridge and several discharge measurements furnished by Okeechobee Flood Control District.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

50.0	525	51.5	810	53.0	1,370
50.5	596	52.0	970	53.5	1,650
51.0	691	52.5	1,160	54.0	2,030

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	596	810	713	631	736	1,530	1,590	1,200	935	1,040	1,200	1,240
2	613	810	713	613	713	1,470	1,590	1,200	935	1,040	1,200	1,240
3	631	840	713	631	691	1,470	1,650	1,200	935	1,080	1,200	1,240
4	631	810	713	650	691	1,470	1,590	1,160	935	1,080	1,200	1,240
5	631	785	691	670	736	1,470	1,470	1,160	935	1,120	1,200	1,240
6	650	785	691	670	736	1,530	1,470	1,160	935	1,120	1,200	1,280
7	670	785	670	670	736	1,530	1,470	1,120	935	1,160	1,280	1,320
8	713	785	670	691	736	1,530	1,470	1,120	900	1,160	1,280	1,320
9	736	785	670	691	736	1,530	1,470	1,120	900	1,160	1,280	1,320
10	736	785	670	691	900	1,720	1,420	1,080	870	1,160	1,280	1,320
11	736	785	650	691	970	1,790	1,470	1,080	870	1,160	1,280	1,320
12	736	785	650	713	935	1,790	1,470	1,040	900	1,160	1,280	1,370
13	736	785	691	691	935	1,790	1,420	1,040	870	1,160	1,320	1,370
14	760	785	691	691	1,000	1,790	1,370	1,040	870	1,200	1,320	1,320
15	785	785	670	691	1,080	1,790	1,370	1,000	935	1,200	1,320	1,370
16	785	785	670	713	1,200	1,790	1,370	1,000	935	1,200	1,320	1,370
17	785	785	670	713	1,240	1,860	1,370	1,000	900	1,200	1,320	1,370
18	810	785	670	691	1,240	1,860	1,370	970	900	1,200	1,320	1,320
19	810	736	650	691	1,280	1,790	1,320	970	900	1,200	1,320	1,320
20	810	736	670	736	1,280	1,790	1,280	970	900	1,240	1,320	1,320
21	810	736	670	736	1,320	1,790	1,280	970	900	1,240	1,320	1,320
22	810	736	650	736	1,420	1,720	1,240	970	900	1,240	1,280	1,320
23	810	785	670	736	1,420	1,720	1,240	935	900	1,240	1,320	1,320
24	810	760	670	736	1,420	1,720	1,240	935	935	1,240	1,320	1,320
25	840	736	670	713	1,420	1,720	1,280	900	970	1,240	1,320	1,320
26	810	736	670	713	1,420	1,720	1,280	900	970	1,240	1,280	1,320
27	810	713	670	736	1,420	1,650	1,240	900	1,000	1,240	1,280	1,320
28	785	713	650	760	1,530	1,650	1,240	935	1,000	1,200	1,280	1,320
29	785	736	631	713	1,590	1,650	1,200	935	1,000	1,200	1,280	1,320
30	810	736	650	713	-	1,650	1,200	935	1,000	1,160	1,280	1,320
31	810	-	650	760	-	1,650	-	970	-	1,200	1,280	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	23,250	840	596	750	0.405	0.47
November.....	23,119	840	713	771	.417	.47
December.....	20,847	713	631	672	.363	.42
Calendar year 1935.....	173,349	840	69	475	.257	3.48
January.....	21,681	760	613	699	.378	.44
February.....	31,590	1,590	691	1,089	.589	.64
March.....	51,930	1,860	1,470	1,675	.905	1.04
April.....	41,440	1,650	1,200	1,381	.746	.83
May.....	31,915	1,200	900	1,030	.557	.64
June.....	27,770	1,000	870	926	.501	.56
July.....	36,480	1,240	1,040	1,177	.656	.73
August.....	39,680	1,320	1,200	1,280	.692	.80
September.....	39,410	1,370	1,240	1,314	.710	.79
Water year 1935-36.....	389,102	1,860	613	1,063	.575	7.83



## Kissimmee River near Okeechobee, Fla.

Location.— Staff gage, lat. 27°14', long. 80°59', in sec. 24, T. 37 S., R. 33 E., at bridge on State Highway 8 about 10 miles west of Okeechobee. Zero of gage is at mean sea level, Okeechobee Flood Control District datum, and 1.33 feet below mean sea level, U. S. Coast and Geodetic Survey datum).

Drainage area.— 3,260 square miles.

Records available.— October 1930 to September 1936.

Extremes.— Maximum discharge observed during year, 4,330 second-feet Oct. 13 (gage height, 26.04 feet); minimum observed, 1,150 second-feet Feb. 5 (gage height, 22.85 feet).

1930-36: Maximum discharge observed, 15,800 second-feet Sept. 9, 1933 (gage height, 29.32 feet); minimum discharge observed, 231 second-feet May 18, 1932; minimum gage height observed, 17.78 feet June 18, 1935.

The flood of August 1928, resulting from hurricane, reached a peak stage of 30.3 feet (discharge, 20,000 second-feet, from rating curve extended above 14,000 second-feet).

Remarks.— Records fair. Gage read to hundredths twice daily. Gage-height record and results of several discharge measurements furnished by Okeechobee Flood Control District.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,560	2,140	1,450	1,280	1,180	2,810	2,560	1,700	1,450	1,980	1,760	1,980
2	2,440	2,060	1,450	1,280	1,180	2,810	2,560	1,700	1,450	1,900	1,700	1,980
3	2,440	2,060	1,410	1,280	1,180	2,680	2,440	1,700	1,450	1,900	1,700	1,900
4	2,330	2,060	1,380	1,280	1,180	2,680	2,440	1,640	1,450	1,900	1,700	1,900
5	2,330	1,980	1,380	1,310	1,180	2,680	2,330	1,640	1,450	1,850	1,700	1,900
6	2,330	1,980	1,380	1,310	1,180	2,680	2,330	1,640	1,450	1,760	1,700	1,900
7	2,330	1,900	1,340	1,310	1,180	2,560	2,330	1,640	1,450	1,760	1,700	1,900
8	2,440	1,900	1,340	1,310	1,180	2,560	2,230	1,590	1,450	1,760	1,700	1,980
9	2,440	1,830	1,340	1,280	1,230	2,680	2,230	1,590	1,450	1,700	1,700	1,980
10	2,680	1,830	1,310	1,280	1,260	2,810	2,230	1,590	1,450	1,700	1,700	1,980
11	3,270	1,830	1,310	1,260	1,260	2,810	2,230	1,540	1,450	1,640	1,700	2,060
12	3,870	1,760	1,310	1,260	1,260	2,950	2,140	1,540	1,450	1,640	1,700	2,140
13	4,330	1,760	1,380	1,260	1,310	3,100	2,140	1,540	1,450	1,640	1,760	2,140
14	4,090	1,760	1,380	1,230	1,340	3,100	2,060	1,490	1,490	1,700	1,760	2,140
15	4,090	1,700	1,380	1,230	1,410	3,270	2,060	1,490	1,760	1,760	1,830	2,230
16	4,090	1,640	1,380	1,230	1,540	3,270	2,060	1,490	1,760	1,760	1,830	2,230
17	4,090	1,640	1,380	1,200	1,640	3,270	1,980	1,450	1,760	1,760	1,900	2,330
18	4,090	1,640	1,340	1,200	1,830	3,270	1,980	1,450	1,850	1,760	1,980	2,330
19	3,870	1,640	1,340	1,200	2,060	3,270	1,900	1,450	1,830	1,760	2,140	2,230
20	3,660	1,590	1,340	1,180	2,230	3,270	1,900	1,450	1,830	1,760	2,230	2,230
21	3,460	1,590	1,340	1,180	2,560	3,270	1,900	1,410	1,830	1,760	2,230	2,330
22	3,100	1,540	1,340	1,180	2,680	3,100	1,830	1,450	1,830	1,760	2,330	2,330
23	2,950	1,590	1,340	1,200	2,810	3,100	1,830	1,450	1,760	1,760	2,230	2,230
24	2,810	1,590	1,340	1,200	2,950	3,100	1,830	1,450	1,760	1,760	2,230	2,230
25	2,680	1,540	1,340	1,200	2,950	2,950	1,830	1,410	1,830	1,760	2,140	2,230
26	2,560	1,540	1,310	1,200	2,950	2,950	1,830	1,410	2,060	1,760	2,140	2,230
27	2,440	1,540	1,310	1,200	2,950	2,950	1,830	1,380	2,060	1,700	2,060	2,140
28	2,440	1,490	1,310	1,180	2,950	2,810	1,760	1,410	2,060	1,700	2,060	2,230
29	2,330	1,490	1,310	1,180	2,950	2,680	1,760	1,410	2,060	1,700	2,060	2,140
30	2,230	1,450	1,280	1,180	—	2,680	1,760	1,450	1,980	1,760	2,060	2,140
31	2,230	—	1,280	1,180	—	2,680	—	1,450	—	1,760	1,980	—
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	93,000		4,330		2,230		3,000		0.920		1.06	
November.....	52,060		2,140		1,450		1,735		.532		.59	
December.....	41,820		1,450		1,280		1,349		.414		.48	
Calendar year 1935.....	381,068		4,330		267		1,044		.320		4.35	
January.....	38,250		1,310		1,180		1,234		.379		.44	
February.....	53,560		2,950		1,180		1,847		.567		.61	
March.....	90,800		3,270		2,560		2,929		.898		1.04	
April.....	62,290		2,560		1,760		2,076		.637		.71	
May.....	47,000		1,700		1,380		1,516		.465		.54	
June.....	50,340		2,060		1,450		1,678		.515		.57	
July.....	54,650		1,980		1,640		1,760		.540		.62	
August.....	59,410		2,330		1,700		1,915		.593		.68	
September.....	63,690		2,330		1,900		2,123		.651		.73	
Water year 1935-36.....	706,770		4,330		1,180		1,931		.592		8.07	

## Istokpoga Canal near Cornwell, Fla.

Location.- Water-stage recorder, lat. 27°24', long. 81°09', in sec. 30, T. 35 S., R. 32 E., at highway bridge a quarter of a mile east of Seaboard Air Line Railway bridge, 1½ miles above junction with Kissimmee River, and 3 miles northwest of Cornwell. Zero of gage is 29.71 feet above mean sea level.

Drainage area.- 660 square miles.

Records available.- March 1934 to September 1936.

Extremes.- Maximum discharge during year, 899 second-feet Mar. 17, 18; maximum gage height, 7.02 feet Mar. 17; minimum discharge, 365 second-feet May 27; minimum gage height, 5.18 feet Jan. 3 and Feb. 4.

1934-36: Maximum discharge, that of Mar. 17, 18, 1936; maximum gage height, 8.59 feet June 21, 1934; minimum discharge, 18 second-feet June 4, 1935 (gage height, 2.56 feet).

Maximum stage known, 10.1 feet in September 1933 (discharge not determined).

Remarks.- Records fair. Discharge Oct. 26 to Nov. 13, Nov. 19-21, Nov. 23 to Dec. 10 computed on basis of records of Kissimmee River at Fort Bassenger.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	647	782	585	460	460	701	795	585	392	542	640	585
2	632	782	585	456	460	686	782	585	396	542	640	585
3	632	782	585	456	460	686	782	585	436	542	624	585
4	632	782	558	460	456	686	782	585	446	542	624	606
5	615	769	558	478	460	686	769	585	442	542	624	585
6	615	769	542	478	460	686	756	558	436	542	624	606
7	632	769	542	478	460	686	743	558	421	542	624	606
8	647	769	527	478	460	686	743	558	413	542	624	624
9	647	769	527	478	527	701	743	542	396	542	624	624
10	647	756	511	478	542	743	715	527	392	542	624	624
11	715	756	495	478	542	769	715	527	384	542	624	640
12	782	756	511	478	542	795	701	511	384	558	624	640
13	821	756	527	478	572	821	701	495	392	572	624	640
14	860	756	527	478	585	834	671	495	439	585	624	656
15	860	743	511	478	624	860	671	478	572	606	624	624
16	860	729	511	478	671	886	671	478	558	606	624	585
17	847	715	511	478	671	899	671	460	542	624	624	585
18	847	701	511	478	686	899	656	446	542	640	624	572
19	834	686	495	478	701	886	656	446	527	640	624	572
20	821	671	495	478	701	886	656	460	511	656	624	558
21	821	656	495	478	701	873	640	436	527	656	624	558
22	808	624	495	478	701	873	640	432	527	640	624	558
23	808	624	495	478	701	873	640	413	511	640	624	558
24	808	624	495	478	701	860	624	400	511	640	606	558
25	808	624	495	478	701	860	624	380	527	640	606	542
26	795	606	495	478	701	860	624	373	527	640	606	542
27	795	606	478	478	686	847	624	369	527	640	606	572
28	795	606	478	478	701	847	606	388	527	640	606	606
29	795	606	478	460	701	821	606	392	542	624	606	624
30	795	585	478	460	-	821	606	388	542	624	606	640
31	782	-	460	478	-	808	-	388	-	624	585	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	23,403	860	615	755	1.14	1.51
November.....	21,159	782	585	705	1.07	1.19
December.....	15,956	585	460	515	.780	.90
Calendar year 1935.....	106,166	860	22	291	.441	5.99
January.....	14,702	478	456	474	.718	.83
February.....	17,334	701	456	598	.906	.98
March.....	24,825	999	686	801	1.21	1.40
April.....	20,613	795	606	687	1.04	1.16
May.....	14,813	585	369	478	.724	.83
June.....	14,289	572	394	476	.721	.80
July.....	18,457	656	542	595	.902	1.04
August.....	19,211	640	585	620	.858	1.06
September.....	17,860	656	542	595	.902	1.01
Water year 1935-36.....	222,622	899	369	608	.921	12.53

St. Lucie Canal at Lock 1, at Lake Okeechobee, Fla.

Location.- Slope station, lat. 26°59', long. 80°36'. Upper gage is water-stage recorder at Florida East Coast Railway Co. bridge in sec. 23, T. 40 S., R. 37 E., two-thirds of a mile below Lock 1, at Lake Okeechobee; lower gage is water-stage recorder at highway bridge in sec. 4, T. 40 S., R. 39 E., 1½ miles east of Indiantown and 11 miles below Lock 1. Zero of gages is at mean sea level, Punta Rassa datum.

Records available.- April 1931 to September 1936.

Extremes.- Maximum daily discharge during year, 5,020 second-feet Mar. 17; minimum daily discharge, 50 second-feet on several days during December, January, February, and June.

1931-36: Maximum daily discharge, that of Mar. 17, 1936; practically no flow (50 second-feet or less, consisting of leakage) on several days each year when canal is closed.

Remarks.- Records good above 3,000 second-feet, fair between 3,000 and 1,000 second-feet, and poor below 1,000 second-feet. Gage-height record and results of several discharge measurements furnished by the Okeechobee Flood Control District. Discharge computed by use of slope method.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,480	4,050	1,090	50	165	3,420	4,630	3,960	2,580	4,760	4,660	4,620
2	2,550	3,800	540	50	100	3,410	4,670	3,990	2,590	4,750	4,650	4,650
3	2,550	3,520	600	60	50	3,440	4,650	3,980	1,230	4,740	4,640	4,620
4	2,520	3,510	390	60	50	3,630	4,450	3,820	145	4,740	4,630	4,650
5	2,550	3,370	420	100	75	4,410	4,490	4,040	50	4,750	4,660	4,510
6		3,410	460	310	50	4,560	4,520	3,940	1,090	4,740	4,620	3,340
7	2,490	3,390	400	310	115	4,600	4,510	3,860	1,270	4,760	4,650	2,870
8	2,610	3,370	175	250	715	4,550	4,510	3,820	840	4,750	4,650	1,520
9	2,670	3,380	50	900	1,350	4,630	4,080	3,820	1,000	4,810	4,670	1,820
10	2,730	3,390	65	175	2,280	4,810	3,970	3,660	1,190	4,820	4,720	3,020
11	2,620	3,360	80	200	2,570	4,790	4,520	3,790	920	4,850	4,720	4,330
12	2,680	3,360	50	430	3,650	4,780	4,510	3,730	700	4,620	4,690	4,620
13	2,900	3,420	50	370	3,680	4,730	4,420	3,730	1,400	4,420	4,680	4,840
14	2,970	3,340	50	200	3,510	4,640	4,360	3,720	1,400	4,200	4,650	4,620
15	3,010	3,330	50	50	3,330	4,680	4,340	3,660	2,350	4,030	4,650	4,510
16	2,930	3,270	50	50	3,320	4,680	4,330	3,580	2,770	4,490	4,650	4,400
17	2,920	2,840	50	100	3,310	5,020	4,380	3,550	3,760	4,810	4,640	4,570
18	3,460	770	50	90	3,310	4,950	4,300	3,520	4,250	4,590	4,650	4,590
19	4,350	1,350	50	50	3,350	4,740	4,210	3,530	4,340	4,410	4,620	4,580
20	4,410	1,300	50	50	3,310	4,720	4,070	3,470	4,540	4,620	4,680	4,540
21	4,440	1,520	50	200	3,180	4,800	4,080	2,650	4,000	4,620	4,620	4,550
22	4,460	1,500	1,290	150	3,200	4,700	4,150	2,150	4,240	4,340	4,610	4,540
23	4,470	1,480	1,850	50	3,330	4,660	4,110	2,630	4,550	4,720	4,580	4,540
24	4,470	1,560	50	165	3,320	4,670	4,080	3,270	4,630	4,760	4,610	4,580
25	4,430	1,560	50	120	3,280	4,670	4,120	3,360	4,610	4,760	4,620	4,600
26	4,450	1,800	100	95	3,290	4,660	4,160	3,380	4,620	4,630	4,620	4,550
27	4,480	1,830	50	50	3,260	4,640	4,040	3,100	4,650	4,560	4,620	4,680
28	4,490	1,850	50	50	3,250	4,480	3,970	2,580	4,700	4,640	4,620	4,680
29	4,500	1,820	50	160	3,330	3,900	3,970	2,600	4,740	4,610	4,620	4,690
30	4,480	1,730	50	50	-	4,160	3,960	2,570	4,740	4,720	4,630	4,690
31	4,280	-	50	50	-	4,620	-	2,570	-	4,720	4,650	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	107,210	4,500	2,480	3,458		
November.....	77,760	4,050	770	2,592		
December.....	8,350	1,850	50	269		
Calendar year 1935.....	262,175	4,500	50	718		
January.....	4,995	900	50	161		
February.....	67,700	3,580	50	2,334		
March.....	139,520	5,020	3,410	4,494		
April.....	128,590	4,670	3,960	4,286		
May.....	106,550	4,040	2,150	3,437		
June.....	83,695	4,740	50	2,790		
July.....	143,480	4,860	4,030	4,628		
August.....	143,860	4,720	4,580	4,641		
September.....	126,590	4,640	1,520	4,220		
Water year 1935-36.....	1,138,100	5,020	50	3,110		

## Fisheating Creek at Palmdale, Fla.

Location.- Staff gage, lat. 26°56', long. 81°19', in sec. 3, T. 41 S., R. 30 E., at highway bridge 1 mile south of Palmdale. Zero of gage is 27.19 feet above mean sea level.

Drainage area.- 305 square miles.

Records available.- April 1931 to September 1936.

Extremes.- Maximum discharge observed during year, 5,800 second-feet June 15, 16 (gage height, 8.10 feet), from rating curve extended above 4,000 second-feet; no flow May 17 (gage height, 1.64 feet).  
1931-36: Maximum discharge, 6,460 second-feet Sept. 6, 1933 (gage height, 8.60 feet); no flow at times each year.

Remarks.- Records poor. Gage read to hundredths twice a day. Gage-height record and results of several discharge measurements furnished by Okeechobee Flood Control District.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	186	54	3.4	6.6	27	610	124	4.3	17	1,250	104	780
2	174	48	3.2	6.4	25	518	113	3.9	18	1,540	92	780
3	166	44	2.8	6.5	24	438	113	3.5	21	1,510	80	720
4	142	41	2.7	7.1	24	438	108	5.9	20	1,250	74	560
5	136	39	2.4	12	23	369	100	6.0	25	780	70	518
6	136	35	2.1	15	25	338	88	5.2	44	610	66	400
7	136	31	2.0	18	31	310	80	4.3	57	475	60	369
8	136	27	1.9	18	35	283	74	3.4	70	369	57	438
9	124	24	1.8	18	100	283	66	2.1	74	518	66	475
10	108	23	1.4	18	157	369	60	1.7	77	438	77	475
11	104	19	1.3	19	283	400	51	1.1	92	310	88	438
12	108	17	1.2	21	518	438	46	.8	88	259	92	438
13	113	14	3.2	23	610	518	41	.6	74	235	96	400
14	157	12	4.1	24	660	610	35	.6	400	216	113	475
15	174	10	5.4	24	720	560	29	.3	5,500	186	198	518
16	186	9.6	5.9	25	1,250	580	25	.2	5,800	174	518	438
17	216	8.9	6.8	25	1,600	580	23	0	4,460	157	680	369
18	216	7.6	7.4	25	1,900	475	19	.4	2,560	150	720	400
19	198	7.0	7.6	25	1,600	438	15	.4	1,600	136	780	369
20	174	6.0	7.6	25	1,250	400	12	.6	1,080	129	720	369
21	166	5.3	7.2	25	1,160	369	11	.8	780	136	610	338
22	150	5.2	7.6	27	1,340	310	9.4	.8	660	166	560	310
23	136	5.3	8.8	35	1,340	283	8.4	.8	560	186	560	310
24	124	6.2	8.8	39	1,340	259	7.7	.8	846	198	475	283
25	113	5.9	8.6	39	1,160	235	6.6	1.5	1,510	174	438	259
26	104	5.2	8.2	39	995	198	6.5	2.2	1,420	166	475	259
27	92	4.6	8.2	37	780	186	6.0	2.5	2,330	157	518	338
28	80	4.3	7.6	35	720	166	5.4	4.2	2,780	142	518	369
29	74	4.0	7.2	29	720	157	5.2	5.9	2,110	124	475	369
30	70	3.7	7.0	27	-	142	4.7	9.2	1,510	113	400	438
31	60	-	6.6	27	-	136	-	15	-	104	475	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	4,259	216	60	137	0.449	0.52
November.....	526.8	54	3.7	17.6	.058	.06
December.....	160.0	8.8	1.2	5.16	.017	.02
Calendar year 1935.....	22,493.4	1,480	0	61.6	.202	2.74
January.....	720.6	39	6.4	23.2	.076	.09
February.....	20,417	1,900	23	704	2.31	2.49
March.....	11,356	610	136	366	1.20	1.38
April.....	1,292.9	124	4.7	43.1	.141	.16
May.....	89.0	15	0	2.87	.009	.01
June.....	36,582	5,800	17	1,219	4.00	4.46
July.....	12,158	1,510	104	392	1.29	1.49
August.....	10,235	780	57	330	1.08	1.24
September.....	13,002	780	259	433	1.42	1.58
Water year 1935-36.....	110,798.3	5,800	0	303	.993	13.50

## Caloosahatchee River near Citrus Center, Fla.

Location.- Water-stage recorder, lat.  $26^{\circ}47'$ , long.  $81^{\circ}19'$ , in sec. 27, T. 42 S., R. 30 E., at Atlantic Coast Line Railroad bridge 4 miles below Lock 2 and  $4\frac{1}{2}$  miles southwest of Citrus Center. Staff gage at Lock 3, 5 miles downstream. Zero of gage is at mean sea level, Punta Rassa datum.

Drainage area.- Indeterminate.

Records available.- April 1934 to September 1936.

Extremes.- Maximum discharge measured during year, 2,240 second-feet June 18; maximum gage height, 18.78 feet June 17; minimum discharge measured during year, 8.41 second-feet Apr. 15; minimum gage height, 4.14 feet Apr. 9.

1934-36: Maximum discharge indeterminate, probably occurred June 17, 1936; maximum gage height, that of June 17, 1936; minimum discharge indeterminate; minimum gage height, that of Apr. 9, 1936.

Maximum stage known, 20.5 feet in November 1924 (discharge not determined).

Remarks.- Records for Oct. 15 to Nov. 15 fair; for estimated periods, Oct. 1-14, Nov. 16 to Sept. 30, poor. Record includes some flow from Lake Okeechobee.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		127	-	-	-	-	-	-	-	-	-	-
2		174	-	-	-	-	-	-	-	-	-	-
3	} †900	281	-	-	-	-	-	-	-	-	-	-
4		405	-	-	-	-	-	-	-	-	-	-
5		567	-	-	-	*164	-	-	-	-	-	-
6												
7		337	-	-	-	-	-	-	-	-	-	-
8		375	-	-	*11.1	-	-	-	-	-	-	-
9		315	-	-	-	-	-	-	*91.9	*1,460	-	-
10	} †750	270	-	*152	-	-	-	-	-	-	-	-
11		250	-	-	-	-	-	-	-	-	-	-
12		216	-	-	-	-	-	-	-	-	-	-
13		220	-	-	-	-	-	*106	-	-	-	*666
14		433	*258	-	-	-	-	-	-	-	-	-
15		220	-	-	-	-	-	-	-	-	*985	-
16	579	266	-	-	-	-	*8.41	-	-	-	-	-
17												
18		557	-	-	-	-	-	-	-	-	-	-
19		585	-	-	-	-	-	-	-	-	-	-
20		620	-	-	*227	-	-	-	*2,240	-	-	-
21		581	-	-	-	-	-	-	*1,600	-	-	-
22		439	-	-	-	-	-	-	-	*1,180	-	-
23												
24		380	-	*46.9	-	-	-	-	-	-	-	*383
25		341	-	-	-	-	*115	-	*2,140	-	-	-
26		290	-	-	-	-	-	-	-	-	-	-
27		233	-	-	-	-	-	-	-	-	-	-
28		238	-	-	-	-	-	*105	*1,830	-	-	-
29												
30		216	-	-	-	*135	-	-	-	-	-	-
31		238	-	-	-	-	-	-	-	-	*638	-
		250	-	-	-	-	-	-	-	-	-	-
		266	-	-	-	-	-	-	-	-	-	-
		250	-	-	-	-	-	-	-	-	-	-
		200	-	-	-	-	-	-	-	-	-	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				17,513	-	200	565					
November.....				9,956	-	-	332					
December.....							†200					
Calendar year .....												
January.....							†90					
February.....							†160					
March.....							†160					
April.....							†60					
May.....							†110					
June.....							†910					
July.....							†1,300					
August.....							†890					
September.....							†560					
Water year 1935-36.....							†444					

\*Discharge measurement.

†Estimated.

## Peace Creek at Zolfo Springs, Fla.

Location.- Water-stage recorder, lat.  $27^{\circ}30'$ , long.  $81^{\circ}48'$ , in sec. 22, T. 34 S. R. 25 E., at bridge on U. S. Highway 17, 0.8 mile north of Zolfo Springs.

Drainage area.- 785 square miles.

Records available.- September 1933 to September 1936.

Extremes.- Maximum discharge during year, 4,680 second-feet Feb. 17, 18; maximum gage height, 11.82 feet Feb. 18; minimum discharge, 144 second-feet May 28 (gage height, 0.95 foot).

1933-35: Maximum discharge, 26,300 second-feet Sept. 6, 1933 (gage height, 20.05 feet); minimum discharge, 67 second-feet Apr. 18-21, 1935; minimum gage height, 0.55 foot June 5, 1935.

Remarks.- Records good except those for Aug. 15 to Sept. 30, which are poor.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,400	417	203	320	560	1,800	722	235	200	572	280	560
2	1,300	395	200	310	536	1,660	696	226	192	512	290	464
3	1,210	373	195	310	500	1,530	696	221	215	452	262	428
4	1,150	373	195	539	488	1,430	696	221	358	428	235	994
5	1,060	362	194	1,590	476	1,340	657	226	417	428	259	912
6	970	351	194	1,530	722	1,270	608	213	384	440	373	970
7	912	340	189	1,270	940	1,210	572	206	310	452	452	1,090
8	856	330	186	1,120	970	1,180	536	194	262	384	572	1,030
9	600	320	184	1,030	1,270	1,240	500	184	235	340	500	940
10	748	310	179	912	2,070	2,380	464	181	222	320	608	912
11	748	290	175	828	2,700	3,200	440	176	212	290	644	884
12	1,000	280	192	970	2,940	3,340	417	168	235	262	900	1,180
13	970	271	406	970	2,940	2,940	396	162	520	244	774	1,660
14	1,210	271	417	912	3,270	2,480	373	180	596	290	632	2,330
15	1,430	271	351	828	3,410	2,190	351	157	648	452	596	2,020
16	1,240	262	310	912	4,310	2,110	340	163	536	440	620	1,430
17	1,120	253	290	912	4,680	2,380	310	166	476	417	632	1,160
18	940	244	280	856	4,580	2,380	290	168	384	452	596	970
19	828	235	262	828	3,870	2,070	280	162	330	476	620	856
20	748	226	253	800	3,060	1,800	262	158	290	488	596	774
21	670	226	235	774	2,480	1,590	244	160	300	748	584	670
22	632	235	237	722	2,530	1,450	244	157	452	800	607	670
23	596	280	488	696	3,060	1,340	244	154	572	722	970	572
24	560	280	536	670	3,130	1,210	244	152	800	687	856	500
25	536	262	464	632	2,700	1,150	244	154	912	584	722	536
26	512	253	428	596	2,280	1,030	253	151	1,210	584	632	584
27	488	244	406	560	1,990	970	244	148	1,240	488	584	608
28	464	235	395	524	1,840	912	235	151	1,030	428	548	1,030
29	452	224	384	500	1,870	856	235	163	828	373	500	1,080
30	440	212	362	488	-	800	235	173	696	340	464	1,060
31	428	-	340	536	-	748	-	213	-	310	542	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	26,418		1,430		428		852		1.09		1.26	
November.....	8,625		417		212		288		.367		.41	
December.....	9,130		536		175		295		.376		.43	
Calendar year 1935.....	170,216		6,420		67		466		.594		8.07	
January.....	24,445		1,590		310		789		1.01		1.16	
February.....	68,172		4,680		476		2,282		2.91		3.14	
March.....	51,968		3,340		748		1,675		2.14		2.47	
April.....	12,027		722		235		401		.511		.57	
May.....	5,523		235		148		178		.227		.26	
June.....	15,062		1,240		192		502		.639		.71	
July.....	14,113		800		244		455		.580		.67	
August.....	17,350		970		235		560		.713		.82	
September.....	28,844		2,330		428		961		1.22		1.36	
Water year 1935-36.....	279,675		4,680		148		764		.973		13.26	

## Peace Creek at Arcadia, Fla.

Location.- Water-stage recorder, lat.  $81^{\circ}52'$ , long.  $27^{\circ}12'$ , in sec. 26, T. 37 S., R. 24 E., at bridge on State Highway 18 half a mile west of Arcadia. Zero of gage is 8.25 feet above mean sea level.

Drainage area.- 1,330 square miles.

Records available.- April 1931 to September 1936.

Extremes.- Maximum discharge during year, 9,920 second-feet Feb. 19, 20; maximum gage height, 12.48 feet Feb. 19; minimum discharge, 161 second-feet May 16; minimum gage height, 0.55 foot Dec. 12.

1931-36: Maximum discharge, 36,200 second-feet Sept. 9, 1933 (gage height, 17.67 feet); minimum, 56 second-feet May 13-17, 1932; minimum gage height, -0.21 foot Mar. 31, 1935.

Maximum stage known, 18.3 feet in 1912 (discharge, 43,000 second-feet, from rating curve extended above 30,000 second-feet).

Remarks.- Records good except those for May 31 to June 23, which were computed on basis of records of Peace Creek at Zolfo Springs and are poor.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,030	492	222	372	718	2,930	1,040	258	230	2,240	458	841
2	1,880	458	216	359	718	2,780	972	252	220	1,880	414	779
3	1,780	443	208	346	678	2,560	995	245	210	1,530	385	738
4	1,630	423	205	394	638	2,350	950	239	350	1,260	359	862
5	1,530	414	199	1,220	600	2,140	928	235	460	1,200	330	1,260
6	1,430	400	199	2,090	771	1,980	841	231	420	1,130	346	1,480
7	1,280	372	197	2,190	1,380	1,930	779	228	380	995	458	1,680
8	1,200	359	197	1,980	1,830	1,830	738	222	360	884	581	1,930
9	1,010	346	197	1,780	2,620	1,980	678	210	300	718	658	1,980
10	1,040	333	195	1,630	3,540	4,270	638	193	260	638	638	2,030
11	995	320	193	1,430	4,150	5,130	600	188	260	581	884	2,090
12	1,040	300	208	1,380	4,510	5,380	563	179	270	492	1,040	2,090
13	1,680	290	316	1,430	5,000	5,380	527	172	370	443	1,380	2,240
14	1,780	283	458	1,430	6,060	5,280	492	166	780	474	1,330	2,560
15	1,730	281	474	1,330	6,900	4,760	458	170	780	779	1,260	2,830
16	1,880	278	400	1,260	8,350	3,930	428	163	820	800	1,180	2,990
17	2,030	269	359	1,280	9,100	3,540	414	166	840	820	1,180	2,560
18	1,780	261	328	1,280	9,580	3,260	385	179	820	738	1,160	1,980
19	1,530	254	308	1,230	9,920	3,200	359	188	680	738	1,080	1,630
20	1,330	250	288	1,180	9,750	3,150	333	184	510	738	1,040	1,430
21	1,200	243	269	1,160	9,420	2,780	326	186	330	884	750	1,230
22	1,060	245	258	1,080	9,650	2,460	316	183	310	1,180	928	1,060
23	972	254	372	1,020	7,600	2,190	310	188	500	1,230	1,040	995
24	662	274	563	972	6,480	1,980	298	181	1,330	1,130	1,380	841
25	779	288	600	905	5,780	1,780	296	181	1,480	1,040	1,480	800
26	738	278	527	841	5,000	1,630	296	179	2,350	928	1,430	972
27	678	265	474	779	4,040	1,530	296	181	2,780	841	1,330	1,060
28	638	265	443	718	3,320	1,430	283	208	2,990	862	1,160	1,160
29	581	250	428	678	3,040	1,330	269	224	2,880	718	995	1,580
30	545	235	414	638	-	1,200	260	226	2,620	600	928	1,730
31	527	-	385	638	-	1,010	-	240	-	527	841	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October.....	39,165			2,030	527	1,263	0.950	1.10				
November.....	9,425			492	235	314	.236	.26				
December.....	10,100			600	193	326	.245	.28				
Calendar year 1935.....	280,353			9,750	70	768	.577	7.83				
January.....	35,020			2,190	346	1,130	.850	.98				
February.....	140,143			9,920	600	4,833	3.63	3.92				
March.....	87,060			5,380	1,010	2,808	2.11	2.43				
April.....	16,070			1,040	260	556	.403	.46				
May.....	6,245			258	163	201	.151	.17				
June.....	26,890			2,990	210	896	.674	.75				
July.....	29,018			2,240	443	936	.704	.81				
August.....	28,623			1,480	330	923	.694	.80				
September.....	47,428			2,980	738	1,581	1.19	1.33				
Water year 1935-36.....	475,187			9,920	163	1,298	.976	13.28				

## Kissengen Spring near Bartow, Fla.

Location.- Lat.  $27^{\circ}51'$ , long.  $81^{\circ}49'$ , in sec. 28, T. 30 S., R. 25 E., about  $4\frac{1}{2}$  miles southeast of Bartow.

Records available.- Discharge measurements from March 1932 to September 1936. Single measurements only during 1917, 1929-31.

Extremes.- 1932-36: Maximum discharge measured, 43.6 second-feet Oct. 11, 1933; minimum, 19.2 second-feet June 11, 1932.

Remarks.- Discharge measurements made about monthly from footbridge at outlet of pool.

Discharge measurements, in second-feet, water year October 1935 to September 1936

Oct. 12	25.9	Apr. 13	31.7
Nov. 11	27.0	May 14	29.6
Dec. 9	24.4	June 4	34.0
Jan. 7	21.8	July 7	28.7
Feb. 4	26.0	Aug. 11	26.2
Mar. 6	27.7	Sept. 9	28.3



## Alafia River at Lithia, Fla.

Location.- Staff gage, lat. 27°52', long. 82°12', in sec. 16, T. 30 S., R. 21 E., at Marvinia Bridge, 1 mile northwest of Lithia.

Drainage area.- 336 square miles.

Records available.- January 1933 to September 1936.

Extremes.- Maximum discharge observed during year, 2,420 second-feet Feb. 11 (gage height, 11.80 feet); minimum, 25 second-feet May 27 (gage height, 0.54 foot).

1933-36: Maximum discharge, 25,000 second-feet Sept. 7, 1933, from curve extended above 12,000 second-feet (gage height, 25.6 feet); minimum, 13 second-feet June 5, 6, 10, 1935 (gage height, 0.31 foot).

Remarks.- Records good. Gage read to hundredths once a day. Discharge interpolated Dec. 2, Jan. 30, May 5, June 16, Aug. 11, Sept. 4.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,160	103	88	152	305	716	186	70	67	101	76	271
2	1,160	99	86	144	288	611	169	79	64	95	62	203
3	680	93	87	135	271	526	203	85	67	115	59	176
4	441	93	87	254	254	475	220	64	186	101	59	233
5	390	90	84	827	254	424	203	59	254	91	59	288
6	322	91	80	903	441	475	169	54	254	76	115	305
7	271	91	80	884	560	458	162	51	194	64	135	611
8	254	91	80	734	526	441	144	49	126	73	160	752
9	220	91	80	594	846	458	135	49	85	70	271	475
10	203	91	79	441	1,660	980	126	44	82	64	305	475
11	186	91	79	390	2,420	1,100	118	39	95	59	364	475
12	178	88	82	458	2,300	1,200	101	37	113	54	424	441
13	194	85	254	407	1,650	980	98	37	126	51	373	441
14	271	86	237	358	1,380	752	93	34	152	118	271	475
15	254	91	220	475	1,200	662	85	32	186	390	305	475
16	288	90	212	594	1,670	577	82	32	156	543	339	475
17	305	90	194	577	2,040	543	76	30	126	560	254	373
18	254	87	169	526	1,920	577	73	30	101	458	407	288
19	220	87	152	492	1,380	543	70	30	88	390	526	220
20	194	84	144	458	1,120	526	67	30	85	237	628	186
21	178	84	136	441	1,120	492	64	32	70	254	526	169
22	160	87	152	390	1,690	424	82	42	98	220	407	152
23	144	126	509	373	2,300	373	64	42	111	186	577	144
24	135	126	424	322	2,140	339	70	39	152	203	441	135
25	126	111	390	288	1,360	305	82	30	271	178	339	126
26	118	108	305	271	980	271	152	27	407	152	271	288
27	115	101	271	237	770	254	152	25	373	126	203	322
28	104	98	220	220	734	220	115	32	305	108	178	475
29	106	95	194	203	752	220	101	56	178	111	144	594
30	103	91	178	254	-	220	84	126	91	126	698	-
31	103	-	160	305	-	203	-	70	-	82	322	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October.....	8,857			1,160	103	285	0.848	0.98				
November.....	2,841			126	84	94.7	.282	.31				
December.....	5,503			509	79	178	.530					
Calendar year 1935.....	115,726			11,900	13	317	.943	12.80				
January.....	13,105			903	135	423	1.26	1.45				
February.....	34,551			2,420	254	1,191	3.54	3.82				
March.....	16,345			1,200	203	527	1.57	1.81				
April.....	3,614			220	62	117	.348	.59				
May.....	1,394			85	25	45.0	.134	.25				
June.....	4,698			407	64	157	.487	.52				
July.....	5,421			560	51	175	.521	.60				
August.....	8,726			628	59	281	.836	.96				
September.....	10,743			752	126	358	1.07	1.19				
Water year 1935-36.....	115,658			2,420	25	316	.940	12.79				

## Hillsboro River near Harney, Fla.

Location.- Staff gage, lat. 28°03', long. 82°22', on line between secs. 12 and 13, T. 28 S., R. 19 E., at Fowler Street Bridge, 2½ miles north of Harney and 4 miles west of Thonotassassa. Zero of gage is 19.14 feet above mean sea level.

Drainage area.- 525 square miles.

Records available.- October 1933 to September 1936.

Extremes.- Maximum discharge observed during year, 3,530 second-feet Feb. 18, 19; maximum gage height observed, 7.32 feet Feb. 19; minimum discharge observed, 62 second-feet May 26, 27; minimum gage height observed, 1.80 feet Nov. 18-21. 1933-36: Maximum discharge observed, 11,700 second-feet June 20, 1934 (gage height, 13.42 feet); minimum discharge, 60 second-feet Apr. 5, 1935; minimum gage height observed, 1.75 feet May 7, 19, June 5, 1935.

Remarks.- Records fair. Gage read to hundredths twice daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,360	230	162	295	495	1,610	390	175	78	680	278	312
2	1,240	230	160	295	472	1,480	350	152	93	630	278	350
3	1,120	230	148	295	472	1,360	350	138	155	585	260	390
4	1,000	215	145	312	472	1,240	312	125	189	540	245	390
5	950	200	140	350	518	1,120	295	111	312	562	245	370
6	895	200	140	330	585	950	260	104	370	518	278	330
7	840	200	132	350	690	895	260	98	370	472	295	312
8	730	200	132	370	730	785	230	86	350	410	295	245
9	680	200	130	430	1,060	730	230	88	295	370	278	215
10	630	200	125	472	1,360	730	215	86	260	350	278	200
11	562	188	125	472	1,820	785	188	82	230	295	245	188
12	518	188	135	450	2,380	840	188	80	230	278	215	200
13	518	188	145	430	2,690	950	175	77	215	260	215	260
14	495	188	145	410	2,520	1,000	158	77	215	370	200	295
15	540	188	148	430	2,520	1,000	148	77	215	430	200	295
16	585	175	148	472	2,730	1,000	130	74	215	430	200	278
17	630	175	150	495	3,030	950	128	74	200	410	200	260
18	585	172	152	562	3,440	895	125	71	200	410	230	260
19	562	165	152	630	3,530	895	117	68	188	390	215	278
20	472	165	150	630	3,350	895	102	68	200	390	215	278
21	450	168	152	630	3,270	895	93	68	215	450	215	260
22	390	188	160	630	3,110	840	90	68	200	518	230	245
23	370	175	200	585	2,950	785	87	69	215	562	312	245
24	330	188	260	562	2,950	730	84	68	230	585	295	230
25	312	188	295	540	2,800	730	90	65	278	540	410	230
26	295	175	330	540	2,590	690	104	62	370	495	370	230
27	278	175	330	518	2,380	585	150	65	472	450	350	230
28	260	175	350	495	2,100	540	175	71	585	390	330	245
29	260	170	330	472	1,890	518	200	78	680	330	312	245
30	260	168	312	472	-	450	200	81	730	312	295	260
31	245	-	312	495	-	430	-	77	-	295	295	-

Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....				18,362	1,360	245	592	1.13	1.30
November.....				5,667	230	165	189	.360	.40
December.....				5,895	350	125	190	.362	.42
Calendar year 1935.....				208,844	6,550	60	572	1.09	14.79
January.....				14,399	630	295	464	.884	1.02
February.....				58,784	3,530	472	2,027	3.86	4.34
March.....				27,293	1,610	430	880	1.68	1.84
April.....				5,624	390	84	187	.356	.40
May.....				2,683	175	62	86.5	.165	.19
June.....				8,554	730	78	285	.543	.61
July.....				13,707	680	260	442	.842	.97
August.....				8,279	410	200	267	.509	.59
September.....				8,126	390	188	271	.516	.58
Water year 1935-36.....				177,383	3,530	62	485	.924	12.58

## Crystal Springs near Zephyrhills, Fla.

Location.- Staff gage, lat.  $28^{\circ}11'$ , long.  $82^{\circ}10'$ , in sec. 35, T. 28 S., R. 21 E.,  $1\frac{1}{2}$  miles west of Crystal Springs and  $3\frac{1}{2}$  miles south of Zephyrhills.

Records available.- Discharge measurements from October 1934 to September 1936; miscellaneous measurements during 1933.

Extremes.- 1934-36: Maximum discharge measured, 92.0 second-feet Aug. 5, 1935, and Mar. 2, 1936; minimum, 54.9 second-feet July 10, 1935.

Remarks.- Discharge measurements made about monthly of river flow above springs and below springs, the difference in flow being spring flow.

Discharge measurements, in second-feet, water year October 1935 to September 1936

	Below springs	Above springs	Difference or spring flow
Oct. 14	156	67.4	88.6
Nov. 16	69.6	.83	68.8
Dec. 9	76.4	2.80	73.6
Jan. 6	85.0	13.2	71.8
Feb. 4	99.8	17.2	82.6
Mar. 2	271	179	92.0
Apr. 13	79.8	5.00	74.8
May 14	69.3	4.70	64.6
June 4	88.6	14.8	73.8
July 11	105	22.6	82.4
Aug. 10	81.2	9.33	71.9
Sept. 8	73.0	5.74	69.3

## WEEKIOWACHEE RIVER BASIN

## Weekiowachee Spring near Brooksville, Fla.

Location.- Lat.  $28^{\circ}31'$ , long.  $82^{\circ}34'$ , in sec. 2, T. 23 S., R. 17 E., at head of Weekiowachee River, about 12 miles southwest of Brooksville.

Records available.- Discharge measurements from February 1931 to September 1936. Single measurements only during 1917, 1929-30.

Extremes.- 1931-36: Maximum discharge measured, 231 second-feet May 6, 1931; minimum, 106 second-feet Feb. 14, 1933.

Remarks.- Discharge measurements fair; made about monthly from boat at outlet of pool.

Discharge measurements, in second-feet, water year October 1935 to September 1936

Oct. 7	225
Nov. 8	218
Dec. 6	185
Jan. 11	184
Feb. 10	189
Mar. 7	211
Apr. 18	190
May 16	179
June 10	175
July 6	166
Aug. 10	170
Sept. 14	153

## Withlacoochee River at Trilby, Fla.

Location.- Staff gage, lat. 28°29', long. 82°12', in sec. 22, T. 23 S., R. 21 E., at highway bridge 1 mile north of Trilby.

Drainage area.- 780 square miles.

Records available.- August 1928 to February 1929, February 1930 to September 1936.

Extremes.- Maximum discharge observed during year, 1,720 second-feet Oct. 1 (gage height, 11.36 feet); minimum, 49 second-feet May 26, 27; minimum gage height observed, 0.73 foot May 27.  
1928-29, 1930-36: Maximum discharge observed, 8,840 second-feet June 21, 1934 (gage height, 20.5 feet); minimum, 11 second-feet Apr. 29, May 14-17, 22-24, 1932 (gage height, -0.48 foot).

Remarks.- Records good. Gage read to hundredths once a day.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,720	432	112	144	409	1,330	725	122	78	725	332	207
2	1,630	420	108	153	409	1,330	697	117	85	655	310	207
3	1,570	398	104	153	398	1,280	669	112	88	577	288	198
4	1,510	376	96	162	398	1,220	629	104	92	590	277	198
5	1,390	354	96	171	409	1,200	590	100	100	725	257	207
6	1,300	343	92	189	516	1,200	552	96	100	711	267	189
7	1,220	321	92	198	590	1,180	504	92	104	697	267	189
8	1,130	310	85	198	669	1,150	480	88	104	683	247	171
9	1,070	288	85	207	725	1,130	444	92	104	669	227	180
10	990	267	88	207	770	1,150	420	82	100	655	217	198
11	935	257	88	217	815	1,180	387	74	104	629	217	207
12	905	237	88	227	815	1,150	354	71	104	616	207	227
13	860	227	88	227	815	1,130	321	65	135	590	207	217
14	875	207	85	267	845	1,090	288	62	162	577	207	207
15	860	198	88	288	905	1,070	267	59	189	564	217	198
16	830	189	88	310	970	1,050	247	59	207	528	217	189
17	800	180	85	332	1,030	1,030	217	59	217	516	217	171
18	755	171	85	354	1,090	1,030	207	56	227	492	217	153
19	725	171	85	398	1,150	1,010	189	56	237	480	217	144
20	697	162	82	432	1,200	990	171	54	267	468	217	135
21	655	153	82	444	1,220	990	153	54	321	456	227	126
22	629	153	82	468	1,280	970	153	54	387	456	237	112
23	590	153	117	468	1,300	950	144	52	504	444	247	108
24	564	153	144	468	1,300	935	153	52	629	444	237	117
25	528	144	162	444	1,280	905	153	52	725	444	237	135
26	504	135	162	432	1,250	890	153	49	770	432	227	153
27	528	135	153	420	1,220	860	144	49	770	409	227	171
28	504	126	144	409	1,280	845	135	54	845	387	217	198
29	480	122	144	409	1,360	815	135	62	815	376	207	207
30	468	117	144	398	-	785	126	71	770	354	207	207
31	444	-	144	398	-	755	-	78	-	343	207	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	27,666		1,720		444		892		1.14		1.31	
November.....	6,899		432		117		230		.295		.35	
December.....	3,298		162		82		106		.136		.16	
Calendar year 1935.....	115,609		2,270		19		317		.406		5.50	
January.....	9,570		468		144		309		.396		.46	
February.....	26,418		1,360		398		911		1.17		1.26	
March.....	32,600		1,330		755		1,052		1.35		1.56	
April.....	9,807		725		126		327		.419		.47	
May.....	2,247		122		49		72.5		.093		.11	
June.....	9,340		845		78		311		.399		.46	
July.....	16,692		725		343		538		.690		.80	
August.....	7,306		332		207		256		.303		.35	
September.....	5,326		227		108		178		.223		.26	
Water year 1935-36.....	157,169		1,720		49		429		.550		7.51	

## Withlacoochee River near Holder, Fla.

Location.— Water-stage recorder, lat. 28°59'15", long. 82°20'50", in sec. 19, T. 17 S., R. 20 E., at Stokes Ferry Bridge, 4½ miles northeast of Holder. Zero of gage is 27.59 feet above mean sea level.

