U.S.E.D.

PLEASE DO NOT DESTROY OR THROW AWAY THIS PUBLICATION. If you have no further use for it, write to the Geological Survey at Washington and ask for a frank to return it

UNITED STATES DEPARTMENT OF THE INTERIOR

SURFACE WATER SUPPLY *of the* UNITED STATES 1928

PART III

OHIO RIVER BASIN

Prepared in cooperation with the
STATES OF NEW YORK, WEST VIRGINIA, OHIO, VIRGINIA
ILLINOIS, TENNESSEE, NORTH CAROLINA ,AND ALABAMA

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 663

76B

U.S.E.D. Shelf. H 32

UNITED STATES DEPARTMENT OF THE INTERIOR
RAY LYMAN WILBUR, Secretary
GEOLOGICAL SURVEY
GEORGE OTIS SMITH, Director

Water-Supply Paper 663

SURFACE WATER SUPPLY *of the* UNITED STATES 1928

PART III
OHIO RIVER BASIN

NATHAN C. GROVER, Chief Hydraulic Engineer
A. W. HARRINGTON, A. H. HORTON, LASLEY LEE, J. J. DIRZULAITIS,
H. E. GROSBACH, W. R. KING, and E. D. BURCHARD, District Engineers

Prepared in cooperation with the
STATES OF NEW YORK, WEST VIRGINIA
OHIO, VIRGINIA, ILLINOIS, TENNESSEE
NORTH CAROLINA, AND ALABAMA

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1931

For sale by the Superintendent of Documents, Washington, D. C. - - Price 35 cents (paper)

CONTENTS

	Page
Authorization and scope of work	1
Definition of terms	2
Explanation of data	2
Accuracy of field data and computed results	4
Publications	5
Cooperation	9
Division of work	9
Gaging-station records	11
Allegheny River Basin	11
Allegheny River at Red House, N. Y	11
Monongahela River Basin	12
Tygart River near Dailey, W. Va	12
Tygart River at Belington, W. Va	13
Tygart River at Fetterman, W. Va	14
Middle Fork at Midvale, W. Va	15
Buckhannon River at Hall, W. Va	16
West Fork River at Butcherville, W. Va	17
West Fork River at Clarksburg, W. Va	18
Cheat River near Parsons, W. Va	19
Blackwater River at Davis, W. Va	20
Big Sandy Creek at Rockville, W. Va	21
Beaver River Basin	22
Mahoning River near Deerfield, Ohio	22
Mahoning River at Warren, Ohio	23
Mahoning River at Youngstown, Ohio	24
Eagle Creek at Phalanx station, Ohio	25
Mosquito Creek near Cortland, Ohio	26
Meander Creek at Ohlstown, Ohio	27
Little Beaver Creek Basin	28
Little Beaver Creek near East Liverpool, Ohio	28
Yellow Creek Basin	29
Yellow Creek at Hammondsville, Ohio	29
Little Muskingum River Basin	30
Little Muskingum River at Fay, Ohio	30
Muskingum River Basin	31
Tuscarawas River at Clinton, Ohio	31
Tuscarawas River at Crystal Spring, Ohio	32
Tuscarawas River near Dover, Ohio	33
Tuscarawas River at Newcomerstown, Ohio	34
Muskingum River at Dresden, Ohio	35
Muskingum River at McConnelsville, Ohio	36
Sandy Creek at Sandyville, Ohio	37
Nimishillen Creek at North Industry, Ohio	38
Stillwater Creek at Uhrichsville, Ohio	39
Mohican River at Greer, Ohio	40
Walhonding River at Pomerene, Ohio	41
Rocky Fork near Mansfield, Ohio	42

Gaging-station records—Continued.
Muskingum River Basin—Continued. Page
Jerome Fork at Jeromeville, Ohio 43
Kokosing River near Millwood, Ohio 44
Killbuck Creek at Layland, Ohio 45
Wills Creek at Cambridge, Ohio 46
Wills Creek at Birds Run, Ohio 47
Licking River at Toboso, Ohio 48
Hocking River Basin 49
Hocking River near Lancaster, Ohio 49
Hocking River at Athens, Ohio 50
Kanawha River Basin 51
South Fork of New River near Jefferson, N. C 51
New River at Eggleston, Va 52
New River at Glenlyn, Va 53
New River near Hinton, W. Va 55
Kanawha River at Lock 2, at Montgomery, W. Va 56
North Fork of New River at Crumpler, N. C 58
Reed Creek at Grahams Forge, Va 59
Peak Creek at Pulaski, Va 60
Wolf Creek near Burkes Garden, Va 61
Greenbrier River at Alderson, W. Va 62
Gauley River near Leander, W. Va 63
Raccoon Creek Basin 64
Raccoon Creek at Adamsville, Ohio 64
Big Sandy River Basin 65
Russell Fork at Haysi, Va 65
Pound River near Haysi, Va 66
Scioto River Basin 67
Scioto River at Larue, Ohio 67
Scioto River at Prospect, Ohio 68
Scioto River near Dublin, Ohio 69
Scioto River at Columbus, Ohio 70
Scioto River at Chillicothe, Ohio 71
Little Scioto River near Marion, Ohio 72
Olentangy River near Delaware, Ohio 73
Big Walnut Creek at Rees, Ohio 74
Alum Creek at Columbus, Ohio 75
Darby Creek at Darbyville, Ohio 76
Paint Creek near Greenfield, Ohio 77
Paint Creek near Bourneville, Ohio 78
Little Salt Creek near Jackson, Ohio 79
Ohio Brush Creek Basin 80
Ohio Brush Creek near West Union, Ohio 80
Whiteoak Creek Basin 82
Whiteoak Creek near Georgetown, Ohio 82
Little Miami River Basin 83
Little Miami River at Spring Valley, Ohio 83
Little Miami River at Milford, Ohio 84
East Fork of Little Miami River at Perintown, Ohio 85
Licking River Basin 86
Licking River at Farmers, Ky 86
Licking River at Catawba, Ky 87
South Fork of Licking River at Hayes, Ky 88

Gaging-station records—Continued. Page
Miami River Basin 89
Miami River at Sidney, Ohio 89
Miami River at Taylorsville, Ohio 90
Miami River at Dayton, Ohio 91
Miami River near Miamisburg, Ohio 92
Miami River at Hamilton, Ohio 93
Loramie Creek at Lockington, Ohio 94
Stillwater River at Englewood, Ohio 95
Greenville Creek near Greenville, Ohio 96
Mad River near Urbana, Ohio 97
Mad River near Springfield, Ohio 98
Mad River near Dayton, Ohio 99
Buck Creek at Springfield, Ohio 100
Twin Creek near Germantown, Ohio 101
Whitewater River at Brookville, Ind 102
Kentucky River Basin 103
North Fork of Kentucky River at Jackson, Ky 103
Kentucky River at Lock 14, at Heidelberg, Ky 104
Kentucky River at Lock 10, near Winchester, Ky 105
Kentucky River at Lock 6, at Warwick, Ky 106
Kentucky River at Lock 4, at Frankfort, Ky 109
Kentucky River at Lock 2, at Lockport, Ky 110
South Fork of Kentucky River at Booneville, Ky 112
Eagle Creek at Glencoe, Ky 113
Green River Basin 114
Green River near Canmer, Ky 114
Green River at Munfordville, Ky 115
Green River at Lock 6, at Brownsville, Ky 116
Green River at Lock 1, at Spottsville, Ky 117
Barren River at Lock 1, at Greencastle, Ky 118
Pond River near White Plains, Ky 119
Wabash River Basin 120
Wabash River at Logansport, Ind 120
Wabash River at Lafayette, Ind 121
Wabash River at Montezuma, Ind 122
Wabash River at Terre Haute, Ind 123
Wabash River at Mount Carmel, Ill 124
Tippecanoe River at Pulaski, Ind 125
Vermilion River near Danville, Ill 126
Embarrass River at Ste. Marie, Ill 127
West Fork of White River near Noblesville, Ind 128
West Fork of White River at Spencer, Ind 129
East Fork of White River at Seymour, Ind 130
East Fork of White River at Shoals, Ind 131
Little Wabash River at Wilcox, Ill 132
Skillet Fork at Wayne City, Ill 133
Saline River Basin 134
Middle Fork of Saline River near Harrisburg, Ill 134
Tradewater River Basin 135
Tradewater River near Dalton, Ky 135
Cumberland River Basin 136
Cumberland River at Barbourville, Ky 136
Cumberland River at Cumberland Falls, Ky 137

Gaging-station records—Continued.
Cumberland River Basin—Continued. Page
Cumberland River at Burnside, Ky 138
Cumberland River at Celina, Tenn 139
Cumberland River at Carthage, Tenn 140
Cumberland River at Nashville, Tenn 141
Cumberland River at Clarksville, Tenn 142
Rockcastle River at Rockcastle Springs, Ky 143
New River near New River, Tenn 144
South Fork of Cumberland River at Nevelsville, Ky 145
Obey River near Byrdstown, Tenn 146
Caney Fork near Rock Island, Tenn 147
Caney Fork near Silver Point, Tenn 148
Collins River near McMinnville, Tenn 149
Stone River near Smyrna, Tenn 150
Harpeth River at Belleview, Tenn 151
Harpeth River near Kingston Springs, Tenn 152
Red River near Adams, Tenn 153
Tennessee River Basin 154
French Broad River at Calvert, N. C 154
French Broad River at Blantyre, N. C 155
French Broad River at Asheville, N. C 156
French Broad River near Newport, Tenn 157
French Broad River at Dandridge, Tenn 158
Tennessee River at Knoxville, Tenn 159
Tennessee River at Loudon, Tenn 160
Tennessee River at Chattanooga, Tenn 161
Tennessee River at Decatur, Ala 162
Tennessee River at Florence, Ala 163
Tennessee River at Riverton, Ala 164
Tennessee River at Johnsonville, Tenn 165
Davidson River near Brevard, N. C 166
South Fork of Mills River at the Pink Beds, N. C 167
Swannanoa River at Swannanoa, N. C 168
North Fork of Swannanoa River near Black Mountain, N. C 169
Beetree Creek near Swannanoa, N. C 170
Pigeon River near Crabtree, N. C 171
Pigeon River near Hepco, N. C 172
Pigeon River near Mount Sterling, N. C 173
Pigeon River at Hartford, Tenn 174
Pigeon River at Newport, Tenn 175
Nolichucky River at Poplar, N. C 176
Nolichucky River at Embreeville, Tenn 177
Nolichucky River near Morristown, Tenn 178
Little Pigeon River at Sevierville, Tenn 179
South Fork of Holston River at Riverside, near Chilhowie, Va 180
South Fork of Holston River at Bluff City, Tenn 181
South Fork of Holston River at Kingsport, Tenn 182
Holston River near Rogersville, Tenn 183
Middle Fork of Holston River at Chilhowie, Va 184
Watauga River at Stump Knob, Tenn 185
Watauga River at Butler, Tenn 186
Watauga River at Elizabethton, Tenn 187

Gaging-station records—Continued.
Tennessee River Basin—Continued. Page
Doe River at Valley Forge, Tenn 188
North Fork of Holston River near Saltville, Va 189
North Fork of Holston River at Mendota, Va 190
Little River at Walland, Tenn 191
Little Tennessee River at Etna, N. C. 192
Little Tennessee River at Judson, N. C 193
Little Tennessee River at Calderwood, Tenn 194
Little Tennessee River at McGhee, Tenn 195
Cullasaja Creek at Highlands, N. C 196
Cullasaja Creek at Cullasaja, N. C 197
Nantahala River at Almond, N. C 198
Tuckasegee River at Dillsboro, N. C 199
Tuckasegee River at Bryson, N. C 200
Scott Creek at Sylva, N. C 201
Oconalufty River at Cherokee, N. C 202
Tellico River near Tellico Plains, Tenn 203
Clinch River at Cleveland, Va 204
Clinch River at Speer Ferry, Va 205
Clinch River near Tazewell, Tenn 206
Clinch River near Coal Creek, Tenn 207
Powell River near Pennington Gap, Va 208
Powell River near Arthur, Tenn 209
Emery River at Harriman, Tenn 210
Daddy Creek near Grassy Cove, Tenn 211
Piney River at Spring City, Tenn 212
Richland Creek at Dayton, Tenn 213
Hiwassee River at Murphy, N. C 214
Hiwassee River near Reliance, Tenn 215
Hiwassee River at Charleston, Tenn 216
Valley River at Tomotla, N. C 217
Nottely River near Ranger, N. C 218
Toccoa River near Dial, Ga 219
Toccoa River near Morganton, Ga 220
Ocoee River at McHarge, Tenn 221
Ocoee River at Emf, Tenn 222
Evaporation at Parksville, Tenn 223
Ocoee River at Parksville, Tenn 224
Sequatchie River near Whitwell, Tenn 225
Elk River at Estill Springs, Tenn 226
Elk River near Fayetteville, Tenn 227
Elk River near Elkmont, Ala 228
Elk River near Rogersville, Ala 229
Shoal Creek at Iron City, Tenn 230
Bear Creek at Bishop, Ala 231
Duck River at Normandy, Tenn 232
Duck River at Columbia, Tenn 233
Duck River at Centerville, Tenn 234
Duck River near Hurricane Mills, Tenn 235
Piney River at Vernon, Tenn 236
Buffalo River near Flatwoods, Tenn 237
Buffalo River near Lobelville, Tenn 238

Gaging-station records—Continued. Page
Cache River Basin 239
Cache River at Forman, Ill 239
Miscellaneous discharge measurements 240
Index 241

ILLUSTRATION

Page
FIGURE 1. Typical gaging station 3

SURFACE WATER SUPPLY OF OHIO RIVER BASIN, 1928

AUTHORIZATION AND 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, 1928.

The data presented in these reports were collected by the United States Geological Survey under the following authority contained in the organic law (20 Stat. L., p. 394):

> *Provided,* That this officer [the Director] shall have the direction of the Geological Survey and the classification of public lands and examination of the geological structure, mineral resources, and products of the national domain.

The work was begun in 1888 in connection with special studies relating to irrigation. Since the fiscal year ending June 30, 1895, successive appropriation bills passed by Congress have carried the following items:

> For gaging the streams and determining the water supply of the United States, and for the investigation of underground currents and artesian wells, and for the preparation of reports upon the best methods of utilizing the water resources.

Annual appropriations for the fiscal years ending June 30, 1895–1928

1895	$12, 500. 00	1907	$150, 000. 00	1921–1923	$180, 000. 00
1896	24, 500. 00	1908–1910	100, 000. 00	1924–25	170, 000. 00
1897–1899	50, 000. 00	1911–1917	150, 000. 00	1926	165, 000. 00
1900	70, 000. 00	1918	175, 000. 00	1927	151, 000. 00
1901–1902	100, 000. 00	1919	148, 244. 10	1928	147, 000. 00
1903–1906	200, 000. 00	1920	175, 000. 00	1929	270, 500. 00

In the execution of the work many private and State 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 9.

Measurements of stream flow have been made at about 5,480 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July, 1928, 1,830 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at other points. In connection with this work data were also collected in regard to precipitation, evaporation, storage reservoirs, river profiles, and water power in many sections of the country and will be made available in water-supply papers from time to time.