Drainage area.— 1,660 square miles.

Records available.— August 1928 to February 1929, August 1931 to September 1936.

Extremes.— Maximum discharge during year, 3,290 second-feet Oct. 1-4; maximum gage height, 8.85 feet Oct. 1, 2; minimum discharge, 735 second-feet Sept. 26-30; minimum gage height, 2.10 feet Sept. 30.  
1928-29, 1931-36: Maximum discharge, 6,740 second-feet July 8-13, 1934; maximum gage height, 11.63 feet July 9-10, 1934; minimum discharge, 144 second-feet Feb. 1, 1933; minimum gage height, -0.37 foot May 14, 1932.

Remarks.— Records fair.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,290	1,960	1,070	920	1,310	2,520	2,470	1,370	980	860	1,100	960
2	3,290	1,920	1,040	920	1,310	2,520	2,520	1,340	980	835	1,130	950
3	3,290	1,920	1,010	950	1,310	2,520	2,570	1,310	980	835	1,070	950
4	3,290	1,800	980	950	1,340	2,520	2,620	1,280	980	835	1,040	950
5	3,220	1,760	980	920	1,440	2,520	2,620	1,250	980	860	1,010	950
6	3,220	1,720	950	950	1,610	2,570	2,620	1,220	950	860	1,040	920
7	3,160	1,680	950	950	1,720	2,570	2,570	1,190	920	890	1,040	890
8	3,160	1,650	920	950	1,760	2,570	2,520	1,160	890	920	1,070	890
9	3,100	1,610	950	950	1,800	2,620	2,470	1,130	890	950	1,070	890
10	3,040	1,580	920	920	1,880	2,680	2,420	1,100	890	950	1,070	890
11	2,980	1,550	920	920	1,880	2,800	2,370	1,100	890	920	1,130	890
12	2,980	1,480	950	950	1,880	2,800	2,270	1,070	890	920	1,130	890
13	2,980	1,440	950	950	1,920	2,800	2,220	1,040	860	950	1,130	860
14	2,920	1,440	950	950	1,960	2,800	2,120	1,040	950	1,040	1,130	890
15	2,860	1,400	950	1,040	2,000	2,800	2,040	1,070	950	1,100	1,130	890
16	2,860	1,370	950	1,070	2,080	2,800	1,960	1,100	950	1,130	1,100	890
17	2,800	1,340	920	1,070	2,120	2,800	1,920	1,100	950	1,130	1,070	890
18	2,740	1,310	890	1,070	2,170	2,800	1,840	1,070	920	1,160	1,040	860
19	2,680	1,280	890	1,130	2,220	2,740	1,800	1,040	890	1,250	1,010	835
20	2,620	1,250	890	1,130	2,220	2,680	1,720	1,010	835	1,280	950	835
21	2,520	1,220	860	1,130	2,370	2,680	1,680	980	835	1,340	950	810
22	2,470	1,190	890	1,160	2,470	2,620	1,650	980	835	1,370	1,070	785
23	2,470	1,190	950	1,160	2,470	2,620	1,580	950	890	1,400	1,100	785
24	2,420	1,160	950	1,160	2,520	2,570	1,550	920	890	1,400	1,100	760
25	2,370	1,130	950	1,160	2,520	2,520	1,510	890	920	1,370	1,100	760
26	2,270	1,130	950	1,160	2,520	2,470	1,510	860	950	1,340	1,070	760
27	2,220	1,130	950	1,190	2,520	2,420	1,480	835	920	1,280	1,040	735
28	2,170	1,130	950	1,160	2,520	2,420	1,440	890	920	1,220	1,010	735
29	2,120	1,100	950	1,160	2,520	2,370	1,440	890	890	1,190	980	735
30	2,040	1,070	950	1,250	-	2,320	1,400	890	890	1,160	950	735
31	2,000	-	950	1,310	-	2,370	-	980	-	1,130	980	-
Month				Second-foot-days		Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October.....				85,550		3,290	2,000	2,760	1.66		1.91	
November.....				42,910		1,960	1,070	1,430	.861		.96	
December.....				29,330		1,070	860	946	.570		.66	
Calendar year 1935.....				348,281		3,290	184	954	.575		7.80	
January.....				32,660		1,310	920	1,054	.635		.73	
February.....				55,360		2,520	1,310	2,012	1.21		1.30	
March.....				80,810		2,800	2,320	2,507	1.57		1.81	
April.....				80,900		2,620	1,400	2,030	1.22		1.36	
May.....				33,235		1,370	835	1,072	.646		.74	
June.....				27,465		980	835	916	.552		.62	
July.....				33,875		1,400	835	1,093	.658		.76	
August.....				32,810		1,130	950	1,058	.637		.73	
September.....				25,690		980	735	853	.514		.57	
Water year 1935-36 .....				543,495		3,290	735	1,485	.895		12.15	

## WITHLACOCHEE RIVER BASIN

Blue Springs near Dunnellon, Fla.

Location.- Lat.  $29^{\circ}06'15''$ , long.  $82^{\circ}26'05''$ , in sec. 12, T. 16 S., R. 18 E., 4 miles northeast of Dunnellon.

Records available.- Discharge measurements from February 1931 to September 1936. Single measurements only during 1907, 1917, 1929-30.

Extremes.- 1931-36: Maximum discharge measured, 927 second-feet Nov. 9, 1936; minimum, 487 second-feet Oct. 3, 1932.

Remarks.- Discharge measurements made about monthly at highway bridge 5 miles below springs. Measured discharge is nearly entire flow from spring, as surface run-off is negligible except after heavy rains.

Discharge measurements, in second-feet, water year October 1935 to September 1936

Oct. 2	897
Nov. 9	927
Dec. 7	796
Jan. 20	759
Feb. 10	762
Mar. 12	820
Apr. 27	759
May 22	823
June 10	734
July 2	748
Aug. 3	779
Sept. 2	786

## Suwannee River at White Springs, Fla.

Location.- Water-stage recorder, lat. 30°20', long. 82°45', in sec. 7, T. 2 S., R. 16 E., at bridge on U. S. Highway 41 about 1 mile southeast of White Springs. Zero of gage is 48.54 feet above mean sea level.

Drainage area.- About 1,990 square miles (watershed in Okefenokee Swamp indeterminate).

Records available.- May 1906 to December 1908, February 1927 to September 1936.

Average discharge.- 11 years, 1,783 second-feet.

Extremes.- Maximum discharge during year, 5,040 second-feet Oct. 1 (gage height, 17.68 feet); minimum discharge, 32 second-feet July 11, 12, 15, 16; minimum gage height, 1.72 feet July 12, 15, 16.  
1906-8, 1927-36: Maximum discharge, 20,600 second-feet Sept. 30, Oct. 1, 1928 (gage height, 33.9 feet, former site and datum); minimum discharge, 4.8 second-feet Nov. 15, 1931; minimum gage height, 1.72 feet May 7-17, 1931, former site and datum.

Remarks.- Records good except those for May 7-31, which are fair.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,890	380	146	159	308	4,180	1,890	886	250	88	235	230
2	4,590	348	149	166	338	4,070	1,890	938	250	78	298	209
3	4,260	328	141	212	358	3,920	2,220	964	250	69	380	198
4	3,920	308	136	241	359	3,760	2,260	964	270	61	424	164
5	3,590	298	131	250	480	3,550	2,180	964	270	55	457	148
6	3,290	279	125	270	610	3,520	2,070	938	279	52	514	133
7	3,000	270	121	279	1,460	3,370	2,040	860	288	48	491	129
8	2,700	270	118	318	2,110	3,260	1,960	785	279	43	457	126
9	2,410	250	128	328	2,330	3,150	1,850	710	270	38	402	126
10	2,150	241	133	328	2,520	3,290	1,780	610	260	36	348	123
11	1,920	237	129	318	2,660	3,520	1,670	550	260	33	328	125
12	1,740	230	138	318	2,740	3,550	1,600	480	270	33	308	115
13	1,560	222	157	318	2,810	3,520	1,500	413	279	37	288	129
14	1,390	216	157	308	2,920	3,520	1,390	370	270	34	318	112
15	1,290	209	164	298	3,150	3,520	1,330	328	260	32	402	104
16	1,200	205	175	298	3,290	3,480	1,230	288	250	33	424	99
17	1,070	195	171	308	3,400	3,440	1,130	260	228	49	514	89
18	990	190	161	308	3,480	3,370	1,040	239	209	55	538	86
19	912	182	153	308	3,550	3,220	938	218	186	54	502	86
20	860	179	146	298	3,530	3,110	860	199	173	469	446	80
21	810	171	140	298	3,590	3,000	785	184	155	1,630	391	74
22	735	164	141	288	4,330	2,890	735	177	148	1,360	359	70
23	685	161	150	288	4,440	2,740	685	184	153	1,040	338	67
24	635	155	152	279	4,480	2,590	660	188	164	765	328	64
25	586	152	155	270	4,480	2,440	635	182	161	610	308	61
26	550	146	164	260	4,480	2,300	660	173	162	502	298	56
27	514	141	159	260	4,400	2,180	735	161	143	413	279	54
28	491	141	153	250	4,370	2,040	785	164	125	348	270	51
29	457	153	150	241	4,330	1,960	785	180	109	288	270	48
30	424	150	150	250	-	1,960	835	218	99	241	250	46
31	402	-	148	279	-	1,960	-	230	-	224	241	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October.....	54,021			4,890	402	1,743	0.876	1.01				
November.....	6,571			380	141	219	.110	.12				
December.....	4,540			175	118	146	.073	.08				
Calendar year 1935.....	272,132.2			6,290	7.6	746	.375	5.09				
January.....	8,594			328	159	277	.139	.16				
February.....	81,883			4,480	308	2,824	1.42	1.53				
March.....	96,480			4,180	1,960	3,112	1.56	1.80				
April.....	40,128			2,260	635	1,538	.672	.76				
May.....	14,005			964	161	452	.227	.25				
June.....	6,480			288	99	216	.109	.12				
July.....	8,838			1,630	32	286	.143	.16				
August.....	11,406			538	235	368	.185	.21				
September.....	3,192			230	46	106	.063	.06				
Water year 1935-36.....	336,138			4,890	32	918	.461	6.26				

## Suwannee River at Ellaville, Fla.

Location.- Water-stage recorder, lat. 30°23', long. 83°10', in sec. 24, T. 1 S., R. 11 E., at old highway bridge at Ellaville, 200 feet above Seaboard Air Line Railway bridge and 200 feet below mouth of Withlacoochee River. Zero of gage is 27.70 feet above mean sea level.

Drainage area.- 6,590 square miles.

Records available.- January 1927 to September 1936.

Extremes.- Maximum discharge during year, 14,600 second-feet Feb. 27 (gage height, 15.18 feet); minimum discharge, 1,720 second-feet July 14-17; minimum gage height, 2.69 feet July 15.

1927-36: Maximum discharge, 73,000 second-feet Aug. 20, 1928 (gage height, 37.1 feet); minimum, 1,000 second-feet June 30, 1935 (gage height, 2.05 feet).

Remarks.- Records excellent except those for August, which are good.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.6	1,600	6.0	5,520	11.0	10,000
3.0	2,080	7.0	6,430	12.0	11,000
3.5	2,680	8.0	7,330	13.0	12,000
4.0	3,280	9.0	8,230	14.0	13,200
5.0	4,480	10.0	9,130	15.0	14,400

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,400	2,980	2,140	2,080	5,620	14,300	7,870	8,410	3,280	2,140	2,440	3,520
2	11,700	2,920	2,080	2,140	5,620	13,900	7,870	8,680	3,280	2,080	3,640	3,280
3	11,100	2,860	2,080	2,200	5,620	13,400	7,870	8,860	3,280	2,080	4,810	3,160
4	10,500	2,800	2,020	2,380	5,620	12,800	8,140	8,950	3,160	2,020	5,520	3,040
5	9,940	2,740	2,020	2,500	5,800	12,200	8,230	8,680	3,160	1,960	5,980	2,920
6	9,400	2,680	2,020	2,560	6,160	11,800	8,410	8,140	3,100	1,900	6,160	2,800
7	8,950	2,620	1,960	2,680	6,880	11,400	8,410	7,420	3,040	1,900	6,250	2,740
8	8,410	2,620	1,960	2,800	7,960	11,100	8,590	6,790	2,980	1,840	6,430	2,680
9	7,960	2,560	2,020	2,980	8,950	10,800	8,770	6,250	2,980	1,840	6,520	2,620
10	7,510	2,560	2,020	3,100	9,860	10,800	9,040	5,800	3,040	1,780	6,340	2,560
11	7,150	2,560	2,080	3,280	10,500	10,900	9,400	5,420	2,920	1,780	5,980	2,500
12	6,790	2,500	2,080	3,520	11,100	11,000	9,670	5,020	2,800	1,780	5,710	2,500
13	6,430	2,500	2,080	3,760	11,600	11,000	9,850	4,700	2,740	1,780	5,620	2,440
14	6,070	2,440	2,140	4,000	12,100	10,900	9,940	4,360	2,660	1,720	5,620	2,380
15	5,890	2,440	2,140	4,360	12,700	10,700	10,000	4,000	2,620	1,720	5,800	2,380
16	5,620	2,380	2,140	4,810	13,200	10,500	10,100	3,760	2,620	1,720	6,160	2,320
17	5,320	2,380	2,140	5,220	13,400	10,300	10,400	3,640	2,560	1,780	6,430	2,260
18	5,020	2,320	2,140	5,620	13,700	10,000	10,700	3,400	2,440	1,840	6,700	2,260
19	4,810	2,320	2,140	5,710	13,700	9,850	11,000	3,280	2,380	1,900	6,970	2,200
20	4,590	2,260	2,140	5,710	13,600	9,670	11,200	3,280	2,380	2,020	7,060	2,140
21	4,360	2,260	2,080	5,800	13,600	9,490	11,300	3,100	2,440	2,620	7,150	2,140
22	4,240	2,200	2,140	5,890	13,600	9,400	11,100	3,040	2,440	3,280	7,150	2,080
23	4,000	2,200	2,080	6,070	13,800	9,220	10,400	2,980	2,440	3,280	7,150	2,080
24	3,880	2,140	2,140	6,070	14,000	9,130	9,760	2,920	2,440	3,160	6,970	2,020
25	3,640	2,140	2,140	6,070	14,300	9,040	9,130	2,860	2,380	2,920	6,430	2,020
26	3,520	2,140	2,140	6,070	14,400	8,860	8,680	2,800	2,380	2,800	5,890	1,960
27	3,400	2,140	2,080	6,070	14,500	8,770	8,140	2,740	2,320	2,620	5,320	1,960
28	3,280	2,140	2,080	6,950	14,500	8,500	7,960	2,740	2,260	2,440	4,810	1,960
29	3,280	2,140	2,080	6,950	14,400	8,320	8,050	2,800	2,260	2,320	4,480	1,900
30	3,160	2,140	2,080	5,710	-	8,140	8,230	3,040	2,200	2,200	4,120	1,840
31	3,040	-	2,080	5,620	-	8,050	-	3,280	-	2,140	3,760	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	195,360	12,400	3,040	6,302	0.921	1.06
November.....	73,080	2,980	2,140	2,436	.356	.40
December.....	64,660	2,140	1,960	2,086	.305	.35
Calendar year 1935.....	1,290,280	18,200	1,000	3,535	.517	7.00
January.....	136,460	6,070	2,080	4,402	.644	.74
February.....	320,780	14,500	5,620	11,060	1.62	1.75
March.....	324,240	14,300	8,050	10,460	1.53	1.76
April.....	273,210	11,300	7,870	9,274	1.36	1.62
May.....	151,140	8,950	2,740	4,875	.713	.82
June.....	81,000	3,280	2,200	2,700	.395	.44
July.....	67,360	3,280	1,720	2,173	.318	.37
August.....	179,370	7,150	2,440	5,766	.846	.98
September.....	72,660	3,520	1,840	2,422	.354	.40
Water year 1935-36.....	1,944,320	14,500	1,720	5,312	.777	10.59



## Suwannee River at Luraville, Fla.

Location.- Staff gage, lat. 30°06', long. 83°10', in sec. 30, T. 4 S., R. 12 E., at highway bridge 1 mile of Luraville and 3 miles above Grants Ferry Shoals. A large spring discharges into river 500 feet above bridge on left bank. Zero of gage is 16.49 feet above mean sea level.

Drainage area.- 6,900 square miles.

Records available.- February 1927 to September 1936.

Extremes.- Maximum discharge observed during year, 13,900 second-feet Oct. 1, Feb. 29 to Mar. 2; maximum gage height, 13.12 feet Oct. 1; minimum discharge, 2,100 second-feet July 12-18; minimum gage height, 2.28 feet July 14-17.

1927-36: Maximum discharge observed, about 66,000 second-feet Aug. 24, 1928, from curve extended above 33,000 second-feet (gage height, 33.7 feet); minimum, 1,290 second-feet June 25-28, 30, July 1, 2, 1935; minimum gage height observed, 1.43 feet July 1, 1935.

Remarks.- Records good except those for May 7-9, which were computed on basis of records of other stations on Suwannee River and are fair. Gage read to hundredths once daily.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.2	2,010	3.7	3,360	9.0	6,870
2.4	2,190	4.0	3,650	10.0	10,000
2.6	2,370	5.0	4,650	11.0	11,200
2.8	2,550	6.0	5,650	12.0	12,500
3.0	2,730	7.0	6,670	13.0	13,800
3.3	3,000	8.0	7,770	13.1	13,900

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,900	3,850	2,640	2,550	5,550	13,900	8,430	8,540	3,750	2,550	2,640	4,350
2	13,400	3,750	2,640	2,550	5,550	13,900	8,320	8,650	3,750	2,550	2,910	4,150
3	12,900	3,650	2,550	2,550	5,550	13,500	8,870	8,870	3,750	2,460	3,850	3,950
4	12,100	3,650	2,550	2,550	5,550	13,300	8,320	8,980	3,750	2,460	4,850	3,750
5	11,600	3,450	2,550	2,640	5,650	13,000	8,430	8,980	3,650	2,370	5,350	3,650
6	11,100	3,450	2,460	2,730	5,650	12,500	8,540	8,760	3,550	2,280	5,750	3,450
7	10,500	3,450	2,460	2,910	6,050	12,200	8,540	8,430	3,450	2,280	5,950	3,270
8	9,930	3,360	2,460	3,090	6,670	11,800	8,540	7,770	3,450	2,280	6,150	3,270
9	9,450	3,270	2,550	3,090	7,550	11,600	8,760	7,220	3,450	2,190	6,250	3,180
10	6,980	3,270	2,460	3,270	6,430	11,400	8,870	6,670	3,450	2,190	6,350	3,090
11	8,430	3,160	2,460	3,360	9,090	11,400	9,210	6,250	3,450	2,190	6,250	3,000
12	7,990	3,160	2,460	3,550	9,310	11,400	9,450	5,950	3,550	2,100	6,050	2,810
13	7,680	3,180	2,550	3,750	10,300	11,400	9,690	5,550	3,270	2,100	5,850	2,910
14	7,330	3,090	2,550	3,950	10,900	11,400	9,810	5,250	3,160	2,100	5,750	2,910
15	6,890	3,090	2,550	4,250	11,400	11,200	9,930	5,050	3,090	2,100	5,650	2,820
16	6,670	3,000	2,550	4,450	11,500	11,000	10,000	4,750	3,090	2,100	5,950	2,820
17	6,450	3,000	2,460	4,750	12,200	11,000	10,300	4,550	3,000	2,100	6,250	2,730
18	6,150	2,910	2,460	4,950	12,500	10,600	10,400	4,350	2,910	2,100	6,450	2,730
19	5,850	2,910	2,460	5,250	12,600	10,500	10,400	4,250	2,910	2,190	6,780	2,640
20	6,650	2,910	2,460	5,350	12,600	10,300	11,000	4,150	2,910	2,280	6,890	2,640
21	5,450	2,910	2,460	5,450	12,900	10,000	11,200	3,950	2,820	2,280	7,000	2,550
22	5,250	2,820	2,460	5,550	12,900	9,930	11,100	3,850	2,620	2,910	7,110	2,550
23	5,050	2,820	2,460	5,650	13,000	9,810	11,000	3,750	2,820	3,180	7,220	2,460
24	4,850	2,730	2,550	5,750	13,300	9,690	10,500	3,650	2,820	3,450	7,220	2,460
25	4,750	2,730	2,550	5,750	13,400	9,570	10,000	3,550	2,820	3,450	6,560	2,460
26	4,550	2,640	2,550	5,750	13,500	9,450	9,570	3,450	2,730	3,090	6,250	2,370
27	4,450	2,640	2,460	5,650	13,600	9,210	9,360	3,360	2,730	3,000	5,950	2,370
28	4,350	2,640	2,460	5,650	13,600	9,090	8,650	3,360	2,640	2,910	5,750	2,370
29	4,250	2,640	2,460	5,750	13,900	8,870	8,430	3,360	2,550	2,730	5,450	2,370
30	4,050	2,640	2,460	5,750	-	8,650	8,430	3,450	2,550	2,640	4,950	2,370
31	3,950	-	2,550	5,650	-	8,540	-	3,550	-	2,460	4,650	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	233,860		13,900		3,950		7,544		1.09		1.26	
November.....	92,810		3,850		2,640		3,094		.448		.50	
December.....	77,700		2,640		2,460		2,506		.363		.42	
Calendar year 1935.....	1,393,140		17,500		1,290		3,817		.553		7.51	
January.....	134,290		5,650		2,550		4,332		.628		.72	
February.....	129,000		13,900		5,550		10,210		1.48		1.60	
March.....	340,110		13,900		6,540		10,970		1.58		1.83	
April.....	283,010		11,200		8,210		9,434		1.37		1.63	
May.....	172,250		8,980		3,360		5,556		.605		.93	
June.....	94,470		3,750		2,550		3,149		.456		.51	
July.....	77,070		3,450		2,100		2,486		.360		.42	
August.....	160,230		7,220		2,640		5,814		.643		.97	
September.....	86,550		4,350		2,370		2,962		.428		.48	
Water year 1935-36.....	2,070,370		13,900		2,100		5,657		.820		11.17	

## Suwannee River at Branford, Fla.

Location.- Wire-weight gage, lat. 29°57', long. 82°56', in sec. 17 or 20, T. 6 S., R. 14 E., on highway bridge in Branford. Zero of gage is 4.45 feet above mean sea level (unadjusted).

Drainage area.- 7,090 square miles.

Records available.- July 1931 to September 1936.

Extremes.- Maximum discharge observed during year, 14,200 second-feet Feb. 29, Mar. 1; maximum gage height observed, 17.39 feet Oct. 1; minimum discharge observed, 2,760 second-feet July 14, 16, 17; minimum gage height observed 4.36 July 17.  
1931-36: Maximum discharge, 24,100 second-feet Mar. 1, 1933 (gage height, 21.96 feet); minimum, 1,760 second-feet on numerous days in December 1931 and January 1932; minimum gage height, 2.34 feet June 7, 1935.

Remarks.- Records good. Gage read to hundredths once a day.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,800	4,830	3,400	3,340	6,570	14,200	9,200	9,100	4,530	3,200	3,400	5,060
2	13,400	4,680	3,340	3,400	6,570	14,000	9,200	9,200	4,530	3,200	3,400	4,850
3	13,400	4,600	3,270	3,460	6,490	13,800	9,100	9,300	4,530	3,140	4,090	4,680
4	12,600	4,530	3,270	3,530	6,570	13,500	9,000	9,300	4,530	3,080	4,680	4,460
5	11,900	4,460	3,200	3,600	6,650	13,500	9,100	9,300	4,380	3,080	5,210	4,380
6	11,300	4,380	3,200	3,810	6,730	13,100	9,200	9,100	4,380	3,010	5,610	4,230
7	10,900	4,380	3,200	3,810	7,260	12,900	9,300	8,900	4,380	2,940	5,770	4,090
8	10,500	4,300	3,200	3,950	7,350	12,600	9,300	8,400	4,300	2,880	6,010	3,950
9	10,000	4,230	3,270	3,950	8,100	12,500	9,200	8,000	4,230	2,880	6,250	3,950
10	9,700	4,160	3,200	4,020	9,200	12,100	9,200	7,620	4,230	2,880	6,330	3,880
11	9,300	4,020	3,200	4,090	9,600	12,000	9,100	7,260	4,160	2,820	6,330	3,740
12	8,800	4,020	3,200	4,300	10,100	11,900	9,500	6,900	4,160	2,820	6,250	3,740
13	8,550	4,020	3,200	4,460	10,700	11,900	10,100	6,570	4,160	2,820	6,090	3,670
14	8,300	3,950	3,200	4,600	11,100	11,700	10,200	6,410	4,090	2,760	6,010	3,600
15	7,800	3,880	3,270	4,830	11,900	11,600	10,200	6,090	3,880	2,820	5,930	3,530
16	7,530	3,810	3,200	5,210	12,200	11,600	10,400	5,850	3,810	2,760	6,170	3,460
17	7,260	3,810	3,270	5,370	12,500	11,500	10,500	5,690	3,810	2,760	6,330	3,460
18	6,990	3,740	3,270	5,530	12,800	11,300	10,600	5,460	3,670	2,820	6,490	3,400
19	6,810	3,670	3,270	5,770	12,900	11,100	10,800	5,290	3,600	2,940	6,650	3,400
20	6,570	3,670	3,270	6,010	13,100	10,900	10,500	5,210	3,670	3,010	6,810	3,340
21	6,490	3,670	3,270	6,090	13,100	10,800	10,700	4,900	3,670	3,080	6,900	3,270
22	6,250	3,600	3,270	6,170	13,100	10,700	11,100	4,850	3,740	3,340	7,080	3,200
23	6,090	3,530	3,270	6,250	13,300	10,500	11,000	4,760	3,530	3,670	7,080	3,200
24	5,930	3,460	3,270	6,410	13,500	10,200	10,900	4,760	3,530	3,740	7,080	3,200
25	5,690	3,400	3,270	6,570	13,700	10,200	10,100	4,600	3,530	3,810	7,080	3,140
26	5,530	3,460	3,200	6,570	13,800	10,100	10,000	4,460	3,460	3,740	6,810	3,080
27	5,530	3,400	3,270	6,570	14,000	10,000	9,700	4,380	3,400	3,670	6,570	3,010
28	5,290	3,400	3,270	6,570	14,000	9,800	9,300	4,380	3,340	3,530	6,250	3,080
29	5,210	3,400	3,270	6,570	14,200	9,700	9,200	4,380	3,340	3,530	5,850	3,080
30	4,980	3,400	3,340	6,570	-	9,500	9,100	4,380	3,270	3,270	5,610	3,080
31	4,980	-	3,400	6,570	-	9,300	-	4,460	-	3,270	5,370	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				257,280	13,800	4,980	8,299	1.17	1.35			
November.....				117,880	4,830	3,400	3,929	.554	.62			
December.....				101,000	3,400	3,200	3,258	.460	.53			
Calendar year 1935.....				1,520,830	16,200	1,820	4,167	.588	7.98			
January.....				157,950	6,570	3,340	5,095	.719	.83			
February.....				311,090	14,200	6,490	10,750	1.51	1.63			
March.....				358,300	14,200	9,300	11,560	1.63	1.88			
April.....				294,800	11,100	9,000	9,827	1.39	1.55			
May.....				199,230	9,300	4,380	6,427	.906	1.04			
June.....				117,840	4,530	3,270	3,928	.554	.62			
July.....				97,080	3,810	2,760	3,132	.442	.51			
August.....				185,490	7,080	3,400	5,984	.844	.97			
September.....				110,190	5,060	3,010	3,673	.518	.58			
Water year 1935-36.....				2,308,110	14,200	2,760	6,306	.889	12.11			

## Suwannee River near Bell, Fla.

Location.- Water-stage recorder, lat. 29°48', long. 82°55', in sec. 17, T. 8 S., R. 14 E., at Rock Bluff Ferry, 4½ miles northwest of Bell and 10 miles below mouth of Santa Fe River. Zero of gage is 2.75 feet above mean sea level.

Drainage area.- 9,260 square miles.

Records available.- June 1932 to September 1936.

Extremes.- Maximum discharge during year, 20,500 second-feet Oct. 1 (gage height, 13.96 feet); minimum, 4,570 second-feet July 11-14, 18-18; minimum gage height, 3.16 feet July 18.

1932-36: Maximum discharge, 24,500 second-feet Mar. 2, 1933 (gage height, 15.36 feet); minimum, 2,950 second-feet June 26, 28, 1935 (gage height, 1.25 feet).

Flood of September 1928 reached a stage of about 25.9 feet (discharge, about 75,000 second-feet from curve extended above 25,000 second-feet).

This is probably the highest flood in the past 50 years or more.

Remarks.- Records excellent except those for June, July, and September, which are fair.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

3.0	4,390	8.0	10,200
3.5	4,850	9.0	11,500
4.0	5,350	10.0	12,900
4.5	5,900	11.0	14,300
5.0	6,450	12.0	16,000
6.0	7,600	13.0	18,000
7.0	8,850	14.0	20,500

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20,200	8,200	5,790	5,150	7,960	16,200	12,100	11,800	6,450	5,060	5,350	7,240
2	19,800	7,960	5,790	5,150	7,960	16,200	12,100	11,800	6,560	5,050	5,350	7,000
3	19,000	7,840	5,570	5,460	8,080	16,200	11,900	11,800	6,670	4,950	5,790	6,780
4	18,500	7,720	5,570	5,350	8,200	16,000	11,800	11,800	6,670	4,950	6,340	6,670
5	17,900	7,600	5,570	5,350	8,200	16,000	11,800	11,900	6,560	4,850	6,780	6,450
6	17,200	7,480	5,460	5,350	8,350	15,800	12,100	11,800	6,450	4,850	7,240	6,230
7	16,400	7,480	5,460	5,570	8,590	15,500	12,200	11,600	6,450	4,750	7,720	6,010
8	15,800	7,360	5,570	5,570	8,850	15,300	12,300	11,200	6,340	4,750	7,960	5,900
9	15,100	7,240	5,680	5,680	9,370	14,900	12,300	10,900	6,340	4,660	8,080	5,900
10	14,600	7,120	5,570	5,790	10,200	14,900	12,500	10,400	6,230	4,660	8,350	5,790
11	14,200	7,120	5,460	5,790	10,800	14,800	12,600	10,200	6,230	4,570	8,460	5,680
12	13,700	7,000	5,460	6,010	11,500	14,600	12,800	9,630	6,230	4,570	8,350	5,680
13	13,300	7,000	5,680	6,120	12,100	14,500	12,900	9,370	6,120	4,570	8,200	5,570
14	12,900	6,890	5,460	6,230	12,600	14,500	12,900	8,980	6,120	4,600	8,080	5,460
15	12,500	6,670	5,460	6,450	13,200	14,500	12,900	8,720	6,010	4,660	8,200	5,350
16	12,100	6,670	5,350	6,670	13,500	14,500	13,000	8,330	5,900	4,570	8,200	5,250
17	11,800	6,560	5,350	6,890	13,700	14,500	13,000	8,080	5,790	4,570	8,350	5,150
18	11,400	6,450	5,350	7,120	14,000	14,300	13,200	7,840	5,680	4,570	8,590	5,150
19	11,100	6,340	5,350	7,600	14,300	14,000	13,200	7,720	5,680	4,850	8,720	5,150
20	10,900	6,340	5,350	7,480	14,500	13,900	13,300	7,600	5,570	5,060	8,560	5,150
21	10,500	6,340	5,250	7,480	14,800	13,700	13,500	7,360	5,570	5,150	9,110	5,050
22	10,300	6,230	5,250	7,600	14,800	13,600	13,600	7,120	5,460	5,150	9,110	4,950
23	10,000	6,120	5,350	7,840	14,900	13,500	13,700	6,890	5,460	5,460	9,240	4,950
24	9,760	6,010	5,250	7,960	15,100	13,300	13,600	6,780	5,460	5,680	9,240	4,950
25	9,500	5,900	5,250	7,960	15,300	13,200	13,500	6,780	5,350	5,790	9,240	4,850
26	9,110	5,900	5,250	8,080	15,500	13,000	13,200	6,670	5,350	5,790	9,110	4,750
27	8,980	6,010	5,150	8,080	15,600	12,900	12,800	6,670	5,250	5,680	8,850	4,750
28	8,850	6,010	5,150	8,080	16,000	12,800	12,300	6,670	5,150	5,460	8,460	4,750
29	8,720	6,120	5,250	7,960	16,000	12,600	12,100	6,560	5,150	5,350	8,200	4,650
30	8,590	5,900	5,250	8,200	-	12,300	11,800	6,560	5,150	5,350	7,840	4,650
31	8,350	-	5,150	8,080	-	12,200	-	6,450	-	5,460	7,720	-
Month				Second-foot-days		Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October.....				400,840		20,200	8,330	12,930	1.40		1.61	
November.....				203,580		8,200	5,900	6,786	.753		.82	
December.....				167,850		5,790	5,150	5,416	.585		.67	
Calendar year 1935.....				2,312,410		22,100	3,020	6,335	.684		9.29	
January.....				208,100		8,200	5,150	6,713	.725		.84	
February.....				353,940		16,000	7,980	12,200	1.32		1.42	
March.....				444,200		16,200	12,200	14,350	1.55		1.79	
April.....				381,000		13,700	11,800	12,700	1.37		1.53	
May.....				275,980		11,900	6,450	8,903	.961		1.11	
June.....				177,400		6,670	5,150	5,913	.639		.71	
July.....				155,480		5,790	4,670	5,015	.542		.62	
August.....				249,020		9,240	5,350	8,033	.867		1.00	
September.....				166,360		7,240	4,750	5,546	.599		.67	
Water year 1935-36.....				3,183,750		20,200	4,570	8,699	.939		12.79	

## SUWANNEE RIVER BASIN

## Alapaha River at Statenville, Ga.

Location.-- Staff gage, lat. 30°40', long. 83°01', at bridge on highway from Statenville to Valdosta, a quarter of a mile west of Statenville, Echols County.

Drainage area.-- 1,370 square miles.

Records available.-- January to June 1921, December 1931 to September 1936.

Extremes.-- Maximum discharge observed during year, 4,730 second-feet Feb. 18, 19; maximum gage height observed, 18.50 feet Feb. 19; minimum discharge, 50 second-feet Nov. 19, 20; minimum gage height, 1.20 feet Nov. 20.  
1921, 1931-36: Maximum discharge observed, 6,140 second-feet Feb. 22, 1933 (gage height, 21.82 feet); minimum, 17 second-feet Dec. 21, 28-31, 1931; minimum gage height, 0.87 foot June 29, 1935.

Maximum stage known, 28.5 feet (revised) about May 1, 1928 (discharge, 14,900 second-feet). Subsequent extreme floods occurred in August and October 1928 and March 1929. From information obtained in 1921, maximum flood prior to 1921 reached a stage of 28.6 feet (date unknown).

Remarks.-- Records good. Gage read to hundredths twice daily.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	930	83	83	201	2,090	3,950	1,460	2,660	360	167	516	555
2	755	83	83	218	2,090	3,590	1,520	2,570	324	159	1,460	505
3	608	83	77	288	2,090	3,200	1,580	2,690	288	135	2,240	413
4	560	83	72	288	2,060	2,840	1,910	2,600	288	119	2,420	369
5	494	77	77	324	2,240	2,540	1,970	2,240	288	119	2,030	306
6	434	77	77	324	2,390	2,390	2,060	1,910	306	119	1,880	285
7	378	77	77	378	3,170	2,240	2,240	1,460	306	112	1,850	285
8	342	77	83	414	3,470	2,180	2,510	1,250	306	112	1,790	264
9	324	77	89	434	3,530	2,180	2,780	1,100	288	104	1,580	224
10	306	77	89	516	3,680	2,240	2,960	980	324	104	1,400	204
11	288	77	96	656	3,650	2,240	3,230	855	288	104	1,430	194
12	288	77	89	705	3,590	2,240	3,280	705	252	96	1,520	184
13	270	96	112	780	3,620	1,910	3,280	560	235	96	1,880	194
14	252	143	112	880	3,920	2,060	3,200	516	235	112	2,270	194
15	252	119	112	1,060	4,130	1,940	3,170	454	235	119	2,750	194
16	235	67	119	1,220	4,400	1,850	3,200	414	235	112	2,780	174
17	201	54	112	1,340	4,580	1,820	3,410	396	218	119	2,780	164
18	192	54	119	1,460	4,700	1,700	3,710	378	210	167	2,510	149
19	184	50	112	1,580	4,730	1,670	4,070	378	201	167	1,970	142
20	167	50	112	1,730	4,580	1,640	4,280	360	559	176	1,640	134
21	167	54	104	1,880	4,430	1,640	4,400	360	560	218	1,580	134
22	151	58	127	2,000	4,460	1,460	4,340	342	516	218	1,640	122
23	151	72	159	2,060	4,460	1,460	4,130	324	414	210	1,700	122
24	151	83	176	2,030	4,490	1,490	3,800	288	342	201	1,760	122
25	143	83	176	2,000	4,520	1,490	3,320	270	306	218	1,700	110
26	119	77	167	1,880	4,520	1,490	2,750	252	235	201	1,550	105
27	104	77	167	1,910	4,550	1,460	2,570	235	218	192	1,370	100
28	104	83	167	1,880	4,520	1,430	2,570	252	210	159	1,100	100
29	96	96	176	1,880	4,340	1,430	2,660	324	192	151	905	95
30	89	89	184	1,880	-	1,400	2,660	434	176	119	780	100
31	89	-	192	2,030	-	1,460	-	414	-	143	630	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				8,824	930	89	285	0.208	0.24			
November.....				2,353	143	50	78.4	.057	.06			
December.....				3,697	192	72	119	.087	.10			
Calendar year 1935.....				166,613	3,440	32	456	.333	4.52			
January.....				36,226	2,060	201	1,169	.853	.98			
February.....				109,000	4,730	2,060	3,759	2.74	2.96			
March.....				62,630	3,950	1,400	2,020	1.47	1.70			
April.....				86,960	4,490	1,460	2,966	2.16	2.41			
May.....				27,371	2,590	235	902	.658	.76			
June.....				8,894	560	176	296	.216	.24			
July.....				4,548	218	96	147	.107	.12			
August.....				55,411	2,780	516	1,723	1.26	1.45			
September.....				6,243	555	95	208	.152	.17			
Water year 1935-36.....				412,777	4,730	50	1,128	.823	11.19			

## Withlacoochee River near Pinetta, Fla.

Location.- Chain gage, lat. 30°36', long. 83°16', in sec. 6, T. 2 N., R. 11 E., on highway bridge a quarter of a mile west of Bellville and 5 miles east of Pinetta.

Drainage area.- 2,220 square miles.

Records available.- December 1931 to September 1936.

Extremes.- Maximum discharge observed during year, 8,240 second-feet Feb. 15 (gage height, 19.72 feet); minimum observed, 150 second-feet July 13 (gage height, 6.85 feet).

1931-36: Maximum discharge observed, 9,820 second-feet Feb. 24, 1933 (gage height, 22.79 feet); minimum, 94 second-feet Nov. 28, Dec. 2, 3, 1934, and Jan. 2, 1935 (gage height, 6.50 feet).

Maximum stage known, 36.75 feet in August 1928 (discharge, 35,000 second-feet, computed on basis of records of station near Blue Springs, Ga.).

Remarks.- Records excellent. Gage read to hundredths once a day.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

6.6	105	10.0	1,940	16.0	6,120
7.0	188	11.0	2,640	17.0	6,720
7.5	350	12.0	3,340	18.0	7,300
8.0	550	13.0	4,040	19.0	7,880
8.5	890	14.0	4,740	20.0	8,400
9.0	1,240	15.0	5,440		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,590	229	243	411	2,290	4,460	1,870	3,480	1,100	215	2,080	554
2	1,580	229	243	454	2,220	3,970	1,940	4,180	960	202	3,270	502
3	1,240	229	229	554	2,220	3,480	2,220	4,180	820	188	3,550	432
4	1,100	229	215	755	2,220	2,990	2,290	3,780	755	178	3,690	390
5	960	229	202	855	2,710	2,710	2,360	3,130	755	172	3,900	350
6	890	215	202	960	3,340	2,640	2,570	2,010	755	167	4,250	330
7	788	215	202	960	4,250	2,640	2,920	1,620	665	162	4,320	293
8	695	215	202	1,030	4,880	2,570	3,200	1,170	755	162	4,180	275
9	635	229	229	1,380	5,720	2,780	3,690	960	890	157	3,970	275
10	580	243	293	1,520	6,420	2,920	3,900	788	695	153	3,340	275
11	554	243	293	1,800	7,010	3,200	4,390	635	527	153	2,990	275
12	602	243	293	2,220	7,410	3,270	4,550	580	432	153	2,640	275
13	477	243	350	2,360	7,760	3,270	4,800	502	390	150	2,570	275
14	454	243	370	2,780	8,130	2,990	4,800	454	350	150	2,570	275
15	432	243	411	3,200	8,240	2,780	4,810	432	390	162	2,780	275
16	432	229	432	3,550	8,130	2,500	5,370	390	350	167	3,690	243
17	411	229	454	3,830	7,800	2,220	6,300	370	293	243	3,480	243
18	411	215	432	3,900	7,300	2,220	6,540	330	259	275	3,970	243
19	390	215	432	3,480	6,800	2,150	6,840	330	259	350	4,320	229
20	350	215	411	3,410	6,000	2,150	6,890	330	311	527	4,670	243
21	330	215	411	3,480	5,860	2,220	6,240	311	370	695	5,020	259
22	330	215	411	3,550	5,790	2,290	4,600	311	311	695	5,020	293
23	311	215	411	3,550	5,580	2,430	2,500	311	275	635	4,740	293
24	293	202	390	3,480	5,720	2,500	2,080	311	259	598	3,690	275
25	293	202	411	3,410	5,790	2,500	1,800	275	243	554	2,890	275
26	275	202	432	3,340	5,720	2,430	1,380	275	243	527	1,940	293
27	275	202	411	3,130	5,510	2,290	1,520	293	229	411	1,660	311
28	259	215	411	2,850	5,300	2,150	1,940	411	229	350	1,510	275
29	243	229	411	2,640	4,880	2,080	2,500	527	215	432	960	259
30	243	229	411	2,430	-	2,010	2,990	695	215	725	635	243
31	243	-	411	2,360	-	1,940	-	1,100	-	1,240	598	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	17,366	1,590	243	560	0.252	0.29
November.....	6,706	243	202	224	.101	.11
December.....	10,559	454	202	344	.155	.18
Calendar year 1935.....	394,550	9,770	94	1,081	.487	6.63
January.....	73,629	3,900	411	2,375	1.07	1.23
February.....	160,790	8,240	2,220	5,544	2.50	2.70
March.....	82,760	4,460	1,940	2,699	1.20	1.36
April.....	109,350	5,590	1,330	3,646	1.64	1.83
May.....	34,351	4,180	275	1,108	.499	.58
June.....	14,340	1,100	215	478	.215	.24
July.....	10,938	1,240	150	353	.159	.18
August.....	98,093	5,020	598	3,164	1.43	1.65
September.....	9,028	554	229	301	.136	.15
Water year 1935-36.....	628,030	8,240	150	1,716	.773	10.52

## Santa Fe River at Worthington, Fla.

Location.— Staff gage, lat. 29°55', long. 82°26', in sec. 32, T. 6 S., R. 19 E., at bridge on State Highway 49 a quarter of a mile south of Worthington and a quarter of a mile below mouth of New River. Zero of gage is 42.91 feet above mean sea level.

Records available.— November 1931 to September 1936.

Extremes.— Maximum discharge observed during year, 1,780 second-feet Apr. 5 (gage height, 16.90 feet); minimum, 5.1 second-feet July 12; minimum gage height observed, 7.28 feet July 16.  
1931-36: Maximum discharge, 17,500 second-feet June 17, 1934 (gage height, 24.83 feet); minimum discharge observed, 1.3 second-feet May 17, June 1, 1932; minimum gage height observed, 7.03 feet June 15, 1935.

Remarks.— Records fair. Discharge interpolated Nov. 17, Feb. 12 and Sept. 10. Gage read to hundredths once a day.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,190	135	53	90	220	771	275	57	22	27	95	130
2	950	135	51	95	220	627	361	54	18	25	90	66
3	853	125	51	130	198	565	697	50	22	18	75	51
4	791	120	46	155	209	493	1,720	44	25	14	62	36
5	715	115	43	145	264	479	1,780	41	24	18	54	33
6	679	105	43	130	535	466	1,270	39	31	16	50	27
7	627	105	41	115	1,160	453	1,160	31	44	14	46	40
8	453	100	43	100	1,310	441	1,000	27	62	11	43	46
9	441	100	45	100	1,390	429	811	22	62	9.8	40	51
10	429	95	44	80	1,490	627	661	24	51	8.3	36	46
11	405	95	46	75	1,540	715	550	20	43	6.2	43	40
12	393	90	53	70	1,360	733	453	20	30	5.1	110	27
13	369	85	62	66	1,190	733	381	18	50	9.4	231	28
14	345	80	66	66	1,050	715	333	16	47	5.8	479	30
15	369	75	62	70	975	679	275	16	46	5.8	357	40
16	393	75	62	75	925	643	242	44	43	5.3	253	55
17	405	72	54	80	791	627	198	33	42	6.9	110	46
18	357	70	51	75	697	580	176	27	39	8.0	80	36
19	333	66	48	105	679	521	145	22	31	24	62	30
20	309	66	43	115	661	453	150	20	30	27	55	24
21	286	62	41	110	697	417	115	18	36	95	47	16
22	264	62	46	95	791	393	100	22	33	130	70	14
23	242	57	53	90	900	309	95	19	30	198	62	12
24	231	54	62	85	1,020	297	90	20	31	253	47	16
25	209	52	58	75	1,000	264	90	15	30	220	40	12
26	209	51	55	66	975	264	85	14	29	209	33	11
27	187	51	51	65	925	220	80	13	50	193	30	11
28	165	51	49	57	900	198	75	14	37	187	32	9.8
29	155	56	51	55	853	242	66	15	34	155	80	7.2
30	155	55	70	176	—	253	57	20	30	125	130	6.6
31	145	—	85	220	—	253	—	21	—	95	155	—
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	13,054		1,190		145		421					
November.....	1,480		135		51		82.0					
December.....	1,628		85		41		52.5					
Calendar year 1935.....	139,643.9		10,900		1.9		383					
January.....	3,032		220		55		97.8					
February.....	24,925		1,540		198		559					
March.....	14,860		771		198		479					
April.....	13,491		1,780		57		450					
May.....	816		87		13		26.3					
June.....	1,102		82		18		36.7					
July.....	2,129.6		253		5.1		68.7					
August.....	3,097		479		30		99.9					
September.....	997.6		130		6.6		33.3					
Water year 1935-36.....	81,592.2		1,780		5.1		223					

## Santa Fe River near High Springs, Fla.

Location.- Water-stage recorder, lat. 29°51', long. 82°37', in sec. 29, T. 7 S., R. 17 E., at bridge on State Highway 5A 150 feet upstream from Atlantic Coast Line Railroad bridge and 2 miles northwest of High Springs. Zero of gage is 25.78 feet above mean sea level.

Records available.- January 1931 to September 1936.

Extremes.- Maximum discharge during year, 3,000 second-feet Oct. 1 (gage height, 6.78 feet); minimum discharge, 258 second-feet Sept. 30; minimum gage height, 1.58 feet July 16-18.