DEFINITION OF TERMS

The volume of water flowing in a stream—the "run-off" or "discharge"—is expressed in various terms, each of which has become associated with a certain class of work. These terms may be divided into two groups—(1) those that represent a rate of flow, as second-feet, gallons per minute, miner's inches, and second-feet per square mile, and (2) those that represent the actual quantity of water, as run-off in inches, acre-feet, and millions of cubic feet. The principal terms used in this series of reports are second-feet, second-feet per square mile, run-off in inches, and acre-feet. They may be defined as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of water flowing in a channel of rectangular cross section 1 foot wide and 1 foot deep at an average velocity of 1 foot per second. It is generally used as a fundamental unit from which others are computed.

"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 as regards both 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.

The following terms not in common use are here defined:

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

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

EXPLANATION OF DATA

The data presented in this report cover the year beginning October 1, 1927, and ending September 30, 1928. At the beginning of January in most parts of the United States much of the precipitation in the preceding three months is stored in the form of snow or ice, or in ponds, lakes, and swamps, or as underground water, and this stored water passes off in the streams during the spring break-up. At the end of September, on the other hand, the only stored water available for run-off is possibly a small quantity in the ground; therefore the run-off for the year beginning October 1 is practically all derived from precipitation within that year.

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 staff or chain 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. A typical gaging station, equipped with water-stage recorder and measuring cable and car, is shown in Figure 1.

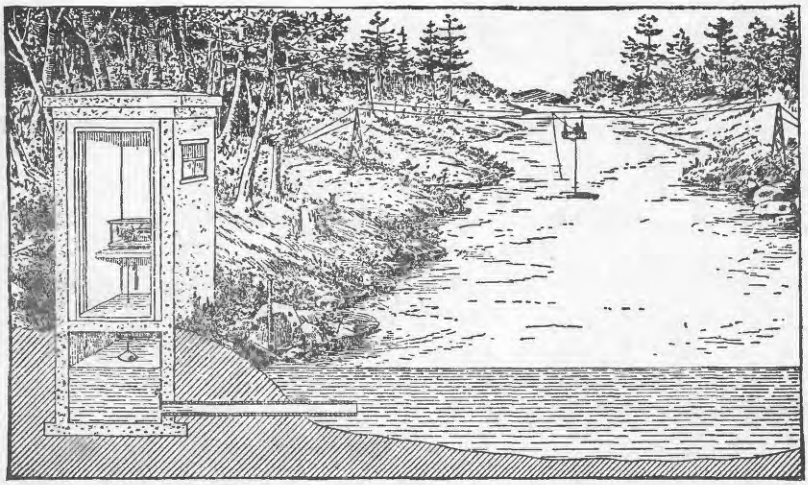

FIGURE 1.—Typical gaging station

From the discharge measurements rating tables are prepared that give the discharge for any stage. The application of the daily gage heights 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 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.

The description of the station gives, in addition to statements regarding location and type of gage, information as to diversions that decrease the flow at the gage, artificial regulation, maximum and minimum recorded stages, and the accuracy of the records. The maximum discharge given under "Extremes" does not represent the crest discharge unless a water-stage recorder was in operation or unless a nonrecording gage was read at the time of the crest.

The table of daily discharge gives, in general, the discharge in second-feet corresponding to the daily gage height, which may be a once daily

reading or the mean of twice daily readings of a nonrecording gage or the mean daily gage height obtained from a water-stage recorder graph.

At stations on streams subject to sudden or rapid diurnal fluctuation the discharge obtained from the rating table and the mean daily gage height may not be the true mean discharge for the day. If such stations are equipped with water-stage recorders the mean daily discharge may be obtained by averaging discharge at regular intervals during the day or by using the discharge integrator, an instrument for obtaining 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 "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. On this average flow are based computations recorded in the remaining columns, which are defined on page 2.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily (1) on the permanence 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 records are accurate within 5 per cent; "good," within 10 per cent; "fair," within 15 per cent; and "poor," within 20 per cent 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 run-off 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.

The tables of monthly discharge give 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.

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 stations must first be satisfied.

PUBLICATIONS

Investigation of water resources by the United States Geological Survey has consisted in large part of measurements of the volume of flow of streams and studies of the conditions affecting that flow, but it has comprised also investigation of such closely allied subjects as irrigation, water storage, water powers, ground waters, and quality of waters. Most of the results of these investigations have been published in the series of water-supply papers, but some have appeared in the monographs, bulletins, professional papers, and annual reports.

The results of stream-flow measurements are now published annually in 12 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

Part I. North Atlantic slope basins (St. John River to York River).
II. South Atlantic slope and eastern Gulf of Mexico basins (James River to the Mississippi).
III. Ohio River Basin.
IV. St. Lawrence River Basin.
V. Hudson Bay and upper Mississippi River Basins.
VI. Missouri River Basin.
VII. Lower Mississippi River Basin.
VIII. Western Gulf of Mexico basins.
IX. Colorado River Basin.
X. The Great Basin.
XI. Pacific slope basins in California.
XII. North Pacific slope basins, in three parts:
A, Pacific slope basins in Washington and upper Columbia River Basin.
B, Snake River Basin.
C, Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the United States 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, Me., Statehouse.
Boston, Mass., 2500 Customhouse.
Hartford, Conn., 60 Washington Street.
Albany, N. Y., 506 Broadway-Arcade Building.
Trenton, N. J., 710 Trenton Trust Building.
Charlottesville, Va., Brooks Museum, University of Virginia.
South Charleston, W. Va., Naval Ordnance Plant.
Asheville, N. C., 210 Post Office Building.
Columbia, S. C., 801 National Loan & Exchange Bank Building.
Ocala, Fla., Post Office Building.
Tuscaloosa, Ala., Post Office Building.
Chattanooga, Tenn., 630 Power Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Indianapolis, Ind., 319 Federal Building.
Lansing, Mich., M9 State Office Building.
Chicago, Ill., 1503 Consumers Building.
Madison, Wis., 337N State Capitol.
St. Paul, Minn., 202 Old State Capitol.
Topeka, Kans., 23 Federal Building.
Rolla, Mo., Rolla Building, School of Mines and Metallurgy.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Capitol.
Tucson, Ariz., 210 Post Office Building.
Denver, Colo., 403 Post Office Building.
Salt Lake City, Utah, 313 Federal Building.
Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, Federal Building.
Helena, Mont., 416 Power Block.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 303 Customhouse.
Los Angeles, Calif., 751 South Figueroa Street, room 510.
Honolulu, Hawaii, Territorial Office Building.

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

Stream-flow records have been obtained at about 5,480 points in the United States, and the data obtained have been published in the reports tabulated below.

Stream-flow data in reports of the United States 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	Mean discharge in second-feet	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871 to 1893)	1888 to Dec. 31, 1893.
B, 131	Descriptions, measurements, gage heights, and ratings	1893 and 1894.

Stream-flow data in reports of the United States Geological Survey—Continued

Report	Character of data	Year
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 and 1896.
W 15	Descriptions, measurements, and gage heights, eastern United State, eastern Mississippi River, and Missouri River above junction with Kansas.	1897.
W 16	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte 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 65, 66	Descriptions, measurements, gage heights, and ratings	1901.
W 75	Monthly discharge	1901.
W 82 to 85	Complete data	1902.
W 97 to 100	do	1903.
W 124 to 135	do	1904.
W 165 to 178	do	1905.
W 201 to 214	do	1906.
W 241 to 252	do	1907–8.
W 261 to 272	do	1909.
W 281 to 292	do	1910.
W 301 to 312	do	1911.
W 321 to 332	do	1912.
W 351 to 362	do	1913.
W 381 to 394	do	1914.
W 401 to 414	do	1915.
W 431 to 444	do	1916.
W 451 to 464	do	1917.
W 471 to 484	do	1918.
W 501 to 514	do	1919–20.
W 521 to 534	do	1921.
W 541 to 554	do	1922.
W 561 to 574	do	1923.
W 581 to 594	do	1924.
W 601 to 614	do	1925.
W 621 to 634	do	1926.
W 641 to 654	do	1927.
W 661 to 674	do	1928.

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 1928. The data for any particular station will, as a rule, be found in the reports covering the years during which the station was maintained. For example, data for 1910 to 1920 for any station in the area covered by Part III 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.

Numbers of water-supply papers containing results of stream measurements, 1899–1928

[For basins included see p. 5]

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII-A	XII-B	XII-C
1899 [a]	35	[b] 35, 36	36	36	36	[c] 36, 37	37	37	[d] 37, 38	38, [e] 39	38, [f] 39	38	38	38
1900 [g]	47, [h] 48	48	48, [i] 49	49	49	49, [j] 50	50	50	50	51	51	51	51	51
1901	65, 75	65, 75	65, 75	65, 75	[k] 65, 66, 75	66, 75	[k] 65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902	82	[b] 82, 83	83	[l] 82, 83	[k] 83, 85	84	[k] 83, 84	84	85	85	85	85	85	85
1903	97	[b] 97, 98	98	97	[k] 98, 99, [m] 100	99	[k] 98, 99	99	100	100	100	100	100	100
1904	[n] 124, [o] 125, [p] 126	[p] 126, 127	128	129	[k] 128, 130	130, [q] 131	[k] 128, 131	132	133	133, [r] 134	134	135	135	135
1905	[n] 165, [o] 166 [p] 167	[p] 167, 168	169	170	171	172	[k] 169, 173	174	175, [s] 177	176, [r] 177	177	178	178	[t] 177, 178
1906	[n] 201, [o] 202, [p] 203	[p] 203, 204	205	206	207	208	[k] 205, 209	210	211, [s] 213	212, [r] 213	213	214	214	214
1907–8	241	242	243	244	245	246	247	248	249	250, [r] 251	251	252	252	252
1909	261	262	263	264	265	266	267	268	269	270, [r] 271	271	272	272	272
1910	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912	321	322	323	324	325	326	327	328	329	330	331	332–A	332–B	332–C
1913	351	352	353	354	355	356	357	358	359	360	361	362–A	362–B	362–C
1914	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919–20	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928	661	662	663	664	665	666	667	668	669	670	671	672	673	674

[a] Rating tables and index to Water-Supply Papers 35–39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in Twenty-first Annual Report, Part IV.
[b] James River only.
[c] Gallatin River.
[d] Green and Gunnison Rivers and Grand River above junction with Gunnison.
[e] Mohave River only.
[f] Kings and Kern Rivers and south Pacific slope basins.
[g] 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. Tables of monthly discharge for 1900 in Twenty-second Annual Report, Part IV.
[h] Wissahickon and Schuylkill Rivers to James River.
[i] Scioto River.
[j] Loup and Platte Rivers near Columbus, Nebr., and all tributaries below junction with Platte.
[k] Tributaries of Mississippi 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, inclusive.
[p] Susquehanna River to Yadkin River, inclusive.
[q] Platte and Kansas Rivers.
[r] Great Basin in California, except Truckee and Carson River Basins.
[s] Below junction with Gila.
[t] Rogue, Umpqua, and Siletz Rivers only.

COOPERATION

The work was done in cooperation with the several States as follows: In New York with the Department of Public Works; in West Virginia with the State Geological Survey, Dr. I. C. White, State geologist; in Ohio with the Ohio Cooperative Topographic Survey, C. E. Sherman, inspector; in Virginia with the Conservation and Development Commission, W. E. Carson, chairman; in Indiana with the Department of Conservation; in Illinois with the Illinois Department of Purchases and Construction, division of waterways, William F. Mulvihill, supervisor; in Tennessee with the Tennessee Geological Survey, Walter F. Pond, State geologist; and in North Carolina with the North Carolina Department of Conservation and Development, Wade H. Phillips, director.

Acknowledgment is due also to the Corps of Engineers, United States Army, for financial assistance in collecting records published herein.

Financial assistance was also rendered by the following cities, corporations, and individuals: In West Virginia by the West Virginia Power & Transmission Co., West Virginia Power Co., Gauley Power Co., and Clarksburg Water Board; in Virginia by the city of Pulaski, Appalachian Electric Power Co., John P. Gose, and F. W. Scheidenhelm; in Tennessee by the Tennessee Electric Power Co. and Southern Cities Power Co.; in Kentucky by the Cumberland Hydroelectric Co., and the Kentucky Utilities Co.; and in North Carolina by the Carolina Power & Light Co., Knoxville Power Co., Appalachian Electric Power Co., Sylva Paperboard Co., and the cities of Asheville and Highlands.

DIVISION OF WORK

Data for Allegheny River at Red House, N. Y., were collected and prepared for publication under the direction of A. W. Harrington, district engineer, assisted by B. L. Bigwood, A. E. Johnson, H. F. Hill, jr., K. K. Hoyt, H. W. Palm, and Miss Agnes D. Buchanan.

Data for stations in West Virginia were collected and prepared for publication under the direction of A. H. Horton, district engineer, assisted by J. W. Mangan, W. D. Mitchell, K. F. Schumacher, and S. C. Moore.

Data for stations in Ohio were collected and prepared for publication under the direction of Lasley Lee, district engineer, assisted by W. S. Frame, R. G. Kasel, J. I. Perrey, C. V. Youngquist, E. P. Coady, L. Engstrom, F. L. LeMert, and E. G. Barron.

Data for stations in Virginia were collected and prepared for publication under the direction of J. J. Dirzulaitis, district engineer, assisted by O. D. Mussey, N. B. Usler, R. W. Sundstrom, A. R. Green, F. F. Schrader, M. T. Thomson, and Miss S. F. Norris.

Data for stations in Indiana and for the Licking, Kentucky, Green, and Tradewater River Basins in Kentucky were collected under the direction of Lasley Lee, district engineer, assisted by W. S. Frame, J. I. Perrey, LeRoy Engstrom, and C. V. Youngquist, and were prepared for publication under the direction of H. E. Grosbach, district engineer, assisted by F. L. LeMert, P. J. Houser, and E. F. Rutkowski.

Data for stations in Illinois were collected and prepared for publication under the direction of H. E. Grosbach, district engineer, assisted by F. L. LeMert.

Data for stations in the Cumberland and Tennessee River Basins in Kentucky, Tennessee, Georgia, and Alabama and for Nolichucky River at Poplar, N. C., were collected and prepared for publication under the direction of W. R. King, district engineer, assisted by Warren Withee, P. E. Hanson, D. S. Wallace, M. T. Thomson, P. P. Livingston, P. R. Speer, C. E. Knox, Duncan Charlton, G. W. Hamilton, and Miss Mary Heird.

Data for stations in North Carolina, except for the Nolichucky River at Poplar, N. C., were collected and prepared for publication under the direction of E. D. Burchard, district engineer, assisted by A. E. Johnson, Karl Jetter, L. J. Hall, F. M. Bell, H. W. Palm, H. A. Taylor, R. W. Sundstrom, and Mrs. Effie T. Workman.

The records were reviewed and the manuscript assembled by P. R. Speer.

GAGING-STATION RECORDS

ALLEGHENY RIVER BASIN

ALLEGHENY RIVER AT RED HOUSE, N. Y.

LOCATION.—Water-stage recorder at highway bridge in Red House, Cattaraugus County.

DRAINAGE AREA.—1,640 square miles.

RECORDS AVAILABLE.—September, 1903, to September, 1928.

EXTREMES.—Maximum discharge during year, 36,600 second-feet Dec. 1 (gage height, 12.6 feet); minimum, 134 second-feet Oct. 2 (gage height, 2.81 feet).

1903–1928: Maximum discharge, 41,000 second-feet Mar. 2, 1910 (gage height, 13.6 feet); minimum, about 100 second-feet several days in December, 1908 (gage height, 2.7 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	145	[a] 566	34,700	10,400	[a] 1,500	1,880	6,920	4,520	860	3,000	566	320
2	139	[a] 556	30,200	7,560	[a] 1,400	1,810	5,590	4,260	800	2,280	538	306
3	151	[a] 1,050	19,500	[a] 6,000	[a] 1,400	1,640	4,770	3,780	756	1,870	509	278
4	162	[a] 3,000	12,000	[a] 4,800	[a] 1,420	[a] 1,500	6,170	3,220	745	1,710	509	264
5	218	2,580	8,220	[a] 4,200	[a] 2,060	[a] 1,400	6,020	2,900	1,640	1,830	518	244
6	285	2,380	6,020	[a] 3,600	2,140	[a] 1,300	5,450	2,580	8,630	2,500	585	237
7	264	2,190	4,640	[a] 3,200	1,880	[a] 1,200	5,310	2,280	12,000	2,680	884	230
8	237	2,010	5,450	3,440	2,480	[a] 1,200	11,400	1,970	9,720	2,280	778	230
9	278	1,920	5,040	3,560	4,770	[a] 1,100	11,800	1,850	8,220	1,920	576	230
10	257	1,900	4,260	3,220	4,140	1,190	10,400	1,730	9,460	1,740	518	230
11	237	3,160	4,140	2,790	3,110	1,250	8,560	1,610	7,560	1,940	680	230
12	237	4,390	5,310	2,680	2,680	1,730	7,080	1,470	5,880	1,960	946	218
13	480	4,520	8,290	2,790	2,140	4,290	5,730	1,390	4,390	2,190	800	204
14	1,100	3,670	15,900	3,900	2,280	10,900	5,040	1,280	3,670	2,190	596	198
15	850	3,000	14,400	3,670	8,120	9,060	5,450	1,190	3,220	2,030	509	192
16	616	2,680	13,700	3,330	7,750	5,990	5,170	1,130	2,580	1,660	481	218
17	500	14,800	15,600	3,110	5,880	4,390	4,640	1,120	2,100	1,390	427	244
18	454	26,000	13,600	3,000	4,900	[a] 3,670	4,140	1,110	1,870	1,180	392	218
19	[a] 943	22,000	10,000	2,900	3,600	[a] 3,110	3,560	1,130	2,100	1,120	392	211
20	[a] 3,900	18,500	7,720	5,040	2,680	[a] 2,680	3,110	1,470	2,380	1,130	392	218
21	[a] 3,560	15,000	6,020	3,600	[a] 2,000	[a] 2,580	2,680	1,640	2,100	1,120	384	250
22	2,550	10,100	4,770	2,790	[a] 2,000	[a] 2,900	5,990	1,400	2,790	1,900	392	[a] 257
23	1,760	6,140	4,020	2,790	[a] 2,200	[a] 3,670	8,220	1,240	2,790	[a] 2,580	481	[a] 250
24	1,340	5,880	3,440	2,900	[a] 3,000	4,140	7,240	1,090	4,260	[a] 2,190	556	[a] 244
25	1,080	7,720	2,790	3,110	[a] 2,800	4,020	5,880	985	3,560	[a] 1,660	454	[a] 237
26	908	9,640	1,970	2,790	[a] 2,600	4,870	5,170	946	3,000	[a] 1,190	400	[a] 230
27	767	17,200	1,900	2,380	[a] 2,200	7,180	4,260	933	2,580	[a] 985	384	[a] 237
28	680	23,500	2,280	[a] 2,000	2,150	10,300	3,780	933	2,030	848	368	244
29	[a] 616	21,000	2,790	[a] 1,800	2,050	12,800	3,670	1,060	1,880	778	344	264
30	[a] 596	21,100	5,510	[a] 1,700	-------	10,500	4,260	1,090	2,660	680	313	271
31	[a] 585	-------	9,390	[a] 1,500	-------	7,880	-------	946	-------	616	313	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	[a] 3,900	139	835	0.509	0.59
November	26,000	[a] 556	8,610	5.25	5.86
December	34,700	1,900	9,150	5.58	6.43
January	10,400	1,500	3,570	2.18	2.51
February	8,120	1,400	3,010	1.84	1.98
March	12,800	1,100	4,260	2.60	3.00
April	11,800	2,680	5,920	3.61	4.03
May	4,520	933	1,750	1.07	1.23
June	12,000	745	3,870	2.36	2.63
July	3,000	616	1,710	1.04	1.20
August	946	313	516	.315	.36
September	320	192	240	.146	.16
The year	34,700	139	3,610	2.20	29.98

[a] Estimated.

MONONGAHELA RIVER BASIN

TYGART RIVER NEAR DAILEY, W. VA.

LOCATION.—Staff gage at Burnt Bridge, 1,000 feet above Stalnaker Run and 1 mile northeast of Dailey, Randolph County.

DRAINAGE AREA.—194 square miles.

RECORDS AVAILABLE.—April, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 7,750 second-feet June 20 (gage height, 13.70 feet); minimum, 9 second-feet Oct. 2 and 3 (gage height, 0.72 foot).

1915–1928: Maximum discharge, 9,150 second-feet Mar. 13, 1918 (gage height, 15.9 feet); minimum, 1.5 second-feet Sept. 3, 11, and 12, 1925 (gage height, 0.44 foot).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	61	190			230	304	4,600	155	857	52	304
2	9	55	304		[a] 150	166	367	1,600	92	475	71	190
3	10	1,050	1,140			166	367	903	190	289	73	155
4	16	1,450	637	[a] 210	144	120	335	515	190	203	77	122
5	26	767	595		401	178	304	401	166	190	103	87
6	23	555	456		950	144	244	320	1,340	166	61	87
7	15	401	367	216	637	166	216	274	857	124	51	81
8	13	437	[a] 300	166	637	144	244	203	515	350	43	71
9	19	1,500		178	903	166	203	166	367	289	36	56
10	25	1,290	259	178	679	230	178	144	1,190	89	31	46
11	26	767	244	144	515	384	230	144	767	74	34	39
12	39	456	637	144	401	335	1,620	178	437	289	55	32
13	1,140	335	1,850	124	367	335	857	144	304	259	46	27
14	244	289	1,970	134	401	419	555	124	723	475	32	26
15	166	203	1,190	124	1,290	351	475	120	351	166	23	26
16	134	144	723	114	767	437	335	113	259	116	32	26
17	105	144	555	144	515	1,240	274	114	259	81	155	26
18	144	1,790		335	401	857	259	144	190	63	109	24
19	950	437		767	335	555	216	134	3,600	53	167	26
20	1,910	401		2,420	335	401	178	274	6,180	44	105	679
21	1,340	320		857	190	437	155	190	1,890	124	70	456
22	679	289		679	166	555	144	155	3,570	101	55	216
23	384	274		437	274	2,420	456	144	2,010	134	49	144
24	274	723	[a] 300	274	679	1,790	1,050	134	1,620	105	43	101
25	190	475		679	637	1,050	903	134	1,500	67	81	76
26	134	367		637	475	723	595	335	723	47	111	61
27	111	289		437	274	515	555	419	384	47	984	52
28	98	679			274	401	637	384	304	107	289	47
29	84	244		[a] 160	216	335	1,170	289	289	113	155	45
30	74	178			-------	367	3,920	216	1,560	71	144	64
31	68	-------			-------	335	-------	203	-------	51	304	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,910	9	273	1.41	1.63
November	1,790	55	546	2.81	3.14
December	1,970	190	513	2.64	3.04
January	2,420	114	358	1.85	2.13
February	1,290	144	459	2.37	2.56
March	2,420	120	515	2.65	3.06
April	3,920	144	578	2.98	3.32
May	4,600	113	426	2.20	2.54
June	6,180	92	1,070	5.52	6.16
July	857	44	181	.933	1.08
August	984	23	117	.603	.70
September	679	24	113	.582	.65
The year	6,180	9	427	2.20	30.01

[a] Estimated.

TYGART RIVER AT BELINGTON, W. VA.

LOCATION.—Chain gage at Belington, Barbour County, a quarter of a mile above Mill Creek. Zero of gage is 1,679.89 feet above mean sea level.

DRAINAGE AREA.—390 square miles.

RECORDS AVAILABLE.—June, 1907, to September, 1928.

EXTREMES.—Maximum discharge during year, 10,600 second-feet May 1 (gage height, 14.20 feet); minimum, 40 second-feet Oct. 3 (gage height, 2.27 feet).

1907–1928: Maximum discharge, 20,100 second-feet Mar. 13, 1917 (gage height, 21.48 feet); minimum, 3 second-feet Oct. 2, 1914 (gage height, 1.70 feet).

REMARKS.—Records fair. Discharge estimated Dec. 22–29 and Jan. 28 to Feb. 2 because of ice.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	164	535	1,700	310	1,070	795	10,200	610	2,150	145	610
2	43	145	662	1,190	300	486	795	4,950	535	1,190	275	462
3	42	1,370	2,700	795	394	416	795	1,920	688	795	207	373
4	49	3,910	1,700	486	394	352	741	1,250	560	560	177	332
5	47	2,230	1,250	486	959	560	636	904	510	486	161	240
6	50	1,630	1,070	560	2,460	560	560	741	1,130	416	201	201
7	62	1,130	850	535	1,630	560	486	610	2,540	332	150	207
8	67	904	795	486	1,250	510	610	486	1,500	258	118	201
9	67	2,790	795	439	2,000	560	585	439	1,130	332	105	161
10	67	3,710	560	439	2,000	1,370	486	373	3,140	1,560	94	133
11	70	1,920	610	416	1,310	1,190	486	373	2,300	560	109	116
12	73	1,190	1,190	394	1,020	904	3,140	439	1,370	850	85	103
13	850	850	4,410	373	851	741	2,300	462	904	904	80	91
14	795	636	5,720	352	959	741	1,440	394	688	2,230	91	85
15	373	535	3,140	332	1,920	795	1,070	352	688	1,070	84	77
16	275	462	1,850	294	1,850	741	795	332	585	585	77	72
17	195	462	1,370	294	1,250	2,070	662	332	462	352	126	68
18	189	3,230	1,070	535	959	1,920	585	416	486	275	275	62
19	1,780	2,380	795	1,190	795	1,310	486	510	1,440	207	510	68
20	5,170	1,130	585	4,840	662	1,020	439	2,150	8,430	585	394	107
21	3,910	795	486	2,380	486	1,020	394	1,440	8,430	224	224	1,070
22	1,630	795		1,130	416	1,440	416	850	3,620	258	240	439
23	959	741		850	610	4,520	741	610	5,610	258	201	332
24	662	1,560		688	1,500	4,110	4,410	462	3,320	275	148	161
25	486	1,630		1,310	1,780	2,460	2,870	462	3,420	224	174	128
26	373	1,130	350	1,560	1,130	1,560	1,850	1,130	2,000	158	224	101
27	294	850		1,070	662	1,130	1,370	1,370	1,250	131	560	80
28	258	688			741	959	1,700	1,370	850	166	1,130	73
29	224	610		400	795	741	1,700	1,020	662	275	510	67
30	189	535	1,130		-------	688	8,430	741	1,700	224	332	85
31	172	-------	1,440		-------	959	-------	741	-------	535	394	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	5,170	42	628	1.61	1.86
November	3,910	145	1,340	3.44	3.84
December	5,720	----------	1,210	3.10	3.57
January	4,840	294	862	2.21	2.55
February	2,460	300	1,080	2.77	2.99
March	4,520	352	1,210	3.10	3.57
April	8,430	394	1,390	3.56	3.97
May	10,200	332	1,220	3.13	3.61
June	8,430	462	2,020	5.18	5.78
July	2,230	131	594	1.52	1.75
August	1,130	77	245	.628	.72
September	1,070	62	210	.538	.60
The year	10,200	42	998	2.56	34.81

TYGART RIVER AT FETTERMAN, W. VA.

LOCATION.—Chain gage on highway bridge at Fetterman, Taylor County, three-fourths mile above Otter Creek. Zero of gage is 957.86 feet above mean sea level.

DRAINAGE AREA.—1,340 square miles.

RECORDS AVAILABLE.—June, 1907, to September, 1928.

EXTREMES.—Maximum discharge during year, 32,600 second-feet May 1 (gage height, 19.15 feet); minimum, 89 second-feet Oct. 5 and 6 (gage height, 3.30 feet).

1907–1928: Maximum discharge, about 57,600 second-feet July 25, 1908 (gage height, 29.1 feet); minimum, 12 second-feet Oct. 27, 28 and Nov. 4–10, 1908 (gage height, 2.30 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	375	2,070	4,160	1,570	1,820	3,280	29,100	2,240	6,630	1,420	2,070
2	102	360	1,980	3,810	1,280	1,570	2,760	17,700	1,820	4,160	2,240	1,980
3	94	658	5,560	2,580	1,150	1,420	2,410	7,000	1,730	2,940	1,650	1,570
4	124	5,910	6,630	1,900	1,150	1,150	2,240	4,160	1,730	2,240	1,150	1,220
5	100	7,000	4,340	1,570	1,730	1,820	1,900	1,980	1,730	1,820	900	1,020
6	89	5,210	3,110	1,900	5,740	2,160	1,820	2,410	1,730	1,650	753	764
7	113	3,980	2,580	1,650	5,380	1,980	1,570	1,900	4,510	1,220	721	658
8	116	2,760	2,240	1,650	4,340	1,820	2,760	1,420	4,160	960	543	579
9	120	3,980	1,980	1,570	5,740	2,240	2,580	1,280	3,460	732	471	534
10	139	9,100	1,570	1,900	7,190	4,340	2,070	1,150	7,760	4,510	405	488
11	139	6,820	1,420	2,070	5,040	3,980	2,240	1,020	8,330	2,760	360	405
12	132	4,160	5,740	1,730	3,640	3,110	14,400	1,080	4,680	3,280	390	345
13	455	2,940	14,000	1,420	2,760	2,580	10,700	1,280	3,110	3,640	345	283
14	1,150	2,160	19,100	1,280	2,760	2,240	5,740	1,220	2,240	7,190	296	276
15	1,150	1,650	14,400	1,150	3,460	2,240	3,810	996	1,820	4,680	276	239
16	668	1,350	7,000	972	4,860	2,160	2,760	960	1,650	2,410	375	239
17	471	1,570	4,860	960	3,980	3,640	2,410	924	1,350	1,650	658	239
18	352	6,270	3,640	1,010	3,280	6,270	1,900	1,150	1,150	1,150	854	222
19	3,110	7,000	2,760	1,420	2,760	4,860	1,650	1,420	1,280	866	1,820	194
20	16,000	3,810	2,070	7,000	2,410	3,810	1,420	1,900	13,500	658	1,820	216
21	13,700	2,760	1,820	8,710	1,900	3,980	1,220	4,860	20,800	1,020	1,150	497
22	6,090	2,410	1,730	4,510	1,500	5,210	1,150	3,280	13,300	1,150	2,940	1,820
23	3,110	2,240	1,500	3,110	2,070	11,600	1,420	2,240	12,400	1,350	1,570	1,020
24	2,070	2,580	1,280	2,410	4,160	12,400	8,140	1,730	10,900	1,420	924	678
25	1,420	5,740	1,150	3,980	6,090	8,520	10,300	1,350	9,500	1,150	1,730	534
26	1,080	3,980	960	5,740	4,680	5,560	7,000	2,070	6,820	866	1,280	413
27	900	3,110	842	4,160	3,110	3,980	4,680	2,940	5,210	658	1,350	345
28	721	3,640	820	3,110	2,410	3,280	6,820	3,460	4,680	699	3,280	283
29	619	3,460	854	1,900	2,160	2,580	6,820	3,280	3,460	1,020	2,580	257
30	543	2,580	1,500	1,730	-------	2,580	22,200	2,580	3,110	1,020	1,500	216
31	463	-------	3,280	1,820	-------	3,980	-------	2,410	-------	764	2,940	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	16,000	89	1,790	1.34	1.54
November	9,100	360	3,650	2.72	3.04
December	19,100	820	3,960	2.96	3.41
January	8,710	960	2,670	1.99	2.29
February	7,190	1,150	3,390	2.53	2.73
March	12,400	1,150	3,830	2.86	3.30
April	22,200	1,150	4,670	3.49	3.89
May	29,100	924	3,560	2.66	3.07
June	20,800	1,150	5,340	3.99	4.45
July	7,190	658	2,140	1.60	1.84
August	3,280	276	1,250	.933	1.08
September	2,070	194	653	.487	.54
The year	29,100	89	3,070	2.29	31.18

MIDDLE FORK AT MIDVALE, W. VA.