1931-36: Maximum discharge, 11,800 second-feet June 18, 1934 (gage height, 14.90 feet); minimum, 71 second-feet about June 27, 1935 (gage height, 0.46 foot).

Remarks.- Records good.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,940	940	588	471	441	1,340	815	655	450	401	542	358
2	2,760	915	588	488	471	1,290	865	655	446	397	524	365
3	2,580	890	565	506	484	1,240	890	655	437	397	506	354
4	2,400	865	565	502	493	1,160	1,020	632	437	401	493	351
5	2,220	865	565	493	475	1,140	1,220	632	433	390	468	337
6	2,100	840	560	506	538	1,090	1,390	610	433	390	498	337
7	1,980	815	556	498	655	1,060	1,440	588	433	390	467	326
8	1,860	815	565	498	790	1,040	1,490	588	437	386	454	326
9	1,740	790	565	502	990	1,020	1,490	588	441	379	446	326
10	1,640	790	547	484	1,160	1,060	1,440	565	446	376	433	316
11	1,690	790	542	484	1,340	1,090	1,340	556	454	376	429	312
12	1,490	768	560	475	1,440	1,120	1,260	552	446	376	417	309
13	1,490	768	552	475	1,490	1,140	1,190	547	437	372	421	298
14	1,440	745	534	471	1,490	1,190	1,120	542	441	372	458	295
15	1,390	745	534	475	1,440	1,220	1,060	534	441	368	524	295
16	1,390	745	529	462	1,340	1,220	1,020	524	437	365	520	292
17	1,340	722	524	458	1,290	1,220	965	520	429	362	493	302
18	1,340	722	520	467	1,260	1,190	915	520	425	365	471	302
19	1,290	700	524	475	1,220	1,140	865	516	421	390	441	292
20	1,260	700	516	441	1,190	1,120	840	502	429	366	429	285
21	1,220	700	498	450	1,160	1,060	815	493	425	386	421	282
22	1,160	678	516	467	1,140	1,020	790	484	425	390	393	276
23	1,140	655	493	462	1,160	965	790	480	421	488	386	276
24	1,120	632	484	454	1,240	940	768	475	421	632	390	276
25	1,060	632	484	446	1,290	915	745	475	413	678	376	270
26	1,040	632	480	441	1,340	890	745	471	405	700	368	264
27	1,020	632	475	429	1,390	865	722	471	405	678	362	264
28	1,020	632	480	413	1,390	840	700	484	413	665	351	267
29	965	610	493	425	1,340	840	700	475	413	632	348	261
30	940	610	462	458	-	840	678	462	409	610	351	258
31	940	-	462	433	-	815	-	464	-	565	354	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October.....					47,865	2,940	940	1,544				
November.....					22,343	940	610	745				
December.....					16,326	588	462	527				
Calendar year 1935.....					256,405	6,720	79	702				
January.....					14,510	506	413	468				
February.....					31,447	1,490	441	1,084				
March.....					33,080	1,340	815	1,067				
April.....					30,098	1,490	678	1,003				
May.....					18,705	655	454	539				
June.....					12,903	454	405	430				
July.....					14,053	700	362	453				
August.....					13,544	542	348	437				
September.....					9,072	365	258	302				
Water year 1935-36.....					261,936	2,940	258	716				

## Santa Fe River near Fort White, Fla.

Location.- Water-stage recorder, lat. 29°51', long. 82°42', in sec. 28, T. 7 S., R. 18 E., 2 miles upstream from county highway bridge on road between Willeford and Fort White and 4 miles south of Fort White. Zero of gage is 21.28 feet above mean sea level.

Records available.- October 1927 to January 1930, June 1932 to September 1936.

Extremes.- Maximum discharge during year, 4,140 second-feet Oct. 1 (gage height, 5.60 feet); minimum, 1,030 second-feet July 16, 17; minimum gage height, 1.01 feet July 17.

1927-30, 1932-36: Maximum discharge, 11,400 second-feet June 20, 1934 (gage height, 11.04 feet); minimum, 670 second-feet June 4, 5, 1932; minimum gage height, 0.58 foot June 28-29, July 5, 1935.

Remarks.- Records good October to February and excellent thereafter.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,060	1,730	1,440	1,290	1,180	2,070	1,470	1,290	1,100	1,070	1,250	1,140
2	3,840	1,700	1,440	1,290	1,180	2,070	1,470	1,290	1,100	1,070	1,250	1,140
3	3,690	1,700	1,440	1,330	1,220	1,990	1,510	1,250	1,100	1,070	1,220	1,140
4	3,550	1,700	1,440	1,330	1,220	1,920	1,580	1,250	1,100	1,070	1,220	1,140
5	3,320	1,660	1,440	1,290	1,180	1,880	1,730	1,250	1,100	1,070	1,220	1,100
6	3,180	1,660	1,400	1,290	1,250	1,840	1,880	1,220	1,100	1,070	1,220	1,100
7	2,950	1,660	1,400	1,290	1,330	1,810	1,990	1,220	1,100	1,070	1,220	1,100
8	2,810	1,620	1,400	1,290	1,400	1,730	2,070	1,220	1,100	1,070	1,180	1,100
9	2,660	1,620	1,400	1,290	1,550	1,730	2,070	1,220	1,100	1,070	1,180	1,100
10	2,580	1,620	1,400	1,290	1,730	1,770	1,990	1,180	1,100	1,070	1,180	1,100
11	2,440	1,580	1,400	1,290	1,840	1,770	1,920	1,180	1,100	1,070	1,180	1,100
12	2,380	1,620	1,400	1,250	1,990	1,810	1,680	1,180	1,100	1,070	1,180	1,100
13	2,290	1,580	1,400	1,250	2,070	1,810	1,810	1,180	1,100	1,070	1,180	1,100
14	2,210	1,580	1,400	1,250	2,070	1,840	1,730	1,180	1,100	1,070	1,180	1,100
15	2,210	1,580	1,360	1,250	2,070	1,880	1,660	1,140	1,100	1,070	1,220	1,100
16	2,210	1,580	1,360	1,250	2,070	1,880	1,620	1,140	1,100	1,030	1,250	1,100
17	2,140	1,550	1,360	1,250	1,990	1,880	1,580	1,140	1,100	1,030	1,220	1,100
18	2,070	1,580	1,360	1,250	1,920	1,840	1,550	1,140	1,100	1,070	1,220	1,100
19	2,070	1,550	1,360	1,250	1,920	1,810	1,510	1,140	1,100	1,100	1,180	1,100
20	2,070	1,550	1,360	1,220	1,880	1,770	1,470	1,140	1,100	1,100	1,180	1,070
21	1,990	1,550	1,330	1,220	1,880	1,730	1,440	1,140	1,100	1,100	1,180	1,070
22	1,990	1,550	1,360	1,220	1,840	1,660	1,440	1,140	1,100	1,100	1,140	1,070
23	1,920	1,510	1,330	1,220	1,840	1,620	1,400	1,100	1,100	1,180	1,140	1,070
24	1,880	1,510	1,330	1,220	1,920	1,580	1,400	1,140	1,100	1,290	1,140	1,070
25	1,840	1,470	1,330	1,220	1,990	1,580	1,360	1,100	1,070	1,330	1,140	1,070
26	1,810	1,510	1,330	1,220	2,070	1,550	1,360	1,100	1,070	1,360	1,140	1,070
27	1,770	1,470	1,290	1,180	2,070	1,510	1,330	1,100	1,070	1,360	1,100	1,070
28	1,810	1,470	1,330	1,180	2,070	1,510	1,330	1,140	1,070	1,360	1,100	1,070
29	1,770	1,470	1,330	1,180	2,070	1,470	1,290	1,140	1,070	1,330	1,100	1,070
30	1,730	1,470	1,290	1,220	-	1,470	1,290	1,100	1,070	1,330	1,100	1,070
31	1,730	-	1,290	1,180	-	1,470	-	1,100	-	1,290	1,140	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				74,950	4,060	1,730	2,418					
November.....				47,400	1,730	1,470	1,580					
December.....				42,500	1,440	1,290	1,371					
Calendar year 1935.....				510,689	6,280	690	1,399					
January.....				38,750	1,330	1,180	1,250					
February.....				50,810	2,070	1,180	1,752					
March.....				54,250	2,070	1,470	1,750					
April.....				48,130	2,070	1,290	1,604					
May.....				36,250	1,290	1,100	1,169					
June.....				32,820	1,100	1,070	1,094					
July.....				35,410	1,360	1,030	1,142					
August.....				36,550	1,250	1,100	1,179					
September.....				32,830	1,140	1,070	1,094					
Water year 1935-36.....				530,650	4,060	1,030	1,450					



## Ichatucknee Springs near Hildreth, Fla.

Location.- Lat. 29°58', long. 82°47', in sec. 23, T. 6 S., R. 15 E., at bridge on State Highway 5A 1 mile east of Hildreth and about 2 miles above junction with Santa Fe River.

Records available.- Discharge measurements from January 1931 to September 1936. Single measurements only during 1917, 1929-30.

Extremes.- 1931-36: Maximum discharge measured, 428 second-feet Mar. 14, 1931; minimum, 243 second-feet Aug. 20, 1935.

Remarks.- Discharge measurements made monthly at highway bridge about 4 miles below head of springs.

Discharge measurements, in second-feet, water year October 1935 to September 1936

Oct.	9	391	Apr.	24	359
Nov.	18	374	May	20	361
Dec.	18	364	June	15	312
Jan.	21	352	July	16	341
Feb.	12	323	Aug.	15	323
Mar.	16	354	Sept.	5	318

## Ochlockonee River near Havana, Fla.

Location.- Wire-weight gage, lat. 30°33', long. 84°19', in sec. 24, T. 2 N., R. 2 W., at bridge on State Highway 1, three-quarters of a mile above Georgia, Florida & Alabama Railway bridge and 5 miles southeast of Havana.

Drainage area.- 1,020 square miles.

Records available.- December 1928 to September 1936.

Extremes.- Maximum discharge observed during year, 6,280 second-feet Apr. 16 (gage height, 28.20 feet); minimum, 59 second-feet July 16 (gage height, 12.26 feet).  
1928-36: Maximum discharge observed, 14,200 second-feet Mar. 19, 1929 (gage height, 30.3 feet), from rating curve extended above 8,500 second-feet; minimum discharge, 24 second-feet Nov. 14, 15, 17, 1935; minimum gage height observed, 11.51 feet Oct. 31, Nov. 2, 3, 1934.  
Maximum known flood occurred Aug. 18, 1928, stage probably 2½ or 3 feet higher than that of Mar. 19, 1929.

Remarks.- Records good. Gage read to hundredths once a day.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	802	118	357	549	1,480	2,100	1,400	1,260	850	202	641	319
2	733	105	397	618	1,550	1,990	1,400	1,110	826	169	970	281
3	664	112	435	779	1,550	1,820	1,780	970	710	145	1,260	245
4	595	105	439	1,040	1,550	1,860	1,760	850	595	132	1,520	218
5	549	98	397	1,160	1,880	1,520	1,700	753	503	300	1,780	193
6	503	98	357	1,230	2,250	1,450	1,720	641	417	139	1,960	185
7	459	98	338	1,380	3,010	1,600	1,780	549	357	112	1,920	177
8	397	105	300	1,660	3,550	1,820	1,960	491	300	125	1,700	177
9	377	125	397	1,960	4,140	1,990	2,100	417	281	132	1,510	202
10	357	210	503	2,450	4,920	2,060	2,130	357	338	112	1,020	281
11	319	245	654	2,900	5,690	2,020	2,650	338	618	92	850	300
12	300	210	710	3,370	5,970	1,920	2,900	300	779	81	733	618
13	281	263	779	3,620	5,820	1,760	3,370	263	970	74	1,090	687
14	263	281	779	3,690	5,160	1,580	4,310	245	1,110	67	1,310	687
15	245	300	874	3,550	4,500	1,400	5,540	227	898	64	1,450	874
16	245	319	874	3,250	3,760	1,280	6,280	210	664	59	1,480	1,160
17	245	358	802	2,850	3,370	1,210	5,820	210	459	67	1,330	1,070
18	227	357	755	2,800	3,130	1,190	4,920	210	357	80	1,190	874
19	227	319	687	3,190	2,950	1,310	3,690	245	300	139	1,140	687
20	218	281	618	3,260	2,800	1,400	2,500	338	281	245	1,070	503
21	210	263	549	3,010	2,800	1,430	1,600	263	245	319	970	397
22	202	245	503	2,850	2,850	1,400	1,260	218	245	357	874	338
23	185	227	526	2,750	2,800	1,480	1,090	210	263	459	826	281
24	185	218	526	2,650	2,800	1,520	970	193	503	526	733	281
25	169	202	595	2,450	2,850	1,500	874	185	733	503	826	281
26	154	193	618	2,210	2,750	1,350	850	169	664	481	994	281
27	146	185	618	1,990	2,550	1,250	946	161	459	417	1,070	263
28	146	177	595	1,720	2,410	1,110	1,140	154	338	338	922	227
29	139	202	549	1,550	2,210	1,110	1,260	245	281	263	641	210
30	132	245	526	1,480	-	1,280	1,310	779	245	210	459	202
31	125	-	503	1,450	-	1,400	-	826	-	185	377	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October.....	9,799			802	125	316	0.310		0.36			
November.....	6,244			357	98	208	.204		.23			
December.....	17,573			874	300	567	.556		.64			
Calendar year 1935 .....	305,145			9,150	48	836	.820		11.13			
January.....	69,406			3,690	549	2,239	2.20		2.54			
February.....	93,100			5,970	1,480	3,210	3.15		3.40			
March.....	47,920			2,100	1,110	1,546	1.52		1.75			
April.....	71,010			6,280	850	2,367	2.32		2.59			
May.....	13,357			1,260	154	481	.423		.49			
June.....	15,589			1,110	245	520	.510		.57			
July.....	6,595			526	59	213	.209		.24			
August.....	34,416			1,960	377	1,110	1.09		1.26			
September.....	12,499			1,160	177	417	.409		.46			
Water year 1935-36 .....	397,508			6,280	59	1,086	1.06		14.53			

## Ochlockonee River near Bloxham, Fla.

Location.- Water-stage recorder, lat. 30°23', long. 84°39', in sec. 29, T. 1 S., R. 4 W., 1,000 feet below dam and 1 mile west of Bloxham.

Drainage area.- 1,660 square miles.

Records available.- June 1926 to September 1936.

Average discharge.- 10 years (1926-36), 1,536 second-feet.

Extremes.- Maximum discharge during year, 7,370 second-feet Feb. 15 (gage height, 14.35 feet); minimum, 7.2 second-feet Nov. 11 (gage height, -1.57 feet).  
1926-36: Maximum discharge, 19,900 second-feet Aug. 19, 1928 (gage height, 21.4 feet), from curve extended above 10,000 second-feet; no flow Sept. 21, 22, 1929, and several days in 1931.

Remarks.- Records fair above 100 second-feet and poor below. Discharge computed on basis of power-plant records also poor. Flow regulated by operation of power plant 1,000 feet above gage.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	247	413	212	755	1,740	3,710	2,300	1,230	1,400	752	1,150	826
2	996	462	430	820	1,890	3,820	2,230	1,250	1,950	770	1,390	822
3	1,240	60	477	1,660	2,020	3,530	2,360	903	667	638	2,630	678
4	1,230	560	544	1,540	2,180	3,400	2,610	1,120	724	475	2,000	688
5	1,280	98	510	1,420	2,450	3,220	2,240	1,150	367	403	2,230	628
6	433	152	504	1,320	4,060	3,000	2,480	1,130	937	418	2,270	195
7	1,340	200	544	1,540	4,770	2,930	2,540	1,140	878	703	1,930	624
8	1,320	467	597	1,670	5,360	2,650	2,610	922	924	649	1,650	666
9	1,380	224	998	2,040	5,220	3,090	2,990	902	794	638	871	688
10	1,110	140	904	2,840	4,920	2,120	3,090	*390	216	532	1,270	607
11	239	150	970	3,360	4,860	2,310	3,290	*1,130	*220	724	1,180	705
12	220	648	1,080	3,760	5,300	2,580	4,140	*580	*490	348	1,700	729
13	667	186	1,250	4,370	5,980	2,650	4,360	*495	*580	522	*2,180	304
14	335	219	1,160	3,980	6,390	2,590	4,820	*360	1,260	369	*2,420	644
15	662	608	1,390	4,270	6,150	2,230	4,800	*100	1,260	87	*2,610	850
16	952	582	1,430	4,620	5,440	2,370	4,730	188	1,510	540	*2,410	1,010
17	1,000	210	1,120	4,690	4,770	2,050	4,840	308	1,200	411	2,990	955
18	974	263	1,160	4,070	4,070	1,730	5,310	904	934	197	2,470	1,240
19	982	418	1,160	4,270	4,970	1,630	5,200	*855	1,150	169	2,090	1,170
20	1,060	724	1,160	4,370	3,080	2,110	4,620	*770	920	284	1,210	623
21	690	287	1,090	4,320	4,610	2,310	3,760	*770	1,310	312	*1,440	874
22	480	460	1,080	4,270	4,720	1,960	3,440	*725	1,070	564	*2,060	1,420
23	543	141	1,450	3,760	4,290	2,350	3,130	*500	726	412	1,900	929
24	568	130	1,040	3,530	3,820	2,490	3,150	490	720	540	*1,170	944
25	470	246	938	3,350	3,760	1,630	2,680	648	470	210	*1,170	*915
26	406	178	1,060	3,400	3,760	1,580	1,080	645	674	201	*1,300	*820
27	275	465	1,110	2,610	3,800	1,910	1,290	764	484	740	*1,470	342
28	558	472	1,110	3,620	3,800	2,040	1,160	863	166	1,330	*1,410	862
29	489	227	794	2,850	3,760	1,640	1,110	1,200	582	629	*1,210	902
30	464	253	868	3,620	-	1,910	1,210	1,340	656	582	640	950
31	415	-	998	2,450	-	2,060	-	1,220	-	1,230	780	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	23,025	1,380	220	743	0.448	0.52
November.....	9,658	724	60	322	.194	.22
December.....	29,108	1,450	212	939	.566	.66
Calendar year 1935.....	436,895	9,020	8.4	1,197	.721	9.80
January.....	95,045	4,690	755	3,066	1.85	2.13
February.....	121,950	6,390	1,740	4,205	2.63	2.73
March.....	75,390	3,710	1,580	2,432	1.47	1.70
April.....	93,570	5,310	1,080	3,119	1.88	2.10
May.....	26,052	1,340	100	808	.487	.56
June.....	26,229	1,950	166	841	.507	.57
July.....	16,379	1,330	87	522	.318	.37
August.....	53,151	2,990	640	1,715	1.03	1.19
September.....	26,510	1,420	195	787	.474	.53
Water year 1935-36.....	591,167	6,390	60	1,615	.973	13.27

\*Discharge computed on basis of power-plant records.

## Chattahoochee River at West Point, Ga.

Location.- Water-stage recorder, lat. 32°53', long. 85°11', just below Oseligee Creek and 1 mile upstream from West Point, Troup County. Zero of gage is 550.23 feet above mean sea level (datum of Corps of Engineers, U. S. Army).

Drainage area.- 3,550 square miles.

Records available.- January 1912 to September 1936; July 1896 to December 1910 at site three-quarters of a mile downstream.

Average discharge.- 38 years, 5,859 second-feet.

Extremes.- Maximum discharge during year, 75,400 second-feet Apr. 8 (gage height, 22.86 feet); minimum, 819 second-feet Oct. 11 (gage height, 2.16 feet).  
1896-1910, 1912-36: Maximum discharge, 134,000 second-feet Dec. 10, 1919 (gage height, 30.0 feet); minimum, 224 second-feet Sept. 12, 1925 (gage height, 1.64 feet).

Remarks.- Records good except those for Dec. 27-29, which are fair and were computed from partial gage-height graph. Slight diurnal fluctuation caused by power plants upstream.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,010	2,240	2,480	3,520	4,820	6,220	12,400	6,040	3,010	2,150	8,200	3,330
2	985	1,870	2,480	16,400	5,150	5,860	25,900	5,680	2,950	2,150	8,010	2,230
3	973	1,520	2,240	44,900	11,200	5,860	30,200	5,600	2,850	2,150	6,990	1,800
4	949	1,350	2,080	41,000	37,200	5,860	24,000	5,680	2,770	2,460	5,860	1,620
5	937	1,340	2,080	32,000	53,500	5,680	36,400	5,560	2,770	2,540	4,060	3,100
6	925	1,340	2,000	30,600	47,700	5,860	36,000	5,680	2,930	2,690	3,010	3,300
7	865	1,420	1,980	35,100	44,000	5,500	55,000	5,160	2,540	2,460	3,010	2,300
8	865	2,560	2,080	34,400	43,200	5,330	70,600	4,990	2,850	2,610	2,770	1,950
9	865	4,080	2,400	39,400	31,300	5,160	61,700	4,820	3,330	2,690	2,850	2,070
10	865	4,000	2,320	37,400	12,800	5,160	61,700	4,650	3,650	2,300	6,640	2,540
11	842	2,720	2,160	30,200	10,700	5,160	51,200	4,650	3,330	2,070	14,100	3,170
12	925	2,800	2,480	17,700	9,310	5,160	30,600	4,650	3,410	1,830	12,600	3,090
13	925	14,200	4,080	9,310	9,310	4,820	16,400	4,650	3,650	1,780	6,040	2,230
14	889	19,400	3,840	7,390	11,200	4,650	11,900	4,990	3,330	2,230	4,480	2,540
15	925	15,600	3,040	8,650	11,200	4,820	10,700	4,820	3,330	2,020	3,250	2,850
16	937	14,400	3,040	9,990	10,400	4,820	9,760	4,310	2,930	7,480	2,770	1,880
17	889	5,700	2,880	8,220	9,310	6,040	8,870	4,150	2,610	8,010	2,640	1,650
18	901	3,920	2,560	7,690	9,090	6,990	8,430	4,060	2,460	7,190	2,460	2,690
19	973	3,520	2,480	26,700	9,310	6,220	8,010	3,980	2,950	4,650	2,460	1,950
20	955	3,200	2,320	35,100	8,650	5,680	7,690	3,980	4,650	4,480	2,640	1,620
21	1,010	2,880	2,240	28,900	8,450	5,500	7,390	3,900	3,820	3,820	2,380	2,460
22	1,180	2,640	2,160	26,000	8,010	5,160	7,390	3,820	3,010	3,900	2,380	2,010
23	1,350	2,480	2,160	23,700	7,590	4,990	7,190	3,650	3,490	3,170	2,460	1,900
24	1,350	2,320	2,080	8,870	6,990	4,990	6,990	3,490	3,330	2,540	2,380	2,230
25	1,300	2,240	2,000	6,990	6,600	10,900	6,990	3,410	3,820	2,540	2,150	1,880
26	1,190	2,160	2,000	6,410	6,410	20,100	6,790	3,410	3,820	2,150	1,950	1,530
27	1,110	2,160	2,000	5,860	7,190	19,500	6,600	3,330	3,090	1,920	1,860	1,420
28	1,140	2,320	2,000	5,500	7,390	15,400	6,220	3,330	2,690	1,590	1,770	1,680
29	1,820	2,800	5,860	5,160	6,600	11,600	6,220	3,850	2,460	1,640	2,230	1,900
30	2,560	2,640	6,700	5,160	-	10,900	6,220	3,170	2,230	1,620	2,180	17,000
31	2,640	-	4,560	4,990	-	8,870	-	3,090	-	2,610	2,460	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	35,080		2,640		842		1,132		0.319		0.37	
November.....	131,850		19,400		1,340		4,395		1.24		1.38	
December.....	84,780		6,700		1,980		2,735		.770		.89	
Calendar year 1935 .....	1,420,150		21,900		842		3,891		1.10		14.86	
January.....	603,110		44,900		3,520		19,460		5.48		6.32	
February.....	454,570		55,500		4,990		15,670		4.41		4.76	
March.....	227,760		20,100		4,650		7,347		2.07		2.39	
April.....	656,260		70,600		6,220		21,840		6.15		6.86	
May.....	156,150		6,040		3,090		4,392		1.24		1.43	
June.....	94,020		4,650		2,230		3,134		.883		.99	
July.....	93,640		8,010		1,590		3,021		.851		.98	
August.....	128,860		14,100		1,770		4,167		1.17		1.35	
September.....	81,950		17,000		1,420		2,732		.770		.86	
Water year 1935-36 .....	2,727,030		70,600		842		7,451		2.10		28.58	

## Chattahoochee River at Columbus, Ga.

**Location.**— Water-stage recorder, lat. 32°27'45", long. 84°59'45", at Central of Georgia Railway bridge in Columbus, Muscogee County, half a mile below Eagle and Phoenix Dam and 1½ miles below City Mills Dam. Zero of gage is 185.25 feet above mean sea level.

**Drainage area.**— 4,870 square miles.

**Records available.**— August 1929 to September 1936; December 1912 at site 800 feet up-stream.

**Extremes.**— Maximum discharge during year, 84,700 second-feet Apr. 9 (gage height, 38.24 feet); minimum, 900 second-feet Oct. 16 (gage height, 0.14 foot); minimum daily discharge, 1,140 second-feet Oct. 20.

1912, 1929-36: Maximum discharge, that of Apr. 9, 1936; minimum, 294 second-feet Oct. 23, Nov. 14, 1931 (gage height, 0.06 foot); minimum daily discharge, 480 second-feet Oct. 31, 1931.

Maximum stage known, 53.2 feet (present datum) Mar. 15, 1929 (discharge not determined).

**Remarks.**— Records good except those for Dec. 3-6, Feb. 11, 12, which are fair and were computed on basis of records for stations at West Point, Ga., and Columbia, Ala. Flow regulated by power plants upstream and Bartlett's Ferry Reservoir (capacity, 134,000 acre-feet).

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Apr. 11 to May 4)

Oct. 1 to Apr. 10						Apr. 11 to Sept. 30					
0.5	1,110	4.0	4,440	13.0	17,120	27.5	46,400	2.0	1,730	7.5	8,140
1.1	1,520	5.0	5,550	16.0	22,200	30.0	53,500	2.6	2,270	9.0	10,400
1.5	1,840	6.0	6,730	18.0	25,800	32.5	61,400	3.5	3,160	11.0	13,800
1.9	2,200	7.0	8,030	20.0	29,600	35.0	70,300	4.5	4,250	15.0	20,400
2.4	2,700	8.5	10,130	22.5	34,600	37.4	80,800	5.5	5,440	16.0	22,200
3.0	3,350	10.5	13,130	25.0	40,200			6.5	6,740		

Note.— Same as previous table above 16.0 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.			
1	2,810	1,410	*2,660	5,550	7,120	*6,990	23,300	7,720	4,140	4,140	5,440	2,660			
2	2,810	1,410	3,490	14,200	*6,090	8,590	53,800	7,160	3,920	4,250	*6,480	2,760			
3	2,810	*1,410	4,000	49,900	19,200	8,310	48,000	*6,480	3,590	4,140	6,480	2,760			
4	2,250	1,450	4,000	56,600	48,800	7,900	37,600	7,020	3,480	2,660	6,740	2,660			
5	1,600	1,450	5,800	*41,800	64,800	7,770	38,000	6,880	3,160	*2,220	6,880	2,180			
6	*1,410	1,480	3,300	29,600	62,800	7,640	*46,500	7,020	2,220	3,320	6,090	*1,950			
7	1,760	1,450	2,100	39,300	52,800	7,380	57,200	7,160	*2,130	4,140	5,960	2,920			
8	2,020	1,450	*1,600	42,500	47,800	*6,490	65,800	6,880	2,660	3,810	4,360	2,660			
9	1,880	1,410	2,800	47,200	*43,500	7,380	74,300	6,880	2,860	3,920	*2,500	2,760			
10	1,880	*1,480	3,140	42,100	17,800	7,250	80,800	*5,320	3,160	4,030	3,470	2,760			
11	1,800	1,450	2,920	35,100	11,000	7,250	71,100	5,960	3,920	2,570	19,400	2,760			
12	1,720	1,910	2,810	*20,600	15,000	7,250	*47,400	5,960	4,030	*2,130	15,300	2,180			
13	*1,680	3,630	2,750	8,240	13,900	7,250	22,000	5,870	3,700	2,760	11,400	*1,950			
14	1,760	6,130	1,970	8,970	18,500	6,990	10,400	5,570	*2,610	3,370	6,480	2,380			
15	1,410	6,950	*2,110	11,400	14,700	*5,910	13,400	5,570	3,060	3,160	6,220	3,100			
16	1,310	15,500	2,240	12,900	*14,400	6,990	10,400	6,610	4,030	3,590	*5,830	3,920			
17	1,270	*7,880	3,890	10,600	12,500	7,770	10,500	*5,320	4,140	4,250	6,350	3,920			
18	1,240	5,650	4,000	11,700	14,000	7,510	9,550	5,700	4,140	5,900	4,960	3,920			
19	2,720	6,490	4,330	*46,600	11,500	7,510	*9,040	5,830	4,140	*6,220	4,480	2,650			
20	*1,140	6,490	4,330	48,000	12,400	7,510	8,440	6,480	2,760	6,480	4,250	*2,000			
21	1,170	6,610	2,690	35,000	12,400	7,380	8,440	5,830	*2,220	4,840	4,140	3,020			
22	1,200	6,730	*1,600	26,300	12,700	*6,300	8,590	5,700	3,200	5,570	2,780	3,920			
23	1,200	6,610	2,960	28,700	*11,400	7,250	8,290	6,480	3,920	5,570	*2,090	3,920			
24	1,200	*5,200	3,410	15,700	8,220	7,900	8,000	*5,700	4,140	5,570	2,870	3,920			
25	1,410	5,890	2,060	7,120	8,870	11,800	8,890	5,830	4,140	3,840	3,370	3,810			
26	1,380	4,650	3,080	*8,360	8,870	26,200	*7,910	4,500	4,140	*2,180	3,370	2,280			
27	*1,410	4,540	4,000	8,310	11,900	23,600	8,260	3,920	4,140	2,510	3,480	*1,770			
28	1,450	4,650	2,504	7,380	11,900	23,700	7,020	3,920	*2,730	2,610	3,700	2,230			
29	1,520	4,540	*3,030	7,380	10,600	*15,200	7,580	3,700	3,350	2,660	2,350	2,960			
30	1,410	4,540	3,650	7,380	-	12,900	7,580	4,030	4,140	2,660	*2,090	7,160			
31	1,410	-	4,440	7,380	-	12,300	-	*4,030	-	3,260	2,960	-			
Month				Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....				52,040		2,810		1,140		1,679		0.560		0.42	
November.....				130,440		15,500		1,410		4,348		.931		1.04	
December.....				96,240		4,440		1,600		3,105		.665		.77	
Calendar year 1935.....				1,764,430		34,100		1,140		4,834		1.04		14.05	
January.....				744,870		56,600		5,550		24,030		5.15		5.94	
February.....				602,270		64,800		6,090		20,770		4.45		4.80	
March.....				302,170		26,200		5,910		9,747		2.09		2.41	
April.....				815,690		80,800		7,020		27,290		5.84		6.52	
May.....				180,730		7,720		3,700		5,230		1.25		1.44	
June.....				103,950		4,140		2,130		3,465		.742		.83	
July.....				118,330		6,480		2,130		3,817		.817		.94	
August.....				172,270		19,400		2,090		5,557		1.19		1.37	
September.....				89,140		7,160		1,770		2,971		.636		.71	
Water year 1935-36.....				3,411,140		80,800		1,140		9,320		2.00		27.19	

\*Sunday.

## Chattahoochee River at Columbia, Ala.

Location.-- Water-stage recorder, lat.  $31^{\circ}17'$ , long.  $85^{\circ}07'$ , in T. 4 N., R. 29 E., at bridge on State Highway 52 a quarter of a mile below Central of Georgia Railway bridge and half a mile east of Columbia.

Drainage area.-- 8,040 square miles.

Records available.-- July 1928 to September 1936.

Extremes.-- Maximum discharge during year, 102,000 second-feet Apr. 12 (gage height, 46.6 feet); minimum, 1,440 second-feet Oct. 23 (gage height, 2.26 feet).  
1928-36: Maximum discharge, 203,000 second-feet Mar. 18, 1929 (gage height, 56.05 feet); minimum, 1,220 second-feet Oct. 26, 1931 (gage height, 1.79 feet).

Remarks.-- Records good. For regulation see station description for Columbus, Ga.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

	Oct. 1 to Jan. 20				Jan. 21 to Sept. 30			
2.3	1,480	16.0	19,050	4.4	2,160	19.0	23,200	
2.8	1,830	19.0	24,300	5.0	2,700	22.0	28,600	
3.7	2,550	22.0	30,000	6.0	3,700	24.0	32,400	
4.5	3,270	25.0	36,500	6.5	4,250	27.0	38,500	
5.5	4,280	30.0	47,600	7.0	4,840	30.0	45,000	
7.0	5,930	35.0	60,100	8.0	6,150	35.0	57,800	
8.5	7,760	37.0	65,500	9.0	7,550	38.0	66,800	
10.0	9,760	39.0	71,100	10.0	9,000	40.0	73,200	
12.0	12,650	41.0	77,100	14.0	15,000	43.0	84,000	
14.0	15,750	44.6	91,000	17.0	19,800	46.5	101,000	

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,230	2,310	5,470	6,890	13,600	18,000	19,500	12,000	5,350	3,700	18,800	2,900
2	2,470	2,310	5,250	13,800	12,900	14,200	23,200	12,000	5,220	4,360	28,600	3,600
3	3,270	2,250	3,880	38,000	14,800	18,200	44,400	11,200	5,220	4,360	21,300	3,500
4	3,560	2,150	4,150	55,100	40,000	13,500	56,700	10,500	5,090	4,360	15,000	3,500
5	3,270	2,150	5,140	62,200	63,900	13,000	58,100	10,200	4,720	4,250	11,400	3,600
6	3,000	2,150	5,140	65,500	77,300	12,800	52,500	10,400	4,480	3,100	10,400	3,810
7	2,310	2,150	5,030	65,200	83,200	12,300	51,200	9,900	4,360	2,520	9,000	3,100
8	2,070	2,390	4,810	58,600	83,200	11,700	58,100	9,900	3,500	3,500	8,130	2,520
9	2,030	2,310	3,960	57,200	78,000	11,200	67,400	9,600	3,500	4,140	7,410	2,800
10	2,310	2,310	3,460	62,700	70,000	11,100	80,200	9,450	4,050	3,920	6,990	3,500
11	2,390	2,310	3,960	64,100	53,800	11,400	97,500	8,850	4,140	4,030	8,270	3,920
12	2,390	2,390	4,260	58,300	31,200	11,100	101,000	7,840	4,840	4,140	20,500	3,920
13	2,310	3,090	4,480	44,200	26,100	11,000	95,000	8,270	5,480	3,000	23,900	3,810
14	2,150	3,460	4,590	22,400	38,300	10,800	76,600	8,130	5,200	2,900	20,500	3,700
15	2,150	4,990	4,260	17,000	48,200	10,500	43,500	7,690	4,600	6,150	13,000	3,500
16	2,230	7,010	3,660	21,600	42,900	10,000	23,900	7,690	3,500	5,740	9,600	3,920
17	2,070	11,400	3,360	22,900	30,900	11,000	20,800	8,130	4,030	4,250	8,710	4,960
18	1,870	13,600	3,850	20,400	24,300	14,800	18,400	8,270	4,840	7,690	8,710	5,090
19	1,750	7,650	4,700	53,800	24,100	14,200	17,400	7,410	4,840	9,000	7,690	4,840
20	1,690	6,650	4,810	91,000	22,400	12,400	15,600	7,980	4,720	14,200	6,430	4,480
21	2,240	7,130	5,030	90,000	21,200	11,600	15,500	8,420	4,360	13,200	6,010	3,500
22	2,300	7,250	4,810	77,600	21,300	11,100	14,200	8,420	3,200	9,600	5,740	2,700
23	1,550	7,250	3,760	59,800	22,500	9,900	14,600	7,840	2,520	7,550	5,480	3,700
24	1,650	7,250	3,000	43,200	19,000	9,600	14,600	7,840	3,600	7,840	4,600	4,600
25	1,650	6,890	3,560	32,100	16,900	13,900	14,200	7,840	4,360	7,980	3,600	5,090
26	1,510	5,810	4,060	18,600	14,700	26,300	15,000	7,270	4,600	6,710	4,140	4,840
27	1,650	6,170	3,270	15,800	15,500	35,800	14,000	7,130	4,600	4,960	4,480	4,360
28	1,830	5,470	3,760	16,100	20,500	37,700	14,100	5,740	4,480	2,900	4,360	2,700
29	1,990	5,690	4,810	14,200	21,500	36,800	12,200	5,740	4,250	2,900	4,600	2,200
30	2,150	5,580	5,930	13,600	-	30,000	12,000	5,610	3,100	3,200	4,600	3,400
31	2,390	-	7,010	14,000	-	20,800	-	5,200	-	5,190	3,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	68,040	3,360	1,510	2,195	0.273	0.31
November.....	149,480	13,600	2,150	4,983	.620	.69
December.....	137,220	7,010	3,000	4,426	.550	.63
Calendar year 1935.....	2,443,010	46,700	1,510	6,693	.832	11.29
January.....	1,300,490	91,000	6,890	41,950	5.22	6.02
February.....	1,062,100	83,200	12,900	36,280	4.51	4.86
March.....	491,700	37,700	9,600	15,860	1.97	2.27
April.....	1,160,700	101,000	12,000	38,690	4.81	5.37
May.....	262,480	12,000	5,220	8,467	1.05	1.21
June.....	130,750	5,480	2,520	4,368	.542	.60
July.....	170,740	14,200	2,520	5,508	.685	.79
August.....	315,150	28,600	3,300	10,170	1.26	1.45
September.....	112,060	6,090	2,200	3,735	.465	.52
Water year 1935-36.....	5,350,910	101,000	1,510	14,620	1.82	24.72

## Apalachicola River near River Junction, Fla.

Location.- Water-stage recorder, lat. 30°45', long. 84°51', in sec. 5, T. 3 N., R. 6 W., at Louisville & Nashville Railroad bridge 1 mile below confluence of Flint and Chattahoochee Rivers and 1½ miles west of River Junction. Zero of gage is 44.90 feet above mean sea level.

Drainage area.- 17,100 square miles.

Records available.- December 1928 to September 1936.

Extremes.- Maximum discharge during year, 145,000 second-feet Apr. 15 (gage height, 25.83 feet); minimum discharge, 5,920 second-feet Oct. 25-29; minimum gage height, -0.97 foot Oct. 27.

1928-38: Maximum discharge, 293,000 second-feet Mar. 20, 1929 (gage height, 34.70 feet), from rating curve extended above 200,000 second-feet; minimum discharge, 5,120 second-feet Nov. 5, 11, 1931; minimum gage height, -1.70 feet Nov. 5, 1931.

Remarks.- Records good. Gage heights for May 29 to June 3, June 24 computed by comparison with daily readings from U. S. Weather Bureau gage.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,800	6,580	10,300	12,100	42,400	42,400	45,000	29,500	14,600	11,300	16,200	12,300
2	8,080	6,580	10,500	12,900	39,000	39,700	43,400	28,900	14,400	11,900	28,900	11,600
3	8,080	6,420	10,300	24,300	36,500	35,800	50,000	28,100	14,000	12,100	33,700	12,500
4	8,800	6,420	9,340	39,700	40,000	34,300	59,500	26,500	14,000	12,100	32,300	12,500
5	8,980	6,250	9,340	48,600	54,800	34,300	68,100	25,100	13,500	12,100	30,600	12,300
6	8,800	6,080	9,900	55,600	66,000	32,900	74,500	24,600	13,300	11,600	29,700	12,100
7	8,260	6,250	10,100	62,800	79,800	31,700	77,500	23,800	13,300	10,300	29,500	12,100
8	7,240	6,580	10,300	67,400	92,000	31,700	79,000	23,200	12,900	9,900	28,600	11,300
9	7,080	6,580	10,300	70,900	102,000	30,300	82,200	23,200	12,100	10,900	27,800	11,100
10	7,080	6,580	9,180	72,300	108,000	26,500	91,000	21,900	12,100	11,500	27,000	11,300
11	7,240	6,580	8,620	75,200	108,000	26,200	103,000	20,900	12,700	11,300	26,700	11,600
12	7,240	6,580	9,160	78,200	99,000	27,300	118,000	19,900	13,100	11,500	27,600	12,300
13	7,240	6,740	9,700	79,000	81,400	26,700	133,000	19,200	13,800	11,500	34,300	12,100
14	7,080	7,400	9,900	72,300	73,000	26,200	144,000	19,200	14,000	10,100	36,500	12,100
15	6,910	7,900	10,100	57,800	76,000	25,700	144,000	18,600	13,800	10,700	34,600	11,900
16	6,910	9,340	9,700	50,500	79,800	25,100	122,000	18,400	13,100	12,900	31,100	11,900
17	6,910	11,300	9,340	49,000	79,000	25,100	98,000	17,900	12,100	12,100	28,600	12,100
18	6,910	15,600	9,160	47,200	71,600	26,700	83,900	18,200	12,600	12,300	27,300	12,900
19	6,580	16,000	9,340	50,000	65,400	28,900	76,000	17,400	13,100	16,500	26,500	12,700
20	6,420	12,500	10,100	64,000	61,400	29,500	68,100	17,400	13,100	16,400	24,800	12,500
21	6,250	12,100	10,300	80,500	57,800	28,600	60,200	17,700	12,900	23,500	23,000	11,900
22	6,580	12,500	10,700	101,000	54,600	28,100	53,000	17,900	12,300	23,200	20,600	10,500
23	6,740	12,500	10,300	112,000	52,500	27,300	46,400	17,400	11,300	21,400	18,900	10,100
24	6,250	12,100	9,340	109,000	50,500	26,500	41,400	17,000	10,900	19,900	17,400	11,100
25	5,920	11,600	8,440	95,000	46,800	26,500	38,000	17,000	10,100	18,600	16,000	11,600
26	5,920	11,500	8,620	77,500	42,800	32,000	36,800	16,500	10,700	18,900	14,000	12,100
27	5,920	10,900	9,160	64,000	40,300	39,400	35,500	16,500	13,100	17,200	14,200	11,900
28	5,920	10,900	8,620	57,800	40,000	46,800	32,900	16,200	13,300	14,600	14,400	11,300
29	5,920	10,500	8,980	54,000	42,400	51,000	31,400	15,100	13,100	12,300	14,000	9,900
30	6,250	10,300	10,100	50,000	-	53,000	30,300	14,600	12,500	11,300	14,000	9,700
31	6,420	-	11,100	45,900	-	49,500	-	14,600	-	11,900	13,800	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October.....				218,730	8,980	5,920	7,056	0.413		0.48		
November.....				278,960	16,000	6,080	9,299	.544		.61		
December.....				300,320	11,100	8,440	9,688	.567		.65		
Calendar year 1935.....				4,831,350	45,500	5,920	13,240	.774		10.52		
January.....				1,936,600	112,000	12,100	62,470	3.65		4.21		
February.....				1,892,600	108,000	36,500	64,920	3.80		4.10		
March.....				1,015,700	53,000	25,100	32,760	1.92		2.21		
April.....				2,165,100	144,000	30,300	72,170	4.22		4.71		
May.....				622,400	29,500	14,600	20,080	1.17		1.35		
June.....				385,800	14,600	10,100	12,860	.752		.84		
July.....				434,800	23,500	9,900	14,030	.820		.95		
August.....				762,600	36,500	13,800	24,600	1.44		1.66		
September.....				351,300	12,900	9,700	11,710	.685		.76		
Water year 1935-36.....				10,354,810	144,000	5,920	28,290	1.65		22.53		

## Flint River at Montezuma, Ga.

Location.- Wire-weight gage, lat.  $32^{\circ}18'$ , long.  $84^{\circ}03'$ , at bridge on State Highways 28 and 49, half a mile below Buck Creek and 1 mile west of Montezuma, Macon County.  
Zero of gage is 257.4 feet above mean sea level.

Drainage area.- 2,920 square miles.

Records available.- July 1930 to June 1933, October 1934 to September 1936; January 1905 to December 1909, January 1911 to December 1912 at site  $1\frac{1}{2}$  miles upstream.

Extremes.- Maximum discharge observed during year, 51,000 second-feet Apr. 12 (gage height, 22.85 feet); minimum, 605 second-feet Oct. 22 (gage height, 0.26 foot).

1930-33, 1934-38: Maximum discharge observed, that of Apr. 12, 1936; minimum, 455 second-feet Oct. 21, 28, 1931; minimum gage height observed, that of Oct. 22, 1935.

Maximum stage known, 27.4 feet Mar. 17, 1929 (discharge not determined).

Remarks.- Records fair. Gage read twice daily. Some regulation by power plants upstream. Records collected by the Crisp County Power Commission, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,090	810	1,540	3,750	4,480	6,080	9,900	3,780	1,680	1,420	1,790	1,970
2	1,010	890	1,590	4,030	4,400	6,080	11,200	3,620	1,490	1,240	5,600	1,850
3	970	970	1,590	4,880	4,800	5,520	11,800	3,470	1,490	1,120	7,980	1,670
4	930	930	1,540	6,260	6,800	5,040	33,000	3,470	1,490	1,060	11,600	1,490
5	890	890	1,240	8,610	9,450	4,800	33,600	3,240	1,420	1,120	14,900	1,610
6	930	890	1,240	16,500	21,200	4,560	23,100	3,170	1,420	1,000	12,300	1,610
7	970	930	1,240	19,700	28,000	4,400	17,000	3,090	1,490	943	8,220	1,490
8	1,010	1,050	1,290	18,500	25,100	4,240	15,600	2,870	1,490	886	4,640	1,430
9	810	1,090	1,590	19,700	22,700	4,170	20,000	2,800	1,550	943	3,150	1,320
10	850	1,090	1,540	18,500	20,900	3,930	26,560	2,800	1,490	886	2,940	1,380
11	810	1,140	1,540	16,300	17,000	3,780	36,800	2,650	1,750	830	4,340	1,490
12	810	1,090	1,590	15,100	13,500	3,700	51,000	2,440	1,950	943	6,350	1,430
13	850	1,090	1,490	14,100	10,900	3,620	35,400	2,370	1,560	1,060	6,710	1,490
14	890	1,090	1,490	12,300	9,750	3,550	22,700	2,300	1,950	1,560	7,300	1,590
15	775	1,090	1,590	10,400	9,300	3,550	15,600	2,300	2,090	1,680	7,980	1,430
16	740	1,340	1,880	8,220	10,100	3,470	11,400	2,090	1,820	1,750	8,100	1,490
17	775	2,060	1,700	6,440	11,800	3,700	9,160	2,160	1,680	1,880	6,900	1,320
18	775	2,910	1,590	6,350	10,700	4,090	7,410	2,230	1,490	4,090	4,560	1,270
19	775	2,240	1,490	7,520	9,160	4,640	6,170	2,020	1,620	4,040	2,940	1,770
20	850	1,880	1,440	11,000	8,100	4,800	8,600	2,020	2,230	3,220	2,530	1,320
21	930	1,540	1,390	24,300	7,630	4,560	5,120	2,020	2,440	3,360	2,210	1,380
22	740	1,290	1,440	36,600	7,300	4,240	4,880	2,160	2,650	2,940	2,030	1,380
23	740	1,290	1,590	24,700	7,200	4,010	4,640	2,020	2,510	2,730	2,030	1,430
24	775	1,240	1,540	17,500	7,200	3,700	4,560	1,950	3,020	2,730	1,970	1,430
25	775	1,240	1,540	13,500	7,100	3,930	4,560	1,880	3,240	2,400	1,730	1,380
26	810	1,190	1,540	10,900	6,710	6,080	4,480	1,680	2,870	2,090	1,670	1,320
27	850	1,240	1,240	7,630	6,260	7,410	4,480	1,680	2,440	1,850	1,610	1,270
28	850	1,340	1,240	5,760	5,760	8,830	4,320	1,680	2,300	1,430	1,550	1,270
29	775	1,390	1,440	4,960	5,920	10,700	4,090	1,620	1,680	1,320	1,490	1,170
30	775	1,490	2,120	4,400	-	10,500	3,930	1,550	1,550	1,270	1,430	1,270
31	775	-	3,470	4,400	-	10,100	-	1,620	-	1,270	1,910	-

Month	Second foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	26,305	1,090	740	849	0.291	0.34
November.....	38,720	2,910	810	1,291	.442	.49
December.....	46,350	3,470	1,240	1,495	.512	.59
Calendar year 1935.....	767,555	12,200	740	2,103	.720	9.78
January.....	382,810	36,600	3,750	12,350	4.23	4.88
February.....	319,220	28,000	4,400	11,010	3.77	4.07
March.....	161,830	10,700	3,470	5,220	1.79	2.06
April.....	450,800	51,000	3,930	15,050	5.15	5.75
May.....	74,750	8,780	1,550	2,411	.826	.95
June.....	58,370	3,240	1,420	1,946	.666	.74
July.....	54,861	4,090	830	1,770	.606	.70
August.....	150,460	14,900	1,430	4,854	1.66	1.91
September.....	43,080	1,970	1,170	1,436	.492	.55
Water year 1935-36.....	1,807,556	51,000	740	4,939	1.69	23.03



## Flint River at Oakfield, Ga.

Location.- Water-stage recorder, lat. 31°46', long. 83°59', at Georgia Southwestern & Gulf Railroad bridge 1 mile southwest of Oakfield, Worth County.