LOCATION.—Staff gage one-third mile above Midvale station on Coal & Coke Railway, Randolph County, and 1¾ miles below Laurel Creek.

DRAINAGE AREA.—122 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 7,250 second-feet June 20 (gage height, about 14.3 feet); minimum, 9 second-feet Oct. 1 (gage height, 1.30 feet).

1915–1928: Maximum stage, 16.1 feet Jan. 28, 1918 (stage-discharge relation affected by ice); minimum discharge, 2.5 second-feet Sept. 12, 1925 (gage height, 1.04 feet).

Floods of 1888 and 1912, reached gage height of about 18 feet.

REMARKS.—Records fair. Discharge affected by ice Dec. 21–24, Jan. 2–7, 28–31, and Feb. 1–3.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	58	254	495	[a] 120	218	280	3,000	242	677	84	267
2	15	60	230	[a] 160		173	292	1,220	230	463	142	195
3	16	230	566			162	280	677	267	359	130	184
4	21	402	529		152	184	242	463	254	206	102	152
5	31	388	402		682	195	230	332	800	218	95	109
6	22	345	318		843	132	195	267	887	184	71	109
7	13	292	267		564	173	184	218	717	162	68	102
8	24	280	267	318	529	184	[a] 220	184	800	152	60	79
9	36	1,710	195	242	932	230	[a] 170	162	495	128	50	68
10	36	1,120	162	195	677	142	162	132	1,220	402	44	59
11	28	600	184	162	495	388	732	128	758	206	42	53
12	22	432	682	173	373	292	1,270	242	463	152	66	44
13	124	292	1,660	152	318	254	677	195	318	111	58	39
14	60	242	1,840	132	318	280	495	173	242	1,020	48	38
15	44	195	1,020	124	495	230	345	162	218	373	37	34
16	38	184	677	109	432	292	267	152	162	[a] 242	33	33
17	34	218	463	113	345	529	230	162	173	173	[a] 51	28
18	44	600	359	162	332	529	206	267	173	119	152	[a] 26
19	877	463	280	318	206	388	184	218	4,400	92	152	24
20	2,980	332	206	1,120	254	318	162	677	5,500	73	109	240
21	1,170	564	[a] 125	564	206	292	152	495	1,430	373	79	[a] 280
22	432	305		373	195	388	162	359	2,020	173	73	[a] 140
23	305	432		332	267	1,120	454	267	1,170	254	65	[a] 90
24	206	1,120		254	717	1,170	1,430	206	1,170	152	59	68
25	142	800	104	564	600	800	1,070	254	887	109	117	49
26	117	529	106	402	402	495	677	529	564	99	106	43
27	93	388	128	332	495	432	529	495	677	85	463	48
28	84	292	132	[a] 160	267	318	529	495	402	195	758	35
29	72	242	242		218	280	490	359	345	132	318	31
30	71	195	402		------	292	4,000	292	1,120	84	195	53
31	65	------	402		------	292	------	305	------	69	102	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,980	11	234	1.92	2.21
November	1,710	58	444	3.64	4.06
December	1,840	----------	406	3.33	3.84
January	1,120	109	266	2.18	2.51
February	932	----------	403	3.30	3.56
March	1,170	132	360	2.95	3.40
April	4,000	152	544	4.46	4.98
May	3,000	128	422	3.46	3.99
June	5,500	162	937	7.68	8.57
July	1,020	69	233	1.91	2.20
August	758	33	127	1.04	1.20
September	280	24	90.7	.743	.83
The year	5,500	11	371	3.04	41.35

[a] Estimated.

BUCKHANNON RIVER AT HALL, W. VA.

LOCATION.—Staff gage one-fourth mile above post office at Hall, Barbour County, and 1 mile above Pecks Run.

DRAINAGE AREA.—277 square miles.

RECORDS AVAILABLE.—June, 1907, to May, 1909; April, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 7,100 second-feet Apr. 30 (gage height, 9.4 feet); minimum, 15 second-feet Oct. 2, 3, and 6 (gage height, 1.82 feet).

1915–1928: Maximum discharge, about 12,000 second-feet Mar. 14, 1918 (gage height, 14.7 feet); minimum, 4 second-feet Oct. 23, 1924 (gage height, 1.52 feet).

REMARKS.—Records good. Discharge affected by ice Dec. 19–27 and Jan. 27 to Feb. 3.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	103	319	1,240		334	670	6,880	475	1,960	155	870
2	17	92	522	770	200	334	522	3,600	389	1,130	208	475
3	18	264	1,730	432		299	466	1,460	441	720	201	342
4	23	1,340	1,180	293	264	305	381	870	373	441	179	305
5	20	1,030	870	258	475	381	334	620	327	342	145	221
6	16	975	620	248	1,510	373	319	441	327	293	119	179
7	21	670	441	282	1,180	342	305	366	922	276	100	162
8	36	475	415	319	1,080	319	670	311	870	217	95	152
9	41	1,130	358	319	1,620	319	475	282	770	172	84	119
10	53	1,730	282	381	1,730	820	373	226	2,290	194	71	95
11	46	1,240	276	350	1,180	720	670	194	1,840	208	67	81
12	46	770	1,180	319	820	522	3,690	282	1,030	172	51	69
13	100	522	3,220	293	670	458	2,290	319	670	172	41	58
14	152	389	4,370	264	620	522	1,180	270	449	458	58	49
15	116	311	3,020	243	770	570	820	221	415	570	42	46
16	78	282	1,460	208	870	570	522	190	327	299	38	44
17	63	441	1,080	201	720	1,620	398	186	276	217	92	41
18	65	1,960	770	217	620	1,460	350	239	252	165	183	34
19	1,080	1,290		423	522	1,030	299	350	1,180	132	522	39
20	3,690	770		1,960	432	870	276	620	4,370	103	327	100
21	3,020	570		1,290	389	1,030	230	670	3,600	204	194	570
22	1,180	522		770	366	1,620	208	441	2,920	389	172	299
23	670	449	200	670	466	2,620	670	350	2,720	311	135	197
24	423	1,080		449	1,080	1,840	2,720	293	1,840	389	128	148
25	334	1,510		1,340	1,290	1,340	1,960	293	2,180	264	152	119
26	252	975		1,240	922	922	1,400	620	1,510	186	276	92
27	194	670			570	770	1,180	922	1,620	165	415	78
28	169	522	169		570	670	1,840	870	1,290	319	441	69
29	148	441	226	300	389	475	2,070	670	922	475	350	65
30	128	358	770		-------	770	6,220	475	1,960	258	239	74
31	116	-------	770		-------	1,030	-------	570	-------	186	475	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	3,690	16	398	1.44	1.66
November	1,960	92	763	2.75	3.07
December	4,370	----------	834	3.01	3.47
January	1,960	201	525	1.90	2.19
February	1,730	----------	749	2.70	2.91
March	2,620	299	815	2.94	3.39
April	6,220	208	1,120	4.04	4.51
May	6,880	186	777	2.80	3.23
June	4,370	252	1,290	4.66	5.20
July	1,960	103	367	1.32	1.52
August	522	38	186	.671	.77
September	870	34	176	.635	.71
The year	6,880	16	664	2.40	32.63

WEST FORK RIVER AT BUTCHERVILLE, W. VA.

LOCATION.—Chain gage on trolley bridge between Weston and Clarksburg, a quarter of a mile above Butcherville, Lewis County.

DRAINAGE AREA.—181 square miles.

RECORDS AVAILABLE.—April, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,860 second-feet Apr. 30 (gage height, 17.52 feet); minimum, 2.5 second-feet Oct. 2 (gage height, 3.55 feet).

1915–1928: Maximum discharge, 7,590 second-feet Mar. 13, 1918, and Jan. 2, 1919 (gage height, 24.0 feet); no flow in October, 1919, September, October, and December, 1922, caused by either diversion or impounding at small dams upstream.

Maximum stage known, about 27 feet in 1888. Dam, since washed out, may have increased height of this flood.

REMARKS.—Records good. Discharge estimated Nov. 1, 18, Dec. 9, 10, and Jan. 1 because of missing gage-height record.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3	18	133	700	96	110	370	1,310	370	941	54	96
2	3	17	555	300	78	168	268	425	227	346	67	62
3	6	660	1,350	227	67	168	197	257	125	300	36	78
4	268	1,190	625	141	72	168	159	178	125	227	50	78
5	49	660	300	96	278	197	125	141	110	247	36	44
6	29	520	197	84	520	159	103	110	217	207	38	30
7	19	300	150	96	346	133	96	90	247	110	28	26
8	22	207	125	159	660	125	820	72	217	72	24	22
9	58	700	75	300	1,520	168	395	62	227	110	22	18
10	49	455	50	278	660	455	257	53	2,050	278	24	16
11	34	278	58	141	395	300	323	48	700	159	20	13
12	30	188	2,210	188	268	227	2,840	118	300	84	18	11
13	395	125	2,550	133	247	178	780	96	188	96	13	9
14	178	90	3,180	110	247	278	346	62	133	1,560	10	15
15	84	72	860	96	395	323	237	46	96	323	7	13
16	54	62	455	58	346	395	168	42	72	168	44	11
17	40	425	346	72	300	1,720	125	53	38	90	207	8
18	42	1,300	278	33	300	900	110	103	46	58	700	6
19	1,920	520	188	425	268	590	90	168	1,470	42	425	5
20	2,130	278	141	1,390	237	660	72	860	2,630	37	178	247
21	820	197	118	346	197	1,390	67	346	2,210	590	84	257
22	323	237	110	188	178	1,800	96	159	941	227	58	110
23	141	197	90	159	520	1,640	237	125	455	247	48	47
24	96	1,100	84	159	1,150	555	1,680	78	346	237	141	34
25	62	700	62	1,880	660	323	941	150	1,840	103	58	26
26	46	300	53	590	237	268	455	268	1,060	62	54	20
27	38	227	48	300	118	323	520	237	660	62	67	17
28	32	197	45	227	90	257	2,510	278	395	346	300	14
29	29	178	110	150	84	207	2,420	178	1,060	197	159	13
30	26	141	300	178	-------	700	4,150	141	2,010	90	54	16
31	18	-------	425	103	-------	820	-------	590	-------	49	90	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,130	3	227	1.25	1.44
November	1,300	17	385	2.13	2.38
December	3,180	45	493	2.72	3.14
January	1,880	33	300	1.66	1.91
February	1,520	67	363	2.01	2.17
March	1,800	110	507	2.80	3.23
April	4,150	67	699	3.86	4.31
May	1,310	42	221	1.22	1.41
June	2,630	38	686	3.79	4.23
July	1,560	37	247	1.36	1.57
August	700	7	100	.552	.64
September	257	5	45	.249	.28
The year	4,150	3	355	1.96	26.71

WEST FORK RIVER AT CLARKSBURG, W. VA.

LOCATION.—Water-stage recorder at dam of Clarksburg waterworks, three-fourths mile south of Clarksburg, Harrison County.

DRAINAGE AREA.—384 square miles.

RECORDS AVAILABLE.—March, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 9,840 second-feet Apr. 30 (gage height, 5.58 feet); minimum, 11 second-feet Oct. 2 (gage height, 0.11 foot); includes pumpage for water supply.

1923–1928: Maximum discharge, 16,300 second-feet May 12, 1924 (gage height, 7.76 feet); minimum, 4.4 second-feet Aug. 31 and Sept. 1, 1925 (all pumpage, no flow over dam).

REMARKS.—Records good. Water diverted for water supply of Clarksburg included in records.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	59	366	1,590	224	318	910	3,680	723	1,800	151	135
2	11	45	652	834	196	326	596	1,140	458	725	230	134
3	48	520	2,720	387	168	331	443	596	317	554	358	108
4	358	2,380	1,390	293	167	357	350	415	254	453	261	219
5	248	1,320	677	256	254	421	285	318	279	357	285	151
6	112	1,240	443	242	953	408	249	272	241	357	178	99
7	64	746	337	224	736	331	286	229	436	266	119	73
8	50	459	291	241	1,010	292	1,420	195	443	189	99	55
9	43	889	230	433	2,100	370	1,050	162	443	140	83	46
10	50	1,130	173	784	1,710	968	537	151	2,390	298	68	38
11	64	634	178	580	984	764	673	134	1,730	396	67	30
12	79	422	2,960	444	677	530	5,400	151	702	254	54	24
13	390	311	5,510	344	521	394	2,580	200	421	242	50	23
14	413	229	5,300	298	182	364	966	161	298	1,960	39	21
15	207	179	2,780	260	764	466	588	130	235	851	24	21
16	140	158	1,180	212	858	457	408	108	189	364	101	21
17	103	527	848	189	696	2,180	312	124	140	219	261	21
18	92	3,320	641	200	614	1,900	267	281	123	146	411	15
19	1,520	1,570	466	508	596	1,270	230	267	2,350	104	1,430	16
20	2,930	668	338	3,020	538	1,250	200	988	5,020	88	514	43
21	1,870	444	286	1,380	467	2,460	195	1,080	3,660	353	280	265
22	652	437	267	544	401	3,660	324	481	2,020	512	184	261
23	325	415	224	415	758	3,680	489	286	967	372	135	140
24	218	802	200	371	1,720	1,610	2,040	201	945	304	108	83
25	156	1,380	167	2,620	1,470	816	2,100	190	1,720	241	114	55
26	125	805	140	1,850	762	562	1,170	606	1,740	151	145	38
27	99	529	129	826	459	489	887	436	945	104	124	26
28	68	727	119	489	379	512	4,270	605	650	173	201	23
29	64	678	146	318	331	407	4,720	489	1,150	619	255	21
30	63	458	379	255	-------	649	8,970	331	2,030	261	141	20
31	63	-------	658	242	-------	1,830	-------	641	-------	142	114	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,930	11	343	0.893	1.03
November	3,320	45	783	2.04	2.28
December	5,510	119	974	2.54	2.93
January	3,020	189	666	1.73	1.99
February	2,100	167	714	1.86	2.01
March	3,680	292	980	2.55	2.94
April	8,970	195	1,430	3.72	4.15
May	3,680	108	485	1.26	1.45
June	5,020	123	1,100	2.86	3.19
July	1,960	88	419	1.09	1.26
August	1,430	24	212	.552	.64
September	265	15	74.2	.193	.22
The year	8,970	11	680	1.77	24.09

CHEAT RIVER NEAR PARSONS, W. VA.

LOCATION.—Chain gage on Moss Highway bridge, 2 miles north of Parsons, Tucker County, and 2 miles below junction with Shavers Fork.

DRAINAGE AREA.—719 square miles.

RECORDS AVAILABLE.—January, 1913, to September, 1928.

EXTREMES.—Maximum discharge during year, 24,400 second-feet Apr. 30 (gage height, 12.47 feet); minimum, 118 second-feet Oct. 1 (gage height, 1.98 feet).

1913–1928: Maximum discharge, about 50,000 second-feet Mar. 12, 1917 (gage height, about 18.03 feet); minimum, about 29 second-feet Sept. 6, 1917 (gage height, about 1.52 feet).

Maximum stage known, about 20.0 feet July 10, 1888 (discharge, about 80,000 second-feet).

REMARKS.—Records good. Discharge affected by ice Dec. 18–28, Jan. 1–14, 23, 24, 28–31, and Feb. 1. Complete records furnished by West Virginia Power & Transmission Co.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	450	950	2,120	719	1,000	1,780	15,900	1,050	2,510	237	1,200
2	124	450	1,200	1,470	595	860	1,920	7,950	1,100	1,710	680	770
3	137	2,570	2,360	863	558	770	1,780	5,200	1,150	1,320	450	725
4	270	4,090	1,710	741	725	595	1,510	3,140	1,000	1,000	346	638
5	229	2,660	1,380	712	3,660	905	1,380	2,510	1,260	1,100	450	485
6	195	2,060	1,200	733	3,300	680	1,200	2,060	3,800	860	390	595
7	144	1,920	1,500	856	2,360	725	1,150	1,510	3,660	680	390	815
8	157	1,380	3,140	985	2,820	770	2,820	1,200	2,660	485	294	595
9	176	4,490	2,360	841	4,600	1,260	1,710	1,050	2,360	450	237	420
10	187	5,270	1,440	992	2,820	3,480	1,260	860	4,860	450	195	346
11	180	4,400	1,380	1,030	2,060	2,210	1,200	770	3,140	420	180	284
12	184	2,820	6,520	992	1,580	1,920	2,660	1,050	2,060	558	199	265
13	4,150	2,060	8,850	899	1,320	2,210	2,980	860	1,510	558	237	246
14	1,520	1,510	7,980	827	2,080	2,510	1,920	725	1,260	1,000	237	233
15	860	1,200	4,530	770	5,020	2,510	1,920	638	1,320	680	187	237
16	558	1,050	3,140	725	2,980	2,060	1,440	558	1,000	450	180	279
17	420	1,200	2,820	1,000	1,780	2,210	1,200	595	770	330	1,000	233
18	860	4,150	1,750	1,710	1,780	1,780	1,150	905	770	289	950	187
19	3,650	2,360	1,420	3,560	1,200	1,440	1,050	950	3,630	251	1,050	180
20	10,100	1,640	1,050	6,730	1,100	1,260	950	2,510	13,000	242	680	1,130
21	8,890	1,440	848	3,690	950	1,200	860	1,780	5,380	420	420	1,260
22	4,800	1,640	755	1,640	860	1,570	950	1,260	7,910	420	1,410	595
23	2,820	1,780	683	1,400	1,000	5,430	3,380	1,000	4,790	420	860	420
24	2,210	2,210	611	1,260	3,560	7,870	6,390	950	4,200	384	485	325
25	1,380	2,060	539	2,510	2,360	6,760	4,400	1,150	4,200	289	1,260	265
26	1,000	1,640	467	1,780	1,580	4,200	2,980	2,060	2,510	233	1,440	242
27	815	1,260	395	1,320	1,200	3,140	2,360	1,780	2,210	199	1,780	229
28	770	1,200	431	1,010	1,150	2,660	2,210	1,640	1,640	275	1,380	203
29	638	1,200	1,150	719	1,000	1,920	2,890	1,320	1,510	520	905	199
30	558	950	3,140	611	------	2,360	14,700	1,150	2,820	310	638	279
31	520	------	2,660	633	------	2,510	------	1,320	------	229	1,100	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	10,100	118	1,570	2.18	2.51
November	5,270	450	2,100	2.92	3.26
December	8,850	------	2,210	3.07	3.54
January	6,730	------	1,460	2.03	2.34
February	5,020	558	1,960	2.73	2.94
March	7,870	595	2,280	3.17	3.66
April	14,700	860	2,470	3.44	3.84
May	15,900	558	2,140	2.98	3.44
June	13,000	770	2,950	4.10	4.57
July	2,510	199	614	.854	.98
August	1,780	180	653	.908	1.05
September	1,260	180	463	.644	.72
The year	15,900	118	1,730	2.41	32.85

BLACKWATER RIVER AT DAVIS, W. VA.

LOCATION.—Staff gage half a mile south of Davis, Tucker County, and 400 feet below Babcock Lumber & Boom Co.'s dam.

DRAINAGE AREA.—87 square miles.

RECORDS AVAILABLE.—April, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 2,240 second-feet May 1 (gage height, 7.95 feet); minimum, 9.2 second-feet Oct. 3 (gage height, 1.18 feet).

1921-1928: Maximum discharge, 7,170 second-feet Mar. 29, 1924 (gage height, 13.20 feet); minimum, that of Oct. 3, 1927.

REMARKS.—Records good. Discharge estimated Dec. 20-28, Jan. 1–7, 21–24, 26–31, Feb. 1–6, 26–28, and Mar. 1–8 because of ice, and Apr. 28 to May 3, when gage was inaccessible. Complete records furnished by West Virginia Power & Transmission Co.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	58	119	199	22	139	232	1,890	115	305	41	78
2	10	54	141	141	22	130	268	974	156	187	96	55
3	10	332	256	91	22	112	220	651	122	146	51	58
4	30	452	132	77	22	104	160	376	156	187	34	48
5	26	232	123	61	552	94	132	242	176	187	32	40
6	17	160	121	61	665	84	123	208	376	134	29	111
7	14	170	141	61	160	76	132	187	333	99	31	142
8	15	123	476	76	353	123	324	144	230	81	27	81
9	18	355	189	114	525	310	189	124	278	74	22	51
10	19	632	199	123	79	580	141	111	586	86	20	42
11	15	529	177	72	30	324	141	103	392	51	20	33
12	14	324	1,150	55	31	268	282	134	230	99	28	31
13	282	210	1,310	47	29	310	310	96	198	103	29	33
14	123	160	1,070	45	298	353	210	78	156	142	22	43
15	59	141	686	45	692	268	189	70	156	78	18	34
16	39	123	462	42	298	199	141	65	116	53	23	35
17	32	210	398	86	72	179	132	73	98	44	51	30
18	79	383	268	123	51	123	132	146	156	40	59	25
19	309	210	199	368	47	199	132	115	1,010	34	50	56
20	1,350	141	165	650	243	189	96	187	1,430	68	34	279
21	1,330	132	157	130	189	141	107	198	855	105	33	166
22	836	179	148	78	74	199	170	122	891	59	362	70
23	381	141	131	78	64	801	511	134	452	62	195	46
24	179	160	116	78	550	1,050	742	88	515	43	88	40
25	141	170	100	220	202	959	563	156	548	33	317	38
26	110	123	86	152	66	652	324	266	391	28	333	36
27	95	116	70	84	46	414	243	176	452	28	240	33
28	84	141	70	55	88	338	257	156	254	47	146	31
29	74	132	348	22	139	199	418	118	266	34	92	29
30	67	116	468	22	------	324	1,790	105	421	26	76	41
31	62	------	295	22	------	446	------	166	------	22	101	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,350	10	188	2.16	2.49
November	632	54	214	2.46	2.74
December	1,310	----------	315	3.62	4.17
January	650	----------	112	1.29	1.49
February	692	----------	194	2.23	2.40
March	1,050	----------	312	3.59	4.14
April	1,790	96	294	3.38	3.77
May	1,890	65	247	2.84	3.27
June	1,430	98	384	4.41	4.92
July	305	22	866	.995	1.15
August	362	18	871	1.00	1.15
September	279	25	612	.703	.78
The year	1,890	10	208	2.39	32.47

BIG SANDY CREEK AT ROCKVILLE, W. VA.

LOCATION.—Water-stage recorder at highway bridge at Rockville, Preston County, 5 miles above mouth and 6 miles below Bruceton Mills.

DISCHARGE AREA.—200 square miles.

RECORDS AVAILABLE.—May, 1909, to March, 1918; April, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 7,150 second-feet Oct. 20 (gage height, 11.39 feet); minimum, 9.6 second-feet Oct. 3 (gage height, 3.48 feet).

1909–1918, 1921–1928: Maximum discharge, 21,300 second-feet July 24, 1912 (gage height, 18.0 feet); minimum, about 0.4 second-foot Oct. 12, 1914 (gage height, 2.35 feet).

Maximum known stages were between 20 and 20.5 feet July 10, 1888, and July 17, 1907 (discharge between 28,000 and 30,000 second-feet, determined by engineers of West Virginia Power & Transmission Co.).

REMARKS.—Records excellent. Discharge estimated Dec. 27–29, Jan. 2–8, and Jan. 28 to Feb. 2 because of ice. Low water regulated by operation of grist-mills upstream. Complete records furnished by West Virginia Power & Transmission Co.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	95	778	778	204	343	778	3,320	294	1,480	478	182
2	9.8	91	664	420	186	278	808	1,380	379	778	400	121
3	11	670	542	324	174	264	637	808	309	542	249	123
4	48	1,380	438	234	186	218	520	588	533	694	186	120
5	40	982	398	218	1,040	326	438	458	874	756	164	88
6	39	874	361	216	874	253	361	379	747	542	174	73
7	28	637	398	216	588	278	467	309	910	379	174	68
8	25	478	677	244	690	309	1,020	264	747	278	129	60
9	22	739	512	294	1,280	898	664	236	778	235	109	50
10	20	841	400	294	910	1,420	520	210	841	841	99	45
11	19	841	428	264	690	841	774	197	637	478	109	33
12	31	690	2,320	249	520	747	1,880	222	499	718	83	29
13	318	499	2,420	249	418	747	1,060	174	398	678	77	27
14	172	379	3,550	222	632	808	910	153	326	1,490	67	27
15	108	307	1,740	197	1,280	588	718	144	294	690	62	27
16	68	278	1,100	174	874	478	542	134	210	438	75	31
17	71	518	874	210	664	418	458	153	174	309	88	26
18	189	970	637	249	588	398	379	174	164	236	72	20
19	2,310	612	499	377	438	343	326	164	845	186	57	27
20	6,140	438	388	1,140	418	343	264	263	1,280	209	50	102
21	2,400	361	361	612	294	478	306	637	664	808	55	102
22	869	326	309	418	278	936	724	418	565	478	412	79
23	520	278	249	398	654	1,940	1,080	326	438	664	186	52
24	343	309	222	346	2,190	1,880	1,520	264	841	418	324	45
25	264	438	174	1,100	1,060	1,190	1,330	309	690	294	460	40
26	197	438	153	718	664	945	841	326	478	210	249	37
27	174	601	144	458	499	841	690	264	520	186	197	33
28	144	3,080	153	380	438	612	747	236	361	278	174	22
29	130	1,720	249	250	379	499	1,580	210	742	186	134	19
30	114	917	520	236	------	1,230	4,820	197	1,870	134	118	22
31	111	------	565	220	------	1,130	------	343	------	111	222	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,140	9.8	482	2.41	2.78
November	3,080	91	693	3.46	3.86
December	3,550	----------	717	3.58	4.13
January	1,140	174	378	1.89	2.18
February	2,190	174	659	3.30	3.56
March	1,940	218	709	3.54	4.08
April	4,820	264	905	4.52	5.04
May	3,320	134	428	2.14	2.47
June	1,870	164	614	3.07	3.42
July	1,490	111	507	2.54	2.93
August	478	50	175	.875	1.01
September	182	19	57.7	.029	.03
The year	6,140	9.8	526	2.63	35.49

BEAVER RIVER BASIN

MAHONING RIVER NEAR DEERFIELD, OHIO

LOCATION.—Chain gage in T. 1 N., R. 6 W., at highway bridge 1 mile above Willow Creek and 2½ miles southwest of Deerfield.

DRAINAGE AREA.—175 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 6,410 second-feet Dec. 13 (gage height, 13.9 feet); minimum, 11 second-feet Sept. 27 and 28 (gage height, 1.74 feet).

1923–1928: Maximum discharge, about 10,300 second-feet June 29, 1924 (gage height, 17.4 feet); minimum, 5 second-feet Nov. 15, 1923, and Sept. 5, 1925.

Flood of March, 1913, reached stage equivalent to gage height 19.0 feet.

REMARKS.—Records good except those for extremely high water and for periods when gage was not read, Oct. 30 to Nov. 12, Aug. 12 and 13, which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21		4,300	790	45	64	400	69	20	117	225	39
2	19		1,580	400	34	61	325	54	20	74	129	24
3	17		520	790	20	59	255	45	19	59	91	23
4	17		86	235	32	54	610	32	21	45	61	17
5	17		65	215	545	49	425	29	245	715	61	15
6	19		92	120	485	45	275	35	680	485	485	15
7	20	16	86	100	485	43	138	30	515	350	176	14
8	27		204	148	715	54	245	27	225	205	91	14
9	38		129	166	990	94	186	27	375	103	59	14
10	29		106	88	645	103	129	26	255	148	1,630	14
11	21		78	148	245	91	120	30	176	113	830	13
12	24		520	215	195	138	166	30	91	138	550	12
13	41	19	6,410	245	157	186	157	27	59	750	250	13
14	46	19	5,870	166	375	1,150	148	24	45	1,030	61	13
15	26	19	1,730	148	2,210	750	138	23	37	325	39	12
16	26	19	1,530	120	1,730	300	129	23	32	195	30	13
17	23	380	1,190	85	680	235	113	29	22	138	26	13
18	24	520	750	54	425	166	88	30	117	59	23	12
19	31	380	375	45	205	148	66	34	157	990	21	12
20	41	121	186	375	195	148	56	47	61	4,460	20	16
21	33	84	103	275	148	300	138	39	91	2,330	26	15
22	26	37	94	166	103	400	950	34	69	830	37	14
23	24	89	100	129	300	325	545	23	215	375	54	14
24	21	92	94	100	400	255	275	20	129	195	26	13
25	20	277	120	375	375	225	129	20	74	110	23	12
26	17	137	74	275	176	400	103	16	56	81	22	12
27	13	335	81	186	166	750	94	21	43	545	18	11
28	12	520	66	120	157	610	88	20	24	1,230	19	11
29	13	725	120	120	66	715	74	19	117	1,070	19	12
30	16	5,020	950	69	-------	1,070	69	19	215	235	23	12
31	16	-------	910	59	-------	1,230	-------	22	-------	113	64	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	46	12	23.8	0.136	0.16
November	5,020	----------	300	1.71	1.91
December	6,410	65	920	5.26	6.06
January	790	45	211	1.21	1.40
February	2,210	20	424	2.42	2.61
March	1,230	43	330	1.89	2.18
April	950	56	221	1.26	1.41
May	69	16	29.8	.170	.20
June	680	19	140	.800	.89
July	4,460	45	568	3.25	3.75
August	1,630	18	167	.954	1.10
September	39	11	14.8	.085	.09
The year	6,410	11	280	1.60	21.76

MAHONING RIVER AT WARREN, OHIO

LOCATION.—Water-stage recorder at dam 200 feet below Erie Railroad (Shenango branch) crossing in Warren, Trumbull County.