Drainage area.- 3,840 square miles.

Records available.- January 1930 to June 1933, October 1934 to September 1936.

Extremes.- Maximum discharge during year, 50,900 second-feet Apr. 15 (gage height, 27.2 feet), from rating curve extended above 17,000 second-feet on basis of crest discharge at stations above and below; minimum, 818 second-feet Nov. 4 (gage height, 1.61 feet). 1930-33, 1934-36: Maximum discharge, that of Apr. 15, 1936; minimum, 320 second-feet July 14, 1930 (gage height, 0.98 foot).

Remarks.- Records fair. Operation of Crisp County Power Commission's power plant 8 miles upstream causes daily fluctuations as well as week-end reductions of flow during low and medium stages. Records collected by the Crisp County Power Commission, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 25				Jan. 26 to Sept. 30			
1.7	990	15.0	17,900	2.0	900	12.0	13,100
2.0	1,140	16.0	19,500	2.3	1,110	16.0	19,500
3.1	2,130	17.0	21,200	2.8	1,510	18.0	23,000
4.4	3,430	18.0	23,000	3.4	2,050	20.0	26,900
5.9	5,080	19.0	24,900	4.0	2,650	22.5	32,800
7.0	6,400	20.0	26,900	4.7	3,430	23.5	35,900
8.5	8,350	21.1	29,300	5.8	5,750	24.5	39,500
10.5	11,150			8.1	7,440	25.5	43,500
				10.0	10,100	26.6	48,200

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,770	1,100	2,160	3,760	8,700	7,580	12,200	*4,790	1,870	1,870	4,020	2,440
2	1,820	1,120	2,130	4,510	7,180	7,310	12,500	4,100	1,960	1,870	6,000	2,460
3	1,820	1,000	1,770	4,640	6,860	7,180	14,900	3,450	1,870	1,820	8,280	1,910
4	1,770	914	1,640	5,200	6,610	7,050	15,300	3,880	1,690	1,510	8,140	2,150
5	1,500	1,050	1,590	5,800	9,900	*6,210	19,000	3,770	1,780	1,150	8,420	2,260
6	1,180	1,140	2,360	7,050	14,100	*5,150	21,200	3,550	1,820	1,310	10,800	1,350
7	1,060	1,180	1,860	9,190	16,000	*4,470	26,500	3,030	1,690	1,270	12,400	2,170
8	1,230	1,250	1,630	10,000	19,500	*2,810	27,800	3,450	1,730	1,510	12,100	1,870
9	1,230	1,180	1,840	10,500	26,100	*5,250	25,500	2,730	1,820	1,190	12,000	1,820
10	1,290	1,060	1,590	14,000	25,500	*5,270	24,500	3,340	3,020	1,190	5,020	1,870
11	1,280	994	1,640	18,100	25,300	*4,760	30,300	2,550	2,190	1,150	3,400	1,870
12	1,230	1,180	1,680	25,800	24,100	*4,500	37,500	2,480	2,000	935	5,240	1,730
13	1,070	1,320	2,480	18,200	22,100	*4,100	42,100	2,430	2,490	1,110	7,470	1,660
14	978	1,900	1,950	17,500	20,100	*4,100	49,200	2,460	1,980	1,500	8,540	2,400
15	1,100	1,900	2,180	16,800	19,500	*4,020	48,200	2,480	1,870	2,980	7,990	1,820
16	1,180	1,720	2,000	15,600	20,700	*4,310	33,800	2,340	1,910	2,830	7,660	1,780
17	1,230	1,770	2,000	14,200	14,100	*4,210	24,900	1,880	2,110	3,660	8,700	1,730
18	1,230	1,360	2,000	12,700	14,200	*5,150	20,200	2,660	1,910	3,640	8,420	1,550
19	1,230	3,250	2,230	14,600	14,500	*4,820	17,900	2,270	1,870	5,890	7,230	1,510
20	1,060	2,480	2,180	16,200	12,800	*6,400	14,100	2,340	1,820	6,860	4,040	935
21	978	2,330	1,950	16,700	12,400	*5,390	10,600	3,030	1,600	4,920	2,930	1,440
22	1,140	2,130	1,900	14,800	11,400	*4,670	8,840	2,770	2,840	3,790	2,510	1,640
23	1,180	1,820	1,860	14,500	10,600	*5,310	*5,500	1,980	2,940	3,450	1,510	1,820
24	1,230	2,080	1,820	24,800	9,960	*4,640	*3,250	2,150	2,200	3,030	1,820	1,820
25	1,180	1,720	1,770	29,300	9,400	*4,320	*6,790	2,700	3,240	5,030	1,900	1,870
26	1,180	1,640	1,720	23,200	8,840	6,920	*5,530	1,960	3,450	2,380	2,200	1,780
27	1,030	1,460	1,680	20,000	8,700	8,840	*4,910	2,340	3,040	1,510	1,820	1,620
28	938	1,540	1,680	16,800	8,420	10,400	*4,680	2,000	1,840	1,510	2,000	1,700
29	1,070	1,950	1,680	13,900	8,000	12,000	*5,080	1,960	2,330	1,510	1,980	1,870
30	1,100	1,770	1,680	11,900	-	11,000	*4,370	1,910	2,530	1,470	2,160	1,750
31	1,100	-	2,470	10,100	-	11,800	-	1,690	-	2,520	1,690	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	38,374	1,820	938	1,238	0.322	0.37
November.....	47,288	3,250	914	1,576	.410	.46
December.....	58,970	2,480	1,540	1,899	.495	.57
Calendar year 1935.....	939,306	11,200	855	2,573	.670	9.09
January.....	437,850	29,300	3,760	14,120	3.68	4.24
February.....	415,370	26,100	6,610	14,320	3.73	4.02
March.....	189,940	12,000	2,810	6,127	1.60	1.84
April.....	576,150	48,200	3,250	19,200	5.00	5.58
May.....	84,430	4,790	1,690	2,724	.709	.82
June.....	65,210	3,450	1,600	2,174	.568	.63
July.....	73,965	6,960	935	2,368	.681	.72
August.....	176,580	12,400	1,510	5,760	1.50	1.73
September.....	54,595	2,480	935	1,820	.474	.53
Water year 1935-36.....	2,220,602	48,200	914	6,067	1.58	21.51

\*Computed from gage readings made at lower pool of power plant 8 miles upstream.

## Flint River at Albany, Ga.

Location.- Water-stage recorder, lat. 31°36', long. 84°09', at Georgia Northern Railway bridge in Albany, Dougherty County. Zero of gage is 150.00 feet above mean sea level.

Drainage area.- 5,160 square miles.

Records available.- September 1929 to September 1936; February 1897 to June 1921 at site 700 feet downstream (gage heights only prior to January 1902).

Average discharge.- 25 years (1902-20, 1929-36), 6,451 second-feet.

Extremes.- Maximum discharge during year, 52,300 second-feet Apr. 15 (gage height, 29.0 feet); minimum, 182 second-feet July 12 (gage height, 0.98 foot); minimum daily discharge, 652 second-feet July 12.

1897-1921, 1929-36: Maximum gage height, 32.4 feet, former site and datum (U. S. Weather Bureau gage), Mar. 25, 1897 (discharge not determined); minimum discharge, 58 second-feet Nov. 18, 1933 (gage height, 0.44 foot); minimum daily discharge, 327 second-feet Aug. 24, 1930.

Maximum stage known, 37.84 feet (present datum) Jan. 21, 1925 (discharge, 92,000 second-feet).

Remarks.- Records good except those for Feb. 28, Mar. 2-14, Sept. 30, which are fair and were estimated on basis of records for station at Bainbridge. Flow regulated by power plants upstream.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.9	640	5.2	3,910	14.0	18,000	22.0	30,100
2.5	1,000	6.1	5,400	16.0	20,600	22.7	31,500
3.0	1,350	7.4	7,810	18.0	23,400	24.7	36,500
3.5	1,770	9.0	10,600	19.0	24,900	26.0	40,400
4.0	2,290	10.3	12,980	20.0	26,500	27.5	45,700
4.6	3,040	11.7	14,780	21.5	28,770	28.9	51,800

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,140	1,390	*2,420	5,080	12,200	*10,200	16,900	6,920	2,520	1,720	6,220	2,720
2	2,070	1,650	2,800	6,660	*11,200	9,600	16,200	5,760	2,520	1,130	*8,000	3,540
3	2,070	*1,030	2,070	6,900	10,600	9,200	18,000	*5,230	2,670	930	12,700	2,660
4	2,070	1,400	1,910	6,760	9,750	9,000	19,300	5,060	2,520	1,740	15,800	2,640
5	1,620	1,480	1,900	*7,620	12,200	8,000	*21,400	5,230	2,590	*1,200	15,900	2,880
6	*691	1,350	2,720	9,550	18,400	7,000	23,800	5,060	2,440	2,210	15,800	*2,150
7	1,510	1,410	2,190	12,800	22,700	6,000	26,700	5,110	*2,120	2,290	16,200	3,070
8	1,580	1,470	*1,570	14,900	25,500	*4,600	29,700	5,350	2,690	2,340	15,800	3,370
9	1,570	1,450	2,000	15,100	*29,500	6,500	30,300	3,440	2,650	1,850	*15,200	2,360
10	1,540	*1,290	2,100	15,900	31,600	6,500	30,100	*3,230	3,370	2,100	9,470	2,870
11	1,400	1,500	2,370	18,900	30,300	6,000	32,200	3,880	3,370	2,040	5,230	2,880
12	1,230	2,060	2,440	*23,700	29,300	5,600	*40,800	3,770	2,890	*652	7,050	2,420
13	*1,240	2,060	2,990	25,700	27,400	5,400	47,800	3,420	2,900	2,050	9,580	*1,950
14	1,230	2,230	2,450	20,700	25,700	5,580	50,400	3,320	*3,070	1,730	13,600	3,610
15	1,550	2,240	*2,680	20,200	24,400	*5,750	51,800	3,300	2,670	1,290	12,800	2,730
16	1,510	1,730	2,790	19,300	*25,700	7,430	45,700	3,110	2,560	2,180	*11,400	2,560
17	1,470	*1,880	2,620	17,600	24,500	5,240	33,900	*2,410	2,660	3,840	11,600	2,730
18	1,560	2,830	2,560	15,800	20,600	7,540	27,000	3,460	2,820	5,120	11,200	2,480
19	1,400	3,210	2,670	*17,100	20,700	8,700	*23,000	3,100	2,320	*7,470	10,300	2,280
20	*1,160	3,380	2,940	22,700	19,000	8,700	19,400	3,360	2,400	9,750	6,090	*1,320
21	1,480	2,990	2,380	27,900	17,600	8,230	14,800	3,170	*2,100	10,600	4,720	2,330
22	1,470	2,400	*2,150	27,300	16,500	*8,280	11,900	3,320	2,540	8,420	4,480	2,250
23	1,450	1,710	2,350	25,000	*15,300	7,890	10,100	2,770	2,940	7,050	*3,540	2,350
24	1,450	*2,270	1,930	27,000	14,000	7,720	7,380	*2,470	3,250	5,760	2,190	2,520
25	1,350	2,320	2,160	31,300	13,000	5,920	10,700	3,550	3,190	5,060	2,380	2,510
26	1,230	1,820	2,310	*29,700	12,800	8,730	*7,030	3,370	3,930	*4,720	2,920	2,270
27	*998	1,770	1,990	25,700	12,400	11,400	4,830	2,560	3,850	3,100	2,890	*1,670
28	1,430	1,610	1,940	22,300	11,500	14,800	7,660	2,420	*3,270	1,330	2,580	2,820
29	1,400	2,130	*2,220	19,000	11,000	*18,100	7,580	2,650	2,840	1,710	2,860	2,470
30	1,400	2,120	2,630	16,900	-	17,200	7,180	2,680	2,330	2,520	*2,540	2,500
31	1,400	-	2,930	13,400	-	17,000	-	*2,480	-	2,600	2,230	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	45,659	2,140	691	1,473	0.285	0.33
November.....	57,980	3,380	1,030	1,933	.375	.42
December.....	73,980	3,930	1,670	2,386	.462	.53
Calendar year 1935.....	1,228,780	14,100	691	3,367	.653	8.86
January.....	564,370	31,300	5,080	18,210	3.53	4.07
February.....	555,550	31,800	9,750	19,160	3.71	4.00
March.....	267,690	18,100	4,500	8,635	1.67	1.92
April.....	693,560	51,800	4,830	23,120	4.48	5.00
May.....	114,960	6,920	2,410	3,708	.719	.83
June.....	84,600	3,930	2,100	2,820	.547	.61
July.....	106,402	10,600	552	3,432	.665	.77
August.....	225,270	16,200	2,190	8,493	1.65	1.90
September.....	77,050	3,610	1,320	2,668	.498	.56
Water year 1935-36.....	2,905,071	51,800	652	7,937	1.54	20.94

\*Sunday.

## Flint River at Bainbridge, Ga.

Location.— Water-stage recorder, lat. 30°55', long. 84°34', at Decatur County Memorial Bridge, on U. S. Highway 84, in Bainbridge, Decatur County. Zero of gage is 58.06 feet above mean sea level.

Drainage area.— 7,290 square miles.

Records available.— January 1908 to December 1913, December 1928 to September 1936.

Extremes.— Maximum discharge during year, 51,700 second-feet Apr. 17 (gage height, 30.86 feet); minimum, 2,400 second-feet Nov. 5 (gage height, 3.98 feet).  
1908-13, 1928-36: Maximum discharge, 83,200 second-feet Mar. 21, 1929 (gage height, 37.73 feet); minimum, 2,300 second-feet Dec. 7, 1931 (gage height, 3.80 feet).  
Maximum stage known, 40.9 feet (present datum) Jan. 24, 1925 (discharge, 101,000 second-feet).

Remarks.— Records good. Some regulation by power plants upstream.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Aug. 13 to Sept. 30)

Oct. 1 to Jan. 14				Jan. 15 to Sept. 30			
4.1	2,470	13.0	11,600	6.0	3,100	13.0	10,300
4.7	2,890	15.5	15,100	6.2	3,240	13.5	11,000
5.6	3,610	18.0	18,600	6.8	3,720	14.0	11,700
7.7	5,490	19.0	20,400	7.4	4,260	14.5	12,400
8.2	6,890	19.5	21,500	8.3	5,160	15.5	14,000
10.5	8,420	20.5	23,100	10.0	6,940	17.0	16,800
11.5	9,620			12.0	9,130	18.5	19,300
						30.5	51,300

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,690	2,750	3,370	3,780	15,400	15,000	17,800	11,500	5,060	4,460	4,560	4,760
2	3,960	2,750	3,610	4,590	15,900	14,200	18,000	11,100	4,960	4,460	6,940	4,860
3	3,870	2,820	3,960	5,690	14,600	13,900	18,000	10,100	4,960	4,080	9,130	5,740
4	3,870	2,820	3,530	6,090	13,900	14,200	18,700	9,610	4,960	3,990	12,900	5,160
5	3,780	2,470	3,290	6,790	13,400	13,600	20,200	9,130	4,860	3,720	15,900	4,860
6	3,610	2,750	3,210	7,870	15,000	12,000	21,900	9,020	4,760	3,480	16,900	4,960
7	3,210	2,820	3,450	9,880	19,100	12,400	23,800	8,800	4,760	3,400	16,900	4,680
8	2,890	2,820	3,690	13,000	23,600	13,200	25,400	9,690	4,560	3,720	16,800	4,860
9	3,210	2,750	3,290	15,500	25,700	9,040	27,500	8,580	4,560	3,720	18,400	5,370
10	3,210	2,820	3,210	16,700	28,900	7,810	30,000	7,420	4,860	3,640	15,700	4,660
11	3,130	2,750	3,210	17,300	31,400	10,100	32,800	7,050	5,160	3,560	12,900	4,860
12	3,130	2,680	3,450	19,000	32,800	9,490	34,900	7,270	5,370	3,560	9,610	4,960
13	2,970	2,970	3,610	21,300	32,800	9,370	38,100	7,160	5,060	3,170	9,850	4,760
14	3,130	3,290	3,780	23,100	32,100	9,020	43,300	6,840	4,960	3,100	11,300	4,560
15	2,820	3,370	3,970	22,500	31,100	8,800	47,700	6,620	5,060	3,560	13,900	5,060
16	2,970	3,530	3,690	21,400	30,200	8,800	50,500	6,510	4,760	3,170	14,400	5,160
17	3,050	3,370	3,960	20,600	29,800	9,610	51,300	6,510	4,560	3,560	13,600	4,960
18	3,130	3,370	3,870	19,300	30,200	8,800	48,100	6,090	4,560	4,760	13,200	5,160
19	2,970	3,610	3,610	17,800	28,500	9,730	41,000	6,410	4,560	5,670	12,800	4,960
20	2,970	3,960	3,690	18,400	26,700	10,700	33,800	6,300	4,660	7,050	12,000	4,660
21	2,890	4,320	3,960	23,600	25,200	10,800	28,500	6,410	4,460	8,470	9,850	4,170
22	2,820	4,140	3,780	29,600	23,500	10,600	25,300	6,190	4,170	9,370	8,250	4,080
23	2,890	3,690	3,550	32,300	21,000	10,600	17,700	6,090	4,170	9,130	7,810	4,260
24	2,890	3,370	3,450	31,600	20,400	10,300	15,900	5,780	4,460	8,580	6,940	4,560
25	2,890	3,370	3,370	30,000	18,900	9,970	13,600	5,470	4,860	8,030	6,300	4,460
26	2,820	3,450	3,370	30,200	17,600	9,130	14,700	5,780	4,660	7,160	5,570	4,460
27	2,820	3,210	3,370	31,400	16,900	10,100	12,900	5,880	5,160	6,510	5,780	4,560
28	2,970	3,130	3,290	30,700	16,200	11,800	10,800	5,260	5,370	5,570	5,780	3,900
29	2,610	3,130	3,290	28,300	15,900	14,000	12,000	5,160	4,860	4,080	5,370	4,460
30	2,750	3,130	3,370	25,000	-	18,800	12,000	5,160	4,260	3,810	5,370	4,560
31	2,750	-	3,370	21,800	-	17,700	-	5,260	-	4,080	5,060	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	96,450	3,960	2,610	3,111	0.427	0.49
November.....	95,410	4,320	2,470	3,180	.436	.49
December.....	109,500	3,960	3,210	3,532	.484	.56
Calendar year 1935.....	1,750,230	14,000	2,380	4,795	.668	8.94
January.....	605,290	32,300	3,780	19,530	2.68	3.09
February.....	671,100	32,800	13,400	23,140	3.17	3.42
March.....	351,570	17,700	7,810	11,340	1.56	1.80
April.....	805,200	51,300	10,800	26,840	3.68	4.11
May.....	223,220	11,500	5,160	7,201	.988	1.14
June.....	143,440	5,370	4,170	4,781	.656	.73
July.....	154,620	9,370	3,100	4,988	.684	.79
August.....	327,770	16,900	4,560	10,570	1.45	1.67
September.....	141,860	5,740	2,900	4,729	.649	.72
Water year 1935-36.....	3,725,430	51,300	2,470	10,180	1.40	19.01

\*Determined from estimated mean daily gage height.

## Mosquito Creek at Chattahoochee, Fla.

Location.-- Water-stage recorder, lat.  $30^{\circ}43'$ , long.  $84^{\circ}49'$ , in sec. 34, T. 3 N., R. 8 W., at Chattahoochee, 500 feet upstream from bridge on U. S. Highway 90 and 600 feet downstream from power plant.

Drainage area.-- 187 square miles.

Records available.-- March to September 1936.

Extremes.-- Maximum discharge during period, 436 second-feet Apr. 11 (gage height, 6.37 feet); minimum discharge, 0.8 second-foot July 13, Sept. 22; minimum gage height, 0.88 foot Sept. 22.

Remarks.-- Records fair. Discharge for May 24 interpolated. Severe diurnal regulation at power plant 600 feet upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	49	36	3.0	1.1	64	2.2
2						-	78	27	8.4	1.3	83	2.2
3						-	93	25	11	1.3	126	19
4						-	101	15	47	3.6	83	47
5						-	82	11	45	1.8	70	48
6						-	53	12	12	25	39	19
7						-	84	19	34	44	30	10
8						-	69	28	45	23	56	1.3
9						-	95	23	8.5	26	35	20
10						-	177	9.3	7.6	31	52	31
11						-	287	28	29	40	78	13
12						-	312	2.4	64	17	233	22
13						-	172	12	55	.8	302	44
14						-	117	29	36	1.4	327	44
15						-	103	54	20	.9	156	48
16						-	93	29	28	.9	101	46
17						-	59	1.7	18	22	122	43
18						-	69	1.7	14	50	135	45
19						-	33	1.6	9.8	73	100	28
20						-	27	2.8	5.2	88	70	43
21						-	46	26	12	47	72	23
22						-	43	25	2.6	57	75	20
23						-	43	1.6	2.6	47	75	40
24						-	43	11	2.6	21	75	15
25						-	44	21	23	2.6	64	34
26						-	43	1.2	45	21	50	47
27						-	41	12	45	30	44	45
28						69	41	19	31	16	29	46
29						56	8.9	19	19	9.2	28	48
30						97	26	19	1.1	15	8.4	33
31						74	-	16	-	39	42	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October.....												
November.....												
December.....												
Calendar year .....												
January.....					-	-	-	-	-	-	-	-
February.....					-	-	-	-	-	-	-	-
March.....					-	-	-	-	-	-	-	-
April.....					2,531.9	312	8.9	84.4	0.451		0.50	
May.....					538.3	54	1.2	17.4	.093		.11	
June.....					685.4	64	1.1	22.8	.122		.14	
July.....					756.9	88	.8	24.4	.130		.15	
August.....					2,824.4	327	8.4	91.1	.487		.56	
September.....					926.7	48	1.3	30.9	.165		.18	
Water year .....												

Econfina Creek near Bennett, Fla.

Location.-- Staff gage, lat. 30°27', long. 85°33', in sec. 20, T. 1 S., R. 13 W., at county highway bridge 1.5 miles southwest of Bennett.

Drainage area.-- 150 square miles (including inflow from several springs).

Records available.-- November 1935 to September 1936.

Extremes.-- Maximum discharge observed during period, 1,310 second-feet Jan. 8, Aug. 2; maximum gage height observed, 9.60 feet Aug. 2; minimum discharge observed, 380 second-feet Nov. 11, 12, 23-26, June 28 to July 5, July 7, 8; minimum gage height observed, 4.68 feet Dec. 21.

Remarks.-- Records good. Gage read twice daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	419	450	538	519	450	419	405	380	937	450
2		-	405	466	519	483	450	419	405	380	1,310	434
3		-	405	639	538	483	577	419	405	380	985	434
4		-	392	618	557	483	519	405	450	380	726	434
5		-	392	557	682	519	466	405	450	380	597	450
6		-	392	483	682	577	466	405	434	392	557	434
7		-	392	985	726	577	450	405	419	380	538	434
8		-	405	1,310	660	519	450	392	405	380	501	434
9		-	450	1,160	597	483	450	392	419	419	483	434
10		-	466	961	538	483	639	392	466	405	538	434
11		380	434	818	519	466	704	392	483	392	577	466
12		380	434	660	501	466	660	392	483	392	660	483
13		557	466	577	501	450	557	405	434	405	618	501
14		501	466	660	660	450	483	392	419	392	841	557
15		450	450	749	682	466	450	392	419	434	772	597
16		405	419	795	660	466	450	519	405	419	660	597
17		392	419	704	577	483	434	434	405	434	618	538
18		392	405	618	538	501	434	419	392	450	557	466
19		392	405	726	519	483	434	405	392	577	519	450
20		392	392	665	501	466	419	405	392	772	483	434
21		392	392	818	639	466	419	519	434	772	519	434
22		392	392	860	726	450	419	434	392	618	538	434
23		380	450	597	660	450	419	405	392	538	538	466
24		380	450	557	577	450	483	405	392	519	538	450
25		380	419	538	519	434	450	405	392	466	501	450
26		380	405	538	501	434	450	392	380	434	483	434
27		392	392	538	501	434	434	405	380	419	450	419
28		419	392	519	577	466	434	434	380	419	434	405
29		483	405	519	557	538	419	450	380	405	577	419
30		466	483	519	-	519	419	450	380	392	538	483
31		-	450	538	-	483	-	419	-	466	483	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				-	-	-	-	-	-			
November 11-30.....				8,305	557	380	415	2.77	2.06			
December.....				13,038	483	392	421	2.81	3.24			
Calendar year												
January.....				21,142	1,310	450	682	4.55	5.25			
February.....				16,952	726	501	585	3.90	4.21			
March.....				14,947	577	434	482	3.21	3.70			
April.....				14,288	704	419	476	3.17	3.54			
May.....				12,928	519	392	417	2.78	3.20			
June.....				12,384	483	380	415	2.75	3.07			
July.....				13,991	772	380	451	3.01	3.47			
August.....				19,076	1,310	434	615	4.10	4.73			
September.....				13,855	597	405	462	3.08	3.44			
Water year												

## Choctawhatchee River near Newton, Ala.

Location.- Wire-weight gage, lat. 31°21', long. 85°37', in T. 4 N., R. 24 E., at bridge on U. S. Highway 251, 1,500 feet above mouth of Hurricane Creek, 0.8 mile north of Newton, and a mile below Atlantic Coast Line Railroad bridge.

Drainage area.- 693 square miles.

Records available.- May 1935 to September 1936; June 1906 to August 1908, October 1911 to August 1912 at site 280 feet upstream; November 1921 to September 1927 at site 800 feet upstream.

Extremes.- Maximum discharge during year, 25,100 second-feet Jan. 20 (gage height, 29.5 feet, from graph based on gage readings); minimum discharge observed, 57 second-feet June 22 (gage height, 1.51 feet).

1906-8, 1911-12, 1921-27, 1935-36: Maximum discharge, that of Jan. 20, 1936; minimum discharge observed, that of June 22, 1936.

Maximum stage known, about 45 feet (present datum) Mar. 15, 1929 (discharge not determined).

Remarks.- Records good except those affected by backwater, Jan. 1, 2, and those below 200 second-feet subsequent to Jan. 20, which are fair. Gage read twice daily or oftener. Gage heights for Jan. 1-11, 18-22, July 13 to Aug. 5 and Aug. 11, 12 computed from graph based on gage readings. Some regulation by small gristmills upstream.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Jan. 1, 2)

Oct. 1 to Jan. 20							Jan. 21 to Sept. 30		
1.9	101	4.5	1,140	7.5	3,090	21.0	10,270	1.8	78
2.2	156	5.0	1,450	8.0	3,310	22.0	10,970	2.2	129
2.6	264	5.5	1,800	10.0	4,310	23.0	11,800	2.7	259
3.0	395	6.0	2,240	15.0	6,910	24.0	12,900	3.5	583
3.4	564	6.5	2,600	18.0	8,480	26.0	16,100	4.5	1,140
4.0	861	7.0	2,860	19.0	9,050	27.6	19,800		

Note.- Same as previous table above 4.5 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	193	220	377	1,120	1,510	1,650	1,580	796	276	105	6,540	367
2	156	193	343	3,960	1,510	1,510	2,470	741	259	98	7,330	330
3	168	180	295	7,430	1,890	1,380	2,060	634	259	98	4,980	276
4	145	180	264	7,010	3,360	1,320	1,880	634	227	82	3,090	276
5	145	156	264	4,410	4,310	1,380	1,800	593	212	105	1,800	348
6	117	168	249	6,080	4,510	1,200	2,060	488	165	129	1,450	386
7	117	168	264	7,170	4,930	1,200	1,880	455	172	149	1,140	405
8	126	206	295	4,770	4,110	1,140	1,880	367	198	160	907	445
9	126	206	564	4,000	3,360	1,140	1,800	227	534	149	751	172
10	117	234	611	3,360	2,760	1,080	5,350	386	534	129	534	425
11	117	249	564	2,760	2,400	1,080	5,970	348	386	112	1,530	634
12	135	259	564	2,400	2,150	1,020	4,460	348	367	120	1,610	488
13	109	587	659	2,060	3,270	1,020	3,130	330	348	227	1,200	741
14	117	708	659	1,800	4,770	907	2,710	312	294	466	1,200	1,200
15	126	564	659	1,800	5,400	963	1,580	330	276	425	1,320	634
16	126	433	587	1,650	4,620	963	1,580	312	243	348	1,140	488
17	117	377	541	1,650	4,260	1,460	1,380	312	227	312	963	445
18	117	327	518	2,060	3,180	1,320	1,260	312	198	741	1,020	386
19	126	259	433	8,560	2,470	1,260	1,140	348	172	634	851	348
20	117	259	377	19,600	2,320	1,200	1,020	466	149	851	634	312
21	117	264	343	13,900	2,240	1,140	963	534	129	907	534	276
22	126	249	234	5,140	2,320	1,080	851	405	87	907	534	259
23	126	234	126	3,090	2,060	963	851	367	139	741	1,200	259
24	117	234	135	2,660	1,800	907	963	330	129	583	1,320	212
25	117	220	206	2,240	1,720	907	963	294	120	534	963	149
26	117	220	343	1,970	1,580	907	1,020	276	129	405	687	227
27	109	234	343	1,970	1,720	851	1,020	259	120	386	593	212
28	109	311	343	1,890	1,800	1,460	963	312	120	294	445	212
29	126	395	587	1,580	1,720	1,510	907	243	112	198	367	259
30	135	433	968	1,580	-	1,320	851	92	105	212	405	488
31	206	-	968	1,510	-	1,200	-	149	-	2,450	367	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				4,022	206	109	130	0.188	0.22			
November.....				9,727	708	156	291	.420	.47			
December.....				13,683	968	126	441	.656	.73			
Calendar year .....												
January.....				131,080	19,600	1,120	4,228	6.10	7.03			
February.....				84,040	5,400	1,510	2,898	4.18	4.51			
March.....				36,418	1,650	851	1,175	1.70	1.96			
April.....				56,642	5,970	851	1,898	2.72	3.04			
May.....				11,950	796	92	397	.558	.64			
June.....				6,706	534	87	224	.323	.36			
July.....				13,057	2,450	82	421	.608	.70			
August.....				47,285	7,330	367	1,525	2.20	2.54			
September.....				11,659	1,200	149	389	.561	.63			
Water year 1935-36.....				425,309	19,600	82	1,162	1.68	22.83			

## Choctawhatchee River at Caryville, Fla.

Location.— Water-stage recorder, lat. 30°47', long. 85°50', in sec. 10, T. 4 N., R. 16 W., at highway bridge 300 feet below Louisville & Nashville Railroad bridge and three-quarters of a mile west of Caryville. Zero of gage is 39.03 feet above mean sea level.

Drainage area.— 3,490 square miles.

Records available.— August 1929 to September 1936.

Extremes.— Maximum discharge during year, 41,800 second-feet Jan. 24 (gage height, 14.16 feet); minimum discharge, 1,000 second-feet Oct. 27, 28; minimum gage height, -0.02 foot Oct. 28.

1929-36: Maximum discharge, 49,100 second-feet Oct. 4, 1929 (gage height, 14.83 feet); minimum discharge, 865 second-feet Oct. 28, 1931; minimum gage height, -0.27 foot June 30, 1935.

Maximum stage known, 27.1 feet Mar. 17, 1929 (discharge, 206,000 second-feet, determined by slope-area method).

Remarks.— Records excellent.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	1,480	2,470	4,280	9,900	9,380	6,480	4,460	2,470	1,280	6,500	4,020
2	1,600	1,660	2,560	5,070	9,900	9,130	6,200	4,660	2,260	1,240	11,000	3,940
3	1,660	1,660	2,160	8,420	9,640	8,660	7,640	4,660	2,120	1,240	17,400	3,450
4	1,480	1,660	2,020	14,200	10,200	8,220	9,900	4,200	2,020	1,240	24,000	2,850
5	1,400	1,480	1,840	24,000	12,600	8,000	10,800	3,860	1,980	1,280	26,600	2,690
6	1,360	1,400	1,720	31,000	15,500	7,820	10,200	3,520	1,940	1,320	24,000	2,470
7	1,280	1,360	1,680	34,800	18,900	7,640	9,380	3,300	1,840	1,360	21,200	2,620
8	1,240	1,400	1,680	38,800	21,200	7,460	8,880	3,160	1,800	1,320	17,700	2,780
9	1,200	1,360	1,760	40,800	21,800	6,940	8,880	2,860	1,840	1,360	14,200	3,000
10	1,200	1,440	2,360	37,800	21,800	6,640	10,200	2,660	2,690	1,400	10,200	3,080
11	1,200	1,620	2,850	35,800	20,100	6,340	15,100	2,520	4,370	1,480	7,280	2,780
12	1,160	1,600	2,660	28,300	17,700	6,060	20,600	2,470	4,660	1,560	6,340	3,380
13	1,160	1,680	2,690	23,200	15,500	5,790	21,800	2,360	3,770	1,640	6,940	4,110
14	1,160	1,940	3,160	20,100	15,100	5,650	20,100	2,250	3,300	1,800	7,460	3,600
15	1,160	2,660	3,600	17,200	16,600	5,520	17,200	2,360	2,850	2,360	6,940	3,680
16	1,200	2,470	3,220	14,600	21,200	5,400	13,700	2,580	2,470	3,680	6,340	4,280
17	1,200	2,250	2,920	12,900	24,800	5,520	11,100	3,000	2,200	3,300	5,650	4,020
18	1,160	2,070	2,720	12,200	23,200	5,780	8,880	3,080	2,070	2,780	5,070	3,500
19	1,120	1,890	2,520	14,800	21,800	6,060	7,280	2,720	1,940	3,450	4,860	2,850
20	1,120	1,760	2,360	24,300	19,500	6,060	6,060	2,850	1,800	4,660	4,960	2,520
21	1,080	1,720	2,160	29,200	17,200	5,920	5,400	3,380	1,720	5,290	4,460	2,250
22	1,080	1,640	2,070	35,800	14,600	5,920	5,070	3,380	1,600	5,290	4,020	2,160
23	1,040	1,660	2,020	40,800	12,900	5,650	4,760	3,160	1,660	4,760	3,940	2,200
24	1,080	1,620	2,120	39,800	11,800	5,520	4,660	2,850	1,600	4,560	4,460	2,300
25	1,040	1,440	2,160	35,800	11,100	5,290	4,660	2,520	1,660	4,560	5,290	2,300
26	1,040	1,400	2,020	29,200	10,200	5,290	4,860	2,250	1,620	4,280	5,520	2,250
27	1,000	1,400	1,940	22,500	9,380	5,180	4,860	2,200	1,480	3,860	5,180	2,250
28	1,000	1,480	1,890	18,300	9,130	5,180	4,760	2,300	1,440	3,300	4,370	2,020
29	1,040	1,640	1,940	14,600	9,130	5,780	4,660	2,520	1,360	2,850	3,680	1,980
30	1,040	2,240	2,470	11,800	-	6,640	4,370	2,780	1,280	2,470	3,380	1,980
31	1,240	-	4,020	10,500	-	6,940	-	2,720	-	2,760	3,860	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	37,320		1,680		1,000		1,204		0.345		0.40	
November.....	50,480		2,660		1,560		1,683		.482		.54	
December.....	73,340		4,020		1,680		2,366		.678		.78	
Calendar year 1935.....	1,138,470		12,200		920		3,119		.894		12.13	
January.....	728,870		40,800		4,280		23,610		6.74		7.77	
February.....	452,360		24,800		9,130		16,600		4.47		4.82	
March.....	201,370		9,380		5,180		6,496		1.86		2.14	
April.....	278,450		21,800		4,370		9,282		2.66		2.97	
May.....	93,470		4,660		2,200		3,015		.864		1.00	
June.....	66,400		4,660		1,280		2,180		.625		.70	
July.....	83,720		5,290		1,240		2,701		.774		.89	
August.....	281,800		25,600		3,580		9,090		2.60		3.00	
September.....	86,910		4,280		1,980		2,897		.830		.93	
Water year 1935-36.....	2,433,510		40,800		1,000		6,649		1.91		25.94	

## Choctawhatchee River near Bruce, Fla.

Location.- Water-stage recorder, lat. 30°27', long. 85°54', in sec. 36, T. 1 N., R. 17 W., at bridge on State Highway 10 about 5 miles southeast of Bruce. Zero of gage is 3.94 feet above mean sea level.

Drainage area.- 4,580 square miles.

Records available.- October 1930 to September 1936.

Extremes.- Maximum discharge during year, 49,500 second-feet Jan. 10 (gage height, 13.96 feet); minimum, 1,870 second-feet Oct. 27 (gage height, 0.72 foot).  
1930-36: Maximum discharge, that of Jan. 10, 1936; minimum discharge observed, 1,680 second-feet Nov. 10-13, 1931; minimum gage height, 0.42 foot July 1, 1935.  
Maximum stage known, 25.0 feet in March 1929 (discharge, estimated, 220,000 second-feet).

Remarks.- Records excellent except those for Aug. 5-15, 27-29, Sept. 1, which are fair and were computed on basis of records for station at Caryville.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.6	1,810	6.0	7,500
.8	1,930	7.0	9,900
1.0	2,050	8.0	12,900
1.5	2,390	9.0	16,700
2.0	2,750	10.0	20,800
3.0	3,540	11.0	25,700
4.0	4,420	12.0	32,500
5.0	5,620	14.0	49,500

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,300	2,000	2,820	3,880	17,900	12,600	6,900	6,140	3,970	2,120	5,040	5,600
2	3,060	2,190	3,140	4,510	15,900	12,000	7,300	5,960	3,880	2,120	5,470	5,320
3	2,900	2,260	3,220	5,040	14,700	11,700	7,720	5,960	3,700	2,060	5,960	5,040
4	2,750	2,320	3,060	5,620	13,900	11,700	7,940	5,790	3,540	2,060	7,100	5,040
5	2,600	2,320	2,980	6,900	13,900	12,000	7,940	5,620	3,380	2,060	17,000	4,810
6	2,530	2,320	2,820	10,700	15,100	11,700	8,600	5,470	3,220	2,060	26,000	4,600
7	2,390	2,320	2,680	26,900	17,100	11,100	10,200	5,320	3,140	2,060	27,000	4,330
8	2,320	2,390	2,600	41,400	20,400	11,100	11,700	4,920	3,060	2,060	27,000	4,150
9	2,260	2,320	2,750	45,900	23,700	10,500	12,300	4,700	3,380	2,060	26,000	4,150
10	2,190	2,260	2,750	48,600	25,700	10,200	13,500	4,420	3,300	2,060	24,000	4,150
11	2,190	2,320	3,060	48,600	25,700	9,900	14,700	4,150	3,460	2,120	21,000	4,240
12	2,190	2,390	3,460	45,900	25,700	9,380	17,500	3,970	3,880	2,120	18,000	4,240
13	2,190	2,530	3,700	40,500	24,700	8,860	22,200	3,790	4,330	2,260	14,000	4,150
14	2,120	2,530	3,700	35,700	23,700	8,380	26,300	3,700	4,500	2,320	12,000	4,330
15	2,120	2,680	3,790	30,900	22,200	7,940	26,900	3,620	4,600	2,530	11,000	4,610
16	2,120	3,060	3,970	26,900	21,200	7,500	25,200	3,620	4,420	2,680	9,900	4,600
17	2,060	3,220	4,060	23,700	21,700	7,500	22,200	3,700	3,970	3,220	9,380	4,700
18	2,060	3,220	4,060	21,200	24,700	7,100	19,100	3,680	3,540	3,540	9,120	4,610
19	2,060	3,060	3,970	20,800	26,900	7,100	16,700	4,150	3,220	3,700	8,860	4,610
20	2,060	2,900	3,790	23,700	26,900	7,100	14,300	4,240	2,980	3,790	8,160	4,700
21	2,060	2,750	3,620	26,900	25,700	7,100	12,000	4,240	2,820	4,060	7,500	4,330
22	2,000	2,680	3,460	34,900	23,700	7,300	10,500	4,240	2,680	4,240	7,100	3,970
23	1,930	2,530	3,380	40,500	21,700	7,300	9,120	4,420	2,600	4,600	6,510	3,700
24	1,930	2,390	3,220	45,000	19,500	7,300	8,380	4,420	2,530	4,810	6,140	3,790
25	1,930	2,320	3,220	47,700	17,500	7,100	7,500	4,330	2,460	5,040	5,960	3,790
26	1,930	2,260	3,220	45,900	16,300	7,100	7,100	4,150	2,390	5,040	5,790	3,790
27	1,870	2,260	3,060	42,300	15,500	6,900	6,700	3,880	2,390	4,920	6,000	3,620
28	1,930	2,390	2,980	35,700	14,300	6,700	6,510	3,700	2,320	4,810	6,300	3,540
29	1,930	2,530	3,060	29,500	13,200	6,700	6,320	3,700	2,260	4,600	6,500	3,380
30	1,930	2,530	3,140	24,700	-	6,700	6,140	3,880	2,190	4,240	6,700	3,220
31	1,930	-	3,380	20,800	-	6,700	-	3,880	-	4,420	6,520	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				68,840	3,300	1,870	2,221	0.485	0.56			
November.....				75,250	3,220	2,000	2,508	.548	.61			
December.....				102,120	4,060	2,600	3,294	.719	.83			
Calendar year 1935.....				1,574,590	13,600	1,700	4,314	.942	12.80			
January.....				911,250	48,600	3,880	29,400	6.42	7.40			
February.....				589,100	26,900	13,200	20,310	4.43	4.78			
March.....				272,260	12,600	6,700	8,783	1.92	2.21			
April.....				379,470	26,900	6,140	12,650	2.76	3.08			
May.....				137,960	6,140	3,620	4,450	.972	1.12			
June.....				98,210	4,600	2,190	3,274	.715	.80			
July.....				99,780	5,040	2,060	3,219	.703	.61			
August.....				362,810	27,000	5,040	11,700	2.55	2.94			
September.....				129,410	5,600	3,220	4,314	.942	1.05			
Water year 1935-36.....				3,226,460	48,600	1,870	8,815	1.92	26.19			



## Pea River near Samson, Ala.

Location.— Wire-weight gage, lat. 31°07', long. 86°06', in T. 2 N., R. 19 E., at bridge on State Highway 12, 500 feet below Boyenton Creek, 3 miles west of Samson, and 19 miles above junction with Choctawhatchee River.

Drainage area.— 1,170 square miles.

Records available.— May 1935 to September 1936. Comparable records obtained at site 1½ miles upstream, published as Pea River at Pera, Ala., August 1904 to August 1913, June 1922 to October 1925.

Extremes.— Maximum discharge during year, 27,800 second-feet Jan. 22 (gage height, 37.2 feet); minimum discharge observed, 41 second-feet Oct. 26 (gage height, 0.40 foot). 1904-13, 1922-25, 1935-36: Maximum discharge, that of Jan. 22, 1936; minimum, that of Oct. 26, 1935.

Maximum stage known, 45.3 feet (present site and datum) Mar. 15, 1925, from floodmarks (discharge not determined).

Remarks.— Records good above and fair below 500 second-feet, as gage is read only twice daily and resulting gage-height record is only fair because of effect of regulation by power plant upstream. Discharge interpolated for Nov. 12. Gage heights for Dec. 29 to Jan. 23, Apr. 1-3, 7-10, 14-16, July 19-21, 31, Aug. 1 computed from graph based on gage readings made twice daily or oftener.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet.

0.5	53	4.9	955	14.0	4,220	24.5	9,970	34.0	20,200
1.0	111	6.5	1,370	16.0	5,130	25.5	10,700	35.0	21,800
1.3	181	7.5	1,670	18.0	6,130	26.5	11,600	35.5	22,900
2.0	318	9.5	2,370	20.0	7,230	28.0	13,100	36.0	24,000
3.0	528	11.0	2,950	22.0	8,400	31.0	16,400	36.5	25,400
4.0	748	12.5	3,570	23.0	9,000	32.5	18,200	37.0	27,100

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	181	486	909	1,550	3,690	3,190	1,830	1,260	444	238	8,220	817
2	238	550	979	7,070	3,480	3,030	2,750	1,180	402	248	11,200	840
3	172	572	1,000	12,400	3,520	2,950	2,400	1,080	402	219	12,200	794
4	190	572	932	14,100	4,990	2,750	2,080	1,060	402	190	12,100	748
5	163	381	909	12,900	5,920	2,560	2,110	1,180	360	200	10,600	748
6	181	381	886	13,100	7,060	2,400	2,110	840	318	111	8,760	726
7	161	318	979	13,400	8,580	2,220	2,400	748	298	248	5,130	704
8	163	381	955	11,300	8,760	2,040	2,750	704	318	238	2,400	660
9	190	486	979	9,620	7,810	1,840	2,560	726	402	228	1,750	638
10	200	726	909	9,300	6,720	1,900	4,760	660	572	200	1,570	748
11	181	486	955	8,580	5,720	1,800	4,800	572	550	154	2,330	1,000
12	145	666	1,030	7,580	4,660	1,730	4,620	423	528	258	2,790	1,200
13	154	866	1,370	6,720	5,320	1,600	4,890	572	507	339	1,970	1,100
14	248	1,030	1,200	5,620	6,520	1,570	4,530	554	526	771	1,940	1,050
15	238	979	1,120	4,570	9,240	1,630	3,270	528	528	1,100	1,860	1,120
16	172	909	1,050	4,350	8,460	1,600	2,520	486	550	594	1,730	955
17	154	726	1,030	4,000	7,990	1,730	1,860	465	465	704	1,600	726
18	200	572	1,000	4,250	7,350	1,670	1,570	507	360	955	1,260	616
19	92	486	955	11,300	6,340	1,670	1,420	704	318	909	1,150	381
20	108	339	863	19,100	5,620	1,730	1,280	771	278	1,760	1,050	528
21	73	278	771	24,000	4,260	1,800	1,180	794	298	1,450	909	550
22	88	361	660	27,100	4,040	1,760	1,120	704	318	1,100	660	550
23	219	248	594	21,200	3,690	1,730	1,100	660	200	1,760	794	528
24	154	318	682	13,400	3,360	1,700	1,120	616	228	1,860	863	638
25	125	278	616	8,160	3,150	1,700	1,120	550	172	1,540	794	748
26	63	258	572	5,130	2,990	1,600	1,200	444	172	1,420	1,030	507
27	118	298	550	4,130	2,950	1,610	1,180	402	145	1,230	979	423
28	123	402	638	3,780	3,520	2,080	1,120	486	111	932	863	423
29	278	1,080	1,330	3,480	3,360	2,440	1,080	550	113	794	794	423
30	361	909	2,040	3,480	-	1,970	1,100	572	154	932	771	361
31	444	-	1,390	3,650	-	1,830	-	528	-	3,820	794	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October.....				5,617	444	63	181	0.155		0.18		
November.....				16,402	1,080	248	547	.468		.52		
December.....				29,853	2,040	550	963	.823		.95		
Calendar year												
January.....				298,320	27,100	1,550	9,623	8.22		9.48		
February.....				161,070	9,240	2,950	5,554	4.76		5.12		
March.....				61,830	3,190	1,610	1,995	1.71		1.97		
April.....				67,830	4,890	1,080	2,261	1.93		2.15		
May.....				21,356	1,260	402	689	.589		.68		
June.....				10,441	572	111	348	.297		.33		
July.....				26,502	3,820	111	855	.731		.64		
August.....				100,841	12,200	660	3,253	2.76		3.20		
September.....				21,270	1,200	381	709	.606		.68		
Water year 1935-36.....				821,332	27,100	63	2,244	1.92		26.10		

## Yellow River near Holt, Fla.

Location.- Staff gage, lat. 30°40'25", long. 86°44'50" (revised), in sec. 16, T. 2 N., R. 25 W., at county highway bridge 2½ miles south of Holt. Zero of gage is 18.02 feet above mean sea level.

Drainage area.- 1,260 square miles.