DRAINAGE AREA.—599 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1928.

EXTREMES.—Maximum discharge during year, 9,960 second-feet Dec. 15 (gage height, 7.0 feet); minimum mean daily discharge, 42 second-feet Sept. 12. 1924–1928: Maximum discharge, that of Dec. 15, 1927; minimum mean daily discharge, that of Sept. 2, 1928.

REMARKS.—Records good. Discharge estimated Jan. 21–24, Feb. 19–23 and 26–28 because of ice. Water diverted past right end of dam by the Ohio Public Service Co. is included in records. The city of Warren diverted a mean of 4.5 second-feet for municipal supply, which is not included in the records. Slight regulation caused by operation of Milton Reservoir and hydroelectric plants above station.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	115	7,990	3,830	537	578	1,690	366	129	352	528	307
2	132	110	9,180	2,270	528	578	1,400	352	120	372	458	234
3	127	107	5,190	1,470	537	569	1,330	276	120	282	429	193
4	149	136	1,920	1,060	490	552	1,760	246	120	214	355	175
5	140	174	1,250	863	734	578	1,480	240	146	432	202	153
6	140	178	1,070	893	1,190	810	1,150	227	1,380	1,590	195	158
7	120	205	1,020	749	902	810	684	217	2,280	1,180	354	158
8	112	189	1,020	747	1,270	810	762	212	1,100	498	376	163
9	113	178	961	947	2,660	859	810	206	792	296	250	163
10	109	156	863	1,000	1,950	908	631	201	1,090	408	305	150
11	109	151	863	892	1,070	552	557	206	678	466	1,420	65
12	113	147	845	795	804	504	519	201	310	342	1,200	42
13	124	132	1,980	744	756	590	400	192	240	334	549	56
14	161	132	7,750	699	914	2,080	378	187	216	2,330	286	126
15	147	128	9,670	670	2,760	2,430	451	182	134	2,870	189	307
16	130	140	6,740	626	5,230	1,270	422	212	109	1,400	146	179
17	117	258	5,300	467	4,760	981	359	251	87	644	123	78
18	117	1,050	3,480	452	2,410	871	333	324	133	381	73	72
19	117	872	1,810	482	1,260	868	314	655	640	561	126	91
20	117	408	1,250	1,000	810	1,040	288	816	962	4,940	58	76
21	118	429	1,190	706	640	1,280	352	758	572	8,190	104	75
22	113	474	1,070	490	622	1,540	2,680	313	684	6,010	333	69
23	130	273	1,020	467	715	1,540	2,560	212	714	3,080	444	67
24	93	626	912	408	1,390	1,330	1,080	178	619	1,460	253	65
25	115	1,130	798	778	1,460	1,270	697	159	771	777	161	66
26	121	994	703	1,070	960	1,330	534	146	413	510	88	76
27	114	822	694	709	679	1,620	443	146	254	448	91	74
28	113	1,040	685	528	604	1,270	400	142	178	2,230	64	189
29	105	1,130	999	475	587	978	372	133	181	3,880	75	228
30	107	2,430	2,820	482	-------	1,950	352	129	225	1,870	123	233
31	101	-------	2,820	528	-------	2,680	-------	129	-------	850	225	------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	161	93	121	May	816	129	265
November	2,430	107	477	June	2,280	87	513
December	9,670	685	2,710	July	8,190	214	1,590
January	3,830	----------	881	August	1,420	58	309
February	5,230	490	1,350	September	307	42	136
March	2,680	504	1,130				
April	2,680	288	840	The year	9,670	42	861

MAHONING RIVER AT YOUNGSTOWN, OHIO

LOCATION.—Water-stage recorder 400 feet above Bridge Street Bridge at Youngstown, Mahoning County. Zero of gage, 826.53 feet above mean sea level.

DRAINAGE AREA.—899 square miles.

RECORDS AVAILABLE.—October, 1921, to September, 1928. May, 1903, to July, 1906, at station 4½ miles downstream.

EXTREMES.—Maximum discharge during year, 14,000 second-feet Dec. 14 (gage height, 12.7 feet); minimum, 85 second-feet Sept. 14 (gage height, 2.04 feet).

1921–1928: Maximum discharge, that of Dec. 14, 1927; minimum, 59 second-feet Oct. 22, 1921 (gage height, 1.12 feet).

Maximum known stage, 26.5 feet Mar. 26, 1913.

REMARKS.—Records good. Discharge estimated Jan. 1–7 and Aug. 25–31. Water diverted for municipal water supply above station. Flow is slightly regulated at Milton Reservoir.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	136	127	12,500		333	580	2,590	423	140	520	960	394
2	143	130	12,800		297	580	2,150	401	143	546	718	265
3	146	130	9,650		291	554	1,930	345	140	396	538	214
4	152	127	3,930	2,700	333	512	2,260	297	152	345	339	177
5	146	159	2,040		690	718	2,040	275	207	1,330	275	159
6	149	174	1,490		1,600	812	1,490	265	2,400	2,150	265	155
7	143	181	1,220		1,710	960	960	240	3,420	1,930	366	159
8	140	188	1,110	910	2,040	910	860	231	2,590	960	431	159
9	140	185	1,010	1,110	3,980	910	1,010	222	2,150	563	352	162
10	136	185	860	1,380	4,100	1,010	860	214	2,150	625	294	159
11	136	174	765	1,270	2,480	572	718	214	1,490	625	1,280	140
12	140	185	960	1,220	1,710	366	718	209	910	554	1,490	103
13	155	166	3,990	1,160	1,380	453	625	201	670	979	1,060	88
14	162	162	13,400	1,110	1,530	2,610	546	196	538	2,890	960	88
15	170	162	12,100	1,060	4,960	3,360	580	192	327	3,420	718	108
16	162	174	12,400	960	6,880	2,040	580	209	222	2,040	463	166
17	155	431	8,740	765	6,180	1,600	479	265	185	1,010	265	121
18	152	1,380	5,440	625	3,680	1,270	423	374	568	625	181	98
19	152	1,360	2,780	625	1,890	1,060	380	839	1,560	1,310	136	103
20	155	638	1,820	1,540	1,220	1,060	339	1,160	1,490	7,100	124	114
21	152	484	1,490	1,380	765	1,490	518	1,160	1,050	8,800	203	116
22	146	526	1,380	670	670	2,260	3,600	614	1,600	8,050	812	106
23	146	448	1,160	625	910	2,040	3,860	291	1,160	4,430	625	111
24	143	555	1,060	625	1,930	1,710	2,040	226	1,010	2,150	359	98
25	136	1,320	960	1,110	1,820	1,600	1,490	185	1,110	1,060		96
26	133	1,380	910	1,710	1,220	1,930	1,060	166	718	642		98
27	133	1,160	812	1,380	812	2,700	765	170	431	463	190	101
28	130	1,600	812	960	670	1,930	580	166	297	2,050		121
29	133	1,930	1,340	718	625	1,270	495	162	265	4,290		205
30	130	4,020	3,660	572	-------	2,920	455	155	380	2,600		214
31	130	-------	4,640	408	-------	3,780	-------	152	-------	1,380		------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	170	130	145	May	1,160	152	330
November	4,020	127	661	June	3,420	140	982
December	13,400	765	4,100	July	8,800	345	2,120
January	----------	408	1,380	August	1,490	----------	469
February	6,880	291	1,960	September	394	88	147
March	3,780	366	1,470				
April	3,860	339	1,210	The year	13,400	88	1,250

EAGLE CREEK AT PHALANX STATION, OHIO

LOCATION.—Staff gage at highway bridge 1 mile north of Phalanx station, Trumbull County, and 2 miles below Tinker Creek. Zero of gage is 887.42 feet above mean sea level.

DRAINAGE AREA.—97.0 square miles.

RECORDS AVAILABLE.—June, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 3,240 second-feet Dec. 1 (gage height, 12.2 feet); minimum, 2.5 second-feet Sept. 5 (gage height, 1.70 feet). 1926–1928: Maximum discharge, that of Dec. 1, 1927; minimum discharge, that of Sept. 5, 1928; minimum gage height, 1.54 feet Aug. 14, 1926.

REMARKS.—Records good except those for extremely low water, which are fair. Gage-height record and part of discharge measurements furnished by Mahoning Valley Sanitary District.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	21	2,960	1,110	42	50	242	53	28	69	36	44
2	23	33	1,080	345	41	50	162	49	26	45	34	46
3	28	29	285	228	41	52	138	48	23	32	30	8.8
4	32	16	120	150	33	47	270	46	40	25	30	4.6
5	28	34	86	114	375	39	144	44	300	228	28	4.0
6	23	45	67	74	625	40	86	38	1,170	470	32	12
7	23	55	59	74	214	42	69	32	770	138	38	18
8	21	31	80	188	585	40	175	28	345	44	24	11
9	14	25	69	242	1,080	59	120	28	300	42	24	11
10	17	24	51	162	360	80	68	28	421	175	22	14
11	14	45	34	126	175	51	60	28	175	64	34	13
12	21	32	61	114	144	69	66	29	80	48	46	11
13	45	26	242	102	108	114	66	30	54	150	31	12
14	33	27	2,890	91	162	695	60	28	43	506	24	9.4
15	26	32	1,050	96	745	421	86	28	39	345	24	14
16	23	28	506	102	845	150	59	28	37	86	20	11
17	22	115	745	102	375	91	50	31	30	46	19	8.8
18	24	470	345	74	175	74	48	188	34	38	19	11
19	19	222	114	91	91	69	42	345	86	228	20	10
20	19	75	86	360	69	68	41	390	56	1,720	21	13
21	18	64	86	114	69	114	55	228	65	930	20	11
22	24	61	80	74	45	188	1,170	91	256	162	44	14
23	19	46	80	50	91	162	421	43	132	390	36	11
24	23	109	74	49	315	126	188	39	80	201	74	13
25	29	378	69	330	175	126	120	37	60	69	20	15
26	18	157	51	360	96	228	80	34	44	48	21	18
27	23	104	66	150	62	360	67	32	47	52	19	20
28	25	235	68	74	48	156	52	26	42	175	18	15
29	21	363	228	60	46	102	49	24	42	96	16	13
30	7.8	506	1,280	52	------	585	51	27	74	49	18	11
31	32	------	645	43	------	565	------	29	------	37	34	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	45	7.8	23.3	0.240	0.28
November	506	16	114	1.18	1.32
December	2,960	34	441	4.55	5.25
January	1,110	43	171	1.76	2.03
February	1,080	33	249	2.57	2.77
March	695	39	162	1.67	1.92
April	1,170	41	144	1.48	1.65
May	390	24	68.7	.708	.82
June	1,170	23	163	1.68	1.87
July	1,720	25	216	2.23	2.57
August	74	16	28.3	.292	.34
September	46	4	14.3	.147	.16
The year	2,960	4	149	1.54	20.98

MOSQUITO CREEK NEAR CORTLAND, OHIO

LOCATION.—Staff gage one-eighth mile above Erie Railroad crossing and 3 miles southwest of Cortland, Trumbull County. Zero of gage is 867.43 feet above mean sea level.

DRAINAGE AREA.—97.6 square miles.

RECORDS AVAILABLE.—May, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 1,340 second-feet Dec. 1 (gage height, 10.0 feet); minimum, 0.5 second-foot Oct. 1 and 7–12 (gage height, 2.08 feet).

1926–1928: Maximum discharge, 1,340 second-feet Jan. 22 and Dec. 1, 1927; minimum, 0.4 second-foot Sept. 17 and 18, 1927 (gage height, 2.04 feet).

REMARKS.—Records fair. Discharge estimated because of ice Dec. 26, Jan. 10, 20–22, Feb. 19, 20, and 26. Gage-height record and part of discharge measurements furnished by Mahoning Valley Sanitary District.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	1.5	1,310	980	39	14	530	15	2.0	112	261	3.6
2	.7	1.7	1,190	800	56	11	320	14	1.8	126	135	3.3
3	.9	2.3	680	605	45	9.5	186	13	1.8	112	62	3.0
4	1.0	2.6	370	450	42	8.6	135	11	3.3	90	31	2.8
5	.8	3.0	186	247	390	7.4	99	8.6	9.8	290	18	2.3
6	.6	3.0	82	108	555	6.8	62	7.2	530	370	15	2.0
7	.5	3.0	42	52	555	6.3	42	6.1	1,010	234	29	1.8
8	.5	3.0	34	39	890	5.8	30	5.2	770	234	59	1.7
9	.5	3.0	32	78	1,070	5.6	35	4.5	605	175	59	1.7
10	.5	3.0	29	100	1,010	11	36	3.9	490	104	39	1.7
11	.5	2.9	48	197	470	17	23	3.2	470	74	42	1.5
12	.5	2.5	145	186	275	21	18	2.8	410	66	920	1.4
13	.6	2.2	470	155	186	62	20	2.5	247	99	830	1.4
14	.9	1.7	1,040	126	221	305	24	2.0	117	197	510	1.2
15	.9	1.8	1,100	108	510	430	30	1.8	234	209	261	1.1
16	.7	6.8	1,040	86	655	305	28	1.8	23	247	126	1.0
17	.7	20	680	66	530	197	23	5.6	12	275	62	1.0
18	.9	38	450	52	305	90	19	66	17	197	30	1.0
19	1.1	42	305	59	140	45	15	45	70	117	17	1.0
20	1.4	30	197	100	90	38	12	78	104	335	10	1.1
21	1.2	22	117	100	48	59	13	59	126	410	8.9	1.2
22	1.1	17	74	100	28	39	370	32	112	221	7.9	1.1
23	1.0	14	56	117	78	70	490	19	117	155	6.3	1.0
24	1.0	16	45	112	186	82	430	12	135	94	5.6	1.0
25	1.0	45	42	247	175	66	261	8.9	117	74	5.2	1.0
26	1.0	66	30	261	80	74	135	6.3	94	48	4.9	1.0
27	1.0	86	27	234	38	90	33	4.9	62	39	4.9	1.0
28	1.0	108	22	209	28	94	29	3.9	38	186	4.7	1.0
29	1.1	135	99	165	21	108	22	3.2	26	430	4.5	1.0
30	1.1	470	450	86	-------	335	17	2.6	78	530	4.2	1.0
31	1.2	-------	860	52	-------	580	-------	2.3	-------	450	3.9	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1.4	0.5	0.852	0.009	0.01
November	470	1.5	38.4	.394	.44
December	1,310	22	363	3.72	4.29
January	980	39	202	2.07	2.39
February	1,070	21	300	3.07	3.31
March	580	5.6	103	1.06	1.22
April	530	12	116	1.19	1.33
May	78	1.8	14.6	.150	.17
June	1,010	1.8	201	2.06	2.30
July	530	39	203	2.08	2.40
August	920	3.9	115	1.18	1.36
September	3.6	1.0	1.53	.016	.02
The year	1,310	.5	1.38	1.41	19.24

MEANDER CREEK AT OHLSTOWN, OHIO

LOCATION.—Staff gage 1,500 feet above highway bridge at Ohlstown, Trumbull County. Zero of gage is 866.35 feet above mean sea level.

DRAINAGE AREA.—77.2 square miles.

RECORDS AVAILABLE.—May, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 5,250 second-feet Dec. 14 (gage height, 9.4 feet); minimum, 1.5 second-feet Oct. 26–28 (gage height, 0.87 foot).

1926–1928: Maximum and minimum discharge occurred during 1928.