Records available.- October 1933 to September 1936.

Extremes.- Maximum discharge observed during year, 16,600 second-feet Jan. 22 (gage height, 11.48 feet); minimum discharge observed, 914 second-feet July 2-4; minimum gage height observed, 1.08 feet July 4.  
1933-36: Maximum discharge, 21,800 second-feet (revised) Oct. 9, 1934 (gage height, 12.80 feet); minimum, 812 second-feet Oct. 2, 1934 (gage height, 0.79 foot).  
Maximum known flood, 25.4 feet in 1929, discharge not determined.

Remarks.- Records good below 4,500 second-feet and fair above. Gage read to hundredths once a day.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.7	778	7.0	4,300
1.0	880	8.0	6,210
2.0	1,220	9.0	8,550
3.0	1,560	10.0	11,200
4.0	1,900	11.0	14,600
5.0	2,290	12.0	18,600
6.0	2,900		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,360	1,120	1,420	1,970	3,650	3,360	2,900	2,000	1,760	1,120	2,820	1,800
2	1,320	1,120	1,320	3,360	3,500	3,250	2,690	2,000	1,760	914	6,640	1,970
3	1,290	1,120	1,290	7,810	3,650	3,250	2,570	2,000	1,700	914	9,320	1,930
4	1,250	1,080	1,250	13,500	3,960	3,230	2,900	1,900	1,530	914	10,100	1,660
5	1,260	1,050	1,160	18,400	4,300	2,900	4,130	1,870	1,360	982	9,300	1,530
6	1,220	1,050	1,120	15,400	5,220	2,820	4,480	1,760	1,290	1,020	9,300	1,420
7	1,190	1,080	1,080	11,800	5,610	2,750	4,300	1,590	1,250	1,020	6,870	1,420
8	1,150	1,080	1,250	10,100	6,210	2,820	3,230	1,590	1,220	948	5,410	1,900
9	1,150	1,080	1,560	9,820	6,210	2,750	3,110	1,560	1,360	948	4,660	2,150
10	1,150	1,050	1,800	9,820	6,010	2,570	3,000	1,530	1,590	1,060	3,560	2,190
11	1,150	1,050	1,830	9,560	5,610	2,450	4,480	1,490	1,630	1,020	2,900	1,900
12	1,120	1,080	1,870	8,300	5,030	2,400	4,660	1,460	1,870	962	2,570	1,760
13	1,150	1,120	1,900	7,100	5,030	2,400	4,840	1,390	1,700	1,150	2,510	1,830
14	1,150	1,120	2,190	6,210	5,030	2,340	5,220	1,360	1,760	1,190	2,750	2,150
15	1,150	1,150	2,340	5,610	6,010	2,240	4,660	1,250	1,630	1,050	2,820	2,340
16	1,150	1,080	2,190	5,220	6,870	2,190	3,500	1,220	1,490	1,050	3,110	2,290
17	1,120	1,190	1,900	4,840	7,610	2,290	2,820	1,460	1,360	1,150	3,560	2,070
18	1,120	1,190	1,590	4,660	7,330	2,400	2,690	1,420	1,460	1,220	2,900	1,760
19	1,080	1,120	1,460	5,030	6,420	2,570	2,400	2,000	1,490	1,320	2,890	1,630
20	1,080	1,080	1,460	6,420	5,610	2,570	2,240	2,340	1,360	1,630	2,340	1,530
21	1,080	1,080	1,420	10,400	5,030	2,570	2,070	2,290	1,490	2,110	2,190	1,420
22	1,050	1,080	1,250	16,600	4,300	2,340	2,040	2,190	1,420	2,630	2,000	1,360
23	1,050	1,050	1,390	12,500	4,300	2,240	2,000	2,110	1,390	4,130	1,870	1,390
24	1,050	1,020	1,590	8,050	4,300	2,150	2,110	2,040	1,360	3,660	1,870	1,460
25	1,050	1,020	1,530	6,210	4,130	2,110	2,190	1,530	1,320	2,650	1,830	1,490
26	1,020	1,020	1,530	5,220	3,960	2,110	2,400	1,460	1,290	2,450	1,900	1,460
27	982	1,020	1,530	4,840	3,800	2,110	2,400	1,360	1,250	2,040	2,000	1,460
28	982	1,190	1,490	4,300	3,500	2,240	2,240	1,490	1,220	1,590	1,970	1,320
29	1,050	1,590	1,390	3,960	3,560	2,400	2,110	2,190	1,190	1,420	1,800	1,420
30	1,120	1,630	1,660	3,800	-	2,630	2,000	2,240	1,150	1,320	1,660	1,420
31	1,120	-	1,900	3,650	-	2,820	-	2,070	-	2,150	1,730	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October.....	35,154			1,360	982	1,134	0.900	1.04				
November.....	33,710			1,630	1,020	1,124	.892	1.00				
December.....	48,550			2,340	1,080	1,566	1.24	1.43				
Calendar year 1935.....	673,732			4,850	948	1,846	1.47	19.87				
January.....	241,460			16,600	1,970	7,789	6.13	7.12				
February.....	145,950			7,810	3,360	5,033	3.89	4.30				
March.....	79,230			3,560	2,110	2,556	2.03	2.34				
April.....	92,390			5,220	2,000	3,079	2.44	2.72				
May.....	54,160			2,340	1,220	1,747	1.39	1.60				
June.....	43,850			1,870	1,150	1,462	1.16	1.29				
July.....	47,742			4,130	914	1,540	1.22	1.41				
August.....	117,050			10,100	1,660	3,776	3.00	3.46				
September.....	51,300			2,340	1,290	1,710	1.36	1.62				
Water year 1935-36.....	990,536			16,600	914	2,706	2.15	29.23				

Conecuh River near Andalusia, Ala.

Location.- Water-stage recorder, lat. 31°16', long. 86°36', in T. 3 N., R. 15 E., at Simmons Bridge, on State Highway 83 7½ miles southwest of Andalusia.

Drainage area.- 1,300 square miles.

Records available.- August 1904 to December 1919, September 1929 to September 1936.

Average discharge.- 22 years, 1,837 second-feet.

Extremes.- Maximum discharge during year, 26,400 second-feet Jan. 20 (gage height, 34.65 feet); minimum, 56 second-feet Oct. 14, 21 (gage height, 0.49 foot); minimum daily discharge, 72 second-feet Oct. 8.

1904-19, 1929-36: Maximum discharge, that of Jan. 20, 1936; minimum, 43 second-feet Oct. 1, 1934; minimum gage height, 0.39 foot July 7, 1930; minimum daily discharge, 56 second-feet Oct. 15, 1933.

Maximum stage known, 47.64 feet Mar. 15, 1929 (discharge, 154,000 second-feet).

Remarks.- Records good except those for Dec. 1-14, which are fair and were computed on basis of operation records of power plant near River Falls, 8 miles upstream, and records for station near Brooklyn. Operation of power plants upstream causes daily fluctuations as well as week-end reductions of flow.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 1

Jan. 2 to Sept. 30

0.6	72	1.0	125	8.0	2,440	25.0	11,300
1.0	139	1.5	228	14.0	4,840	28.0	14,000
1.4	220	2.0	362	15.0	5,270	30.0	16,000
2.0	367	3.0	657	16.5	5,960	32.0	19,100
2.5	511	4.0	979	18.5	6,960	33.0	21,100
3.0	667	5.0	1,330	20.0	7,800	34.2	24,600
3.5	835	6.0	1,690	21.5	8,710		
7.5	2,165	7.0	2,060	23.5	10,100		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	618	870	600	2,170	3,600	3,720	1,600	1,330	464	276	4,000	1,020
2	940	578	650	11,100	3,440	3,440	1,950	1,190	767	269	5,400	1,650
3	888	302	700	15,800	3,680	3,160	1,990	956	799	250	6,750	1,060
4	835	499	900	17,100	4,640	3,160	1,800	1,340	847	229	9,560	980
5	784	746	700	15,200	5,820	3,200	2,410	1,150	751	145	14,500	767
6	433	835	850	16,600	6,200	2,720	2,410	946	751	142	13,500	690
7	194	852	800	17,900	8,410	2,720	2,760	946	433	254	10,500	790
8	72	322	250	14,900	11,900	2,140	2,960	913	682	324	7,860	1,150
9	94	108	600	15,200	12,300	2,290	3,400	847	754	265	4,800	1,150
10	116	134	650	10,300	11,100	2,030	4,280	657	730	248	2,880	1,190
11	158	195	670	9,170	8,900	1,840	4,400	735	735	218	2,140	1,010
12	216	338	900	9,590	8,650	1,770	4,160	847	672	250	2,960	1,050
13	144	716	950	9,590	8,580	1,770	4,520	799	650	162	2,220	660
14	123	651	400	9,660	7,510	1,880	5,180	799	298	272	2,290	814
15	227	700	760	8,460	7,020	1,600	5,510	764	471	200	2,290	1,080
16	158	541	1,500	6,910	6,500	1,330	4,640	626	735	195	2,140	1,010
17	137	258	1,200	6,100	5,360	1,510	3,480	529	735	233	1,290	1,080
18	140	380	1,110	8,220	5,310	1,360	2,640	660	847	390	1,360	1,080
19	160	579	767	19,800	5,270	1,620	2,360	946	860	661	1,120	979
20	132	730	588	24,800	5,050	1,650	1,330	913	755	1,510	1,120	527
21	101	784	737	22,800	5,050	1,730	1,470	913	126	1,120	913	657
22	255	777	940	21,800	4,760	1,800	1,560	946	162	1,360	913	657
23	211	614	1,050	21,000	4,280	1,770	1,490	847	211	1,330	641	979
24	186	308	532	15,000	4,040	1,690	1,560	455	176	913	802	1,010
25	162	475	556	9,910	3,880	1,580	1,430	583	204	1,080	946	979
26	147	657	498	7,570	3,320	1,650	1,150	847	258	1,620	647	1,040
27	101	280	511	6,200	4,120	1,540	1,190	815	236	1,730	815	396
28	154	1,090	556	5,090	4,120	2,250	1,330	979	169	1,880	799	205
29	950	654	1,060	4,200	3,880	1,840	1,260	946	188	1,500	916	566
30	1,040	496	1,080	5,290	-	1,800	1,560	847	292	1,050	1,210	551
31	905	-	1,500	3,760	-	1,950	-	370	-	1,600	675	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October.....	10,979			1,040	72	354	0.272	0.31				
November.....	16,469			1,090	108	549	.422	.47				
December.....	24,415			1,500	250	788	.606	.70				
Calendar year 1935.....	521,471			13,900	72	1,429	1.10	14.93				
January.....	369,290			24,800	2,170	11,910	9.16	10.56				
February.....	176,890			12,300	3,320	6,100	4.69	5.06				
March.....	64,710			3,720	1,330	2,087	1.61	1.86				
April.....	77,090			5,310	1,150	2,570	1.98	2.21				
May.....	26,471			1,340	370	854	.657	.76				
June.....	15,826			880	126	528	.406	.45				
July.....	21,676			1,880	142	699	.538	.62				
August.....	106,187			14,500	641	3,469	2.68	3.09				
September.....	26,797			1,650	205	693	.687	.77				
Water year 1935-36.....	938,770			24,800	72	2,565	1.97	26.86				

Conecuh River near Brooklyn, Ala.

Location.- Wire-weight gage, lat.  $31^{\circ}10'$ , long.  $86^{\circ}48'$ , in sec. 6, T. 2 N., R. 13 E., at bridge on U. S. Highway 29, 4 miles below Bollier Creek, 8 miles southwest of Brooklyn, and 30 miles above Murder Creek.

Drainage area.- 2,400 square miles.

Records available.- May 1935 to September 1936.

Extremes.- Maximum discharge observed during year, 39,000 second-feet Jan. 22 (gage height, 34.4 feet); minimum, 252 second-feet Oct. 10 (gage height, 2.00 feet).  
1935-36: Maximum discharge observed, that of Jan. 22, 1936; minimum, that of Oct. 10, 1935.

Maximum stage known, about 41 feet Mar. 15, 1929 (discharge not determined).

Remarks.- Records fair. Gage read twice daily. Gage heights for Jan. 1-3, 18, 19, Feb. 3-5, July 19-21, 31, Aug. 1 computed from graph based on gage readings. Discharge for Aug. 30, 31 computed on basis of records for station near Andalusia. Some regulation from power plants upstream.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.1	276	8.0	2,650	23.5	14,400
2.5	375	9.5	3,460	24.5	15,600
3.0	507	10.5	4,060	26.5	18,600
3.5	656	12.5	5,350	28.0	21,300
4.0	825	14.5	6,780	29.5	24,300
4.5	1,000	15.5	7,500	31.0	27,800
5.0	1,200	17.0	8,650	32.0	30,600
5.5	1,420	20.0	11,040	33.0	33,800
6.5	1,900	21.5	12,400	34.5	38,600

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	564	1,040	721	4,230	7,580	7,280	3,690	2,600	790	535	4,270	2,550
2	1,040	895	790	12,800	6,930	6,710	3,570	2,500	1,120	535	5,560	2,960
3	1,080	1,000	860	22,000	7,880	6,080	4,700	2,450	1,160	564	7,450	2,500
4	1,000	688	860	26,600	8,810	5,450	4,560	2,200	1,240	594	8,970	2,050
5	1,000	825	895	29,100	11,400	5,520	4,770	2,200	1,200	688	10,800	1,660
6	895	930	895	29,400	13,200	4,490	5,040	1,810	1,040	453	13,800	1,330
7	480	1,040	895	32,500	16,100	4,630	5,040	1,760	1,040	507	13,900	965
8	350	930	688	31,200	18,800	3,990	6,290	1,610	1,040	564	11,800	1,510
9	276	688	656	27,000	21,300	4,050	7,580	1,660	1,080	625	8,890	1,610
10	276	535	895	25,900	21,000	3,570	10,700	1,330	1,160	375	5,110	1,710
11	300	325	965	22,700	16,400	3,630	11,300	1,240	1,160	480	3,690	1,660
12	350	401	1,000	25,700	14,400	3,340	12,100	1,350	1,120	480	3,460	1,660
13	401	825	1,160	24,100	14,100	3,230	11,900	1,330	965	453	5,610	1,950
14	350	1,040	1,200	21,700	14,200	3,340	10,800	1,370	860	427	3,460	1,560
15	375	930	1,370	16,300	12,800	3,460	9,600	1,420	895	625	3,460	1,860
16	401	895	1,710	14,400	11,500	2,750	8,260	1,240	1,080	480	3,230	1,860
17	325	721	1,460	12,500	10,600	3,020	6,570	1,200	1,280	453	2,550	1,860
18	312	480	1,370	12,700	9,680	3,290	4,900	1,240	1,350	625	2,150	1,710
19	325	721	1,370	25,000	9,360	3,870	4,110	2,300	1,200	1,580	1,810	1,460
20	325	790	1,200	35,100	9,120	3,810	2,960	2,500	1,160	3,570	1,710	1,120
21	325	965	1,160	38,200	8,890	3,750	2,800	2,050	825	3,020	1,810	755
22	325	1,000	965	38,600	8,970	3,570	2,550	1,810	656	2,800	1,610	950
23	375	1,040	965	38,200	8,350	3,180	2,700	1,760	564	3,460	1,460	1,040
24	350	625	790	33,800	7,650	2,750	2,800	1,710	401	2,300	1,160	1,080
25	350	625	535	25,900	7,210	2,910	3,020	1,160	480	2,050	1,560	1,120
26	350	895	625	16,100	6,860	2,960	2,450	1,280	535	2,750	1,420	1,280
27	325	564	1,160	13,300	7,750	2,860	2,550	1,420	555	3,180	1,530	965
28	325	535	1,040	9,920	8,490	3,510	2,550	1,710	507	3,230	1,240	721
29	965	895	965	8,570	7,880	4,110	2,500	1,900	453	3,630	1,200	790
30	1,950	965	2,250	8,570	-	3,810	2,650	1,660	507	2,400	1,500	860
31	1,560	-	2,150	8,490	-	3,230	-	1,200	-	1,860	2,500	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				17,625	1,950	276	569	0.237	0.27			
November.....				23,808	1,040	325	794	.331	.37			
December.....				33,565	2,250	535	1,083	.451	.52			
Calendar year .....												
January.....				682,580	38,600	4,230	22,020	9.18	10.58			
February.....				327,170	21,300	8,860	11,280	4.70	5.07			
March.....				121,860	7,290	2,750	3,931	1.64	1.89			
April.....				165,010	12,100	2,450	5,500	2.29	2.56			
May.....				52,950	2,600	1,160	1,708	.712	.82			
June.....				27,383	1,330	401	913	.580	.42			
July.....				45,093	3,630	375	1,455	.606	.70			
August.....				136,750	13,900	1,160	4,411	1.84	2.12			
September.....				45,086	2,960	721	1,503	.626	.70			
Water year 1935-36 .....				1,678,870	38,600	276	4,587	1.91	26.02			

Escambia River near Century, Fla.

Location.- Wire-weight gage, lat. 30°58', long. 87°15', on line between secs. 9 and 10, T. 5 N., R. 30 W., on handrail of bridge on State Highway 62, 1½ miles east of Century.

Drainage area.- 3,700 square miles.

Records available.- October 1934 to September 1936.

Extremes.- Maximum discharge during year, 57,100 second-feet Jan. 3 (gage height, 19.40 feet, from high-water mark), from rating curve extended above 47,500 second-feet; minimum discharge observed, 900 second-feet Oct. 20, 26; minimum gage height observed, 1.91 feet Oct. 20.

1934-36: Maximum discharge, that of Jan. 3, 1936; minimum discharge observed, that of Oct. 20, 26, 1935.

Maximum stage known, 37.8 feet in March 1929 (discharge, 315,000 second-feet, from rating curve extended above 47,500 second-feet).

Remarks.- Records good. Gage read twice daily.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.9	900	10.0	7,000
2.3	1,090	11.0	8,200
2.7	1,290	12.0	9,600
3.0	1,450	13.0	11,200
4.0	2,060	14.0	12,900
5.0	2,650	15.0	14,900
6.0	3,350	16.0	18,600
7.0	4,100	17.0	24,800
8.0	4,950	18.0	37,500
9.0	5,900	19.0	51,500

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,340	2,290	1,930	4,770	14,100	12,200	5,400	5,700	2,790	1,090	3,860	2,590
2	1,400	1,930	1,690	11,900	13,300	11,700	5,700	5,040	2,290	1,180	5,900	2,860
3	1,630	1,690	1,450	45,900	12,700	10,700	6,670	4,500	2,170	1,240	7,240	3,280
4	1,690	1,570	1,510	33,300	12,700	9,920	7,120	4,260	2,230	1,240	7,960	3,070
5	1,630	1,340	1,630	31,900	14,100	8,760	6,450	3,860	2,110	1,340	8,760	2,720
6	1,570	1,340	1,690	34,700	15,500	8,760	6,450	3,780	2,050	1,570	9,920	2,350
7	1,570	1,630	1,630	36,100	19,600	8,080	7,000	3,350	2,110	1,570	11,400	2,230
8	1,240	1,690	1,690	37,500	21,200	7,600	8,620	3,140	1,510	1,570	12,600	2,050
9	1,090	1,570	2,290	43,100	21,200	7,240	10,200	2,930	1,670	1,510	13,500	2,290
10	990	1,340	2,170	43,100	23,900	6,670	13,700	2,790	1,690	1,400	13,300	2,590
11	945	1,130	1,610	41,700	23,900	6,230	14,900	2,650	1,690	1,400	10,900	2,590
12	1,240	1,090	1,930	33,300	23,900	6,010	15,500	2,470	1,670	1,400	6,450	2,650
13	990	1,290	3,420	28,000	22,400	5,600	15,500	2,590	2,290	1,400	5,130	2,720
14	1,090	1,870	5,700	26,900	21,800	5,400	15,200	2,650	2,110	1,340	5,130	2,790
15	1,090	2,110	2,790	28,000	21,200	5,400	14,700	2,720	1,510	1,400	5,040	2,470
16	1,090	1,690	2,590	28,000	20,100	5,500	13,900	2,590	1,690	1,690	4,680	2,590
17	990	1,690	2,650	24,800	18,600	5,220	12,700	2,470	1,870	1,450	4,500	2,590
18	945	1,570	2,790	19,600	16,900	5,220	10,600	2,470	2,050	1,990	4,020	2,470
19	945	1,240	2,350	31,900	18,200	5,220	8,080	2,860	2,110	4,590	3,490	2,350
20	900	1,180	2,350	45,900	13,700	5,600	6,670	4,590	2,050	4,420	3,070	2,290
21	990	1,510	2,110	44,500	14,100	5,600	5,400	4,950	1,990	5,800	2,790	2,170
22	945	1,630	1,990	41,700	13,100	5,400	4,680	4,420	1,810	4,860	2,720	1,690
23	945	1,690	2,110	43,100	14,100	5,310	4,860	3,630	1,540	4,950	2,720	1,750
24	945	1,630	2,290	41,700	13,700	5,040	5,310	3,140	1,240	6,230	2,720	1,870
25	990	1,510	2,110	40,300	12,000	4,950	5,600	2,790	1,290	5,130	2,410	1,990
26	945	1,040	1,630	34,700	11,700	4,860	5,700	2,410	1,240	3,490	2,530	2,050
27	1,040	1,400	1,570	28,000	11,500	4,860	5,310	2,410	1,180	3,630	2,470	2,050
28	945	1,570	1,450	22,400	12,000	5,130	4,590	3,490	1,240	3,940	2,290	1,930
29	990	1,750	2,170	19,800	12,600	5,900	4,500	4,950	1,240	4,100	2,170	1,450
30	2,170	2,410	3,420	16,500	-	6,340	5,400	4,340	1,180	4,260	2,230	1,340
31	2,720	-	3,700	14,700	-	5,900	-	3,420	-	3,560	2,790	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	38,000	2,720	900	1,226	0.331	0.38
November.....	47,290	2,410	1,040	1,580	.427	.45
December.....	68,610	3,700	1,450	2,213	.593	.69
Calendar year 1935.....	1,676,700	31,900	900	4,594	1.24	16.86
January.....	977,570	45,900	4,770	31,530	8.52	9.82
February.....	480,800	23,900	11,500	16,580	4.48	4.63
March.....	206,220	12,200	4,860	6,652	1.80	2.08
April.....	256,410	15,500	4,500	8,647	2.31	2.68
May.....	107,360	5,700	2,410	3,453	.956	1.08
June.....	53,510	2,790	1,180	1,784	.482	.54
July.....	84,740	6,230	1,090	2,734	.739	.85
August.....	174,690	13,500	2,170	5,635	1.52	1.75
September.....	69,830	3,280	1,340	2,328	.629	.70
Water year 1935-36.....	2,565,130	45,900	900	7,009	1.09	25.78

## Coosa River at Gadsden, Ala.

Location.- Water-stage recorder, lat. 34°01', long. 86°00', in T. 12 S., R 6 E., at Etowah County Memorial Bridge, on U. S. Highway 241 in Gadsden, 700 feet below Louisville & Nashville Railroad bridge. Zero of gage is 485.16 feet above mean sea level.

Drainage area.- 5,800 square miles.

Records available.- October 1926 to March 1932, May 1935 to September 1936.

Extremes.- Maximum discharge during year, 76,900 second-feet Apr. 11 (gage height, 31.13 feet); minimum, 1,320 second-feet Oct. 10 (gage height, 0.36 foot).  
1926-32, 1935-36: Maximum discharge, that of Apr. 11, 1936; minimum, 1,180 second-feet Oct. 24, 1931 (gage height, 0.18 foot).  
Maximum stage known, 36.7 feet Apr. 6, 1886 (discharge not determined).

Remarks.- Records good.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.3	1,270	3.5	4,740	12.0	18,670	22.0	42,600	29.0	66,900
.8	1,720	4.0	5,450	14.0	22,500	24.0	48,500	30.0	71,500
1.8	2,720	5.0	6,950	16.0	27,000	26.0	55,100	31.1	76,900
2.5	3,490	7.2	10,470	18.0	31,900	27.0	58,700		
3.0	4,090	10.0	15,230	20.0	37,100	28.0	62,600		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,450	2,940	4,610	*4,880	*9,070	*9,510	*32,700	7,590	3,730	2,620	4,350	8,870
2	1,450	2,970	4,610	5,510	*7,910	*8,030	*40,300	7,450	3,610	2,620	6,820	5,620
3	1,450	2,970	3,970	17,400	14,200	*8,550	*47,000	7,270	3,610	2,670	6,950	3,610
4	1,400	1,970	3,380	*27,900	41,400	*8,710	*50,400	6,950	3,610	2,670	6,050	3,050
5	1,400	1,820	3,160	*32,900	*54,700	*8,710	*52,100	6,950	3,490	3,050	5,750	2,880
6	1,360	1,720	2,940	36,600	*59,100	*9,190	*55,800	6,800	3,610	3,490	4,350	3,450
7	1,360	1,770	2,830	*39,300	59,100	*8,870	*60,600	6,500	3,610	3,650	3,490	4,350
8	1,360	1,720	2,760	*43,800	59,900	*8,390	*66,500	6,200	3,610	3,610	3,160	3,380
9	1,360	1,770	2,720	*48,200	61,400	*7,590	*72,000	6,050	3,610	3,380	3,970	2,830
10	1,320	2,930	2,720	*50,400	*62,600	*7,270	*75,400	5,750	4,090	3,850	4,890	2,940
11	1,360	3,610	2,720	*50,400	*61,400	*6,950	76,900	5,600	4,090	3,160	6,440	3,050
12	1,360	6,200	3,050	48,800	*59,500	*6,650	76,400	5,450	3,730	2,760	11,300	3,970
13	1,360	13,200	6,900	47,300	*55,800	*6,650	72,900	5,750	4,220	2,670	11,500	3,610
14	1,400	15,900	*11,200	45,200	*50,800	6,350	66,900	6,800	4,350	2,670	6,050	3,050
15	1,400	17,600	*10,600	41,500	*38,700	6,200	61,400	7,750	4,090	3,160	4,090	2,570
16	1,450	14,600	*8,870	31,600	*23,400	6,200	54,400	6,800	3,850	6,180	3,380	2,370
17	1,400	8,000	*6,800	20,000	*16,400	5,070	45,800	6,050	3,490	7,400	3,050	2,220
18	1,360	4,740	*6,300	17,100	*14,000	11,300	29,000	5,450	3,270	10,300	3,050	2,120
19	1,360	4,090	*4,480	30,400	*14,000	13,900	15,100	5,160	3,610	7,910	2,780	2,120
20	1,450	3,970	*4,090	40,900	*13,900	14,000	11,800	4,880	3,160	5,300	2,880	2,120
21	1,540	3,730	*3,850	44,900	*13,700	12,500	11,000	4,740	3,610	3,970	2,880	2,120
22	1,680	3,380	*3,380	44,900	*13,000	10,800	10,500	4,610	3,610	3,610	3,380	2,940
23	1,720	3,160	*3,160	44,000	*12,300	10,200	9,990	4,480	3,160	3,380	3,490	2,720
24	1,770	2,940	*3,050	43,500	*11,300	11,200	9,670	4,360	2,940	3,050	2,940	2,940
25	1,720	2,780	*2,940	42,300	*10,500	18,100	9,350	4,220	2,940	2,880	2,670	3,050
26	1,680	2,620	*2,940	*40,300	*9,990	24,900	9,190	4,090	3,270	2,720	2,520	2,670
27	1,580	2,620	*2,830	*34,700	*9,830	32,400	8,710	4,090	3,270	2,620	2,420	2,320
28	1,680	3,160	*2,830	*21,700	*10,200	37,400	8,390	4,090	2,940	2,620	2,320	2,170
29	1,920	4,220	*3,730	*11,700	*9,830	39,300	8,070	3,970	2,780	2,470	2,470	2,120
30	2,570	4,480	*4,880	*9,030	-	39,000	7,910	3,850	2,720	2,670	4,440	2,270
31	2,630	-	*6,300	*8,390	-	36,300	-	3,850	-	3,050	8,230	-
Month	Second-foot-days		Maximum	Minimum	Mean	Per square mile	Run-off in inches					
October.....	48,500		2,630	1,320	1,565	0.270	0.31					
November.....	146,580		17,600	1,720	4,886	.842	.94					
December.....	136,620		11,200	2,720	4,407	.760	.88					
Calendar year .....												
January.....	1,025,610		50,400	4,880	33,080	5.70	6.57					
February.....	876,930		62,600	7,910	30,240	5.21	5.62					
March.....	444,190		39,300	6,200	14,330	2.47	2.85					
April.....	1,156,180		76,900	7,910	38,540	6.64	7.41					
May.....	173,520		7,750	3,850	5,697	.965	1.11					
June.....	105,230		4,350	2,720	3,508	.605	.68					
July.....	116,180		10,300	2,470	3,748	.646	.74					
August.....	142,830		11,600	2,320	4,607	.794	.92					
September.....	93,600		8,870	2,120	3,117	.537	.60					
Water year 1935-36.....	4,465,770		76,900	1,320	12,200	2.10	28.63					

\*From graph based on once-daily gage readings.

## Coosa River at Childersburg, Ala.

Location.- Water-stage recorder, lat. 34°01', long. 86°00', in T. 20 S., R. 3 E., at Central of Georgia Railway bridge 1 mile northwest of Childersburg. Zero of gage is 421.00 feet above mean sea level.

Drainage area.- 8,390 square miles.

Records available.- February 1914 to September 1936.

Average discharge.- 19 years (1917-36), 14,350 second-feet.

Extremes.- Maximum discharge during year, 130,000 second-feet Feb. 5 (gage height, 28.5 feet); minimum, 1,980 second-feet Oct. 18 (gage height, 1.14 feet).

1914-36: Maximum discharge, that of Feb. 5, 1936; minimum, 1,300 second-feet in September 1925.

Remarks.- Records good. Records collected by the Alabama Power Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.1	1,900	4.1	9,520	12.0	40,680
1.3	2,510	4.8	11,760	13.8	48,960
1.5	2,740	5.7	14,840	15.4	56,640
2.0	3,840	6.4	17,360	16.6	62,640
2.5	5,040	7.2	20,400	18.0	69,920
3.1	6,600	8.6	26,000	23.2	98,000
3.6	8,000	10.0	31,880	28.2	128,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,390	3,620	5,950	8,900	12,400	14,500	45,300	10,800	5,300	4,200	5,170	9,200
2	2,290	3,840	5,950	12,800	12,400	13,800	49,400	10,500	5,300	3,840	7,440	10,200
3	2,290	3,730	5,950	26,500	25,200	13,100	60,100	10,500	5,170	3,960	10,200	7,720
4	2,250	3,400	5,430	37,200	99,800	12,600	60,600	9,840	5,040	3,840	9,200	5,430
5	2,200	3,070	4,680	45,500	128,000	12,800	62,600	9,520	5,040	3,840	7,720	4,560
6	2,200	2,740	4,320	48,600	121,000	12,800	73,200	9,520	4,920	3,960	7,440	4,320
7	2,100	2,610	3,960	57,600	99,800	15,100	95,500	9,200	4,920	4,440	6,540	4,080
8	2,080	2,500	3,960	79,000	82,900	12,400	94,200	8,900	4,920	4,920	5,450	5,300
9	2,060	2,480	3,840	92,100	76,400	11,800	92,500	8,600	4,920	5,040	5,040	5,300
10	2,060	2,460	3,840	93,700	74,800	10,800	100,000	8,300	5,430	4,560	5,170	5,430
11	2,060	2,670	3,730	76,900	74,200	10,500	98,600	8,000	5,560	4,920	6,340	5,040
12	2,060	4,920	3,960	67,300	72,600	10,200	94,800	8,000	5,690	4,560	7,720	4,560
13	2,040	9,200	7,440	61,100	71,000	9,520	91,000	7,720	5,560	4,200	12,400	4,920
14	2,020	16,300	12,800	57,600	67,900	9,200	87,200	7,720	5,560	3,840	12,800	5,560
15	2,040	18,500	16,200	57,600	62,100	9,200	81,500	8,600	5,950	3,840	8,900	5,170
16	2,020	20,000	13,500	56,700	48,500	8,900	73,200	9,520	5,560	3,960	6,080	4,440
17	2,020	16,300	11,400	42,100	30,200	11,100	64,700	8,900	5,430	7,720	4,920	3,620
18	2,060	10,200	9,200	31,900	22,400	13,800	54,200	8,000	5,040	9,840	4,440	3,400
19	2,080	6,600	7,440	61,600	20,800	15,600	34,500	7,440	4,680	12,400	4,200	3,180
20	2,250	5,560	6,470	67,800	20,400	17,700	20,000	6,880	4,440	9,840	3,960	3,070
21	2,250	5,300	5,690	64,200	20,000	17,700	16,300	6,880	4,320	7,440	3,960	2,960
22	2,200	4,920	5,300	60,600	19,600	15,900	14,800	6,470	4,680	5,950	3,840	3,070
23	2,250	4,560	4,920	56,600	18,500	14,100	14,100	6,340	5,170	5,040	4,200	3,510
24	2,270	4,200	4,680	54,200	17,400	13,100	13,200	6,210	4,680	4,800	4,680	4,080
25	2,370	3,960	4,440	52,500	15,900	14,800	13,100	6,080	4,320	4,440	4,560	3,840
26	2,420	3,730	4,320	50,900	14,800	27,300	12,800	6,080	4,200	4,080	3,960	3,960
27	2,420	3,620	4,200	49,500	14,800	34,500	12,400	5,820	4,200	3,840	3,620	3,840
28	2,670	3,840	4,080	42,100	15,600	46,700	11,800	5,820	4,440	3,730	3,400	3,400
29	3,180	4,800	7,160	27,300	15,200	49,900	11,400	5,690	4,320	3,510	3,290	3,180
30	3,180	5,950	10,500	16,600	-	49,400	11,100	5,560	4,080	3,400	3,730	3,070
31	3,180	-	10,200	13,500	-	47,100	-	5,430	-	3,620	5,170	-
Month	Second-foot-days			Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October.....	70,960			3,180	2,020	2,289	0.273	0.31				
November.....	185,580			20,000	2,460	6,186	.737	.82				
December.....	206,510			15,200	3,730	6,597	.786	.91				
Calendar year 1935.....	4,167,770			55,700	2,020	11,420	1.36	18.47				
January.....	1,569,000			93,700	8,900	50,610	6.03	6.95				
February.....	1,374,500			128,000	12,400	47,400	5.65	6.09				
March.....	574,120			49,900	8,900	18,520	2.21	2.55				
April.....	1,564,400			100,000	11,100	52,150	6.22	6.94				
May.....	242,840			10,600	5,430	7,834	.934	1.08				
June.....	148,840			5,950	4,080	4,961	.591	.66				
July.....	167,670			12,400	3,400	5,083	.606	.70				
August.....	165,320			12,600	3,290	5,978	.713	.82				
September.....	139,410			10,200	2,960	4,647	.554	.62				
Water year 1935-36.....	6,417,050			128,000	2,020	17,530	2.09	28.45				

## Coosa River at Lock 18, near Wetumpka, Ala.

**Location.**— Water-stage recorder, lat. 32°37', long. 86°15', in sec. 22, T. 19 N., R. 18 E., half a mile downstream from Lock 18 dam site and 7 miles above Wetumpka. Zero of gage is 179.65 feet above mean sea level.

**Drainage area.**— 10,200 square miles.

**Records available.**— July 1912 to September 1914, December 1925 to September 1936.

**Average discharge.**— 10 years (1926-36), 16,340 second-feet.

**Extremes.**— Maximum discharge during year, 197,000 second-feet Feb. 4 (gage height, 37.3 feet), from rating curve extended above 88,000 second-feet on basis of power-plant records and spillway discharge; minimum, 70 second-feet at times (gage height, 1.95 feet); minimum daily discharge, 74 second-feet Nov. 9.

1912-14, 1925-36: Maximum discharge, 207,000 second-feet Mar. 15, 1929 (gage height, 38.6 feet), computed from power-plant records and spillway discharge; minimum, 70 second-feet at times in 1930-36 (gage height, 1.95 feet); minimum daily discharge, 70 second-feet Oct. 3, 1932, and Dec. 9, 1933.

**Remarks.**— Records good between 4,000 and 70,000 second-feet, fair below 4,000 second-feet and above 70,000 second-feet. Discharge computed from records of Jordan Dam hydroelectric plant during periods of no gage-height record, Nov. 28 to Dec. 4, Mar. 17, 18, and for periods of backwater from Tallapoosa River, Feb. 5-13, Apr. 8-17. Flow almost completely regulated during low and medium stages by hydroelectric plants at Lock 12 and Mitchell Dam. Records collected by the Alabama Power Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

Rating table, water year 1935-36 except periods of backwater  
(gage height, in feet, and discharge, in second-feet)

1.95	70	4.5	1,070	8.0	6,480	14.6	33,500
2.2	95	5.0	1,450	8.5	7,740	21.0	71,900
2.8	210	5.5	2,010	9.0	9,120	28.0	121,000
3.0	269	6.0	2,670	9.5	10,700	35.0	177,000
3.6	508	6.5	3,470	10.5	14,300	35.8	184,000
3.8	608	7.0	4,370	11.2	17,100		
4.1	788	7.5	5,350	12.2	21,500		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,870	1,510	75	11,900	17,100	16,400	71,100	15,300	4,930	7,340	16,900	8,060
2	1,110	2,520	4,620	13,200	11,800	17,500	73,200	13,400	6,060	5,250	7,420	7,770
3	2,120	5,650	5,240	42,900	45,300	17,400	70,900	11,200	4,490	4,070	10,200	10,200
4	1,620	6,190	5,010	43,900	184,000	12,700	71,300	13,000	6,610	2,790	7,600	7,970
5	90	1,410	4,590	50,800	158,000	14,700	71,300	14,200	4,450	6,990	7,520	5,330
6	1,480	1,530	5,180	65,700	144,000	16,400	88,600	14,000	707	6,650	9,840	7,370
7	4,480	1,780	187	67,100	128,000	14,000	122,000	13,400	223	5,100	8,060	7,330
8	2,320	650	5,030	113,000	95,600	11,900	112,000	12,400	6,670	5,600	8,740	4,530
9	913	74	7,700	152,000	81,600	13,000	130,000	13,800	5,550	5,810	6,940	5,550
10	734	4,040	6,670	114,000	80,100	18,200	124,000	12,200	5,910	5,710	9,480	7,680
11	1,500	5,590	5,700	98,900	73,800	16,000	113,000	8,030	9,240	5,590	7,380	7,930
12	113	9,410	7,240	81,800	75,500	12,900	107,000	7,650	6,740	6,430	9,480	7,380
13	2,810	15,000	11,400	71,200	79,300	10,400	97,300	5,860	7,230	6,790	10,500	5,380
14	5,420	15,800	11,400	64,600	84,800	11,500	97,200	11,000	6,980	5,240	13,300	6,790
15	1,190	13,600	6,550	68,000	75,600	9,750	89,400	10,500	6,680	4,130	14,100	5,920
16	1,650	10,400	13,000	65,500	61,600	13,900	79,800	8,030	6,430	5,160	11,600	5,890
17	2,050	7,100	15,100	53,400	41,800	6,090	70,800	8,680	6,140	5,800	12,500	4,420
18	2,900	16,500	15,300	55,200	24,700	14,900	64,600	10,600	8,620	8,020	4,850	4,240
19	129	15,000	15,100	107,000	19,400	14,500	51,400	12,700	5,840	8,710	1,550	2,740
20	1,900	15,100	10,900	86,300	26,200	20,900	25,000	10,200	6,560	8,670	2,600	3,920
21	4,670	12,600	8,550	74,900	21,500	20,200	19,000	11,300	5,600	11,500	1,150	6,720
22	3,870	7,120	5,330	36,100	21,300	18,200	19,900	19,400	7,910	7,270	7,040	3,920
23	2,230	4,710	9,810	63,900	21,300	20,600	17,900	11,000	6,320	7,570	6,040	3,840
24	2,640	4,173	3,690	58,100	21,500	15,400	18,300	7,010	4,580	8,640	6,490	3,350
25	1,850	9,960	1,640	55,500	21,400	28,500	19,000	8,780	5,170	7,010	5,540	2,710
26	146	13,000	3,740	53,100	18,100	40,800	18,700	11,500	4,780	6,330	3,350	136
27	1,760	7,580	3,830	53,900	17,900	40,000	14,300	9,750	358	7,370	2,790	3,640
28	4,790	6,080	4,400	47,900	19,700	50,800	17,100	11,800	3,670	7,660	3,870	6,790
29	1,940	2,410	8,960	39,000	16,100	53,400	9,110	8,050	7,040	6,030	5,040	2,810
30	1,970	150	14,800	27,600	-	52,400	16,100	5,920	7,010	4,140	3,420	3,510
31	2,690	-	14,500	20,600	-	52,200	-	945	-	1,560	5,950	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	65,965	5,420	90	2,128	0.209	0.24
November.....	211,437	15,300	74	7,048	.691	.77
December.....	235,562	15,300	75	7,654	.759	.85
Calendar year 1935.....	4,978,883	74,700	73	13,640	1.34	18.14
January.....	1,971,900	132,000	11,900	63,610	6.24	7.19
February.....	1,687,500	184,000	11,800	59,190	5.70	6.15
March.....	675,340	53,400	6,090	21,790	2.14	2.47
April.....	1,928,310	152,000	9,110	64,310	6.30	7.03
May.....	322,305	15,300	945	10,400	1.02	1.18
June.....	158,475	9,240	228	5,516	.551	.61
July.....	184,810	11,500	1,560	6,397	.615	.71
August.....	229,250	16,900	1,150	7,395	.725	.84
September.....	163,176	10,200	136	5,439	.533	.59
Water year 1935-36.....	7,853,128	184,000	74	21,460	2.10	28.63



## Alabama River near Montgomery, Ala.

**Location.**- Water-stage recorder, lat. 32°25', long. 86°25', in T. 17 N., R. 17 E., at bridge on U. S. Highway 31, 4 miles above Autauga Creek and 6 miles northwest of Montgomery.

**Drainage area.**- 15,100 square miles.

**Records available.**- October 1927 to September 1936. At Montgomery, 9 miles upstream, January 1899 to December 1903 (gage heights only).

**Extremes.**- Maximum discharge during year, 198,000 second-feet Feb. 7, 8 (gage height, 55.3 feet); minimum discharge, 8,050 second-feet Sept. 8; minimum gage height, 1.2 feet Nov. 10; minimum daily discharge, 8,800 second-feet Nov. 10.

1899-1903, 1927-36: Maximum discharge, 209,000 second-feet Mar. 17, 1929 (gage height, 59.6 feet); minimum, 4,840 second-feet Nov. 20, 1931 (gage height, 0.37 foot); minimum daily discharge, 5,120 second-feet Nov. 20, 1931.

**Remarks.**- Records good except those for May 18-20, which are fair and were determined from adjusted twice-daily readings on gage 6 miles below. Flow regulated by hydro-electric plants on Tallapoosa and Coosa Rivers and by storage in Martin Dam Reservoir (capacity, 1,380,000 acre-feet) on Tallapoosa River. Records collected by the Alabama Power Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7				Feb. 8 to Sept. 30			
1.3	6,800	36.5	96,700	2.4	7,700	7.0	17,200
1.7	7,360	42.0	111,000	2.6	8,020	8.0	19,600
2.1	8,000	48.0	129,000	3.1	8,870	10.0	24,700
2.5	8,720	50.0	137,000	3.5	9,590	12.0	30,200
3.2	10,100	52.0	149,000	3.9	10,400	14.0	35,900
4.4	12,800	55.0	158,000	4.5	11,600	19.0	50,400
7.5	20,200	54.0	173,000	5.0	12,600	23.0	61,500
13.0	34,500	55.0	191,000	6.0	14,800		
24.0	64,200						

Note.- Same as previous table above 23.0 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,720	9,120	9,120	20,700	30,100	27,200	66,800	25,300	11,000	12,800	17,900	8,360
2	10,600	8,360	8,540	24,400	24,100	28,800	77,500	24,500	14,100	12,600	23,400	9,970
3	9,120	7,680	12,900	50,200	26,400	28,200	85,000	21,100	14,800	11,400	23,700	9,780
4	10,300	8,540	11,900	73,000	81,900	26,600	91,500	19,100	13,900	9,780	22,600	11,200
5	9,720	7,840	11,000	79,300	119,000	24,500	93,100	20,800	12,000	8,530	16,700	10,400
6	7,840	7,840	10,800	80,100	148,000	25,300	92,500	21,900	11,400	8,190	14,600	8,530
7	7,520	8,000	10,100	82,700	187,000	24,500	102,000	10,600	9,590	7,700	15,300	9,050
8	8,540	8,540	8,360	87,100	189,000	19,600	118,000	19,800	9,410	8,700	12,600	7,860
9	8,720	7,680	9,320	106,000	167,000	17,900	131,000	18,800	12,400	9,410	10,800	8,190
10	8,000	6,800	11,200	118,000	146,000	21,600	150,000	18,100	13,500	8,530	9,590	11,000
11	8,360	8,000	11,400	122,000	133,000	23,700	168,000	13,900	14,400	8,190	10,200	11,800
12	9,320	8,920	13,700	118,000	124,000	22,400	170,000	14,600	13,700	9,780	13,900	12,400
13	8,000	15,200	18,500	109,000	116,000	18,600	154,000	16,200	10,800	8,700	13,500	11,000
14	8,360	16,400	16,800	100,000	111,000	17,900	140,000	18,600	11,200	8,190	13,700	9,410
15	7,840	15,400	13,500	92,300	107,000	16,400	131,000	17,400	9,050	8,700	16,200	9,050
16	7,680	14,400	10,300	86,800	103,000	14,600	122,000	15,500	8,700	9,410	15,700	10,200
17	8,360	9,920	18,000	80,600	94,100	17,200	114,000	14,100	9,780	9,780	13,500	11,400
18	9,320	10,600	20,700	69,900	80,600	22,400	105,000	17,600	10,800	9,780	11,800	11,600
19	10,300	16,400	21,000	80,600	61,800	26,900	93,600	19,400	12,000	10,200	9,970	12,200
20	7,840	17,600	19,000	96,200	48,000	26,100	76,900	19,600	11,600	9,970	9,780	10,600
21	7,360	18,000	19,000	101,000	43,100	29,300	49,800	19,100	10,400	11,200	10,400	9,050
22	9,320	14,200	15,600	99,000	37,600	26,300	37,700	18,400	9,050	11,600	9,590	9,050
23	10,800	14,000	14,700	93,100	35,000	23,900	28,500	17,900	10,800	9,780	9,230	9,970
24	9,120	11,200	17,600	85,500	33,600	24,700	27,700	17,600	12,800	11,800	8,870	10,600
25	9,320	9,320	10,600	76,900	34,700	27,400	28,800	12,600	11,800	10,400	8,530	10,200
26	9,120	18,500	8,540	68,900	32,400	47,800	28,500	16,200	12,000	8,870	10,400	9,780
27	7,680	19,500	9,720	63,100	32,100	59,300	24,500	19,100	11,200	8,190	11,000	9,230
28	7,080	15,600	10,800	80,200	33,000	66,000	23,900	19,600	11,000	10,200	10,600	10,400
29	8,540	14,000	15,400	56,400	31,000	72,000	21,400	19,400	8,530	12,200	11,000	8,870
30	9,720	11,000	19,000	47,700	-	72,800	20,800	17,200	10,400	12,600	11,200	9,410
31	8,360	-	21,800	37,200	-	69,900	-	14,400	-	11,200	8,020	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October.....					270,880	10,800	7,080	8,738	0.579		0.67	
November.....					358,560	19,500	6,800	11,950	.791		1.08	
December.....					428,800	21,800	8,360	13,530	.916		1.86	
Calendar year 1935.....					7,580,760	90,800	6,800	20,770	1.38		18.67	
January.....					2,465,900	122,000	20,700	79,550	5.27		6.08	
February.....					2,409,500	189,000	24,100	83,090	5.50		5.93	
March.....					969,800	72,800	14,600	31,280	2.07		2.39	
April.....					2,568,500	170,000	20,900	86,620	5.67		6.33	
May.....					568,400	25,300	12,600	18,340	1.24		1.40	
June.....					341,510	14,800	8,530	11,580	.754		.84	
July.....					308,380	12,800	7,700	9,948	.689		.76	
August.....					402,280	23,700	8,020	12,980	.860		.99	
September.....					300,560	12,400	7,860	10,020	.664		.74	
Water year 1935-36.....					11,393,070	189,000	6,800	31,130	2.06		28.07	

## Alabama River at Selma, Ala.

Location.- Water-stage recorder, lat. 32°24', long. 87°01', in T. 17 N., R. 10 E., at bridge on U. S. Highway 80 in Selma, 2 miles above mouth of Valley Creek.

Drainage area.- 17,100 square miles.

Records available.- January 1899 to December 1913, June 1928 to September 1936.

Average discharge.- 21 years (1900-1913, 1928-36), 26,730 second-feet.

Extremes.- Maximum discharge during year, 177,000 second-feet Feb. 10 (gage height, 53.1 feet); minimum, 6,890 second-feet Nov. 11 (gage height, 1.74 feet); minimum daily discharge, 7,000 second-feet Nov. 11.

1899-1913, 1928-36: Maximum discharge, 204,000 second-feet Mar. 19, 1929 (gage height, 55.52 feet); minimum, 2,660 second-feet Nov. 1, 1904 (gage height, -2.20 feet); minimum daily discharge, 3,300 second-feet Oct. 9 to Nov. 3, 1904.

Maximum stage known, 57.0 feet Apr. 8, 1886 (discharge, 221,000 second-feet).

Remarks.- Records good. Mean daily gage heights for Oct. 26 to Nov. 1 computed from graph based on once-daily readings of U. S. Weather Bureau gage at same location. Flow regulated by power plants on Coosa and Tallapoosa Rivers. (See station description for Alabama River near Montgomery, Ala.)

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,360	8,090	10,400	22,800	39,700	34,600	71,300	24,300	13,800	9,570	16,100	9,090
2	8,940	8,220	8,790	26,700	31,800	31,000	71,900	27,600	11,500	11,700	27,400	8,790
3	9,570	7,950	8,220	43,500	35,200	31,600	79,500	26,000	15,600	11,700	29,000	9,310
4	8,940	7,460	10,600	62,800	33,200	31,000	86,900	22,100	14,000	10,700	29,900	9,910
5	9,410	7,830	10,800	75,800	106,000	28,500	93,000	20,300	13,300	9,210	26,100	10,800
6	9,090	7,580	10,100	80,200	128,000	27,400	95,800	21,900	11,900	8,150	20,200	10,300
7	7,960	7,340	9,740	81,800	162,000	27,400	99,700	22,400	10,700	7,640	17,000	8,940
8	7,340	7,580	9,410	85,700	166,000	25,700	106,000	21,300	9,570	7,470	14,500	8,940
9	7,830	7,830	8,560	99,600	175,000	21,500	123,000	20,300	9,760	8,320	13,000	8,220
10	8,090	7,460	8,640	116,900	177,000	19,700	137,000	19,500	12,300	8,650	11,200	8,560
11	7,700	7,000	9,910	130,000	173,000	23,500	148,000	18,000	13,300	8,150	10,300	11,000
12	7,960	7,460	9,410	135,000	164,000	25,400	158,000	14,600	14,600	7,640	11,600	12,400
13	8,500	8,680	13,900	133,000	150,000	22,900	164,000	15,700	13,300	8,650	15,000	12,800
14	7,960	13,900	17,900	126,000	158,000	19,500	166,000	16,400	11,100	8,150	14,800	12,000
15	7,830	15,900	17,400	117,000	130,000	18,500	162,000	18,500	10,700	7,640	14,500	10,400
16	7,700	15,000	13,800	108,000	122,000	16,800	153,000	17,500	9,030	7,880	16,100	9,910
17	7,460	13,700	10,800	98,400	115,000	17,000	142,000	15,900	8,320	8,490	15,900	10,600
18	7,830	10,000	16,500	90,500	106,000	19,500	131,000	14,600	9,210	9,390	14,300	11,600
19	8,640	9,960	20,000	87,800	91,800	26,000	120,000	15,900	10,100	9,950	12,000	12,000
20	9,410	15,000	20,400	102,000	74,100	28,200	106,000	18,000	10,900	11,100	10,100	12,600
21	7,960	17,300	18,800	109,000	59,800	29,000	86,900	19,500	10,700	11,100	9,910	10,800
22	7,220	17,200	18,100	112,000	51,200	30,700	62,100	19,500	9,760	11,300	10,100	9,570
23	8,490	14,100	15,000	110,000	44,400	27,400	42,800	18,500	8,670	11,700	10,100	9,410
24	9,740	12,800	14,100	104,000	39,700	26,200	34,100	18,200	10,300	10,900	11,200	10,100
25	8,790	10,400	15,600	95,200	37,700	27,600	31,600	16,600	11,300	11,900	9,410	10,800
26	8,790	9,340	10,600	85,100	37,700	37,200	31,600	13,100	11,300	10,500	8,940	10,400
27	8,360	16,500	8,220	75,200	38,000	53,700	30,200	16,400	11,100	8,490	10,300	9,910
28	7,580	18,600	8,640	68,200	38,000	62,600	26,200	16,100	10,300	7,640	11,000	9,570
29	7,110	15,600	11,500	63,200	38,000	68,800	25,400	19,500	8,320	9,050	10,800	10,300
30	7,700	13,200	17,700	57,900	-	73,000	22,700	19,000	7,980	11,100	11,400	9,410
31	8,220	-	21,100	50,000	-	73,600	-	16,800	-	11,700	11,600	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	256,480		9,740		7,110		8,274		0.494		0.56	
November.....	338,690		18,600		7,000		11,290		.660		.74	
December.....	404,240		21,100		8,220		13,040		.763		.88	
Calendar year 1935.....	7,874,660		92,300		7,000		21,570		1.26		17.13	
January.....	2,752,400		135,000		22,800		88,790		5.19		5.98	
February.....	2,720,300		177,000		31,800		93,800		5.49		5.92	
March.....	1,005,300		73,600		16,800		32,430		1.90		2.18	
April.....	2,810,700		166,000		22,700		93,690		5.48		6.11	
May.....	584,000		27,600		13,100		18,840		1.10		1.27	
June.....	350,720		14,600		7,980		11,020		.644		.72	
July.....	296,030		11,900		7,470		9,549		.558		.64	
August.....	453,760		29,900		8,940		14,640		.856		.99	
September.....	308,840		12,800		8,220		10,290		.602		.67	
Water year 1935-36.....	12,261,460		177,000		7,000		33,500		1.96		26.67	

## Alabama River at Claiborne, Ala.

Location.- Water-stage recorder, lat. 31°32', long. 87°31', in sec. 25, T. 7 N., R. 5 E., at bridge on State Highway 44 in Claiborne. Zero of gage is at mean sea level.

Drainage area.- 22,000 square miles.

Records available.- April 1930 to September 1936.

Extremes.- Maximum discharge during year, 183,000 second-feet Feb. 15 (gage height, 49.0 feet); minimum, 8,460 second-feet Oct. 19 (gage height, 9.57 feet).

1930-36: Maximum discharge, that of Feb. 15, 1936; minimum discharge, 6,200 second-feet Nov. 3, 4, 1931; minimum gage height, 8.00 feet Nov. 4, 1931.

Remarks.- Records good. Mean daily gage heights for Nov. 22-29, Dec. 11-17 computed from graph based on partial record and several readings by observer, and for June 18 to July 7 from graph based on twice-daily gage readings. Flow regulated by power plants on Coosa and Tallapoosa Rivers. (See station description for Alabama River near Montgomery.)

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 25 to Dec. 17, Aug. 9 to Sept. 30)

9.6	8,460	24.0	39,000	43.0	127,000
10.0	9,100	24.5	40,600	44.0	134,000
12.0	12,400	26.0	42,200	45.0	142,000
14.0	16,100	28.0	45,500	46.0	151,000
16.0	20,000	29.0	52,800	47.0	161,000
19.0	26,500	30.0	60,400	49.0	183,000
21.0	31,200	35.0	81,800		
23.0	36,300	40.0	108,000		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,100	9,100	17,800	23,000	78,600	46,600	76,400	34,700	21,300	12,400	16,500	14,600
2	11,300	9,740	16,300	29,300	66,400	44,200	78,200	33,200	19,800	11,600	23,700	14,600
3	10,200	9,900	14,400	42,800	58,800	40,600	78,200	33,400	17,600	12,300	29,800	12,800
4	10,100	10,100	12,400	56,200	69,400	37,900	80,800	32,700	16,100	13,700	32,000	11,600
5	10,200	9,900	11,600	66,900	87,700	36,800	85,200	30,200	16,500	14,600	32,000	11,600
6	10,200	9,740	12,100	78,200	102,000	35,500	90,800	27,200	16,900	13,900	31,000	11,600
7	10,200	9,580	12,800	86,700	114,000	35,400	97,400	27,600	16,500	13,000	28,600	12,100
8	10,100	9,580	12,600	96,400	126,000	32,200	104,000	25,400	15,500	11,900	24,700	12,100
9	9,420	9,420	12,400	111,000	136,000	31,200	112,000	25,200	14,800	11,400	21,500	11,600
10	8,780	9,420	12,100	120,000	146,000	28,800	120,000	24,300	14,400	11,300	18,800	10,900
11	8,620	9,740	11,400	127,000	157,000	26,300	126,000	23,400	14,400	11,600	17,200	10,400
12	8,780	9,900	11,100	131,000	168,000	25,800	132,000	22,500	15,300	11,900	16,300	10,200
13	8,780	9,740	11,800	135,000	175,000	27,200	137,000	20,800	16,500	11,900	15,700	11,900
14	8,780	9,740	15,200	139,000	181,000	27,900	144,000	18,800	17,000	11,600	15,900	13,200
15	9,100	11,400	19,400	144,000	183,000	26,300	150,000	19,200	16,500	13,000	17,000	13,700
16	9,100	15,500	20,000	146,000	182,000	24,300	157,000	20,000	15,200	13,000	17,200	13,400
17	8,940	17,800	19,400	146,000	178,000	23,600	162,000	20,800	14,400	12,400	17,200	12,300
18	8,780	17,600	17,600	145,000	172,000	23,200	166,000	20,400	13,200	13,700	17,600	11,600
19	8,460	16,500	16,100	146,000	163,000	24,300	168,000	19,600	12,300	15,300	17,600	11,600
20	8,620	14,200	17,800	143,000	156,000	26,700	165,000	19,200	12,600	16,500	17,000	12,100
21	9,260	13,700	19,800	139,000	146,000	29,800	161,000	20,200	13,500	19,400	15,700	12,600
22	9,900	15,500	20,400	136,000	132,000	31,200	154,000	21,700	13,700	20,800	14,200	12,800
23	9,580	17,400	20,200	134,000	114,000	32,200	144,000	22,500	13,700	20,800	13,500	12,300
24	8,780	17,600	19,200	133,000	95,200	32,200	125,000	22,500	13,200	21,900	13,200	11,400
25	8,940	16,900	17,600	133,000	75,900	31,000	106,000	21,700	12,400	21,500	13,200	10,800
26	10,100	15,300	16,900	130,000	61,200	31,400	74,100	21,300	13,200	19,600	13,200	10,900
27	10,200	13,900	16,500	127,000	53,100	35,500	55,800	19,400	14,100	17,800	12,400	11,300
28	10,100	13,500	14,400	120,000	50,200	46,600	44,900	18,200	14,400	15,900	11,800	11,400
29	10,100	16,500	14,200	111,000	48,800	58,400	39,000	19,600	14,100	13,900	12,100	11,100
30	9,580	18,200	16,500	100,000	-	66,400	36,300	21,500	13,500	12,400	13,000	10,800
31	9,100	-	20,000	89,800	-	72,300	-	21,900	-	12,800	13,900	-
Month				Second-foot-days		Maximum	Minimum	Mean		Per square mile		Run-off in inches
October.....				296,200		12,100	8,460	9,555		0.434		0.50
November.....				387,500		18,200	9,100	12,910		.587		.65
December.....				490,000		20,400	11,100	15,810		.719		.83
Calendar year .....				9,873,160		122,000	8,460	27,050		1.23		16.69
January.....				3,465,300		146,000	23,000	111,800		5.08		5.86
February.....				3,476,300		183,000	48,800	119,900		5.45		5.88
March.....				1,089,600		72,300	23,200	35,150		1.60		1.84
April.....				3,370,100		168,000	36,300	112,300		5.10		5.69
May.....				728,700		34,700	18,200	23,610		1.07		1.23
June.....				452,600		21,300	12,300	16,090		.686		.77
July.....				453,800		21,900	11,300	14,640		.665		.77
August.....				575,500		32,000	11,800	18,500		.841		.97
September.....				359,300		14,600	10,200	11,980		.545		.61
Water year 1935-36.....				15,142,700		183,000	8,460	41,370		1.88		25.60

## Little River near Jamestown, Ala.

Location.- Water-stage recorder, lat. 34°24', long. 85°38', in T. 7 S., R. 10 E., at highway bridge a quarter of a mile above Yellow Creek and 2½ miles west of Jamestown. Zero of gage is 1,177.4 feet above mean sea level (from Alabama Power Co. benchmark).

Drainage area.- 121 square miles.

Records available.- October 1928 to April 1932, May 1935 to September 1936.

Extremes.- Maximum discharge during year, 18,800 second-feet Feb. 4 (gage height, 11.9 feet); minimum, 0.2 second-foot Oct. 4-8 (gage height, 0.56 foot).

1928-32, 1935-36: Maximum discharge, that of Feb. 4, 1936; no flow several days during July and September 1930, Sept. 17 to Nov. 29, 1931.

Revised maximum discharges for the following water years supersede those previously published:

1928-29: 14,600 second-feet Mar. 14 (gage height, 10.40 feet).

1929-30: 11,900 second-feet Nov. 14 (gage height, 9.38 feet).

1931-32: 9,830 second-feet Jan. 30 (gage height, 8.82 feet).

Remarks.- Records good except those for Feb. 1-7, Apr. 17, Apr. 26 to May 8, May 21-25, when mean gage heights were determined from graph based on partial record, several readings by observer, precipitation data, and recorded range of stage, and those below 10 second-feet, which are fair.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.5	0.1	1.2	40.7	1.9	228	4.8	2,800
.6	.4	1.3	55	2.0	272	5.8	4,250
.7	2.4	1.4	70	2.2	370	6.8	5,890
.8	7.4	1.5	92	2.5	540	7.5	6,810
.9	13.7	1.6	120	3.0	895	7.7	7,650
1.0	21.2	1.7	153	3.5	1,320	8.2	8,830
1.1	30.2	1.8	189	4.2	2,050	9.7	12,700

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	5.6	79	62	272	228	708	40	0.7	2.3	7.4	28
2	.3	4.1	60	1,190	272	201	9,460	36	.6	3.6	7.9	14
3	.3	2.8	49	2,040	554	342	1,960	33	.5	5.2	5.9	6.8
4	.3	2.4	43	1,570	12,600	330	1,100	29	14	12	34	2.4
5	.2	1.7	38	1,370	2,640	296	999	27	38	9.8	18	13
6	.2	1.1	33	1,470	1,470	246	2,800	23	23	5.6	12	20
7	.2	1.7	30	1,230	858	201	1,620	20	15	7.4	12	16
8	.3	2.0	31	3,610	647	175	967	18	9.8	6.2	9.2	13
9	.3	2.0	39	2,800	566	150	1,320	16	6.8	5.1	6.2	12
10	.3	2.0	41	1,470	498	130	1,180	14	5.1	4.1	32	13
11	.3	5.1	36	895	516	114	820	13	4.1	2.8	56	11
12	.3	23	55	633	335	98	619	14	32	1.7	28	10
13	.3	55	879	498	360	85	469	28	37	.9	19	8.6
14	.3	41	672	403	414	.72	335	30	31	.6	14	6.2
15	.3	27	464	442	392	70	263	25	20	1.4	9.8	4.6
16	.4	19	340	442	360	82	208	17	13	4.1	7.4	4.1
17	.4	16	246	376	325	482	164	14	9.2	5.1	5.1	3.2
18	.5	13	188	3,250	420	430	143	11	6.8	5.1	3.6	2.4
19	.6	11	153	4,410	360	350	114	9.8	5.6	3.6	2.8	1.4
20	2.4	9.2	117	1,720	320	340	92	8.6	3.6	4.1	2.4	3.2
21	4.1	7.4	92	1,060	286	350	83	8.6	2.8	12	1.7	5.6
22	3.2	6.8	83	782	259	296	74	7.4	2.4	13	1.1	2.0
23	2.0	4.6	72	619	224	246	67	6.2	8.6	11	1.4	3.6
24	1.7	3.6	68	474	205	366	63	5.1	8.0	8.0	1.1	2.8
25	1.1	2.8	62	376	189	1,600	56	4.1	4.1	5.1	.7	1.7
26	.9	2.8	82	325	182	1,270	52	3.6	1.7	3.2	.5	1.1
27	.7	3.8	50	272	297	1,790	48	3.6	1.1	2.0	.4	.9
28	3.2	218	48	220	296	1,880	46	2.4	.6	1.1	.4	.6
29	5.6	227	67	197	263	1,040	42	1.4	.5	.9	892	1.4
30	8.6	123	67	193	-	696	41	.9	.4	8.7	450	2.8
31	7.4	-	65	175	-	504	-	1.1	-	9.2	79	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	47.0	8.6	0.2	1.52	0.013	0.01
November.....	844.5	227	1.1	28.2	.233	.26
December.....	4,350	879	30	140	1.16	1.34
Calendar year .....						
January.....	34,574	4,410	62	1,115	9.21	10.62
February.....	28,350	12,600	182	909	7.51	8.10
March.....	14,440	1,880	70	466	3.85	4.44
April.....	25,915	9,460	41	864	7.14	7.97
May.....	470.8	40	.9	15.2	.126	.15
June.....	306.0	38	.4	10.2	.084	.09
July.....	162.9	13	.6	5.25	.045	.05
August.....	1,776.1	892	.4	57.3	.474	.55
September.....	216.4	28	.6	7.18	.059	.07
Water year 1935-36.....	109,449.7	12,600	.2	299	2.47	33.65

## Choccolocco Creek near Jenifer, Ala.

Location.- Staff gage, lat. 33°34', long. 85°56', in T. 17 S., R. 7 E., at Louisville & Nashville Railroad bridge  $1\frac{1}{2}$  miles north of Jenifer.

Drainage area.- 275 square miles.

Records available.- August 1903 to February 1908, May 1929 to March 1932, May 1935 to September 1936.

Extremes.- Maximum discharge during year, 25,800 second-feet Feb. 4 (gage height, 17.2 feet), from rating curve extended above 7,330 second-feet; minimum discharge observed, 97 second-feet Oct. 25, 26, Sept. 21, 29 (gage height, 1.82 feet).  
1903-3, 1929-32, 1935-36: Maximum discharge, that of Feb. 4, 1936; minimum discharge observed, 28 second-feet Oct. 24-30, Nov. 1, 2, 1904, Oct. 9, 1931 (gage height, 1.40 feet).

Remarks.- Records good below and fair above 8,000 second-feet. Gage read twice daily.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.8	93	5.0	1,420	10.0	6,660
2.0	135	5.5	1,700	11.0	8,620
2.4	237	6.0	2,000	12.0	10,800
2.8	351	6.5	2,330	13.0	13,200
3.2	491	7.0	2,750	14.0	15,800
3.6	663	8.0	3,800	15.0	18,700
4.0	864	9.0	5,090	16.1	22,200
4.5	1,140	9.5	5,820		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	131	126	142	383	472	400	*695	383	184	131	367	171
2	126	122	128	845	*573	383	*1,640	367	171	137	321	145
3	131	117	128	*2,160	*2,780	400	*2,060	336	171	137	260	135
4	117	113	133	*3,350	*22,100	383	*1,700	321	171	128	210	126
5	120	105	122	*2,140	*11,900	363	*1,590	321	171	122	171	124
6	115	107	120	*1,530	*3,460	367	*3,600	306	171	120	154	115
7	117	111	122	*2,060	*2,860	351	*7,030	292	159	115	140	111
8	115	109	137	*3,960	*1,760	351	*5,090	292	157	107	184	109
9	115	103	133	*5,250	1,420	336	*3,920	278	147	103	210	159
10	113	109	135	*3,680	1,190	336	*3,680	278	140	111	171	292
11	107	113	137	*2,140	971	321	*2,750	278	157	120	159	223
12	111	*245	*206	*1,300	812	321	*1,590	264	171	133	152	142
13	105	*410	*917	917	864	321	*1,020	292	197	124	145	131
14	111	278	*864	812	864	306	812	292	171	124	140	210
15	107	184	*469	971	812	292	761	264	171	109	153	351
16	109	157	321	1,020	663	336	663	264	159	159	128	197
17	103	142	250	1,020	663	453	617	250	157	210	128	152
18	109	135	223	812	761	511	573	250	154	210	145	149
19	111	133	197	*3,240	711	417	531	250	149	197	128	124
20	107	133	197	*3,800	617	383	491	250	142	159	115	111
21	107	128	184	*2,560	617	367	472	237	135	145	107	101
22	105	111	171	1,420	617	351	453	223	128	137	111	103
23	115	120	184	917	531	321	435	210	128	135	120	122
24	107	115	171	761	491	321	435	223	135	137	152	145
25	99	111	159	663	472	617	417	210	131	128	184	133
26	99	115	157	617	472	864	400	197	126	128	171	122
27	105	111	154	531	491	812	400	197	124	122	159	107
28	135	137	157	472	472	971	383	197	122	115	154	103
29	147	171	711	472	417	971	367	197	117	109	184	101
30	210	159	812	491	-	761	383	184	122	109	356	105
31	157	-	531	491	-	573	-	184	-	210	306	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	3,666	210	99	118	0.429	0.49
November.....	4,328	410	103	144	.524	.58
December.....	8,472	917	120	273	.993	1.14
Calendar year .....						
January.....	50,765	5,230	383	1,638	5.96	6.87
February.....	60,233	22,100	417	2,077	7.55	8.14
March.....	14,280	971	292	461	1.68	1.94
April.....	44,958	7,030	367	1,499	5.45	6.08
May.....	8,087	363	184	261	.949	1.09
June.....	4,538	197	117	151	.549	.61
July.....	4,231	210	103	136	.495	.57
August.....	5,535	367	107	178	.647	.75
September.....	4,419	351	101	147	.535	.60
Water year 1935-36 .....	213,510	22,100	99	583	2.12	26.86

\*From graph based on twice-daily gage readings.

## Tallapoosa River at Wadley, Ala.

Location.— Staff gage, lat. 33°08', long. 85°34', in sec. 12, T. 22 S., R. 10 E., in Wadley. Zero of gage is 600.78 feet above mean sea level.

Drainage area.— 1,660 square miles.

Records available.— September 1923 to September 1936.

Average discharge.— 13 years, 2,488 second-feet.

Extremes.— Maximum discharge observed during year, 52,800 second-feet Feb. 5 (gage height, 27.9 feet); minimum, 225 second-feet Oct. 7-11 (gage height, 2.70 feet).  
1923-36: Maximum discharge observed, that of Feb. 5, 1936; minimum, 60 second-feet on eight days during September 1925 and on Oct. 2, 1931 (gage height, 2.2 feet).

Remarks.— Records good below and fair above 18,000 second-feet. Gage read twice daily. Slight diurnal regulation during extremely low water caused by small mills upstream. Records collected by the Alabama Power Co., under general supervision of the U. S. Geological Survey, in connection with a Federal Power Commission project.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.7	225	5.5	3,740	11.5	15,200	19.0	29,000
2.9	445	6.5	5,160	12.0	16,200	20.0	31,800
3.1	705	7.5	6,770	13.0	18,000	22.0	36,900
3.3	955	8.5	8,580	14.7	20,400	24.0	42,300
3.6	1,320	9.5	10,600	16.0	22,400	27.0	50,400
4.0	1,820	10.5	12,800	17.0	24,200		
4.5	2,440	11.2	14,500	18.0	26,500		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	445	830	1,080	2,320	2,700	3,090	4,860	3,090	1,140	575	4,860	817
2	325	575	955	13,500	3,350	3,090	11,400	2,700	1,140	575	3,480	653
3	325	575	830	22,200	7,290	3,220	11,900	2,570	1,080	575	3,220	575
4	325	575	830	15,200	49,300	3,090	11,700	2,570	1,080	842	1,630	497
5	325	445	830	11,700	40,100	3,090	10,800	2,440	1,020	575	1,200	536
6	325	445	705	18,800	32,700	2,960	16,600	2,320	1,020	742	955	692
7	272	575	705	18,500	25,600	2,830	40,700	2,200	955	627	842	575
8	225	1,260	892	23,900	15,800	2,830	26,100	2,070	955	705	855	510
9	225	1,020	955	27,000	7,470	2,700	26,000	2,070	1,320	755	1,820	666
10	225	955	955	18,400	6,260	2,700	24,200	2,070	1,440	1,020	2,320	955
11	225	767	892	9,960	5,460	2,570	16,600	1,940	1,380	692	4,710	1,260
12	325	1,200	1,200	5,780	4,860	2,570	3,780	2,320	1,320	588	3,090	830
13	325	8,960	12,100	4,290	5,010	2,440	6,260	2,440	1,200	955	3,090	867
14	325	4,710	5,620	3,740	5,310	2,440	5,160	2,200	1,140	588	1,820	792
15	325	2,570	2,830	8,960	5,010	2,320	4,710	1,940	1,020	601	1,200	1,820
16	385	1,630	1,940	6,260	4,570	2,320	4,290	1,820	942	2,570	1,020	917
17	385	1,380	1,700	4,710	4,290	3,350	4,010	1,820	842	1,700	917	627
18	325	1,140	1,380	5,460	4,570	3,610	3,740	1,630	830	1,820	905	523
19	325	955	1,260	31,600	4,430	3,350	3,610	1,700	892	2,320	780	471
20	385	830	1,140	21,100	4,150	2,960	3,480	1,700	917	2,440	955	433
21	955	830	1,080	17,200	4,150	2,830	3,350	1,630	842	1,700	1,140	536
22	892	830	1,080	13,000	4,010	2,570	3,350	1,510	867	1,380	1,020	892
23	705	830	1,080	5,780	4,010	2,440	3,220	1,440	1,440	1,140	842	1,320
24	640	705	1,080	4,150	3,740	2,320	3,350	1,380	1,570	1,080	1,200	1,080
25	445	705	955	3,610	3,480	3,870	3,220	1,320	955	817	1,020	1,020
26	445	705	955	3,350	3,350	5,160	3,090	1,320	855	730	892	930
27	325	705	955	3,220	3,870	4,710	2,960	1,320	1,200	653	755	627
28	575	830	955	2,960	3,740	5,780	2,830	1,260	767	588	679	484
29	2,200	1,200	4,150	2,830	3,480	5,010	2,830	1,320	705	582	1,140	640
30	1,200	1,200	5,310	2,960	-	4,150	3,350	1,260	640	1,820	2,070	705
31	1,020	-	3,350	2,830	-	3,480	-	1,200	-	942	1,320	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				15,749	2,200	225	506	0.306	0.35			
November.....				39,937	6,960	445	1,331	.802	.89			
December.....				59,749	12,100	705	1,927	1.16	1.34			
Calendar year 1935.....				742,633	13,500	225	2,035	1.23	16.63			
January.....				335,070	31,600	2,320	10,810	6.51	7.50			
February.....				272,060	49,300	2,700	9,381	5.65	6.09			
March.....				99,850	5,780	2,320	3,221	1.94	2.24			
April.....				276,430	40,700	2,830	9,214	5.85	6.19			
May.....				56,570	3,090	1,200	1,989	1.14	1.31			
June.....				31,474	1,570	640	1,049	.632	.71			
July.....				32,677	2,570	562	1,054	.635	.73			
August.....				51,747	4,860	679	1,669	1.01	1.16			
September.....				23,250	1,620	433	775	.467	.52			
Water year 1935-36.....				1,296,563	49,300	225	3,543	2.13	29.03			

## Tallapoosa River below Tallassee, Ala.

Location.- Water-stage recorder, lat. 32°31', long. 85°53', in T. 16 N., R. 22 E., 1½ miles below highway bridge at Tallassee. Zero of gage is 162.03 feet above mean sea level.

Drainage area.- 3,320 square miles.

Records available.- July 1928 to September 1936.

Extremes.- Maximum discharge during year, 86,900 second-feet Feb. 5 (gage height, 44.1 feet), from records of discharge over spillway and through turbines at power plant 2 miles upstream; minimum, 16 second-feet at times during November and July (gage height, -0.33 foot); minimum daily discharge, 16 second-feet July 5.  
1928-36: Maximum discharge, 115,000 second-feet Mar. 15, 1929 (gage height, 51.35 feet); minimum discharge, 10 second-feet at times during 1930 and 1931; minimum gage height, -1.6 feet Oct. 2, 5, 1932; minimum daily discharge, 10 second-feet June 3, 1930, May 17, 1931.

Remarks.- Records good except those below 1,000 second-feet and above 10,000 second-feet, those for periods of no gage-height record, Oct. 1-3, June 25 to July 1, and those for periods of backwater from Coosa River, Jan. 3-13, 18-23, Feb. 3-11, Mar. 26-23, Apr. 1-13, which are fair. Discharge for periods of no gage-height record or backwater from Coosa River computed from generation and spillway records at Thurlow Dam, 2 miles upstream. Regulation by power plants and Martin Dam storage reservoir (capacity, 1,380,000 acre-feet) upstream. Records collected by the Alabama Power Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

Rating table, water year 1935-36 except periods of backwater  
(gage height, in feet, and discharge, in second-feet)

-0.4	13	1.3	327	4.5	2,430	9.0	10,100
-.2	22	1.8	500	5.0	3,290	10.0	11,200
+.1	53	2.3	700	6.0	5,250	12.0	13,900
+.4	98	3.0	1,050	7.5	8,190	13.4	16,000
+.7	158	3.5	1,370	8.0	9,060		
1.0	237	4.0	1,820	8.5	9,660		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,940	5,910	*6,400	3,180	95	*6,510	17,500	8,540	8,540	5,650	2,130	48
2	6,700	2,180	7,880	9,570	*119	9,360	38,500	5,310	7,940	4,940	*2,900	876
3	7,540	*43	6,080	9,520	7,220	7,910	29,700	*3,770	6,790	5,660	1,030	1,340
4	8,010	5,110	5,400	2,600	48,700	7,800	13,200	6,540	5,010	127	302	2,470
5	6,280	5,820	5,400	*1,110	78,100	6,600	*19,700	5,900	6,120	*16	708	71
6	*3,180	6,220	6,110	2,260	53,400	5,930	20,700	5,360	7,260	2,610	1,220	*1,040
7	5,130	5,350	6,170	4,080	42,900	2,810	68,700	5,700	*5,760	3,140	2,470	23
8	6,020	6,030	*774	5,200	29,500	*1,670	60,200	3,630	5,910	2,690	150	5,620
9	6,500	4,740	5,560	7,780	*14,200	5,440	53,700	1,870	6,620	1,370	*87	4,450
10	7,170	*85	5,810	5,200	11,200	5,250	55,700	*227	5,520	2,610	590	2,360
11	7,290	5,110	7,950	150	8,390	6,220	29,100	6,850	1,570	2,070	3,650	5,380
12	6,750	1,880	6,630	*310	11,000	4,040	*19,000	7,980	3,130	*18	424	2,490
13	*1,370	125	2,540	4,620	14,900	4,540	12,300	7,970	922	3,050	724	*51
14	4,722	1,500	96	4,130	14,800	1,840	9,880	5,120	*68	3,430	1,180	3,900
15	6,390	274	*53	4,350	13,500	*85	10,500	4,470	2,240	4,220	2,310	4,370
16	6,360	19	5,010	4,120	*14,100	3,580	10,300	4,690	2,850	2,820	*90	5,760
17	6,690	*115	5,440	2,360	16,000	9,430	10,700	*2,730	3,030	1,110	931	6,050
18	7,510	2,550	5,620	500	9,200	7,330	8,640	6,310	3,540	180	6,720	8,020
19	5,580	3,470	6,100	*4,680	11,100	6,130	*7,150	6,130	5,170	*92	6,880	7,050
20	*2,340	3,690	8,320	6,070	9,370	6,630	8,030	7,390	1,980	252	7,320	*75
21	5,340	5,670	8,640	3,630	7,010	3,800	3,550	7,270	*98	727	6,110	5,050
22	6,600	7,550	*8,060	4,160	4,580	*3,220	5,900	7,110	5,460	2,260	1,800	5,380
23	6,320	6,170	8,040	4,790	*4,360	6,020	6,170	5,320	5,690	1,970	*42	6,090
24	6,230	*6,810	6,890	3,520	9,830	5,590	7,170	*2,670	6,470	452	2,530	6,340
25	6,690	7,800	3,900	99	8,240	7,900	6,740	6,370	5,320	25	6,140	6,460
26	5,680	8,610	5,130	*83	8,750	21,300	*2,890	8,980	6,390	*22	7,200	8,750
27	*2,280	8,690	6,110	4,980	8,050	19,800	6,390	8,940	5,360	4,360	7,040	*2,290
28	5,390	8,800	7,520	4,910	7,640	15,400	4,020	8,500	*130	5,660	7,280	4,170
29	6,060	7,510	*423	5,270	4,130	*15,100	6,930	8,770	5,920	6,570	6,310	6,390
30	5,750	7,980	3,140	4,110	-	9,230	8,030	8,710	5,560	6,400	*90	5,710
31	6,100	-	3,770	4,090	-	6,170	-	*7,180	-	5,620	2,440	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	181,820	8,010	1,370	5,865	1.77	2.04
November.....	136,191	8,800	19	4,540	1.37	1.53
December.....	164,926	8,640	35	5,320	1.60	1.84
Calendar year 1935.....	1,728,695	21,300	15	4,736	1.43	19.36
January.....	121,352	9,570	93	3,915	1.18	1.36
February.....	470,484	75,100	95	16,220	4.39	5.27
March.....	222,935	21,600	85	7,191	2.17	2.50
April.....	563,980	68,700	2,890	18,800	5.66	6.32
May.....	186,817	8,980	227	6,026	1.82	2.10
June.....	136,088	8,540	69	4,536	1.37	1.53
July.....	80,171	6,570	16	2,586	.779	.90
August.....	87,983	7,320	42	2,838	.855	.99
September.....	117,684	8,750	23	3,923	1.16	1.32
Water year 1935-36.....	2,470,436	78,100	16	6,750	2.03	27.70

\*Sunday.

## Cahaba River at Centerville, Ala.

Location.-- Wire-weight gage, lat. 32°56', long. 87°08', in T. 23 N., R. 9 E., at bridge on State Highway 6, a quarter of a mile west of Centerville.

Drainage area.-- 1,050 square miles.

Records available.-- August 1901 to February 1908, May 1929 to March 1932, May 1935 to September 1936.

Extremes.-- Maximum discharge during year, 76,200 second-feet Feb. 4 (gage height, 35.8 feet, from floodmarks); minimum discharge observed, 156 second-feet at times during October and November; minimum gage height observed, 1.54 feet Oct. 5, 17.

1901-8, 1929-32, 1935-36: Maximum discharge, that of Feb. 4, 1936; minimum, 90 second-feet Oct. 24-29, 1904 (gage height, -0.35 foot, present datum).

Maximum stage known, 36.2 feet (from floodmarks, present datum) July 8, 1916 (discharge, 74,200 second-feet).

Remarks.-- Records fair. Gage read twice daily.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	224	408	*1,240	1,200	1,900	*6,490	2,220	318	200	*1,350	250
2	166	200	332	*3,600	*1,470	1,720	*9,670	1,310	304	188	*1,390	224
3	156	188	304	*7,280	*10,500	1,630	*5,770	1,050	304	237	935	224
4	156	177	263	*6,470	*97,500	1,590	*3,620	972	318	224	717	224
5	156	177	250	*4,490	*36,600	1,390	*2,960	898	290	212	576	212
6	156	166	250	*5,360	*20,600	1,310	*4,360	825	290	224	541	200
7	156	166	237	*8,720	*10,700	1,280	*14,900	753	276	237	408	200
8	156	166	347	*25,600	*6,970	1,200	*8,230	681	263	304	*1,160	332
9	166	166	473	*24,900	*5,380	1,160	*12,500	646	250	263	789	473
10	166	166	440	*15,800	4,410	1,120	*13,100	972	250	212	1,080	440
11	166	166	377	*7,940	3,620	1,080	*7,320	861	392	200	753	332
12	156	*1,400	*825	*4,710	2,150	1,010	*4,970	753	541	263	541	290
13	166	*2,220	*2,410	*3,330	2,920	972	*3,550	753	347	681	392	250
14	166	*1,470	*2,550	*2,880	2,920	935	*2,880	753	318	507	332	250
15	166	*576	*1,350	*4,320	2,550	898	2,360	576	304	473	290	250
16	166	377	861	*5,330	2,180	935	1,940	507	276	332	276	263
17	156	318	681	*4,070	1,990	2,460	1,670	473	263	*263	576	290
18	156	276	576	*4,370	2,620	1,390	1,430	507	263	*1,050	507	250
19	156	250	507	*14,800	2,040	1,200	1,200	507	250	717	440	224
20	177	237	440	*11,400	1,810	1,160	1,160	473	237	611	392	224
21	177	224	408	*6,440	1,850	1,050	1,080	440	224	611	646	224
22	177	212	392	*4,320	1,990	972	1,010	440	276	*898	473	224
23	166	200	362	3,260	1,810	935	972	392	717	*1,590	304	362
24	166	188	362	2,640	1,630	*1,080	1,120	377	440	717	304	392
25	156	177	332	2,180	1,550	*2,660	1,010	408	318	507	290	408
26	156	188	318	1,900	1,390	*4,190	972	408	318	362	250	304
27	166	188	290	1,670	2,180	*2,320	898	408	263	290	237	332
28	250	576	304	1,470	2,680	*3,220	861	408	237	250	224	290
29	332	507	*2,260	1,350	2,130	*2,840	935	507	224	224	237	250
30	332	440	*3,040	1,430	-	2,040	1,390	377	212	304	250	224
31	276	-	*1,810	1,390	-	1,670	-	332		332	318	-
Month					Second-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October.....					5,385	332	156	180	0.171		0.20	
November.....					11,976	2,220	156	399	.380		.42	
December.....					23,459	3,040	237	757	.721		.83	
Calendar year .....												
January.....					193,640	25,600	1,240	6,246	5.95		6.86	
February.....					207,740	67,500	1,200	7,163	6.82		7.36	
March.....					49,317	4,190	306	1,591	1.52		1.75	
April.....					120,828	14,800	861	4,028	3.84		4.29	
May.....					20,987	2,320	332	677	.645		.74	
June.....					9,283	717	212	309	.294		.33	
July.....					13,483	1,590	188	435	.414		.46	
August.....					16,978	1,390	224	548	.522		.60	
September.....					8,412	473	200	280	.267		.30	
Water year 1935-36.....					681,688	67,500	156	1,863	1.77		24.15	

\*From graph based on gage readings.



## East Fork of Tombigbee River near Fulton, Miss.

Location.- Wire-weight gage, lat. 34°18', long. 88°27', in T. 9 S., R. 8 E., at bridge on U. S. Highway 78, 2 miles west of Fulton.

Drainage area.- 650 square miles.

Records available.- August 1928 to September 1936.

Extremes.- Maximum discharge observed during year, 13,800 second-feet Apr. 7 (gage height, 17.21 feet); minimum, 29 second-feet Aug. 30 (gage height, 1.45 feet).  
1928-36: Maximum discharge, 19,800 second-feet Sept. 28, 1932 (gage height, 18.52 feet); minimum, 14 second-feet Aug. 12, 1930 (gage height, 0.87 foot).

Remarks.- Records fair. Gage read twice daily. Discharge determined by using rate of change of stage as a factor for discharges between 200 and 3,800 second-feet, when stage-discharge relation is affected by rate of change of stage.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	*1,220	*1,660	559	327	514	1,760	393	86	45	74	35
2	35	*882	*1,600	748	*448	470	2,120	415	80	45	62	33
3	35	*520	*1,150	979	*1,090	437	2,650	360	80	*219	65	*78
4	35	*319	*831	1,010	*2,060	415	2,850	371	104	*416	80	*468
5	33	*214	*569	979	*6,930	415	2,270	294	132	276	*74	349
6	31	*196	459	945	*5,750	*648	*2,650	253	125	154	68	162
7	33	*275	393	1,070	5,400	607	12,600	214	98	98	86	77
8	33	*787	492	1,260	2,190	503	6,000	196	86	80	92	59
9	33	*880	619	*1,750	1,840	437	3,900	178	77	71	196	53
10	35	*1,010	607	*4,010	1,660	393	6,600	170	71	71	86	53
11	33	*1,460	460	*3,450	1,460	371	5,250	154	104	65	*163	50
12	35	*1,850	426	2,270	1,260	349	3,100	162	125	74	*132	47
13	37	*4,590	448	1,800	1,120	327	2,190	263	125	80	80	45
14	50	*4,750	481	1,320	1,050	305	1,720	360	92	*191	59	42
15	146	*2,750	448	1,060	1,030	294	1,400	283	80	*590	47	40
16	77	*2,010	393	865	979	*784	1,160	196	77	*329	42	42
17	56	*1,370	349	688	848	*1,590	945	162	65	139	42	37
18	53	*971	327	595	732	*2,270	774	162	62	92	56	35
19	45	*662	316	631	631	2,490	631	316	62	92	80	35
20	*278	*510	283	719	559	2,190	547	470	59	118	42	35
21	*388	*426	263	693	536	1,890	492	304	80	*249	42	33
22	*288	371	245	631	536	1,570	448	196	77	*125	53	33
23	*902	327	263	583	503	1,300	426	154	62	154	40	33
24	*962	283	305	492	470	*1,400	426	132	62	111	40	45
25	*928	263	305	404	459	2,000	415	118	65	86	42	*321
26	*638	263	263	404	448	4,500	415	111	62	68	35	*156
27	*390	*405	233	371	536	4,500	437	111	56	62	35	74
28	*648	*1,100	242	294	607	7,500	371	104	50	53	33	53
29	*1,180	*1,280	393	305	595	5,250	349	104	50	47	31	45
30	*1,480	*1,480	619	305	-	2,970	371	98	47	92	29	42
31	*1,540	-	631	327	-	2,120	-	92	-	68	45	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				10,394	1,540	31	335	0.515	0.59			
November.....				33,424	4,750	196	1,114	1.71	1.91			
December.....				16,071	1,660	233	518	.797	.92			
Calendar year 1935.....				329,562	9,820	31	903	1.39	18.84			
January.....				31,517	4,010	294	1,017	1.56	1.80			
February.....				40,054	6,930	327	1,381	2.12	2.29			
March.....				50,799	7,500	294	1,639	2.52	2.90			
April.....				65,267	12,600	349	2,176	3.35	3.74			
May.....				6,896	470	92	222	.342	.39			
June.....				2,401	132	47	80.0	.123	.14			
July.....				4,360	590	45	141	.217	.25			
August.....				2,051	196	29	66.2	.102	.12			
September.....				2,610	468	33	87.0	.134	.15			
Water year 1935-36.....				265,844	12,600	29	726	1.12	15.20			

\*From graph based on gage readings.

## Tombigbee River at Aberdeen, Miss.

Location.- Wire-weight gage, lat. 33°49', long. 88°32', in T. 14 S., R. 19 W., at bridge on U. S. Highway 45, 1 mile downstream from St. Louis-San Francisco Railroad bridge and 1½ miles south of Aberdeen.

Drainage area.- 2,210 square miles.

Records available.- August 1928 to September 1936.

Extremes.- Maximum discharge during year, 21,500 second-feet Apr. 11 (gage height, 34.8 feet); minimum discharge observed, 98 second-feet Oct. 8-13; minimum gage height observed, 1.41 feet Oct. 9.

1928-36: Maximum discharge, 33,100 second-feet Dec. 16, 1931 (gage height 39.61 feet, former site); minimum discharge observed, 61 second-feet Aug. 8, 1930; minimum gage height observed, 1.15 feet (present site) Sept. 27, 1931.

Maximum stage known, 44.8 feet at former site Apr. 20, 1892 (discharge not determined).

Remarks.- Records fair. Gage read once daily Oct. 1 to Jan. 31, twice daily Feb. 1 to Sept. 30. Mean daily gage heights for Oct. 15 to Dec. 14, Dec. 28 to Feb. 16, Mar. 16-31, July 15, 18, 20-23, 30, 31, Aug. 7-10, Sept. 11 computed from graph based on gage readings.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.4	91	7.0	1,510	20.0	6,220	28.0	10,600
2.0	181	8.0	1,850	21.0	6,640	28.5	11,000
2.6	283	11.0	2,900	22.0	7,090	29.0	11,500
3.2	410	15.0	4,500	23.5	7,830	30.0	12,800
4.0	606	16.0	4,850	25.0	8,660	32.0	15,800
5.0	861	17.3	5,240	26.5	9,570	33.0	17,600
6.0	1,180	19.0	5,640	27.2	10,000	34.7	21,100

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	1,610	2,240	1,820	940	1,710	11,100	1,150	265	150	555	135
2	112	1,510	2,060	2,060	1,120	1,580	10,700	1,120	247	173	433	120
3	112	1,480	1,960	3,260	3,730	1,440	12,900	1,780	247	213	322	120
4	112	1,310	1,960	2,520	8,750	1,380	14,700	1,580	712	410	283	189
5	105	940	1,960	2,870	10,800	1,310	12,900	1,180	530	505	302	283
6	105	658	1,750	2,240	12,900	1,310	11,200	1,030	433	658	302	457
7	105	555	1,340	2,900	12,000	1,310	11,400	881	433	530	632	580
8	98	1,080	1,150	3,710	11,000	1,380	14,800	767	365	365	1,060	387
9	98	823	2,020	6,160	10,600	1,310	15,500	885	302	283	882	265
10	98	1,090	1,820	7,000	10,500	1,180	18,600	632	283	230	970	302
11	98	2,430	1,680	7,130	9,510	1,120	21,100	580	343	230	606	606
12	98	4,880	1,410	5,700	8,040	1,030	17,800	580	606	247	823	283
13	98	5,560	1,340	4,850	6,380	1,000	14,400	632	410	433	555	213
14	127	4,790	1,380	4,640	4,780	940	11,800	658	387	247	410	165
15	244	3,620	1,280	4,300	4,580	910	10,300	685	343	1,860	322	157
16	366	3,620	1,220	3,780	3,740	1,140	8,720	739	283	1,220	265	150
17	189	4,140	1,050	3,220	3,140	4,990	6,500	632	247	910	213	135
18	205	4,020	970	2,720	2,760	6,340	4,670	555	230	606	205	127
19	173	3,420	881	2,620	2,410	5,950	2,980	606	205	387	365	120
20	230	2,830	823	2,900	2,130	4,970	2,340	823	189	401	283	142
21	606	2,300	767	2,440	1,960	5,120	1,880	881	197	3,470	230	127
22	387	1,580	739	2,200	1,850	4,600	1,680	823	189	2,350	213	127
23	1,000	1,090	712	1,990	1,710	4,020	1,510	632	189	1,540	169	127
24	2,340	881	712	1,750	1,650	4,100	1,440	481	205	881	173	135
25	1,580	795	739	1,510	1,540	5,770	1,340	410	187	505	165	150
26	1,440	739	712	1,380	1,480	6,640	1,310	387	189	410	230	189
27	1,180	795	712	1,250	1,680	7,230	1,250	343	173	302	173	302
28	1,440	2,350	685	1,120	2,020	9,200	1,220	343	165	265	150	283
29	3,900	4,150	1,160	1,060	1,850	12,100	1,180	302	165	230	142	213
30	3,580	2,760	2,100	1,000	-	12,800	1,150	235	157	546	135	175
31	1,930	-	1,780	1,000	-	11,800	-	283	-	823	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	22,556	3,900	98	721	0.326	0.38
November.....	67,776	5,560	555	2,259	1.02	1.14
December.....	41,122	2,540	685	1,327	.600	.69
Calendar year 1935.....	1,062,989	20,700	98	2,912	1.32	17.89
January.....	92,520	7,130	1,000	2,985	1.35	1.56
February.....	145,550	12,900	940	5,019	2.27	2.45
March.....	126,680	12,800	910	4,054	1.83	2.11
April.....	248,370	21,100	1,150	8,279	3.75	4.18
May.....	28,463	1,780	283	725	.528	.58
June.....	9,886	712	157	296	.154	.15
July.....	21,532	3,470	150	669	.312	.36
August.....	11,708	1,060	135	378	.171	.20
September.....	6,762	506	120	225	.102	.11
Water year 1935-36.....	814,555	21,100	98	2,226	1.01	13.71

## Tombigbee River at Columbus, Miss.

**Location.**- Water-stage recorder, lat. 33°29', long. 88°26', in T. 18 S., R. 18 W., in Columbus, a quarter of a mile above Mobile & Ohio Railroad bridge, a quarter of a mile below bridge on U. S. Highway 45, and 3 miles above Luxapallia Creek.