REMARKS.—Records good except those for extremely high water, which are fair. Gage-height record and part of discharge measurements furnished by Mahoning Valley Sanitary District.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	2.8	2,660	358	10	21	95	18	9.2	29	24	92
2	2.4	3.2	265	208	9.2	21	78	15	8.1	19	29	22
3	1.8	4.8	110	81	8.6	21	148	13	7.1	17	22	13
4	3.6	5.3	64	30	9.2	22	160	12	27	13	17	10
5	3.2	7.9	43	27	100	11	85	12	146	50	15	9.2
6	3.2	9.0	35	26	236	9.2	55	10	760	38	50	7.6
7	2.4	9.0	34	23	265	9.2	42	10	183	19	41	7.1
8	4.8	7.9	40	43	374	6.6	44	12	81	14	22	6.1
9	5.8	6.3	32	73	342	28	41	12	236	17	15	6.1
10	5.8	4.8	17	78	112	48	33	12	195	106	55	6.1
11	5.8	4.8	33	79	72	25	28	12	69	38	78	6.1
12	6.8	4.8	195	72	48	33	46	13	34	27	31	6.1
13	11	4.0	670	64	41	70	51	12	24	183	21	5.1
14	11	4.0	3,020	61	195	475	50	12	18	342	17	4.6
15	6.3	4.0	440	55	1,330	148	69	10	15	133	14	4.1
16	4.4	5.3	1,270	43	407	75	45	10	12	58	12	3.7
17	3.6	142	326	37	208	50	31	16	10	30	10	3.3
18	3.2	250	133	35	138	45	27	25	63	21	9.2	3.3
19	3.2	90	77	64	91	43	22	38	715	280	8.1	3.3
20	4.8	31	59	326	79	63	17	54	148	2,750	7.1	4.1
21	4.0	23	52	171	59	148	21	38	66	265	6.1	6.1
22	4.8	22	46	60	28	221	510	24	106	129	5.1	5.1
23	4.4	20	42	23	160	148	208	16	183	102	14	4.1
24	3.2	51	39	28	250	106	91	12	195	50	15	3.3
25	2.8	171	32	221	102	84	61	10	58	31	12	3.3
26	2.4	144	29	100	95	250	43	9.8	30	16	10	3.3
27	1.5	105	36	27	73	475	32	9.8	22	30	8.6	3.3
28	1.5	280	86	22	28	236	28	10	17	475	7.1	2.9
29	1.8	265	295	17	18	85	25	10	14	250	6.1	2.5
30	2.1	715	374	13	------	440	21	9.8	22	68	8.6	2.5
31	1.8	------	510	10	------	148	------	9.8	------	31	407	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	11	1.5	4.07	0.053	0.06
November	715	2.8	79.9	1.03	1.15
December	3,020	17	357	4.62	5.33
January	358	10	79.8	1.03	1.19
February	1,330	8.6	169	2.19	2.36
March	475	6.6	115	1.49	1.72
April	510	17	73.6	.953	1.06
May	54	9.8	15.7	.203	.23
June	760	7.1	116	1.50	1.67
July	2,750	13	182	2.36	2.72
August	407	5.1	32.2	.417	.48
September	92	2.5	8.64	.112	.12
The year	3,020	1.5	103	1.33	18.09

LITTLE BEAVER CREEK BASIN

LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OHIO

LOCATION.—Water-stage recorder at Grimms Bridge, 4 miles above mouth of creek and 4 miles northeast of East Liverpool, Columbiana County.

DRAINAGE AREA.—505 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 11,000 second-feet Dec. 14 (gage height, 11.7 feet); minimum, 28 second-feet Oct. 1 (gage height, 2.10 feet).

1915–1928: Maximum discharge, 16,300 second-feet Jan. 16, 1924 (gage height, 13.7 feet); minimum, 12 second-feet Aug. 22 and 26, 1918 (gage height, 1.78 feet).

Highest flood known reached gage height of about 20 feet.

REMARKS.—Records excellent except those for periods of ice effect, Dec. 9–11, 24–28, Jan. 2–6, 22, 27–31, Feb. 1–5, 19–22, 25–29, and Mar. 1–8, which are fair. Discharge estimated July 23 and 24.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	104	7,170	1,820			1,820	394	118	1,000	428	268
2	32	138	3,610				1,450	345	111	590	464	160
3	30	185	1,820		440		1,350	298	128	545	361	113
4	44	198	1,060	530			1,660	268	183	411	298	90
5	40	185	830			400	1,180	254	1,660	662	254	80
6	42	254	680		1,000		940	239	2,920	780	935	74
7	41	198	635	483	830		830	225	1,640	464	635	82
8	76	160	730	680	2,070		885	211	464	329	394	78
9	72	138		780	2,950	524	680	198	2,250	316	298	74
10	59	128	410	680	1,900	730	590	185	2,140	762	374	64
11	57	118		545	1,250	502	524	198	1,180	448	680	62
12	66	116	1,590	635	940	545	635	211	780	908	514	55
13	185	109	2,730	635	780	783	590	185	545	817	268	52
14	160	97	9,030	590	2,240	3,910	524	160	464	1,970	211	47
15	113	94	4,590	545	7,610	2,320	545	149	428	1,380	172	48
16	84	95	5,790	464	4,660	1,320	446	149	329	830	149	44
17	68	3,890	4,750	464	2,450	1,060	411	172	268	545	138	40
18	69	3,560	2,450	446	1,740	940	378	198	635	411	128	42
19	138	1,450	1,380	524		780	361	313	1,360	378	118	38
20	198	780	1,120	1,320	680	780	314	440	830	3,580	109	56
21	172	635	940	545		1,000	569	329	1,340	3,290	102	82
22	128	545	830	502		1,320	2,070	239	4,100	1,820	170	84
23	104	446	730	590	1,340	1,180	1,660	198	1,600	1,120	239	69
24	87	524		590	2,160	940	1,180	149	1,000	830	138	56
25	78	680		1,900		885	885	149	680	680	149	55
26	72	545	460	1,060	400	1,150	680	160	545	502	128	50
27	68	1,150				3,070	590	172	428	446	111	47
28	66	3,070				1,740	545	160	345	1,920	100	45
29	65	3,070	1,060	440		1,250	483	149	540	1,380	92	45
30	62	2,930	1,820		-------	5,430	446	138	1,450	635	84	44
31	56	-------	1,740		-------	3,180	-------	128	-------	464	199	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	198	30	82.7	0.164	0.19
November	3,890	94	853	1.69	1.89
December	9,030	----------	1,960	3.88	4.47
January	1,900	----------	666	1.32	1.52
February	7,610	----------	1,410	2.79	3.01
March	5,430	----------	1,240	2.46	2.84
April	2,070	314	841	1.67	1.86
May	440	128	218	.432	.50
June	4,100	111	1,020	2.02	2.25
July	3,580	316	975	1.93	2.22
August	935	84	272	.539	.62
September	268	38	71.5	.142	.16
The year	9,030	30	798	1.58	21.53

YELLOW CREEK BASIN

YELLOW CREEK AT HAMMONDSVILLE, OHIO

LOCATION.—Tape gage on highway bridge a fifth of a mile southwest of Hammondsville, Jefferson County, and 1,000 feet above North Fork.

DRAINAGE AREA.—169 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 5,870 second-feet Dec. 14 (gage height, 11.5 feet); minimum, 1.3 second-feet Sept. 18 (gage height, 2.60 feet).

1915–1928: Maximum discharge, 7,710 second-feet June 17, 1920 (gage height, 13. 2 feet); minimum, 0.6 second-foot Aug. 29, 1916, Aug. 27, 1925, and Aug. 10 and 11, 1926.

Highest known flood reached a stage of about 16 feet.

REMARKS.—Records good except those for periods of ice effect (Dec. 25–28, Jan. 1–12, 29–31, Feb. 1–14, 26–29) and for periods when tape was broken (Apr. 12–16, May 17–23), which are fair.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	17	2,620			175	590	168	64	195	50	23
2	3.7	36	930		140	143	540	149	47	155	87	13
3	5.5	34	540			158	490	128	30	149	126	11
4	5.2	42	395			92	418	116	202	121	56	8
5	4.6	55	328		700	104	350	111	2,460	330	47	5
6	8	48	278	200	188	73	290	106	3,580	270	64	8.6
7	6.4	34	247		230	94	270	92	930	158	45	8.6
8	10	27	238		618	96	262	84	540	126	38	5.7
9	9	23	198		1,050	128	230	75	1,760	126	30	5
10	6.7	21	328		645	168	198	82	1,350	270	24	6.9
11	5.8	20	305		490	137	185	101	700	188	20	8
12	17	19	810		372	152		80	418	212	16	5.7
13	65	17	930	158	230	149		69	310	440	13	5.7
14	28	17	5,470	137	930	1,290	190	58	262	990	10	6.1
15	16	16	1,480	121	2,620	565		47	223	372	6.9	5
16	12	21	3,340	106	1,170	372		36	161	246	4.2	3.2
17	6.7	2,540	1,550	111	700	310	161		143	175	7.3	2.1
18	15	930	700	116	540	266	143	110	178	137	22	3
19	58	372	465	238	418	209	124		270	111	16	6.9
20	69	251	395	149	270	226	116		168	188	13	14
21	39	217	330	101	185	262	126		618	270	24	13
22	24	190	192	126	149	350	930	90	1,350	270	27	10
23	21	151	202	202	418	310	930		465	161	20	6.9
24	17	186	188	246	645	266	490	82	64	121	16	5.4
25	13	186		990	310	258	131	92	202	111	18	6.1
26	11	151	100	395		310	238	80	155	87	13	5.7
27	9	540		202	100	645	290	69	137	111	12	8.6
28	9	3,420		188		350	266	60	111	99	11	6.9
29	12	1,760	645	180		310	238	64	270	73	16	5
30	9.5	990	515	180	-------	2,780	195	60	266	58	23	3.2
31	7.5	-------	515	180	-------	1,350	-------	52	-------	50	20	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	69	3.7	17.0	0.101	0.12
November	3,420	16	411	2.43	2.71
December	5,470	----------	791	4.68	5.40
January	990	101	211	1.25	1.44
February	2,620	----------	477	2.82	3.04
March	2,780	73	390	2.31	2.66
April	930	116	305	1.80	2.01
May	168	----------	89.4	.529	.61
June	3,580	30	581	3.44	3.84
July	990	50	20.5	1.21	1.39
August	126	4.2	28.9	.171	.20
September	23	2.1	7.51	.044	.05
The year	5,470	2.1	292	1.73	23.47

LITTLE MUSKINGUM RIVER BASIN

LITTLE MUSKINGUM RIVER AT FAY, OHIO

LOCATION.—Staff gage in SE. ¼ sec. 10, T. 3 N., R. 7 W., 300 feet above Buckeye Pipe Line Co.'s pumping station and 1 mile northwest of Fay. Zero of gage is 612.71 feet above mean sea level.

DRAINAGE AREA.—259 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1922; October, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 6,360 second-feet Nov. 18 (gage height, 15.4 feet); minimum, 7 second-feet Sept. 29 and 30 (gage height, 0.80 foot).

1915–1922, 1925–1928: Maximum stage, 22.5 feet Nov. 27, 1919 (discharge not determined); minimum discharge, 2.0 second-feet Oct. 1 and 2, 1925.

Highest flood known reached a stage of about 23 feet.

REMARKS.—Records good except those for Jan. 3–7, which were estimated because of ice.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.6	15	550	490	232	232	760	490	254	580	114	63
2	8.6	14	434	254	210	210	462	380	1,040	434	328	52
3	9.4	13	315	220	190	210	380	328	462	380	254	42
4	9.4	13	278	220	172	290	302	302	254	190	181	32
5	9.0	13	290	210	1,420	406	254	278	1,000	290	148	24
6	8.2	12	254	210	1,210	315	232	243	1,100	232	134	18
7	9	11	232	210	670	266	302	200	760	172	127	18
8	9	11	210	254	2,000	221	580	164	550	71	120	18
9	8.6	13	232	278	2,200	406	434	134	670	120	114	15
10	8.6	20	232	302	860	860	328	114	610	190	114	15
11	8.6	22	1,140	315	580	490	315	101	434	1,640	108	15
12	7.8	30	3,520	302	434	406	520	89	328	490	101	12
13	7.4	63	2,980	290	328	328	406	77	243	328	101	12
14	21	40	4,570	278	1,840	670	490	71	156	1,240	101	12
15	79	33	1,720	266	2,080	550	930	65	134	730	101	12
16	66	40	2,120	221	790	380	700	65	108	278	101	12
17	66	930	2,890	181	580	328	354	77	83	141	101	12
18	1,180	4,440	790	148	520	328	328	141	108	95	114	11
19	965	860	490	328	380	328	290	354	1,960	77	114	12
20	700	610	328	610	406	380	221	640	3,360	462	101	18
21	400	550	302	760	266	1,210	640	520	3,180	1,210	95	24
22	340	490	266	580	290	1,100	2,800	354	3,010	2,660	89	44
23	312	490	232	490	1,280	790	2,980	232	2,840	1,880	108	32
24	219	490	210	760	2,890	550	1,960	141	2,660	354	1,640	22
25	105	1,070	200	1,720	860	406	1,210	89	2,440	266	232	17
26	70	2,120	190	790	490	640	580	302	2,800	232	156	13
27	54	1,140	190	354	302	1,210	354	266	1,960	930	141	9.5
28	36	930	181	302	315	700	1,680	141	1,210	610	127	9.5
29	24	860	181	278	254	490	1,210	95	895	354	108	7
30	17	730	254	278	-------	2,360	640	89	790	232	89	7
31	16	-------	550	254	-------	1,680	-------	580	-------	141	77	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,180	7.4	154	0.595	0.69
November	4,440	11	536	2.07	2.31
December	4,570	181	849	3.28	3.78
January	1,720	148	392	1.51	1.74
February	2,890	172	829	3.20	3.45
March	2,360	210	605	2.34	2.70
April	2,980	221	755	2.92	3.26
May	640	65	230	.888	1.02
June	3,360	83	1,180	4.56	5.09
July	2,660	71	549	2.12	2.44
August	1,640	77	179	.691	.80
September	63	7.0	20.3	.078	.09
The year	4,570	7.0	520	2.01	27.37

MUSKINGUM RIVER BASIN

TUSCARAWAS RIVER AT CLINTON, OHIO

LOCATION.—Chain gage in NW. ¼ sec. 32, T. 14 N., R. 10 W., at highway bridge at Clinton, 1 mile above mouth of Chippewa Creek.

DRAINAGE AREA.—165 square miles.

RECORDS AVAILABLE.—May, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 952 second-feet Dec. 15 (gage height, 7.8 feet); minimum, 15 second-feet Oct. 28.

1926–1928: Maximum discharge, 952 second-feet Mar. 22 and Dec. 15, 1927 (gage height, 7.8 feet); minimum, that of Oct. 28, 1927.