**Drainage area.**- 4,490 square miles.

**Records available.**- November 1934 to September 1936; January 1900 to December 1904 at site about 300 feet upstream; July 1905 to December 1912 at site a quarter of a mile upstream; August 1923 to November 1934 at site a quarter of a mile downstream.

**Average discharge.**- 19 years, 5,924 second-feet.

**Extremes.**- Maximum discharge during year, 36,600 second-feet Feb. 7 (gage height, 26.93 feet); minimum discharge, about 250 second-feet Sept. 4, 5; minimum gage height, 0.64 foot Oct. 8, 10.

1900-1912, 1928-36: Maximum gage height observed, 34.6 feet (present datum) Mar. 31, 1902 (discharge not determined); maximum discharge determined, 84,600 second-feet Mar. 25, 1929 (gage height, 33.6 feet, present datum); minimum discharge observed, 195 second-feet Oct. 9-12, 1911 (gage height, -0.1 foot, present datum).  
Maximum stage known, 42.6 feet (present datum) Apr. 8, 1892 (discharge not determined).

**Remarks.**- Records good except those for periods of faulty gage-height record, Dec. 24-28, Sept. 3-5, 21, 22, which are fair.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Jan. 10-12)

Oct. 1 to Jan. 9				Jan. 10 to Sept. 30			
0.6	270	6.0	3,600	0.7	259	9.0	5,330
1.2	477	7.5	5,390	1.0	355	12.0	10,600
2.4	1,040	9.0	7,630	1.4	520	15.0	15,000
3.6	1,670	11.0	11,100	2.0	820	18.0	18,400
4.5	2,500	14.3	16,000	3.0	1,540	21.0	22,400
				4.0	1,870	24.0	28,200
				6.0	3,060	26.7	36,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	328	2,420	3,930	4,390	2,040	3,200	19,600	2,270	660	323	930	360
2	315	1,920	3,100	4,150	2,210	2,860	18,700	2,380	615	364	795	314
3	309	1,670	2,660	5,000	6,550	2,740	18,200	3,710	580	438	720	274
4	302	1,610	2,420	5,800	21,200	2,660	18,700	4,430	720	565	670	259
5	302	1,390	2,340	4,870	26,700	2,440	19,500	3,570	1,030	720	720	259
6	299	1,120	2,200	7,140	32,400	2,380	20,800	2,920	930	1,080	720	451
7	289	915	1,920	8,310	36,000	2,330	19,900	2,380	795	1,240	670	820
8	283	840	1,990	12,000	36,000	2,270	18,500	1,980	745	955	930	795
9	286	1,290	2,740	16,000	32,400	2,210	19,200	1,710	695	745	1,100	575
10	283	1,060	3,820	17,400	26,900	2,100	20,700	1,650	635	655	1,130	429
11	286	1,340	3,930	17,700	22,600	1,980	22,100	1,390	585	530	1,190	594
12	286	3,210	4,040	17,000	19,200	1,980	23,500	1,310	930	487	980	745
13	296	7,150	3,600	14,200	16,000	1,930	24,200	1,340	1,290	464	1,030	595
14	305	8,660	2,920	11,100	12,200	1,620	22,600	1,500	1,160	625	1,000	447
15	322	7,310	2,500	8,920	8,750	1,710	19,600	1,550	905	922	770	367
16	394	5,940	2,340	6,790	7,250	1,600	16,900	1,500	720	2,100	585	330
17	578	5,390	2,060	5,360	5,960	2,820	13,700	1,420	625	1,760	464	301
18	481	5,130	1,790	5,250	4,930	7,410	9,260	1,450	525	1,310	413	304
19	465	4,510	1,670	8,580	4,250	9,770	5,030	1,390	478	930	389	327
20	422	3,600	1,500	9,090	3,730	9,600	3,650	1,360	442	795	670	295
21	433	2,920	1,440	8,920	3,340	7,570	2,990	1,420	425	1,610	880	289
22	765	2,270	1,360	6,790	3,130	6,640	2,680	1,450	405	3,810	625	336
23	692	1,730	1,290	5,590	2,990	5,360	2,440	1,360	389	3,060	464	367
24	1,390	1,390	1,240	4,630	2,800	4,530	2,330	1,160	382	2,440	409	405
25	2,060	1,240	1,240	3,810	2,680	6,090	2,210	980	389	1,980	378	357
26	1,730	1,160	1,240	3,200	2,620	9,260	2,150	905	409	1,450	353	371
27	1,550	1,140	1,240	2,800	2,680	13,000	2,100	820	401	1,050	371	413
28	1,440	1,320	1,190	2,560	3,200	16,300	2,150	770	367	770	353	442
29	2,580	4,150	1,980	2,330	3,490	17,800	2,210	720	350	620	308	413
30	4,870	5,000	3,600	2,210	-	19,300	2,270	685	340	525	295	346
31	3,600	-	4,630	1,980	-	20,200	-	675	-	795	295	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October.....					27,931	4,370	283	901	0.201		0.23	
November.....					88,795	8,660	840	2,960	.669		.74	
December.....					73,930	4,630	1,190	2,385	.531		.61	
Calendar year 1935.....					2,213,292	39,500	283	6,064	1.35		18.35	
January.....					233,870	17,700	1,980	7,544	1.68		1.94	
February.....					354,200	36,000	2,040	12,210	2.72		2.93	
March.....					191,760	20,200	1,600	6,186	1.38		1.59	
April.....					377,970	24,200	2,100	12,600	2.81		3.14	
May.....					52,065	4,430	675	1,680	.374		.43	
June.....					18,912	1,290	340	630	.140		.16	
July.....					35,018	3,610	323	1,130	.252		.29	
August.....					20,590	1,190	295	664	.148		.17	
September.....					12,580	820	259	419	.093		.10	
Water year 1935-36.....					1,497,621	36,000	259	4,065	.905		12.35	

## Tombigbee River near Coatopa, Ala.

Location.- Wire-weight gage, lat. 32°28', long. 89°02', in T. 17 N., R. 1 E., at Moscow Memorial Bridge, on U. S. Highway 80, 2 miles above Sucarnoochee Creek and 5 miles southeast of Coatopa.

Drainage area.- 15,500 square miles.

Records available.- August 1928 to September 1936.

Extremes.- Maximum discharge during year, 145,000 second-feet Feb. 12 (gage height 48.7 feet); minimum discharge observed, 710 second-feet Oct. 10 (gage height, 2.19 feet).

1928-36: Maximum discharge observed, 179,000 second-feet Mar. 29, 1929 (gage height, 51.4 feet); minimum discharge, 371 second-feet Oct. 1, 1931; minimum gage height observed, that of Oct. 10, 1935.

Remarks.- Records good. Gage read twice daily. Mean daily gage heights for Feb. 2-8, July 18, 19 computed from graph based on gage readings made twice daily or oftener. Discharge interpolated for Dec. 31.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.2	710	4.2	3,910	37.0	71,700
2.4	860	4.7	5,210	39.0	76,400
2.6	1,050	5.5	7,370	40.0	79,200
2.8	1,260	6.1	9,060	42.5	87,800
3.0	1,510	7.0	11,700	44.0	94,400
3.2	1,800	8.0	14,500	45.0	100,400
3.4	2,130	9.0	16,800	46.0	109,000
3.6	2,510	10.0	18,300	47.0	120,000
3.8	2,940	11.5	20,900	48.0	134,000
4.0	3,410	13.0	23,700	48.7	145,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	900	7,100	7,930	16,000	19,700	20,000	53,500	21,100	2,510	1,440	3,660	1,650
2	900	6,560	9,920	20,700	17,300	19,300	58,900	22,000	2,310	1,380	4,170	1,650
3	820	5,480	8,490	27,100	28,000	17,800	62,900	19,200	2,220	1,380	5,210	1,650
4	820	4,170	7,370	31,100	62,000	17,000	64,700	17,000	2,220	1,320	6,020	1,550
5	900	3,660	6,020	31,500	83,400	16,800	66,300	17,100	2,220	1,380	6,290	1,650
6	900	3,170	5,210	31,300	95,900	16,400	68,100	17,700	2,310	1,510	6,290	1,510
7	820	2,940	4,950	34,500	100,000	15,600	72,500	16,200	2,410	1,720	6,560	1,650
8	820	2,220	5,480	43,700	104,000	15,000	75,100	13,700	2,510	2,130	7,100	1,800
9	820	2,130	6,560	58,700	112,000	14,000	76,700	10,200	2,410	2,510	6,830	1,800
10	710	1,960	7,650	66,700	130,000	13,100	80,400	8,210	2,310	2,510	6,560	2,130
11	740	1,960	9,630	68,900	142,000	12,300	82,000	7,100	2,940	2,410	11,400	2,310
12	740	2,940	11,100	70,500	145,000	11,700	82,000	6,560	4,950	2,130	13,400	1,960
13	740	4,430	11,100	71,700	144,000	10,800	81,700	6,290	3,410	2,130	9,920	1,880
14	820	10,500	11,400	72,800	136,000	10,200	81,700	5,480	2,510	2,130	7,370	1,800
15	860	16,800	12,900	72,800	127,000	9,630	81,400	5,480	2,940	2,040	5,480	2,220
16	1,050	17,500	14,300	72,300	118,000	9,340	80,100	5,210	3,170	1,960	4,430	2,220
17	1,200	14,800	13,100	70,500	107,000	9,920	77,500	5,210	2,720	2,040	3,660	1,880
18	1,200	11,400	10,500	69,100	99,000	12,000	73,900	5,210	2,130	9,860	3,410	1,720
19	1,260	9,630	9,050	71,100	88,200	16,300	68,100	5,480	1,800	18,300	2,720	1,580
20	1,440	8,490	7,650	73,000	77,200	20,400	59,900	6,560	1,800	18,200	2,410	1,510
21	1,510	7,100	6,560	73,400	68,100	21,800	51,300	7,370	1,800	19,000	2,410	1,440
22	1,380	6,290	6,290	73,000	59,300	21,100	34,900	6,560	1,720	16,600	2,310	1,440
23	1,440	4,950	5,480	72,800	50,300	19,200	22,200	6,020	1,580	15,800	2,410	1,380
24	1,440	4,430	4,950	71,900	41,100	17,800	15,600	5,480	1,580	15,800	2,510	1,440
25	1,440	3,660	4,690	70,100	30,700	17,000	12,600	4,690	1,580	15,200	2,310	1,580
26	1,580	3,170	3,910	66,900	23,300	21,500	11,700	4,170	1,580	10,800	2,040	1,800
27	2,510	2,940	4,170	62,900	20,400	27,700	11,400	3,660	1,510	7,370	1,300	1,800
28	2,940	3,170	4,950	56,100	20,700	33,700	10,500	3,410	1,510	5,480	1,650	1,800
29	2,940	3,660	7,370	44,700	20,200	39,700	12,600	3,170	1,440	4,690	1,720	1,650
30	4,170	4,430	12,000	32,300	-	45,700	16,400	2,720	1,440	3,910	1,650	1,440
31	5,480	-	14,000	25,100	-	50,500	-	2,510	-	3,170	1,650	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				45,290	5,480	710	1,461	0.094	0.11			
November.....				191,640	17,500	1,960	6,055	.391	.44			
December.....				254,680	14,300	3,910	8,215	.530	.61			
Calendar year 1935.....				7,739,480	123,000	710	21,200	1.37	18.58			
January.....				1,723,200	73,400	16,000	55,590	3.59	4.14			
February.....				2,269,800	145,000	17,300	76,270	5.05	5.45			
March.....				603,790	50,500	9,340	19,480	1.26	1.45			
April.....				1,646,600	82,000	10,500	54,690	3.54	3.95			
May.....				270,750	22,000	2,510	8,734	.563	.65			
June.....				87,540	4,950	1,440	2,251	.145	.16			
July.....				196,300	19,000	1,320	6,332	.409	.47			
August.....				145,350	13,400	1,650	4,689	.303	.35			
September.....				51,990	2,310	1,380	1,733	.112	.12			
Water year 1935-36.....				7,456,930	145,000	710	20,370	1.31	17.90			

## Tombigbee River near Leroy, Ala.

Location.- Staff gage, lat.  $31^{\circ}34'$ , long.  $88^{\circ}01'$ , just above Lock 1, in T. 7 N., on St. Stephens meridian, 5 miles northwest of Leroy. Zero of gage is 4.69 feet below mean sea level (from benchmark of Corps of Engineers, U. S. Army).

Drainage area.- 19,100 square miles.

Records available.- October 1928 to September 1936.

Extremes.- Maximum discharge during year, 134,000 second-feet Feb. 17 (gage height, 42.0 feet); minimum discharge, 1,260 second-feet Oct. 8-16; minimum gage height, 18.4 feet Sept. 6-8.

1928-36: Maximum discharge, 190,000 second-feet Apr. 2, 1929 (gage height, 46.0 feet); minimum not determined.

Remarks.- Records good above and fair below 40,000 second-feet. Gage read twice daily.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1 to Dec. 16, June 23 to July 19, Sept. 14-30)

18.4	2,620	24.0	26,700	36.0	74,100
18.8	3,800	25.0	29,900	37.0	80,800
19.2	5,140	27.0	35,500	37.5	84,800
19.6	6,650	28.0	38,500	38.0	89,300
20.0	8,450	29.0	41,700	38.5	94,300
20.5	11,100	30.0	45,200	39.0	99,800
21.0	14,000	31.0	49,100	40.0	111,000
21.5	16,700	32.0	53,500	42.0	134,000
22.0	18,800	33.0	58,300		
23.0	22,800	35.0	68,200		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,310	6,250	6,250	19,600	48,700	36,100	45,200	34,400	4,120	2,350	6,250	2,900
2	1,310	7,070	8,450	22,800	41,700	32,700	48,700	36,700	3,800	2,220	6,650	2,900
3	1,310	6,650	10,600	31,000	39,500	29,900	52,600	35,500	3,490	1,960	7,510	2,900
4	1,310	5,870	9,470	34,900	51,700	26,000	56,500	31,000	3,340	2,090	7,970	2,900
5	1,310	5,140	7,970	36,100	65,700	22,800	60,200	26,300	3,190	2,350	8,450	2,760
6	1,310	4,450	7,070	36,700	74,700	20,800	62,700	22,400	3,190	2,350	8,950	2,620
7	1,310	3,960	6,650	37,300	81,600	19,500	65,700	20,400	3,190	2,620	8,950	2,620
8	1,260	3,490	6,650	41,100	85,600	18,800	68,700	18,400	3,190	2,900	8,450	2,620
9	1,260	3,190	7,070	55,300	91,300	16,000	74,100	16,200	3,190	3,190	8,950	2,900
10	1,260	2,900	7,970	64,700	95,400	17,100	78,700	13,400	3,340	3,490	8,450	3,190
11	1,260	2,620	9,470	69,300	99,800	16,200	81,600	11,100	3,490	3,190	8,950	3,490
12	1,260	2,760	11,700	71,100	104,000	15,200	83,200	9,470	4,120	3,190	12,900	3,800
13	1,260	4,120	14,000	72,300	113,000	14,500	84,800	8,950	5,500	2,900	15,200	3,490
14	1,260	5,870	15,700	72,900	122,000	14,000	84,800	8,450	5,140	2,620	12,300	3,190
15	1,260	11,700	15,200	74,100	129,000	12,900	84,800	7,510	4,120	2,900	10,600	3,190
16	1,260	16,700	15,200	74,700	132,000	12,300	84,800	7,070	3,800	2,760	7,970	3,040
17	1,330	18,400	15,700	75,300	134,000	12,300	84,800	7,070	3,800	2,480	6,650	3,040
18	1,600	17,100	15,700	77,300	132,000	12,900	84,800	7,510	3,490	5,870	5,500	2,760
19	1,720	14,000	14,000	82,400	129,000	15,200	83,200	7,510	3,190	17,100	5,140	2,760
20	1,840	11,700	12,900	84,800	126,000	18,000	82,400	8,450	2,900	24,400	4,450	2,480
21	1,960	10,000	11,100	85,700	121,000	21,200	79,400	9,470	2,760	24,400	4,120	2,480
22	2,090	8,950	9,470	84,800	113,000	23,200	73,500	9,470	2,620	24,000	3,900	2,220
23	2,090	7,510	8,450	83,200	102,000	23,200	65,200	8,450	2,480	23,600	3,800	2,220
24	2,090	6,650	7,510	81,600	90,300	21,600	50,400	7,510	2,350	22,800	4,120	2,220
25	1,960	5,870	7,070	80,800	77,300	20,000	41,100	6,650	2,350	20,800	4,120	2,220
26	2,090	5,140	6,650	79,400	63,200	20,400	34,100	5,870	2,350	18,800	3,960	2,220
27	2,350	4,450	6,250	78,000	51,700	23,500	28,400	5,500	2,350	14,600	3,490	2,450
28	3,190	4,450	6,650	75,900	44,800	28,700	22,800	5,140	2,350	10,600	3,190	2,760
29	3,800	4,790	10,600	72,300	39,800	32,700	21,200	4,790	2,350	8,950	3,040	2,480
30	3,950	5,140	17,600	66,200	-	37,000	29,000	4,790	2,350	8,450	2,900	2,220
31	4,790	-	19,200	58,300	-	41,100	-	4,450	-	7,510	2,900	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	57,370		4,790		1,260		1,851		0.097		0.11	
November.....	216,890		18,400		2,620		7,230		.379		.42	
December.....	303,270		19,200		6,250		10,650		.558		.64	
Calendar year 1935.....	9,206,420		123,000		1,260		25,220		1.32		17.94	
January.....	1,979,900		85,700		19,600		63,870		3.34		5.85	
February.....	2,600,800		134,000		39,500		89,680		4.70		5.07	
March.....	678,100		41,100		12,300		21,870		1.15		1.33	
April.....	1,895,200		84,800		21,200		63,170		3.31		3.69	
May.....	409,880		36,700		4,450		13,220		.692		.80	
June.....	97,900		5,500		2,350		3,265		.171		.19	
July.....	277,440		1,960		1,960		8,950		.469		.54	
August.....	209,680		15,200		2,900		6,764		.354		.41	
September.....	83,070		3,800		2,220		2,768		.145		.16	
Water year 1935-36.....	8,836,500		134,000		1,260		24,140		1.26		17.21	

## Mulberry Fork of Black Warrior River near Garden City, Ala.

Location.-- Wire-weight gage, lat. 34°00', long. 86°45', in T. 12 S., R. 2 W., at bridge on U. S. Highway 31, 1,000 feet below Louisville & Nashville Railroad bridge and 1 mile southwest of Garden City.

Drainage area.-- 365 square miles.

Records available.-- June 1928 to September 1936.

Extremes.-- Maximum discharge during year, 46,600 second-feet Feb. 4 (gage height, 24.0 feet, from floodmarks); minimum discharge observed, 5 second-feet Oct. 5-14 (gage height, 2.00 feet).

1928-36: Maximum discharge, that of Feb. 4, 1936; minimum discharge observed, 3 second-feet Sept. 28-30, Oct. 1, 3-6, 1931 (gage height, 1.88 feet).

Remarks.-- Records fair. Gage read twice daily.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.0	5	4.0	561	8.0	4,580
2.1	10	4.5	840	8.5	5,450
2.2	17	5.0	1,170	9.0	6,380
2.4	37	5.5	1,580	10.0	8,420
2.6	65	6.0	2,030	11.6	12,000
2.8	101	6.5	2,520	13.6	16,900
3.0	148	7.0	3,090	16.0	23,300
3.5	319	7.5	3,780	17.5	27,500

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	29	198	*386	366	587	*8,320	170	16	7	*838	41
2	6	22	162	*1,360	*675	551	*17,400	156	16	8	*671	24
3	6	16	133	*1,670	*3,250	614	*3,220	138	15	901	*675	22
4	6	14	116	*1,500	*27,300	561	*2,030	138	16	195	259	198
5	6	11	103	*1,410	*4,290	614	*1,850	133	14	123	319	116
6	5	10	95	*3,220	*2,520	535	*2,220	130	14	62	278	58
7	5	10	92	*2,310	2,030	459	*1,500	114	13	36	154	36
8	5	9	103	*19,000	1,760	434	*1,250	93	13	24	140	27
9	5	8	140	*11,400	1,850	410	*9,370	82	11	65	192	22
10	5	8	136	*3,840	1,580	386	*3,010	75	10	45	130	74
11	5	*19	126	*2,220	1,330	363	*1,660	70	22	30	151	72
12	5	*2,390	*208	1,580	1,170	341	*1,410	65	614	18	99	41
13	5	*2,040	*840	1,330	1,170	298	1,250	65	92	14	75	28
14	5	*386	696	1,100	1,170	278	964	65	45	*1,080	58	29
15	68	224	509	1,330	761	259	840	62	29	*399	50	30
16	37	151	410	1,030	901	*341	696	56	22	*3,320	44	26
17	17	121	341	901	840	*1,290	587	50	17	*2,700	38	21
18	13	103	298	*9,420	781	*724	509	49	16	*2,470	52	20
19	11	84	278	*9,760	724	561	434	62	14	386	46	19
20	9	74	241	*3,040	781	535	386	64	13	259	46	82
21	8	67	198	2,120	724	459	363	68	10	341	36	84
22	8	60	185	1,670	641	386	319	53	10	156	29	24
23	8	52	192	1,330	587	363	298	45	9	116	27	24
24	7	46	179	1,030	561	*2,150	278	35	9	95	29	26
25	7	41	162	964	535	*2,660	259	35	8	74	32	22
26	6	40	143	840	509	*1,500	259	30	8	70	32	16
27	6	41	103	696	1,330	*5,010	241	27	8	53	25	13
28	*227	*634	119	587	724	*3,640	207	26	8	49	20	10
29	*266	*410	*505	561	641	1,940	168	24	8	41	18	10
30	86	259	*509	587	-	1,500	179	21	7	*712	396	10
31	46	-	*410	484	-	1,170	-	19	-	*412	84	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	923	285	5	29.8	0.092	0.09
November.....	7,379	2,390	8	246	.674	.75
December.....	7,930	840	92	256	.701	.81
Calendar year 1935.....	203,889	9,880	5	559	1.53	20.75
January.....	88,676	19,000	386	2,861	7.84	9.04
February.....	61,541	27,300	386	2,122	5.81	6.27
March.....	30,929	5,010	259	998	2.73	3.15
April.....	61,497	17,400	179	2,050	5.62	6.27
May.....	2,220	170	19	71.6	.196	.23
June.....	1,107	614	7	36.9	.101	.11
July.....	14,261	3,320	7	460	1.26	1.45
August.....	5,033	838	18	162	.444	.51
September.....	1,227	198	10	40.9	.112	.12
Water year 1935-36.....	282,723	27,300	5	772	2.12	28.80

\*Mean daily gage heights computed from graph based on twice-daily gage readings.

## Black Warrior River at Lock 17, near Bessemer, Ala.

Location.- Staff gage, lat.  $33^{\circ}27'$ , long.  $87^{\circ}21'$ , in T. 18 S., R. 8 W., at Lock and Dam 17,  $1\frac{1}{2}$  miles below Big Yellow Creek and 23 miles west of Bessemer. Zero of gage is 173.11 feet above mean sea level (from benchmark of Corps of Engineers, U. S. Army).

Drainage area.- 3,980 square miles.

Records available.- June 1928 to September 1936.

Extremes.- Maximum discharge observed during year, 118,000 second-feet Feb. 4 (gage height, 79.08 feet); no flow over dam Oct. 1-19; minimum gage height observed, 69.18 feet Oct. 10-14.

1928-36: Maximum discharge observed, 133,000 second-feet Nov. 15, 1929 (gage height, 79.94 feet); no flow Oct. 1-19, 1935.  
Maximum stage known, 80.3 feet July 9, 1916 (discharge not determined).

Remarks.- Monthly records fair. Daily discharge not sufficiently accurate for publication. Monthly discharge July to September determined on basis of run-off comparisons with records for station at Tuscaloosa and tributary stations. Records do not include leakage, which probably amounts to 80 second-feet. Flow over dam above 16,500 second-feet determined from table based on weir formula,  $Q=3.33 L H^{3/2}$ . Flow at extremely low stages affected by lockages at Lock and Dam 17.

Discharge, in second-feet, water year October 1935 to September 1936

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....		1,020	0	106	0.027	0.03
November.....		9,930	60	1,178	.296	.33
December.....		7,380	560	2,189	.550	.63
Calendar year 1935.....		71,800	0	5,360	1.35	18.27
January.....		61,800	4,040	21,430	5.38	6.20
February.....		115,000	3,410	21,810	5.48	5.91
March.....		40,800	2,100	8,324	2.09	2.41
April.....		63,200	1,760	16,630	4.18	4.66
May.....		3,920	237	1,014	.255	.29
June.....		400	33	182	.046	.05
July.....		-	-	1,900	.477	.55
August.....		-	-	1,600	.402	.46
September.....		-	-	500	.126	.14
Water year 1935-36.....		115,000	0	6,341	1.59	21.66

## Black Warrior River at Tuscaloosa, Ala.

Location.-- Staff gage, lat. 33°12'55", long. 87°33'56", in T. 21 S., R. 10 W., at Lock 10, in Tuscaloosa. Zero of gage is 82.97 feet above mean sea level (from benchmark of Corps of Engineers, U. S. Army).

Drainage area.-- 4,830 square miles.

Records available.-- August 1928 to September 1936; January 1889 to December 1905 at site a quarter of a mile downstream (gage heights only prior to 1894)

Average discharge.-- 16 years (1894-1902, 1928-36), 7,978 second-feet.

Extremes.-- Maximum discharge during year, 148,000 second-feet Feb. 4, 5; maximum gage height, 83.5 feet (from graph based on gage readings) Feb. 5; minimum discharge, about 100 second-feet Oct. 1, 2, 4-6; minimum gage height observed, 17.00 feet Oct. 5.

1889-1905, 1928-36: Maximum discharge, 215,000 second-feet Apr. 18, 1900 (gage height, 87.7 feet); minimum (estimated), 50 second-feet Aug. 26, 1929.  
Maximum stage known, that of Apr. 18, 1900.

Remarks.-- Records fair. Discharge determined by using rate of change in stage as a factor above 9,120 second-feet. Discharge for Oct. 1, 2, 4-6, when water was below crest of dam, computed on basis of several measurements of leakage through dam and lock. Discharge for Feb. 19-21, Apr. 17, when dam was partly submerged by backwater, computed on basis of adjoining record. Gage read twice daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	1,130	3,030	6,240	4,900	6,960	*15,000	8,420	528	138	1,850	715
2	100	843	2,290	*9,440	5,550	6,240	*34,700	5,550	482	187	3,160	829
3	171	676	1,750	*19,900	*28,800	6,240	*58,300	4,000	439	176	4,000	729
4	100	528	1,450	*19,500	*132,000	6,240	*55,000	3,290	598	419	4,000	786
5	100	470	1,270	*16,600	*140,000	6,240	*36,000	2,900	528	637	3,570	800
6	100	429	1,100	*19,500	*120,000	5,890	*22,300	2,410	493	857	5,890	1,180
7	160	359	1,010	*35,000	*93,500	5,550	*19,000	2,180	516	743	4,590	1,150
8	171	316	1,750	*65,500	*53,700	4,900	*16,730	1,850	492	650	4,000	996
9	160	298	2,770	*72,400	*31,900	4,590	*36,300	1,560	460	715	4,000	800
10	160	307	3,030	*69,000	*22,100	4,290	*52,700	1,550	528	624	7,330	919
11	176	368	2,770	*54,300	*17,400	4,000	*38,700	1,450	650	528	4,290	715
12	171	*2,660	2,550	*36,000	*14,000	4,000	*25,500	1,450	611	715	3,710	888
13	176	*5,420	4,290	*21,700	*12,200	3,570	*17,000	1,360	702	786	2,770	1,050
14	209	*11,100	8,420	*14,800	*10,900	3,450	*12,600	1,450	715	743	1,850	950
15	261	*5,610	7,700	*11,900	* 9,700	3,160	*10,100	1,270	676	743	1,360	857
16	351	3,030	5,550	*10,800	*8,400	3,290	*8,400	1,270	611	950	1,130	857
17	324	1,960	4,290	* 9,600	*7,600	6,240	*7,000	1,260	574	2,410	919	814
18	234	1,450	3,290	*18,400	*7,400	*10,100	5,890	1,110	493	*9,090	919	598
19	203	1,160	2,770	*61,100	7,300	*9,510	5,220	1,360	399	*11,100	1,050	637
20	359	1,060	2,410	*61,300	7,190	7,330	4,590	1,750	439	*9,740	981	611
21	261	872	2,180	*44,000	7,060	6,240	4,290	1,650	429	*6,130	966	624
22	254	814	1,850	*29,300	6,960	5,550	4,000	1,550	351	4,590	857	676
23	241	715	1,550	*18,000	6,600	4,900	3,710	1,130	637	9,120	715	1,100
24	241	650	1,750	*13,200	5,890	4,290	3,430	1,050	388	5,550	689	814
25	234	574	1,650	*10,600	5,550	*9,780	3,160	934	298	3,030	729	743
26	214	539	1,450	*8,800	5,220	*20,000	3,030	843	268	1,960	624	653
27	214	550	1,360	*7,800	6,240	*18,900	2,770	772	333	1,360	676	676
28	516	1,150	1,360	6,960	8,770	*36,000	2,770	814	254	1,080	611	550
29	2,180	2,770	3,570	5,890	8,060	*33,400	2,770	758	234	872	550	429
30	1,960	3,710	7,700	5,890	-	*23,500	4,290	663	214	729	843	450
31	1,550	-	8,060	5,550	-	*17,500	-	574	-	919	758	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October.....				11,651	2,180	100	376	0.078	0.09			
November.....				54,518	11,100	298	1,817	.376	.42			
December.....				95,950	8,420	1,010	3,095	.641	.74			
Calendar year 1935 .....				2,462,365	97,700	100	6,745	1.40	18.97			
January.....				778,970	72,400	5,550	25,130	5.20	6.00			
February.....				795,890	140,000	4,900	27,440	5.68	6.13			
March.....				291,830	36,000	3,160	9,414	1.95	2.25			
April.....				515,350	58,300	2,770	17,180	3.56	3.97			
May.....				59,168	8,420	574	1,876	.388	.45			
June.....				14,320	715	214	477	.099	.11			
July.....				77,291	11,100	138	2,493	.516	.59			
August.....				69,387	7,330	550	2,238	.463	.53			
September.....				25,567	1,180	429	766	.163	.18			
Water year 1935-36 .....				2,786,892	140,000	100	7,614	1.58	21.46			

\*Mean daily gage heights computed from graph based on twice-daily gage readings.



## Black Warrior River near Eutaw, Ala.

Location.- Water-stage recorder, lat. 32°49'05", long. 87°49'00", in SE 1/4 sec. 6, T. 21 N., R. 3 E., at bridge on State Highway 41 between Eutaw and Wedgworth, 1 1/4 miles below mouth of Big Creek and 4 miles southeast of Eutaw.

Drainage area.- 5,820 square miles.

Records available.- May 1932 to September 1936.

Extremes.- Maximum discharge during year, 130,000 second-feet Feb. 7; maximum gage height, 56.3 feet Feb. 8; minimum discharge, 177 second-feet Oct. 9 (gage height, 18.44 feet).

1932-36: Maximum discharge, that of Feb. 7, 1936; maximum gage height, that of Feb. 8, 1936; minimum discharge, that of Oct. 9, 1935.

Remarks.- Records good except those for Dec. 5 to Jan. 24, June 20 to Aug. 4, when recorder was not operating, which are fair. Discharge above 5,500 second-feet determined by using surface slope as a factor. Discharge for Dec. 5 to Jan. 10, Jan. 18-20, June 20 to Aug. 4 determined by applying mean daily gage heights obtained from twice-daily staff-gage readings at upper pool at Lock 7, 3 miles below, to rating obtained by referring measurements at the Eutaw station to the Lock 7 gage. Discharge for Jan. 11-17, 21-24 computed on basis of records for station at Tuscaloosa.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	314	1,740	4,030	8,150	8,420	9,600	28,900	9,020	966	435	1,740	1,040
2	321	1,370	3,430	7,610	7,770	8,620	25,000	9,680	914	435	3,000	1,010
3	321	1,120	2,690	15,000	15,400	8,290	29,000	7,510	889	435	4,090	1,020
4	308	914	2,130	17,200	40,300	7,910	33,300	6,820	993	453	4,410	979
5	286	745	1,930	16,000	49,600	7,670	38,000	4,870	979	575	4,510	979
6	247	659	1,640	14,200	79,000	7,600	42,600	4,150	940	767	4,510	1,010
7	223	638	1,550	18,800	120,000	7,390	40,600	3,550	927	920	5,500	1,260
8	213	579	1,740	26,500	118,000	6,870	39,200	3,070	876	950	5,120	1,290
9	203	551	2,650	31,400	103,000	6,340	35,600	2,720	850	950	4,760	1,260
10	218	551	3,390	36,200	74,600	6,010	39,100	2,490	827	995	5,550	1,260
11	237	560	3,510	45,500	56,200	5,860	41,500	2,360	914	875	6,930	1,200
12	242	1,160	3,240	52,000	46,600	5,370	43,900	2,360	876	875	5,590	1,080
13	252	3,510	3,520	55,500	37,500	5,000	43,600	2,210	876	1,040	4,390	1,180
14	274	8,390	5,830	52,000	33,700	4,630	38,700	2,070	953	1,110	3,430	1,230
15	308	8,220	8,120	43,000	25,800	4,390	33,100	1,970	979	1,110	2,510	1,200
16	353	6,130	7,450	35,000	21,500	4,390	28,200	1,930	953	1,060	1,930	1,120
17	416	3,730	6,390	25,000	20,900	5,600	22,400	2,010	863	1,330	1,550	1,040
18	446	2,490	5,100	19,800	18,300	8,620	17,700	1,880	779	7,790	1,620	953
19	431	1,640	4,410	24,100	15,900	10,400	10,900	1,880	712	10,200	1,550	863
20	454	1,580	3,790	33,400	13,100	11,100	8,210	2,150	605	11,200	1,480	815
21	472	1,380	2,880	41,500	11,100	8,570	6,450	2,300	575	9,770	1,600	792
22	446	1,210	2,540	44,500	9,740	7,660	5,700	2,170	585	6,750	1,480	803
23	506	1,120	2,440	44,500	9,160	7,020	5,370	2,010	585	7,860	1,350	850
24	446	1,050	2,330	43,000	8,290	6,370	5,000	1,730	575	7,750	1,400	1,020
25	463	953	2,130	39,400	7,860	7,000	4,870	1,530	575	6,600	1,300	979
26	439	889	2,130	33,500	7,410	11,700	4,750	1,370	575	4,090	1,150	902
27	402	979	1,930	23,100	7,660	18,400	4,390	1,290	575	2,540	1,080	889
28	402	1,450	1,840	16,000	8,890	21,900	4,150	1,260	507	2,030	1,020	838
29	1,280	2,280	3,000	9,740	10,100	26,300	4,270	1,210	435	1,550	927	733
30	2,150	3,430	5,830	8,650	-	30,500	5,510	1,140	435	1,550	1,040	659
31	2,090	-	8,280	8,570	-	29,300	-	1,050	-	1,550	1,090	-
Month	Second-foot-days		Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October.....	15,163		2,150		203		489		0.084		0.10	
November.....	61,178		8,390		531		2,039		.350		.39	
December.....	111,850		8,280		1,550		3,608		.620		.72	
Calendar year 1935.....	3,017,399		67,400		203		8,267		1.42		19.30	
January.....	885,820		55,500		7,810		28,570		4.91		5.66	
February.....	985,800		120,000		7,410		33,990		5.84		6.30	
March.....	316,380		30,500		4,390		10,210		1.75		2.02	
April.....	689,970		43,900		4,150		23,000		3.95		4.41	
May.....	91,760		9,680		1,050		2,960		.509		.59	
June.....	23,093		993		435		770		.132		.15	
July.....	95,535		11,200		435		3,082		.530		.61	
August.....	87,497		6,930		927		2,822		.465		.56	
September.....	30,514		1,620		669		1,020		.175		.20	
Water year 1935-36.....	3,394,660		120,000		203		9,275		1.59		21.71	

Sipsey Fork of Mulberry Fork of Black Warrior River near Sipsey, Ala.

Location.- Staff gage, lat. 33°52', long. 87°04', in T. 13 S., R. 5 W., 200 feet below Lieth Creek,  $3\frac{1}{4}$  miles northeast of Sipsey, and 5 miles above mouth.

Drainage area.- 1,020 square miles.

Records available.- September 1928 to September 1936.

Extremes.- Maximum discharge during year, 51,400 second-feet Feb. 4; maximum gage height, 57.0 feet Feb. 4; minimum discharge observed, 14 second-feet June 4 (gage height, 3.30 feet).

1928-36: Maximum discharge, that of Feb. 4, 1936; maximum gage height, that of Feb. 4, 1936; minimum discharge, 5 second-feet June 30, 1930 (gage height, 2.99 feet).

Remarks.- Records good except those above 3,000 second-feet, which are poor. Discharge above 3,000 second-feet taken from "loop" rating curves based on rate of change of stage. Mean daily gage heights computed from graph based on gage readings made once a day or oftener.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	127	400	1,080	720	1,140	5,480	1,300	49	54	400	81
2	31	104	300	1,800	1,220	1,080	30,300	895	37	52	555	74
3	30	89	246	3,850	7,850	1,140	28,600	895	24	71	400	62
4	30	81	205	3,020	45,200	1,080	10,700	835	17	303	475	425
5	29	72	180	2,660	36,100	1,080	5,450	638	22	375	236	450
6	28	74	167	2,380	16,100	1,080	5,730	555	18	218	198	214
7	28	69	165	4,600	7,970	955	5,610	500	44	151	325	143
8	30	66	224	14,200	4,490	835	4,270	450	87	116	525	108
9	28	87	1,060	20,700	3,660	835	10,900	425	102	102	475	89
10	26	67	895	12,300	3,610	775	13,600	375	96	89	720	74
11	25	76	582	7,240	3,160	775	6,600	375	120	74	1,080	83
12	27	1,960	500	4,060	2,780	720	3,960	350	202	71	812	81
13	27	3,920	775	2,970	2,620	665	3,270	350	146	71	231	110
14	30	1,670	955	2,420	2,580	638	2,740	525	141	108	174	106
15	55	500	775	2,160	2,200	610	2,200	450	127	350	146	89
16	114	350	638	2,060	1,820	796	1,820	350	112	325	127	90
17	67	255	500	1,620	1,680	3,480	1,520	300	102	1,480	112	100
18	65	198	450	4,010	1,780	3,360	1,240	300	90	3,380	100	90
19	52	167	400	15,600	1,460	2,380	1,140	400	83	1,590	94	74
20	49	151	350	9,800	1,300	1,880	1,020	450	76	665	89	58
21	54	138	300	5,750	1,300	1,680	955	375	72	470	81	61
22	74	129	270	3,640	1,190	1,300	895	295	66	1,460	74	78
23	79	118	265	3,070	1,020	1,140	835	236	64	1,070	71	61
24	67	110	260	2,360	1,020	1,830	775	210	79	400	72	56
25	55	108	246	1,980	955	9,140	720	194	89	250	64	81
26	55	104	218	1,720	895	5,240	720	174	78	184	61	71
27	60	110	191	1,410	1,460	6,680	665	167	69	154	64	58
28	266	673	205	1,140	1,620	14,000	638	162	69	132	66	52
29	835	895	818	1,020	1,240	6,780	610	154	61	116	83	52
30	326	582	2,020	1,080	-	4,050	743	129	55	136	74	-
31	177	-	1,460	895	-	3,250	-	72	-	500	74	66

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	2,847	835	25	91.8	0.090	0.10
November.....	12,930	3,920	66	431	.423	.47
December.....	16,010	2,020	165	516	.506	.58
Calendar year 1935.....	466,262	24,400	25	1,277	1.25	16.99
January.....	142,605	20,700	895	4,600	4.51	5.20
February.....	158,900	45,200	720	5,479	5.37	5.79
March.....	80,394	14,000	610	2,593	2.54	2.93
April.....	153,706	30,300	610	5,124	5.02	5.60
May.....	12,886	1,300	72	416	.408	.47
June.....	2,397	202	17	79.9	.078	.09
July.....	14,517	3,380	52	468	.459	.53
August.....	8,058	1,080	61	260	.255	.29
September.....	3,237	450	52	108	.106	.12
Water year 1935-36.....	608,487	45,200	17	1,663	1.63	22.17

## Locust Fork of Black Warrior River at Trafford, Ala.

Location.-- Water-stage recorder, lat. 33°50', long. 86°45', in T. 14 S., R. 2 W., at highway bridge three-quarters of a mile northwest of Trafford and  $\frac{1}{2}$  miles east of Coaldale.

Drainage area.-- 622 square miles.

Records available.-- September 1930 to September 1936.

Extremes.-- Maximum discharge during year, 45,500 second-feet Feb. 4; maximum gage height, 50.48 feet Feb. 5; minimum discharge, 11 second-feet Oct. 9 (gage height, 2.68 feet).  
1930-36: Maximum discharge, that of Feb. 4, 1936; maximum gage height, that of Feb. 5, 1936; minimum discharge, 8 second-feet Oct. 2, 19-21, 1931 (gage height, 2.39 feet).

Remarks.-- Records good. Discharge above 5,710 second-feet determined by using rate of change of stage as a factor.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	86	450	897	711	965	2,040	320	43	26	1,090	262
2	15	63	342	1,770	964	931	16,700	276	43	26	1,560	145
3	15	47	286	5,710	4,990	1,040	11,500	360	45	33	1,460	99
4	15	41	249	4,390	38,400	1,000	4,060	237	45	41	712	793
5	15	39	220	4,280	35,000	931	3,040	211	41	108	514	331
6	16	35	198	4,570	9,180	965	4,940	198	39	96	922	282
7	14	33	180	5,590	4,280	829	5,060	176	39	63	665	171
8	12	29	185	10,700	3,570	744	3,140	158	41	43	1,120	114
9	11	27	198	14,600	3,350	678	5,620	149	35	35	997	99
10	15	29	215	9,090	3,140	629	5,630	133	55	33	462	781
11	16	47	202	4,580	2,540	596	3,380	129	68	43	1,300	514
12	15	854	455	3,090	2,140	546	2,440	118	68	37	468	345
13	14	2,260	3,520	2,490	2,000	482	1,910	110	47	27	282	215
14	15	761	2,860	2,000	2,090	450	1,550	114	47	45	215	154
15	18	354	1,870	2,420	1,780	418	1,230	118	39	109	176	129
16	26	249	1,270	2,590	1,550	450	1,040	110	37	2,860	145	149
17	35	185	931	1,960	1,430	1,490	863	103	33	3,410	129	110
18	27	149	778	5,540	1,600	1,510	761	103	33	3,520	158	83
19	21	122	662	15,000	1,510	1,040	662	198	27	944	215	73
20	21	106	563	8,780	1,350	863	596	118	27	474	133	198
21	21	99	482	4,780	1,310	812	546	99	28	514	103	356
22	83	86	418	3,460	1,310	695	498	86	26	306	76	106
23	103	83	402	2,640	1,110	612	466	73	27	224	90	98
24	57	73	380	2,000	1,040	684	466	57	27	171	133	176
25	45	68	351	1,690	965	3,290	450	55	33	145	185	126
26	37	65	317	1,510	897	2,540	418	55	29	129	122	90
27	31	101	286	1,270	1,150	3,990	370	55	27	106	114	80
28	63	1,030	282	1,040	1,350	6,160	333	55	26	93	90	65
29	232	1,400	921	897	1,110	3,620	304	50	24	80	86	52
30	286	761	1,510	931	-	2,440	300	45	26	99	355	45
31	133	-	1,110	846	-	1,620	-	43	-	312	487	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	1,442	286	11	46.5	0.075	0.09
November.....	9,282	2,260	27	309	.497	.55
December.....	22,093	3,520	180	713	1.15	1.33
Calendar year 1935.....	354,354	14,200	11	971	1.56	21.18
January.....	131,111	15,000	846	4,229	6.80	7.84
February.....	129,787	38,400	711	4,475	7.19	7.75
March.....	45,220	6,160	418	1,394	2.24	2.58
April.....	80,513	16,700	300	2,677	4.30	4.80
May.....	4,112	360	43	133	.214	.25
June.....	1,123	68	24	37.4	.080	.07
July.....	14,152	3,520	26	457	.735	.85
August.....	14,562	1,560	76	470	.756	.87
September.....	6,241	793	45	208	.334	.37
Water year 1935-36.....	457,438	38,400	11	1,250	2.01	27.35

## MOBILE RIVER BASIN

## Fivemile Creek at Tarrant City, Ala.

Location.- Staff gage, lat. 33°35'25", long. 86°46'10", in NE¼ sec. 5, T. 17 S., R. 2 W., 100 feet downstream from bridge on Tarrant City-Ketona highway and a quarter of a mile northwest of Tarrant City.

Drainage area.- 25.5 square miles.

Records available.- May to July 1936 (discontinued).

Extremes.- Maximum gage height during period, 4.90 feet June 18 (discharge not determined); minimum discharge observed, 10 second-feet June 29 (gage height, 0.76 foot). Maximum stage known, 9.0 feet, from floodmarks, in March 1932 (discharge not determined).

Remarks.- Records good below and poor above 20 second-feet. Gage read twice daily.

Rating table, 1936 (gage height, in feet, and discharge, in second-feet)

0.7	8.2	1.6	87
.8	11.8	1.8	93
.9	15.7	2.0	124
1.0	20	2.2	158
1.2	31	2.4	195
1.4	46	2.6	236

Discharge, in second-feet, May to July 1936

Day	May	June	July	Day	May	June	July	Day	May	June	July
1	-	16	13	11	-	16	12	21	17	14	-
2	-	16	13	12	-	14	-	22	18	13	-
3	-	16	13	13	-	15	-	23	16	13	-
4	-	16	13	14	18	15	-	24	16	13	-
5	-	16	13	15	17	15	-	25	16	13	-
6	-	16	12	16	18	14	-	26	16	13	-
7	-	16	13	17	18	14	-	27	16	13	-
8	-	*21	13	18	18	*218	-	28	16	13	-
9	-	15	13	19	18	16	-	29	16	11	-
10	-	15	12	20	17	15	-	30	16	*37	-
								31	16	-	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
May 14-31.....	303	18	16	16.8	0.659	0.44
June.....	668	218	11	22.3	.875	.98
July 1-11.....	140	13	12	12.7	.498	.20

\*From graph based on gage readings.

## Village Creek at Ensley, Ala.

Location.- Staff gage, lat. 33°31'20", long. 86°53'25", in NE¼ sec. 31, T. 17 S., R. 3 W., at bridge on Avenue F in Ensley.

Drainage area.- 39.6 square miles.

Records available.- May to July 1936 (discontinued).

Extremes.- Maximum discharge during period, 317 second-feet June 12 (gage height, 1.82 feet) from rating curve extended above 170 second-feet; minimum discharge observed, 17 second-feet June 9 (gage height, 0.48 foot).  
Maximum stage known, 12.2 feet in February 1936 (discharge not determined).

Remarks.- Records poor. Some regulation from disposal of waste water by industrial plants in Ensley and Birmingham. Gage read three times a day.

Rating table, 1936 (gage height, in feet, and discharge, in second-feet)

0.5 19  
.6 31  
.7 46  
.8 65

Discharge, in second-feet, May to July 1936

Day	May	June	July	Day	May	June	July	Day	May	June	July
1	-	37	29	11	-	*40	30	21	34	27	-
2	-	31	30	12	-	*42	-	22	34	31	-
3	-	31	31	13	-	27	-	23	34	31	-
4	-	34	32	14	-	31	-	24	37	32	-
5	-	32	30	15	29	34	-	25	34	31	-
6	-	30	31	16	30	30	-	26	37	26	-
7	-	26	29	17	26	30	-	27	38	26	-
8	-	26	42	18	*32	*48	-	28	40	34	-
9	-	*23	37	19	*48	30	-	29	37	29	-
10	-	*26	32	20	26	32	-	30	42	37	-
								31	38	-	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
May 15-31.....	596	48	26	35.1	0.886	0.56
June.....	944	48	23	31.5	.795	.89
July 1-11.....	353	42	29	32.1	.811	.33

\*From graph based on gage readings.

## Valley Creek near Bessemer, Ala.

Location.- Chain gage, lat. 33°25'10", long. 86°59'0", in NW $\frac{1}{4}$  sec. 5, T. 19 S., R. 4 W., at Jefferson County bridge on Bessemer-Hueytown highway, 1 mile below Opossum Creek and 2 miles west of Bessemer.

Drainage area.- 50.7 square miles.

Records available.- May to July 1936 (discontinued).

Extremes.- Maximum discharge during period, 232 second-feet June 12 (gage height, 2.9 feet, from floodmarks); minimum discharge observed, 24 second-feet June 22 (gage height, 0.78 foot).

Maximum stage known, 13.2 feet, from floodmarks, in February 1936 (discharge not determined).

Remarks.- Records good. Some regulation at low stages caused by disposal of waste water from industrial plants upstream. Gage read twice daily.

Rating table, 1936 (gage height, in feet, and discharge, in second-feet)

0.9	32	1.5	84
1.0	40	1.8	114
1.1	48		

Discharge, in second-feet, May to July 1936

Day	May	June	July	Day	May	June	July	Day	May	June	July
1	-	41	45	11	-	55	44	21	52	39	-
2	-	47	*52	12	-	*92	40	22	51	34	-
3	-	41	*75	13	-	*47	-	23	45	39	-
4	-	59	*107	14	-	42	-	24	44	41	-
5	-	42	41	15	-	37	-	25	42	*43	-
6	-	44	42	16	59	45	-	26	44	38	-
7	-	38	39	17	59	38	-	27	48	35	-
8	-	40	46	18	*79	39	-	28	48	35	-
9	-	59	42	19	*96	40	-	29	45	35	-
10	-	40	40	20	55	38	-	30	42	37	-
								31	36	-	-

Month	Second-foot days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
May 16-31.....	850	96	36	53.1	1.05	0.62
June.....	1,299	92	34	43.3	.85	.95
July 1-12.....	611	107	39	50.9	1.00	.45

\*From graph based on gage readings.

## Valley Creek near Oak Grove, Ala.

Location.- Chain gage, lat. 33°27', long. 87°7', in T. 18 S., R. 6 W., at bridge on Bessemer-Oak Grove county highway 1,300 feet below Raccoon Branch, 2,000 feet below Lick Branch, 1 mile above Rock Creek, and 2.2 miles northeast of Oak Grove.

Drainage area.- 148 square miles.

Records available.- May to July 1936 (discontinued).

Extremes.- Maximum discharge observed during period, 264 second-feet June 12 (gage height, 2.09 feet); minimum discharge observed, 53 second-feet July 6 (gage height, 1.07 feet).

Maximum stage known, 29.6 feet in July 1916 (discharge not determined).

Remarks.- Records good. Some regulation caused by disposal of waste water from industrial plants above Bessemer. Gage read twice daily.

Rating table, 1936 (gage height; in feet, and discharge, in second-feet)

1.1	56	1.3	85	1.5	123
1.2	69	1.4	103	1.7	166

Discharge, in second-feet, May to July 1936

Day	May	June	July	Day	May	June	July	Day	May	June	July
1	-	68	61	11	-	66	62	21	85	64	-
2	-	71	51	12	-	157	77	22	79	59	-
3	-	74	109	13	-	162	-	23	74	62	-
4	-	77	123	14	-	66	-	24	74	64	-
5	-	74	66	15	-	64	-	25	71	59	-
6	-	66	59	16	80	66	-	26	72	61	-
7	-	56	62	17	80	64	-	27	74	61	-
8	-	66	64	18	75	64	-	28	80	59	-
9	-	77	99	19	107	61	-	29	80	59	-
10	-	68	68	20	96	64	-	30	71	59	-
								31	68	-	-

Month	Second-foot days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
May 16-31.....	1,266	107	71	79.1	0.534	0.32
June.....	2,148	162	59	71.6	.484	.54
July 1-12.....	911	123	59	75.9	.513	.23

## Pascagoula River at Merrill, Miss.

Location.- Water-stage recorder, lat. 30°59', long. 88°44', in T. 1 S., R. 7 W., St. Stephens base and meridian, at bridge on State Highway 24, half a mile below confluence of Leaf and Chickasawhay Rivers and half a mile west of Merrill. Zero of gage is 24.1 feet above mean sea level (from Gulf, Mobile & Northern Railroad benchmark).

Drainage area.- 6,600 square miles.

Records available.- December 1930 to September 1936.

Extremes.- Maximum discharge during year, 80,700 second-feet Feb. 11 (gage height, 25.43 feet); minimum, 1,070 second-feet Nov. 10 (gage height, 2.68 feet).  
1930-36: Maximum discharge, 89,700 second-feet Mar. 12, 13, 1935; maximum gage height, 25.83 feet Mar. 12, 1935; minimum discharge, 1,000 second-feet Oct. 30, Nov. 4, 8-12, 1931; minimum gage height, that of Nov. 10, 1935.  
Maximum stage known, about 31 feet July 9, 1916 (discharge not determined).

Remarks.- Records good.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 11					Feb. 12 to Sept. 30	
2.7	1,080	10.0	7,750	21.6	33,800	3.0 1,220
3.0	1,260	11.5	9,850	22.1	36,800	4.0 2,050
4.1	2,090	13.9	13,320	22.5	39,600	7.1 4,790
5.0	2,930	19.0	22,000	23.0	43,900	8.9 5,490
6.0	3,700	19.5	25,900	23.5	48,900	
8.0	5,530	20.4	28,500	24.0	55,300	
9.0	6,590	21.1	31,300	24.5	63,200	
				25.3	78,500	

Note.- Same as previous table above 8.9 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,400	1,200	1,430	14,200	11,100	12,100	6,700	15,300	8,680	1,470	4,710	2,430
2	1,330	1,170	1,430	16,400	11,000	11,800	6,590	19,300	5,880	1,470	4,790	2,080
3	1,290	1,170	1,430	19,600	11,400	10,600	6,090	21,800	4,440	1,430	4,270	1,770
4	1,260	1,140	1,400	21,300	16,100	9,550	5,420	23,500	3,740	1,430	3,830	1,560
5	1,200	1,110	1,360	22,000	23,900	8,540	5,060	25,300	3,390	1,640	3,570	1,390
6	1,200	1,110	1,360	20,900	29,200	7,630	5,240	26,100	3,130	2,080	3,480	1,300
7	1,140	1,080	1,400	17,900	36,600	7,150	6,280	25,000	2,950	2,080	3,300	1,300
8	1,140	1,050	1,470	16,800	43,800	6,700	8,400	21,900	2,780	2,080	3,040	1,300
9	1,140	1,080	1,840	20,500	52,600	6,280	14,200	16,300	2,780	2,120	2,780	1,430
10	1,110	1,060	2,330	27,600	64,900	6,080	21,100	10,600	2,780	2,210	2,780	1,430
11	1,110	1,080	2,530	32,800	78,500	5,780	23,000	7,390	2,780	1,940	2,690	1,510
12	1,110	1,290	5,470	36,800	78,500	5,690	25,500	5,980	3,220	1,900	2,600	1,640
13	1,110	1,640	9,850	39,200	66,700	5,600	22,300	5,330	3,390	2,080	2,950	1,940
14	1,140	1,960	8,820	36,800	52,600	5,420	20,900	4,880	3,300	2,210	3,390	2,030
15	1,170	2,580	7,030	34,400	40,600	5,240	18,700	4,620	3,040	3,300	4,270	1,990
16	1,170	2,750	5,580	29,700	32,800	5,150	16,900	4,350	2,780	3,570	3,920	2,080
17	1,290	2,580	4,610	24,700	27,300	5,330	14,500	4,350	2,600	3,480	3,390	2,520
18	1,360	2,410	3,880	20,700	23,200	5,600	10,800	5,240	2,600	3,300	2,950	2,340
19	1,330	2,170	4,330	27,300	18,100	5,780	7,150	7,510	2,430	4,180	2,600	1,990
20	1,260	1,920	3,000	36,000	14,500	5,690	5,780	8,960	2,250	4,000	2,340	1,680
21	1,200	1,760	2,750	36,200	13,800	5,690	5,240	9,250	2,170	3,830	2,210	1,470
22	1,170	1,640	2,500	35,000	14,500	5,600	4,790	8,010	2,030	4,790	2,030	1,340
23	1,140	1,540	2,410	33,300	14,700	5,510	4,530	6,920	1,900	7,320	2,780	1,640
24	1,140	1,500	2,330	30,900	13,600	5,510	4,530	6,080	1,820	8,960	3,040	2,430
25	1,140	1,470	2,250	28,200	12,100	5,510	4,440	5,240	1,730	8,680	2,690	2,210
26	1,110	1,400	2,170	25,300	10,600	5,420	4,350	4,440	1,680	8,820	2,250	1,860
27	1,110	1,400	2,090	22,500	10,300	5,240	4,180	3,920	1,600	7,030	2,030	1,770
28	1,110	1,430	2,170	19,300	11,400	5,420	4,090	3,740	1,500	5,240	1,860	1,600
29	1,110	1,470	2,230	15,100	11,800	6,080	5,530	3,740	1,560	4,090	1,680	1,340
30	1,170	1,470	9,660	11,400	-	6,380	10,600	5,410	1,510	3,480	1,750	1,220
31	1,200	-	13,300	11,100	-	6,590	-	8,680	-	3,480	2,690	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square in mile	Run-off in inches
October.....	36,860	1,400	1,110	1,189	0.180	0.21
November.....	46,680	2,760	1,090	1,558	.235	.28
December.....	116,400	13,300	1,360	3,755	.569	.66
Calendar year 1935 .....	3,328,640	89,700	1,080	9,120	1.38	18.74
January.....	779,900	38,200	11,100	25,160	3.81	4.39
February.....	846,600	78,500	10,300	29,190	4.42	4.77
March.....	204,460	12,100	5,150	6,595	.999	1.15
April.....	300,890	23,500	4,090	10,030	1.52	1.70
May.....	329,040	26,100	3,740	10,610	1.61	1.86
June.....	86,540	8,680	1,610	2,885	.437	.49
July.....	113,690	8,960	1,430	3,667	.566	.64
August.....	92,640	4,790	1,680	2,988	.455	.52
September.....	52,590	2,520	1,220	1,753	.263	.30
Water year 1935-36.....	3,006,280	78,500	1,080	8,214	1.24	16.95

## Pearl River at Edinburg, Miss.

Location.- Wire-weight gage, lat. 32°47', long. 89°20', in T. 11 N., R. 9 E. Choctaw meridian, at bridge on State Highway 16 in Edinburg. Zero of gage is 341.57 feet above mean sea level (from U. S. Weather Bureau benchmark).

Drainage area.- 898 square miles.

Records available.- August 1928 to September 1936.

Extremes.- Maximum discharge during year, 19,700 second-feet Feb. 7 (gage height, 25.35 feet); minimum discharge observed, 9 second-feet Sept. 2, 3, 28-28; minimum gage height observed, 1.83 feet Sept. 27, 28.

1928-36: Maximum discharge observed, 31,400 second-feet Mar. 8, 1935 (gage height, 26.20 feet); minimum discharge, 6 second-feet Oct. 27, 1931; minimum gage height, 1.83 feet Sept. 8, 1929.

Maximum stage known, 29.0 feet Mar. 1, 1902 (discharge not determined).

Remarks.- Records good. Gage read twice daily.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 29 to Nov. 13)

Oct. 1-28				Oct. 29 to Sept. 30			
2.0	15	1.8	8.5	5.6	392	17.0	3,750
2.1	17	2.1	14	6.3	515	18.8	4,920
2.2	20	2.4	24	6.8	610	20.2	6,110
2.3	24	2.6	35	9.5	1,150	21.7	7,750
2.4	29	2.8	50	11.0	1,490	23.0	10,000
2.6	45	3.5	98	12.5	1,860	24.0	13,100
3.2	105	4.5	236	14.0	2,350	25.0	17,500
4.0	195	5.2	330	15.0	2,750	25.3	19,100

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	68	83	610	1,710	790	*1,420	1,480	93	14	45	10
2	59	22	73	850	*1,630	750	*2,070	1,350	63	31	35	9
3	20	53	68	610	*2,860	790	*2,800	1,220	46	114	29	9
4	19	48	68	650	*7,390	750	3,130	1,150	224	136	28	9
5	17	53	68	610	*13,000	870	2,670	1,130	212	125	34	11
6	17	53	68	*930	*18,500	910	2,350	1,030	153	114	30	12
7	17	48	*78	*1,130	*19,100	910	2,470	870	98	83	200	12
8	17	48	*692	*2,270	15,100	890	2,630	790	68	73	125	11
9	16	44	*610	*2,590	10,800	850	2,980	790	56	*242	86	14
10	16	40	*630	*2,710	7,900	830	2,930	610	50	78	98	63
11	16	50	*461	2,470	6,210	790	3,080	553	52	73	78	137
12	17	164	426	2,100	5,000	750	2,670	553	53	73	63	153
13	17	302	461	*2,350	4,050	670	2,130	534	52	47	45	55
14	19	*200	461	*3,180	3,230	610	1,860	572	41	50	20	28
15	39	*136	426	*3,130	2,510	515	1,610	376	36	109	21	28
16	35	*120	392	2,930	2,010	479	1,440	249	30	73	21	24
17	32	109	345	2,930	1,780	443	1,610	275	29	56	21	22
18	39	109	302	2,640	1,580	392	1,460	345	63	43	19	24
19	40	109	275	2,930	1,440	345	1,300	553	73	83	15	18
20	31	103	262	3,080	1,360	330	1,170	690	50	142	14	15
21	28	98	224	2,630	1,240	345	1,050	553	34	288	68	14
22	26	88	176	2,390	1,130	345	930	376	28	200	19	13
23	25	88	164	1,950	1,030	330	650	262	27	212	15	12
24	24	73	153	1,660	930	*345	425	236	27	212	16	11
25	24	59	136	1,530	810	*650	262	224	21	212	15	10
26	24	52	131	1,560	750	*870	142	200	20	224	16	9
27	24	49	120	1,580	870	*1,170	93	176	19	212	14	9
28	*193	83	*164	1,630	870	*1,560	*93	153	17	188	13	9
29	*142	93	*710	1,530	850	1,300	*878	136	15	142	12	15
30	*93	93	*710	1,560	-	1,150	*1,560	125	14	153	12	*13
31	78	-	*710	1,490	-	1,030	-	109	-	63	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	1,150	193	16	37.1	0.041	0.05
November.....	2,632	302	40	89.7	.100	.11
December.....	9,647	710	68	311	.346	.40
Calendar year 1935.....	525,963	31,400	16	1,441	1.60	21.79
January.....	60,310	3,180	610	1,945	2.17	2.50
February.....	135,630	19,100	750	4,677	5.21	5.62
March.....	22,959	1,560	330	741	.825	.95
April.....	49,864	3,130	93	1,662	1.85	2.06
May.....	17,650	1,460	109	569	.634	.73
June.....	1,764	224	14	58.8	.065	.07
July.....	3,665	268	14	125	.139	.16
August.....	1,241	200	12	40.0	.045	.05
September.....	780	153	9	26.0	.029	.03
Water year 1935-36.....	307,552	19,100	9	840	.935	12.73

\*From graph based on gage readings.



## Pearl River at Jackson, Miss.

**Location.**- Water-stage recorder, lat. 32°17'20", long. 90°10'45", in T. 5 N., R. 1 E. Choctaw meridian, at bridge on U. S. Highway 80 in Jackson. Zero of gage is 234.96 feet above mean sea level (general adjustment of 1929).

**Drainage area.**- 3,100 square miles.

**Records available.**- June 1901 to December 1913, August 1928 to September 1936 (gage heights only prior to 1903).

**Average discharge.**- 17 years (1903-12, 1928-36), 3,689 second-feet.

**Extremes.**- Maximum discharge during year, 34,400 second-feet Feb. 12 (gage height, 32.46 feet); minimum, 116 second-feet Sept. 30 (gage height, 1.48 feet).  
1901-13, 1928-36: Maximum known discharge, 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.

**Remarks.**- Records good. Water-stage recorder graph affected by partly plugged intake pipe below gage height 16.7 feet Dec. 28 to Sept. 30. Mean daily gage heights computed from twice daily gage readings Apr. 1-28, May 14 to Sept. 30, and from graph based on gage readings as noted on daily discharge table.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.4	106	2.5	365	11.0	3,680	18.0	6,790	26.0	13,400
1.5	119	2.9	485	13.0	4,630	19.0	7,250	28.5	18,200
1.6	135	5.4	1,360	15.0	5,580	20.6	8,150	29.9	22,400
1.8	174	9.0	2,800	16.0	6,000	22.5	9,580	31.3	28,000
2.0	224	10.0	3,220	17.0	6,380	24.0	11,000	32.1	32,000
								32.4	33,600

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	246	520	310	*2,560	*3,870	*2,840	4,440	8,290	590	221	642	144
2	229	572	350	*2,600	*4,150	*2,800	4,350	8,240	538	276	395	139
3	219	590	470	*2,600	*6,220	*2,680	4,350	9,020	502	251	389	142
4	211	555	572	*2,520	10,800	*2,480	4,540	8,500	572	262	365	142
5	201	485	572	*2,440	13,800	*2,520	4,920	8,030	470	254	359	145
6	193	440	502	*2,840	16,900	*2,560	5,210	7,150	440	293	319	142
7	184	377	520	*3,010	19,400	*2,580	5,400	6,460	502	425	285	139
8	176	330	1,290	*4,060	21,300	*2,600	5,400	5,400	572	572	273	142
9	174	299	1,290	4,870	25,600	*2,520	5,400	3,920	538	625	296	166
10	172	254	1,920	5,210	29,500	*2,320	5,400	*2,720	485	555	313	135
11	170	365	2,400	5,580	32,600	*2,160	5,580	*2,240	425	455	327	132
12	166	440	2,240	5,840	33,800	*1,960	5,800	*1,880	395	395	324	166
13	164	348	2,080	5,960	32,600	*1,800	5,960	*1,680	368	520	299	214
14	166	307	1,960	6,110	30,000	1,680	6,080	1,520	345	485	287	251
15	161	410	2,040	6,300	26,400	1,600	6,190	1,440	327	455	296	224
16	157	555	1,960	6,380	21,800	1,520	6,150	1,360	307	502	285	216
17	159	608	1,680	6,300	18,200	1,440	5,800	1,290	296	520	246	214
18	155	590	1,400	6,740	15,500	1,360	4,830	1,220	290	485	219	214
19	166	520	1,220	7,150	13,000	1,320	3,540	1,180	278	470	201	214
20	170	470	1,080	7,250	10,900	1,290	2,880	1,220	268	410	188	193
21	174	425	975	7,350	8,840	1,290	2,560	1,860	265	353	181	174
22	172	392	870	7,350	6,960	*1,360	2,320	2,360	268	316	174	166
23	172	365	800	7,250	*5,160	*1,320	2,090	2,360	339	316	176	164
24	170	350	730	7,100	*3,490	*1,290	1,920	1,880	279	377	193	157
25	164	339	678	6,920	2,920	*1,560	1,720	1,360	257	485	172	142
26	174	333	625	6,660	2,680	*1,600	1,520	1,080	240	520	169	132
27	206	346	608	6,190	2,560	*2,510	1,320	940	229	502	164	125
28	279	350	*660	*5,400	*2,580	*3,920	1,260	918	224	440	153	129
29	268	339	*1,120	*4,390	*2,840	*4,540	*4,300	748	224	455	174	127
30	287	316	*1,150	*4,010	-	*4,680	7,300	678	224	1,290	181	118
31	410	-	*1,920	*3,820	-	*4,590	-	608	-	1,120	149	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	6,115	410	155	197	0.064	0.07
November.....	12,592	608	254	420	.135	
December.....	35,992	2,400	310	1,161	.375	.43
Calendar year 1935.....	1,717,525	54,400	155	4,706	1.52	20.58
January.....	162,760	7,350	2,440	5,250	1.69	1.95
February.....	424,850	33,800	2,560	14,650	4.73	5.10
March.....	70,870	4,660	1,290	2,280	.735	.85
April.....	128,520	7,300	1,280	4,284	1.38	1.54
May.....	96,172	9,020	608	3,187	1.02	1.15
June.....	11,058	590	224	369	.119	.13
July.....	14,605	1,290	221	471	.152	.18
August.....	8,194	642	149	264	.085	.10
September.....	4,911	251	118	164	.053	.06
Water year 1935-36.....	978,439	33,800	118	2,673	.862	11.74

\*From graph based on gage readings.

## Pearl River near Columbia, Miss.

Location.- Water-stage recorder, lat. 31°14', long. 89°51', in T. 3 N., R. 18 W., at bridge on State Highway 24, 1 mile west of Columbia.

Drainage area.- 5,690 square miles.

Records available.- May 1934 to September 1936; August 1928 to May 1934 at site 1 mile downstream.

Extremes.- Maximum discharge during year, 39,500 second-feet Feb. 7 (gage height, 22.1 feet); minimum discharge, 875 second-feet Oct. 14, 25-27, 30, 31; minimum gage height, 2.18 feet Sept. 30.  
1928-36: Maximum discharge, 62,500 second-feet Mar. 18, 1935 (gage height, 24.88 feet); minimum, 788 second-feet Oct. 1, 1931 (gage height, 1.36 feet, former site and datum).

Remarks.- Records good.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 6				Jan. 7 to Sept. 30			
2.3	950	5.6	4,500	2.2	976	5.6	3,570
2.5	1,140	7.5	5,490	2.5	1,060	7.2	5,240
3.2	1,420	8.4	6,570	3.0	1,410	8.5	6,850
4.2	2,220	9.9	8,580	3.5	1,790	9.5	8,300
5.4	3,300			4.5	2,580	11.2	11,100
						12.5	13,500
						15.4	19,300
						18.4	26,800
						20.6	33,400
						22.0	39,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,080	930	1,140	6,090	7,550	7,410	5,960	14,700	2,420	1,130	2,060	1,160
2	1,050	930	1,110	6,090	7,130	6,720	6,090	18,300	2,180	1,130	2,060	1,100
3	1,020	930	1,110	7,220	7,850	6,330	5,960	21,300	2,180	1,340	2,180	1,030
4	990	990	1,080	6,570	16,900	6,080	6,080	23,000	1,980	1,380	2,100	967
5	960	1,110	1,050	5,380	26,000	5,720	5,960	23,000	1,900	1,410	1,980	936
6	930	1,180	1,080	4,940	35,600	5,480	5,840	20,600	1,900	1,480	1,790	906
7	930	1,210	1,180	5,840	39,000	5,240	5,960	16,100	2,180	1,520	1,600	906
8	900	1,180	1,500	11,400	39,000	5,130	6,200	12,400	1,940	1,560	1,450	906
9	900	1,140	2,220	15,500	37,800	5,020	8,000	10,400	1,750	1,480	1,340	936
10	900	1,080	3,800	15,900	36,200	4,910	10,400	8,940	1,670	1,340	1,300	1,100
11	900	1,140	3,700	14,900	33,400	4,800	11,100	7,270	1,670	1,410	1,410	1,130
12	900	1,620	3,600	11,800	31,300	4,580	10,300	5,840	1,670	1,600	1,380	1,200
13	900	2,310	4,100	9,580	28,900	4,370	9,100	4,800	1,630	1,710	1,380	1,270
14	875	2,760	4,400	8,300	27,100	4,270	8,460	4,170	1,600	1,900	1,300	1,270
15	900	2,220	4,000	7,700	26,300	4,070	7,850	3,770	1,520	2,670	1,230	1,200
16	990	1,740	3,500	7,700	26,600	3,870	7,410	3,570	1,450	2,580	1,200	1,200
17	990	1,420	3,300	8,780	27,700	3,770	7,410	3,390	1,410	2,940	1,160	1,130
18	930	1,280	3,210	9,920	29,200	3,570	7,270	3,570	1,380	2,580	1,160	1,130
19	900	1,240	3,030	11,800	30,700	3,480	7,270	4,800	1,340	2,060	1,130	1,100
20	900	1,350	2,760	13,500	31,000	3,570	6,720	6,080	1,300	1,790	1,100	998
21	930	1,380	2,490	13,300	30,400	3,570	5,840	5,020	1,270	1,710	1,060	967
22	960	1,350	2,310	12,400	28,900	3,670	4,910	3,770	1,270	1,900	1,060	967
23	960	1,280	2,140	11,300	26,600	3,570	4,370	3,390	1,230	2,180	1,270	1,030
24	900	1,240	2,020	10,400	23,600	3,570	3,970	3,480	1,230	2,850	1,270	998
25	875	1,210	1,900	9,750	18,300	3,480	3,770	3,670	1,270	2,670	1,270	936
26	875	1,140	1,820	9,260	11,500	3,390	3,480	3,570	1,380	1,940	1,200	936
27	875	1,140	1,740	8,780	8,940	3,480	3,300	3,300	1,300	1,600	1,130	906
28	900	1,140	1,780	8,460	9,750	3,670	3,210	3,030	1,230	1,600	1,130	906
29	900	1,140	3,530	8,150	8,780	4,070	4,090	3,030	1,200	1,670	1,060	876
30	875	1,110	8,040	8,150	-	5,240	9,560	3,210	1,130	2,670	998	876
31	875	-	8,580	7,850	-	5,720	-	2,760	-	2,670	1,100	-
Month					Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October.....					28,770	1,080	875	928	0.163	0.19		
November.....					39,890	2,760	930	1,330	.234	.26		
December.....					87,220	8,580	1,050	2,814	.495	.57		
Calendar year 1935.....					3,131,670	61,600	875	8,580	1.51	20.48		
January.....					296,710	15,900	4,940	9,571	1.68	1.94		
February.....					711,000	39,000	7,130	24,520	4.31	4.65		
March.....					141,820	7,410	3,390	4,575	.804	.93		
April.....					195,830	11,100	3,210	6,528	1.15	1.28		
May.....					254,230	23,000	2,760	8,201	1.44	1.66		
June.....					47,580	2,420	1,130	1,586	.279	.31		
July.....					58,470	2,940	1,130	1,886	.331	.38		
August.....					42,858	2,180	998	1,363	.243	.28		
September.....					30,973	1,270	876	1,032	.181	.20		
Water year 1935-36.....					1,935,351	39,000	875	5,288	.929	12.65		

## Strong River at Dlo, Miss.

Location.- Staff gage, lat. 31°59', long. 89°54', in T. 2 N., R. 4 E. Choctaw meridian, half a mile above Gulf & Ship Island Railroad bridge and three-quarters of a mile southeast of Dlo.

Drainage area.- 361 square miles.

Records available.- August 1928 to September 1936.

Extremes.- Maximum discharge during year, 12,000 second-feet Feb. 5 (gage height, 23.9 feet); minimum, 18 second-feet Sept. 25-29 (gage height, 2.26 feet).  
1928-36: Maximum discharge, 22,900 second-feet Mar. 7, 1935 (gage height, 28.0 feet, from floodmarks); minimum, 16 second-feet Aug. 8, 9, 1933 (gage height, 2.25 feet).

Remarks.- Records fair. Gage read twice daily.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.26	18	3.3	404	9.4	2,940
2.3	20	3.6	503	13.0	4,380
2.4	32	3.9	757	16.0	5,700
2.5	50	4.0	903	19.0	7,200
2.6	74	4.3	1,090	20.4	8,040
2.7	107	4.6	1,250	21.1	8,530
2.8	145	4.8	1,340	21.9	9,200
2.9	186	5.2	1,500	22.4	9,730
3.0	236	6.0	1,790	23.1	10,600
				23.6	11,400

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	27	37	757	678	466	215	*8,110	182	34	37	22
2	25	24	35	640	*832	435	210	*4,930	165	44	35	23
3	25	24	37	640	*2,780	323	191	*3,060	149	48	34	22
4	25	25	32	532	*9,540	295	169	*1,010	121	44	34	21
5	24	25	29	435	*11,400	268	141	532	99	42	42	20
6	23	24	32	*1,090	*9,630	241	129	435	83	46	42	19
7	22	25	*40	*1,940	*6,940	225	141	375	77	44	38	19
8	22	27	*551	*3,580	*4,520	220	*353	295	68	58	35	19
9	20	25	466	*3,420	*2,560	200	*1,460	200	63	80	37	21
10	21	24	404	*2,520	*1,390	182	*1,690	157	61	56	68	23
11	22	92	236	*1,780	717	165	*1,380	133	54	46	107	28
12	21	312	241	*969	567	149	*969	92	52	74	96	38
13	22	157	215	*435	499	133	398	121	48	153	77	66
14	23	125	195	*334	435	125	290	125	42	178	52	118
15	25	83	182	*564	375	114	220	118	40	118	34	125
16	27	66	161	*1,250	352	103	195	103	38	103	29	110
17	24	48	110	*1,090	329	121	173	141	37	89	28	103
18	25	44	80	*1,150	301	532	157	257	35	74	27	80
19	25	42	66	*1,380	273	435	137	290	32	54	24	63
20	27	38	56	*1,380	252	273	133	252	32	52	23	46
21	24	35	50	1,090	215	225	118	205	34	50	23	29
22	25	35	50	757	225	284	103	178	31	83	22	20
23	25	32	50	435	182	323	83	157	37	191	25	20
24	25	32	54	340	165	295	83	118	44	137	27	19
25	25	34	52	268	163	284	77	107	44	74	24	18
26	24	32	48	225	145	246	77	118	37	44	23	18
27	24	35	48	832	149	195	77	145	34	37	24	18
28	24	40	*205	903	969	246	*1,950	220	32	37	25	18
29	27	44	*1,970	969	832	252	*6,580	257	31	40	22	18
30	25	38	*1,480	832	-	191	*10,800	257	29	37	22	19
31	27	-	*969	678	-	178	-	200	-	44	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	750	27	20	24.2	0.067	0.08
November.....	1,614	312	24	53.8	.149	.17
December.....	8,181	1,970	29	264	.731	.84
Calendar year 1935.....	230,089	20,500	20	630	1.75	23.74
January.....	33,215	3,580	225	1,071	2.97	3.42
February.....	57,405	11,400	145	1,979	5.48	5.91
March.....	7,724	532	103	249	.690	.80
April.....	28,709	10,800	77	957	2.65	2.96
May.....	22,698	8,110	92	732	2.03	2.34
June.....	1,831	182	29	61.0	.169	.19
July.....	2,211	191	34	71.3	.198	.23
August.....	1,157	107	22	37.3	.103	.12
September.....	1,183	125	18	39.4	.109	.12
Water year 1935-36.....	166,678	11,400	18	455	1.26	17.18

\*Mean daily gage heights computed from graph based on twice-daily gage readings.

## MISCELLANEOUS DISCHARGE MEASUREMENTS

In addition to the records of stream flow obtained at gaging stations and reported in the preceding pages, measurements of flow were made at other points as shown by the following table:

Miscellaneous discharge measurements during the water year October 1935 to September 1936\*

Date	Stream	Tributary to or diverting from	Locality	Discharge
Sept. 27	Crabtree Falls	South Fork of Tye River.	600 feet above mouth.....	Sec.-ft. 0.117
28	James River & Kanawha Canal.	James River.....	City pumping plant, Richmond.....	660
28	.....do.....	.....do.....	.....do.....	672
Mar. 20	Nesbitt Creek	Tyger River.....	Mouth, near Spartanburg, S. C.....	19.4
24	.....do.....	.....do.....	.....do.....	1.27
20	Ward Creek....	North Tyger River.	A quarter of a mile above mouth, near Spartanburg, S. C.....	81.5
24	.....do.....	.....do.....	.....do.....	12.0
25	.....do.....	.....do.....	.....do.....	454
26	.....do.....	.....do.....	Three-quarters of a mile above mouth, near Spartanburg, S. C.....	64.9
20	Mill Creek....	.....do.....	A quarter of a mile above mouth, near Spartanburg, S. C.....	43.6
24	.....do.....	.....do.....	.....do.....	1.97
26	.....do.....	.....do.....	.....do.....	59.4
Oct. 15	St. Johns River.	Atlantic Ocean....	Near Palatka, Fla.....	5,610
15	.....do.....	.....do.....	.....do.....	19,500
15	.....do.....	.....do.....	.....do.....	20,400
15	.....do.....	.....do.....	.....do.....	17,800
4	Econlockhatchee River	St. Johns River...	Near Chuluota, Fla.....	750
Nov. 7	Wekiwa Spring	Wekiwa River.....	Near Apopka, Fla.....	72.5
7	Rock Spring...	.....do.....	.....do.....	57.1
Dec. 6	.....do.....	.....do.....	.....do.....	62.8
4	.....do.....	.....do.....	.....do.....	54.9
4	.....do.....	.....do.....	.....do.....	56.2
30	.....do.....	.....do.....	.....do.....	62.8
Oct. 15	Alexander Spring.	St. Johns River..	Near Astor, Fla.....	74.5
Dec. 3	.....do.....	.....do.....	.....do.....	131
16	Juniper Spring	Lake George.....	.....do.....	16.1
July 3	.....do.....	.....do.....	.....do.....	16.3
11	.....do.....	.....do.....	.....do.....	11.7
Aug. 13	.....do.....	.....do.....	.....do.....	11.8
Sept. 25	.....do.....	.....do.....	.....do.....	15.3
Oct. 15	Juniper Spring Creek.	.....do.....	.....do.....	140
Dec. 3	.....do.....	.....do.....	.....do.....	120
16	Fern Hammock Springs.	Juniper Spring Creek.	.....do.....	15.5
July 3	.....do.....	.....do.....	.....do.....	16.7
11	.....do.....	.....do.....	.....do.....	16.9
Aug. 18	.....do.....	.....do.....	.....do.....	15.5
Sept. 25	.....do.....	.....do.....	.....do.....	15.9
Oct. 15	Silver Glen Spring.	Lake George.....	.....do.....	110
Dec. 3	.....do.....	.....do.....	.....do.....	122
Oct. 15	Salt Springs	.....do.....	Lake Kerr, Fla.....	54.0
Dec. 3	.....do.....	.....do.....	.....do.....	77.9
Oct. 8	Blue Spring...	Oklawaha River...	Near Orange Springs, Fla.....	10.6
Oct. 9	Twelvemile (Orange) Creek	Caloosahatchee River.	Near Fort Myers, Fla.....	36.9
Aug. 19	Miakka River...	Charlotte Harbor..	Near Sarasota, Fla.....	524
27	.....do.....	.....do.....	.....do.....	337
Sept. 13	.....do.....	.....do.....	.....do.....	533
May 15	Hillsboro River.	Tampa Bay.....	2,000 feet above Temple Terrace Bridge, near Harney, Fla.	76.4
Apr. 18	.....do.....	.....do.....	Temple Terrace Bridge, near Harney, Fla.	129
May 15	.....do.....	.....do.....	Below Temple Terrace Bridge, at Harney, Fla.	109
15	.....do.....	.....do.....	56th Street Bridge, Tampa, Fla.....	128
15	.....do.....	.....do.....	40th Street Bridge, Tampa, Fla.....	135
Apr. 18	.....do.....	.....do.....	1,500 feet above Tampa Filter Plant, Tampa, Fla.	204
May 15	.....do.....	.....do.....	300 feet below power dam, Tampa, Fla..	187
Nov. 8	Chassahowitzka Spring.	Gulf of Mexico....	Near Homosassa, Fla.....	54.6
8	Homosassa Spring.	.....do.....	.....do.....	187
Dec. 6	.....do.....	.....do.....	.....do.....	194
Feb. 10	.....do.....	.....do.....	.....do.....	214
Mar. 7	.....do.....	.....do.....	.....do.....	222
Dec. 5	Mosquito Creek	Apalachicola River.	Chattahoochee, Fla.....	43.4
10	.....do.....	.....do.....	.....do.....	81.9
Jan. 8	.....do.....	.....do.....	.....do.....	510
9	.....do.....	.....do.....	.....do.....	332
11	.....do.....	.....do.....	.....do.....	209
Feb. 3	.....do.....	.....do.....	.....do.....	65.0
Mar. 4	.....do.....	.....do.....	.....do.....	47.5
7	.....do.....	.....do.....	.....do.....	69.3
25	.....do.....	.....do.....	.....do.....	46.3
26	.....do.....	.....do.....	.....do.....	37.7
27	.....do.....	.....do.....	.....do.....	72.8

\*Includes also measurements on Pea River at Elba, Ala., for the water year 1934-35, which are given at the end of this table.

Miscellaneous discharge measurements during the water year October 1935 to  
September 1936--Continued\*

Date	Stream	Tributary to or diverting from	Locality	Discharge Sec.-ft.
Nov. 11	Wetappo Creek	St. Andrews Bay	Near Wewahitchka, Fla.....	9.52
9	Alaqua Creek	Choctawhatchee Bay.	Near Portland, Fla.....	85.1
10	....do.....	....do.....	....do.....	77.3
9	Rocky Creek..	....do.....	Near Niceville, Fla.....	175
7	Blackwater River.	St. Mary de Calvez Bay.	Deaton Bridge, near Harold, Fla.....	209
7	Juniper Creek	Blackwater River.	Near Indian Ford, Fla.....	122
7	Coldwater Creek.	....do.....	....do.....	272
Oct. 22	Choctawhatchee River.	Gulf of Mexico..	SW 1/4 sec. 7, T. 2 N., R. 23 E., near Bellwood Ala.	417
Nov. 18	....do.....	....do.....	....do.....	698
Jan. 1	....do.....	....do.....	....do.....	1,530
14	....do.....	....do.....	....do.....	3,240
Apr. 6	....do.....	....do.....	....do.....	3,260
10	....do.....	....do.....	....do.....	1,360
June 3	....do.....	....do.....	....do.....	616
Oct. 23	Pea River....	Choctawhatchee River.	Sec. 17, T. 5 N., R. 20 E., at Elba, Ala.	115
Nov. 17	....do.....	....do.....	....do.....	550
Jan. 1	....do.....	....do.....	....do.....	1,260
9	....do.....	....do.....	....do.....	8,870
14	....do.....	....do.....	....do.....	3,620
Apr. 6	....do.....	....do.....	....do.....	1,590
June 3	....do.....	....do.....	....do.....	232
Aug. 10	....do.....	....do.....	....do.....	967
Oct. 7	Cahaba River.	Alabama River..	On Line between sec. 16 and 21, T. 17 N., R. 9 E., near Marion Junction, Ala.	323
Nov. 18	....do.....	....do.....	....do.....	737
Jan. 25	....do.....	....do.....	....do.....	6,660
Pea River at Elba, Ala., for the water year 1934-35				
1935				
May 5	Pea River....	Choctawhatchee River.	Sec. 17, T. 5 N., R. 20 E., at Elba, Ala.	1,190
8	....do.....	....do.....	....do.....	1,310
June 13	....do.....	....do.....	....do.....	160
July 25	....do.....	....do.....	....do.....	288
Aug. 9	....do.....	....do.....	....do.....	663
23	....do.....	....do.....	....do.....	2,110
Sept. 21	....do.....	....do.....	....do.....	859
21	....do.....	....do.....	....do.....	824

\*Includes also measurements on Pea River at Elba, Ala., for the water year 1934-35, which are given at the end of this table.

# INDEX

	Page		Page
Aberdeen, Miss., Tombigbee River at....	204	Brooklyn, Ala., Conecuh River near...	190
Accuracy of data and computed results..	2-3	Brookneal, Va., Falling River near...	31
Acre-foot, definition of.....	1	Roanoke River at.....	42
Agencies other than Geological Survey,		Brooksville, Fla., Weekewachee Spring	
records by.....	7	near.....	157
Alabama River at Claiborne, Ala.....	197	Bruce, Fla., Choctawhatchee River	
at Selma, Ala.....	196	near.....	186
near Montgomery, Ala.....	195	Buchanan, Va., James River at.....	10
Alafia River at Lithia, Fla.....	165	Buffalo Creek near Greensboro, N. C.....	85
Alapaha River at Statenville, Ga.....	166	Cahaba River at Centerville, Ala.....	202
Alaqua Creek, Fla., discharge measure-		discharge measurements of.....	223
ments of.....	223	Calpasture River at Goshen, Va.....	24
Albany, Ga., Flint River at.....	180	Caloosahatchee River near Citrus	
Alexander Spring, Fla., discharge		Center, Fla.....	151
measurements of.....	222	Camden, S. C., Wateree River near.....	108
Altamaha River at Doctortown, Ga.....	135	Cape Fear River at Fayetteville, N.C.	82
Altamaha River Basin, Ga., gaging-		at Lillington, N. C.....	81
station records in.....	132-134	Cape Fear River Basin, N. C., gaging-	
Altavista, Va., Otter River near.....	50	station records in.....	78-92
Roanoke River at.....	41	Cartersville, Va., James River at.....	14
Andalusia, Ala., Conecuh River near...	189	Caryville, Fla., Choctawhatchee River	
Anderson, S. C., Seneca River near.....	130	at.....	185
Apalachicola River near River Junction,		Catawba Creek near Pincastle, Va.....	23
Fla.....	177	Catawba River at Catawba, N. C.....	107
Apalachicola River Basin, Ga.-Ala.-		Centerville, Ala., Cahaba River at...	202
Fla., gaging-station records in.....	174-182	Century, Fla., Escambia River near...	191
Appomattox River at Farmville, Va.....	33	Chappells, S. C., Saluda River at....	125
at Mattoax, Va.....	33	Charlotte, N. C., Little Sugar Creek	
near Petersburg, Va.....	34	near.....	111
Arcadia, Fla., Peace Creek at.....	153	Chassahowitzka Spring, Fla., dis-	
Archedale, N. C., Muddy Creek near....	91	charge measurement of.....	222
Arvonla, Va., Slate River near.....	30	Chattahoochee, Fla., Mosquito Creek	
Atkinson, Ga., Satilla River at.....	135	at.....	182
Augusta Canal near Augusta, Ga.....	131	Chattahoochee River at Columbia, Ala.	176
Bahama, N. C., Dial Creek near.....	74	at Columbus, Ga.....	175
Flat River at.....	71	at West Point, Ga.....	174
Flat River near.....	72-73	Childersburg, Ala., Coosa River at...	193
Bainbridge, Ga., Flint River at.....	181	Chimney Rock, N. C., Broad River near	112
Banister River at Halifax, Va.....	60	Choccolocco Creek near Jenifer, Ala...	94
Bartow, Fla., Kissengen Spring near...	154	Choctawhatchee River, Ala., discharge	
Battle Ground, N. C., Horsepen Creek at	84	measurements of.....	223
Bear Creek Basin, Ga., gaging-station		at Caryville, Fla.....	185
records in.....	183	near Bruce, Fla.....	186
Bell, Fla., Suwannee River near.....	165	near Newton, Ala.....	184
Benaja, N. C., Haw River near.....	78	Choctawhatchee River Basin, Ala.-Fla.,	
Bennett, Fla., Roanoke Creek near....	183	gaging-station records in.....	184-187
Bent Creek, Va., James River at.....	12	Chowan River Basin, Va., gaging-	
Bessemer, Ala., Black Warrior River		station records in.....	36-37
near.....	209	Christmas, Fla., St. Johns River near	137
Valley Creek near.....	216	Chuluota, Fla., Econlockhatchee River	
Black Creek, North Fork of, near		near.....	139
Middleburg, Fla.....	144	Citrus Center, Fla., Caloosahatchee	
Black River at Kingstree, S. C.....	106	River near.....	151
Black Warrior River at Look 17, near		Claiborne, Ala., Alabama River at....	197
Bessemer, Ala.....	209	Clarksville, Va., Roanoke River at...	44
at Tuscaloosa, Ala.....	210	Clayton, N. C., Neuse River near....	68
near Rutaw, Ala.....	211	Gilfleside, N. C., Second Broad River	
Locust Fork of, at Trafford, Ala.....	213	at.....	115
Mulberry Fork of, near Garden City,		Clifton Forge, Va., Cowpasture River	
Ala.....	208	near.....	19
Sipsey Fork of Mulberry Fork of,		Clover, Va., Roanoke River near.....	43
near Sipsey, Ala.....	212	Coatopa, Ala., Tombigbee River near...	206
Blackwater River, Fla., discharge		Coldwater Creek, Fla., discharge	
measurement of.....	223	measurement of.....	223
near Union Hall, Va.....	46	Columbia, Ala., Chattahoochee River	
Bloxham, Fla., Ochlockonee River near...	173	at.....	176
Blue Spring (St. Johns River Basin) Fla.,		Columbia, Miss., Pearl River near....	220
discharge measurement of.....	222	Columbia, S. C., Lake Murray near....	127
near Orange City, Fla.....	140	Saluda River near.....	128
Blue Springs (Withlacoochee River Basin)		Columbus, Ga., Chattahoochee River at	175
near Dummellon, Fla.....	160	Columbus, Miss., Tombigbee River at...	205
Boardman, N. C., Lumber River at.....	105	Computations, results of, accuracy of	2-3
Boiling Springs, N. C., Broad River		Conecuh River near Andalusia, Ala.....	189
near.....	113	near Brooklyn, Ala.....	190
Branch, N. C., Linville River at.....	110	Connor, Fla., Oklawaha River near....	142
Branford, Fla., Suwannee River at.....	164	Contentment Creek at Hookerton, N. C.	77
Broad River at Richtex, S. C.....	114	near Wilson, N. C.....	76
near Boiling Springs, N. C.....	113	Control, definition of.....	1
near Chimney Rock, N. C.....	112	Coolseme, N. C., South Yadkin River	
		at.....	97

	Page		Page
Silverstreet, S. C., Saluda River near.....	126	Trinity, N. C., Uharie River near....	98
Sipsey, Ala., Sipsey Fork of Mulberry Fork of Black Warrior River near.....	212	Tuscaloosa, Ala., Black Warrior River at.....	210
Slate River near Arvonnia, Va.....	30	Twelvemile Creek, Fla., discharge measurement of.....	222
Smith River at Martinsville, Va.....	58	Tye River at Roseland, Va.....	29
Snow Creek at Sago, Va.....	48	Tyger River near Woodruff, S. C.....	120
South Boston, Va., Dan River at.....	55	Uharie River near Trinity, N. C.....	98
South Pacolet River Reservoir near Fingerville, S. C.....	118	Union Hall, Va., Blackwater River near Valley Creek near Bessemer, Ala.....	216
South Tyger River near Reidville, S.C. near Woodruff, S. C.....	121	near Oak Grove, Ala.....	216
South Yadkin River at Cooleseemee, N. C. Spencer, Va., North Mayo River near...	122	Village Creek at Ensley, Ala.....	215
Stage-discharge relation, definition of.....	97	Wadesboro, N. C., North Fork of Jones Creek near.....	102-103
Statenville, Ga., Alapaha River at....	57	Wadley, Ala., Tallapoosa River at....	200
Stony Creek, Va., Nottoway River near.	1	Ward Creek near Spartanburg, S. C., discharge measurements of.....	222
Strong River at Dlo, Miss.....	166	Warm Spring at Warm Springs, Va.....	16
Suwannee River at Branford, Fla.....	36	Waterree River near Camden, S. C.....	108
at Ellaville, Fla.....	221	Weekowachee Spring near Brooksville, Fla.....	157
at Luraville, Fla.....	164	Wekiwa River near Sanford, Fla.....	140
at White Springs, Fla.....	162	Wekiwa Spring, Fla., discharge measurement of.....	222
near Bell, Fla.....	163	West Point, Ga., Chattahoochee River at.....	174
Suwannee River Basin, Fla.-Ga., gaging-station records in.....	161	Wetappo Creek, Fla., discharge measurement of.....	223
Tallapoosa River at Wadley, Ala.....	161-171	Wetumpka, Ala., Coosa River near.....	194
below Tallassee, Ala.....	200	White Springs, Fla., Suwannee River at.....	161
Tar River at Greenville, N. C.....	201	Wilkesboro, N. C., Yadkin River at....	93
at Tarboro, N. C.....	64	Wilson, N. C., Contentnea Creek near..	76
near Nashville, N. C.....	63	Withlacoochee River (in Florida) at Trilby, Fla.....	158
Tar River Basin, N. C., gaging-station records in.....	62	near Holder, Fla.....	159
Tarboro, N. C., Tar River at.....	62-65	Withlacoochee River Basin, Fla., gaging-station records in.....	158-160
Tarrant City, Ala., Fivemile Creek at.	63	Withlacoochee River (in Georgia and Florida) near Pinetta, Fla.....	167
Terms, definition of.....	214	Woodruff, S. C., South Tyger River near.....	122
Tombigbee River at Aberdeen, Miss.....	1	Tyger River near.....	120
at Columbus, Miss.....	204	Work, division of.....	7
East Fork of, near Fulton, Miss.....	205	scope of.....	1
near Coatopa, Ala.....	203	Worthington, Fla., Santa Fe River at..	168
near Leroy, Ala.....	206	Yadkin River at Wilkesboro, N. C.....	93
Toshes, Va., Pigg River near.....	207	at Yadkin College, N. C.....	94
Roanoke River near.....	47	Yellow River near Holt, Fla.....	188
Trafford, Ala., Locust Fork of Black Warrior River at.....	40	Zephyrhills, Fla., Crystal Springs near.....	157
Trilby, Fla., Withlacoochee River at..	213	Zolfo Springs, Fla., Peace Creek at....	152
	158		

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