REMARKS.—Records good except those for extremely low water, which are fair. Ohio Canal diverts small amount of water from Tuscarawas River at Portage Lakes, 3 miles south of Akron. Part of the diverted water flows into Cuyahoga River Basin and part flows past this gaging station. Flow slightly regulated at headwaters.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	19	723	672	46	76	358	88	28	37	119	38
2	24	23	898	774	42	72	273	76	34	30	101	38
3	31	27	826	808	38	76	287	72	32	34	76	37
4	28	25	542	706	42	76	301	64	42	31	68	32
5	28	28	343	373	96	68	273	60	88	373	76	32
6	30	26	182	101	220	60	207	60	287	106	138	32
7	25	22	128	101	207	56	170	56	358	76	101	34
8	20	22	128	194	315	60	182	53	373	64	60	31
9	20	24	98	220	463	88	159	50	246	56	72	32
10	18	22	63	207	463	96	128	50	194	53	56	31
11	20	24	94	207	329	96	110	46	148	53	60	29
12	24	24	138	207	246	101	101	53	88	46	56	28
13	26	22	233	194	182	148	194	50	72	92	46	28
14	21	20	740	170	233	358	106	42	64	170	42	26
15	18	24	952	159	558	418	106	39	56	182	37	31
16	19	30	880	138	689	358	92	46	39	128	32	32
17	18	148	757	114	655	246	88	64	207	148	37	31
18	21	170	655	101	526	194	76	182	128	72	42	31
19	24	138	510	148	358	148	72	194	76	170	38	28
20	21	94	329	273	207	148	64	119	68	463	36	37
21	19	56	194	273	119	148	68	92	56	638	50	39
22	18	42	128	159	106	159	233	68	64	757	60	35
23	18	41	110	72	148	148	494	56	53	723	50	28
24	18	70	98	110	273	148	403	56	60	606	46	26
25	18	106	90	220	220	148	259	53	53	403	46	30
26	16	78	82	170	159	170	159	53	39	259	39	31
27	17	74	78	148	84	207	119	50	34	207	35	31
28	16	90	74	96	68	194	114	46	32	373	38	29
29	17	233	94	76	80	182	84	53	39	301	42	26
30	16	448	343	60	-------	301	88	46	46	207	50	26
31	16	-------	510	53	-------	403	-------	39	-------	159	50	-------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	31	16	20.9	May	194	39	67.0
November	448	19	72.3	June	373	28	103
December	952	63	355	July	757	30	226
January	808	53	236	August	138	32	58.0
February	689	38	247	September	39	26	31.3
March	418	56	166				
April	494	64	179	The year	952	16	147

TUSCARAWAS RIVER AT CRYSTAL SPRING, OHIO

LOCATION.—Chain gage in NW. ¼ sec. 30, T. 11 N., R. 9 W., at highway bridge at Crystal Spring.

DRAINAGE AREA.—430 square miles.

RECORDS AVAILABLE.—October, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 3,900 second-feet Dec. 15 (gage height, 12.2 feet); minimum, 55 second-feet Oct. 23 to Nov. 1.

1921–1928: Maximum discharge, 4,350 second-feet Mar. 22, 1927 (gage height, 12.8 feet); minimum, 48 second-feet July 16, 1927.

REMARKS.—Records fair. Ohio Canal diverts small amount of water from Tuscarawas River at Portage Lakes, 3 miles south of Akron. Part of diverted water flows into Cuyahoga River Basin. Flow slightly regulated at headwaters.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	59	2,740	1,930	157	157	1,260	174	92	183	296	103
2	87	68	3,550	1,380	135	150	795	157	92	166	252	103
3	87	63	3,500	1,050	109	150	1,120	142	98	150	211	92
4	87	68	2,290	795	103	142	855	128	109	135	231	92
5	103	82	1,340	595	567	135	735	122	242	489	319	92
6	98	72	765	489	679	128	735	103	679	679	651	92
7	98	68	319	439	735	122	679	103	1,020	390	221	92
8	109	68	414	414	855	122	567	98	765	231	342	92
9	103	63	540	414	1,340	192	414	92	679	192	211	77
10	98	63	567	464	1,050	319	342	87	679	174	174	77
11	98	63	464	514	679	221	319	115	540	202	211	77
12	92	63	623	414	514	183	263	98	366	221	157	77
13	109	63	945	296	366	202	221	92	231	263	142	77
14	109	59	2,780	414	855	1,260	221	87	211	795	128	77
15	98	59	3,800	439	1,580	1,260	211	82	192	945	128	82
16	98	59	3,800	439	2,110	795	211	82	166	623	115	92
17	92	68	3,300	414	2,110	390	202	92	166	319	109	82
18	87	142	2,290	414	1,880	319	202	109	135	157	109	82
19	72	342	1,580	439	1,420	274	192	274	183	174	109	82
20	68	231	980	707	1,020	390	183	211	296	945	109	92
21	63	211	567	707	567	464	274	157	231	1,460	92	92
22	59	192	414	439	263	489	1,160	128	192	1,840	142	98
23	55	183	274	296	390	390	1,380	103	174	1,980	174	87
24	59	183	221	296	885	342	1,220	98	211	1,620	142	87
25	55	319	202	679	679	366	765	92	211	1,020	142	87
26	55	274	183	464	489	489	464	103	192	595	142	87
27	55	211	157	274	319	679	342	98	174	390	128	87
28	55	296	142	252	202	540	274	103	157	1,260	115	87
29	55	595	135	231	174	679	211	115	142	915	109	92
30	55	980	735	211	------	980	192	103	192	540	109	82
31	55	------	1,460	202	------	1,220	------	92	------	414	109	------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	109	55	80.7	May	274	82	117
November	980	59	176	June	1,020	92	294
December	3,800	135	1,330	July	1,980	135	628
January	1,930	202	533	August	651	92	182
February	2,110	103	767	September	103	77	87.3
March	1,260	122	437				
April	1,380	183	534	The year	3,800	55	430

TUSCARAWAS RIVER NEAR DOVER, OHIO

LOCATION.—Chain gage in T. 9 N., R. 2 W., at highway bridge 2½ miles northeast of Dover and 3 miles above mouth of Sugar Creek. Zero of gage is 861.51 feet above mean sea level.

DRAINAGE AREA.—1,400 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 16,400 second-feet Dec. 15 (gage height, 11.6 feet); minimum, 230 second-feet Sept. 28.

1923–1928: Maximum discharge, 18,500 second-feet Mar. 22, 1927 (gage height, 12.2 feet); minimum, 125 second-feet Nov. 15, 1923.

REMARKS.—Records fair. Discharge estimated Jan. 4–7 and Jan. 27 to Feb. 3 because of ice effect. Small amount of water diverted into Cuyahoga River Basin by Ohio Canal. There is no appreciable flow in Ohio Canal at this station.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	335	268	11,300	8,080	1,000	1,410	5,300	1,160	445	1,060	840	463
2	292	268	13,300	4,250		1,310	4,890	1,020	445	840	975	362
3	268	292	8,960	3,410		1,210	3,890	885	425	750	750	336
4	305	335	6,770	2,000	2,370	1,160	3,170	800	550	580	660	310
5	305	335	4,250		2,480	1,210	2,810	760	2,150	705	660	310
6	268	335	2,040		2,590	1,020	2,260	645	5,300	1,930	2,700	288
7	279	320	1,710		1,820	975	2,040	610	5,580	1,060	2,260	288
8	335	352	1,710	2,810	3,410	930	2,150	645	4,500	660	1,210	288
9	305	352	1,510	2,590	5,300	1,260	1,820	610	3,770	540	500	310
10	268	335	1,820	2,480	4,760	1,710	1,610	610	4,630	620	1,210	310
11	268	335	1,820	2,260	3,530	1,210	1,510	610	4,630	705	1,020	310
12	305	320	1,930	2,150	2,700	1,160	1,510	610	3,290	930	795	310
13	370	320	4,500	2,040	2,150	1,610	1,510	610	2,040	1,930	500	310
14	352	352	9,900	1,930	2,370	4,130	1,510	522	1,160	4,010	463	288
15	268	370	15,700	1,710	6,320	5,870	1,510	495	1,020	3,050	426	288
16	256	370	12,800	1,310	8,600	3,650	1,260	522	840	2,040	394	266
17	268	720	13,300	1,410	6,930	2,590	1,110	550	705	1,310	394	266
18	268	2,810	9,140	1,510	5,870	2,260	1,110	610	795	930	394	266
19	292	2,150	6,770	2,370	3,770	1,930	1,110	885	1,510	750	463	266
20	320	1,160	4,500	3,170	3,050	1,820	930	1,160	1,310	3,290	362	248
21	320	840	2,700	2,260	3,530	2,150	1,110	1,060	1,110	6,020	394	248
22	292	800	2,040	2,370	3,050	2,150	4,500	760	2,260	4,760	426	310
23	292	760	1,820	3,770	2,370	2,150	4,370	610	1,930	3,410	426	288
24	279	840	1,510	3,530	4,130	1,930	4,010	522	1,930	2,810	394	266
25	268	1,110	1,210	6,020	4,630	1,930	2,930	580	1,310	2,150	394	266
26	256	975	1,110	3,530	2,810	2,480	2,150	522	1,020	1,510	362	248
27	256	1,060	1,510	1,200	2,930	2,930	1,710	495	885	1,210	336	248
28	246	3,050	1,160		1,610	2,930	1,510	470	660	3,050	336	230
29	256	3,770	1,610		1,510	2,260	1,410	445	705	2,370	310	248
30	256	5,020	4,500		-------	6,320	1,310	445	1,410	1,710	336	266
31	256	-------	4,760		-------	7,570	-------	425	-------	1,110	580	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	370	246	287	0.205	0.24
November	5,020	268	1,010	.721	.80
December	15,700	1,110	5,090	3.64	4.20
January	8,080	----------	2,550	1.82	2.10
February	8,600	----------	3,370	2.41	2.60
March	7,570	930	2,360	1.69	1.95
April	5,300	930	2,270	1.62	1.81
May	1,160	425	666	.476	.55
June	5,580	425	1,940	1.39	1.55
July	6,020	540	1,860	1.33	1.53
August	2,700	310	686	.490	.56
September	463	230	290	.207	.23
The year	15,700	230	1,860	1.33	18.12

TUSCARAWAS RIVER AT NEWCOMERSTOWN, OHIO

LOCATION.—Water-stage recorder in T. 5 N., R. 3 W., at highway bridge three-fourths mile east of Newcomerstown. Zero of gage is 785.03 feet above mean sea level.

DRAINAGE AREA.—2,430 square miles.

RECORDS AVAILABLE.—September, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 22,300 second-feet Dec. 16 (gage height, 12.9 feet); minimum, 302 second-feet Nov. 2 (gage height, 1.12 feet).

1921–1928: Maximum discharge, 22,800 second-feet Mar. 23, 1927 (gage height, 13.1 feet); minimum, 227 second-feet June 23, 1925 (gage height, 1.10 feet).

Flood of March, 1913, reached stage of about 21.5 feet (discharge (estimated), 130,000 second-feet).

REMARKS.—Records good. Discharge estimated Jan. 21 to Feb. 20. Small amount of water is diverted into Cuyahoga River Basin by the Ohio Canal at Portage Lakes.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	450	344	12,200	9,410		2,940	11,800	2,440	745	2,600	1,830	980
2	408	376	16,000	10,400		2,770	10,200	2,120	745	2,120	1,640	745
3	376	408	19,000	6,540	2,700	2,440	9,010	1,970	700	1,500	1,700	588
4	356	415	15,100	5,070		2,280	6,730	1,700	745	1,320	1,700	550
5	363	450	9,410	3,810		2,120	5,250	1,570	1,750	1,200	1,700	516
6	408	520	5,430	3,110		2,120	4,350	1,500	6,100	1,920	2,510	482
7	370	520	3,630	2,770		1,970	3,630	1,380	9,610	3,450	3,630	482
8	382	520	3,110	2,940	6,300	1,830	3,450	1,320	9,810	2,120	2,440	516
9	450	485	3,280	3,630		1,830	3,810	1,260	8,820	1,440	1,570	482
10	450	450	2,280	4,350		2,120	3,280	1,200	9,810	1,260	1,260	482
11	396	450	1,970	4,170		2,940	2,770	1,140	10,200	1,500	1,880	482
12	396	415	3,110	3,810		2,600	2,600	1,200	9,210	1,440	1,970	451
13	450	415	5,790	3,450	6,000	2,440	2,770	1,200	6,540	1,700	1,260	451
14	560	396	11,800	3,280		4,890	2,600	1,090	4,170	4,420	980	420
15	600	389	17,200	3,110		9,410	2,600	980	2,770	6,730	880	420
16	520	408	21,900	2,770		8,630	2,600	980	2,280	5,610	835	390
17	520	886	21,200	2,440		5,970	2,280	980	1,970	4,350	790	390
18	408	4,530	20,100	2,280	9,800	4,530	2,120	980	1,700	3,110	880	390
19	450	5,610	16,000	2,120		3,810	1,970	1,090	1,830	2,120	980	390
20	485	4,530	10,600	2,940		3,450	1,830	1,320	2,600	1,830	930	420
21	600	3,810	7,110		4,350	3,450	1,830	1,570	2,440	5,290	745	451
22	560	2,940	4,710		3,450	3,990	4,680	1,440	2,280	8,820	700	451
23	485	1,970	3,810	6,400	3,630	4,170	8,440	1,200	3,630	7,180	700	451
24	415	1,690	3,110		6,730	3,810	8,250	980	2,940	4,890	700	420
25	389	1,560	2,770		8,630	3,450	7,490	880	2,600	3,990	662	390
26	389	1,970	2,280		6,730	3,450	5,970	880	2,120	3,110	700	390
27	370	1,830	1,970		4,890	4,710	4,530	880	1,700	2,120	662	360
28	376	4,550	1,970	2,800	3,990	5,430	3,630	880	1,500	2,280	625	360
29	363	8,630	2,280		3,280	4,701	3,110	835	1,380	4,710	588	360
30	344	9,810	5,610		-------	6,920	2,770	835	1,500	3,810	550	360
31	350	-------	7,870		-------	11,400	--------	790	--------	2,600	790	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	600	344	434	0.179	0.21
November	9,810	344	2,040	.840	.94
December	21,900	1,970	8,470	3.49	4.02
January	10,400	----------	4,230	1.74	2.01
February	----------	----------	5,850	2.41	2.60
March	11,400	1,830	4,080	1.68	1.94
April	11,800	1,830	4,540	1.87	2.09
May	2,440	790	1,240	.510	.59
June	10,200	700	3,810	1.57	1.75
July	8,820	1,200	3,240	1.33	1.53
August	3,630	550	1,250	.514	.59
September	980	360	467	.192	.21
The year	21,900	344	3,300	1.36	18.48

MUSKINGUM RIVER AT DRESDEN, OHIO

LOCATION.—Water-stage recorder at highway bridge half a mile east of Dresden, Muskingum County, and half a mile below Wakatomika Creek. Zero of gage is 693.15 feet above mean sea level.

DRAINAGE AREA.—5,980 square miles.

RECORDS AVAILABLE.—September, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, about 51,200 second-feet Dec. 17 (gage height, 24.5 feet); minimum, 810 second-feet Oct. 31 (gage height, 4.00 feet).

1921–1928: Maximum discharge, 55,500 second-feet Mar. 23, 1927 (gage height, 26.0 feet); minimum, 335 second-feet June 25, 1925 (gage height, 2.73 feet).

Maximum known stage, about 46 feet March, 1913 (discharge (estimated), 160,000 second-feet).

REMARKS.—Records excellent. Discharge estimated Feb. 1, because of ice jam. Slight regulation at Dam 11, 7 miles below gage.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,030	880	29,500	24,500	5,000	7,990	26,500	6,740	1,900	6,570	4,310	1,580
2	1,030	880	41,800	23,300	4,630	7,270	24,200	5,910	1,900	6,230	3,690	1,680
3	950	880	43,100	16,400	4,310	6,740	21,600	5,270	1,900	5,270	3,540	1,480
4	950	950	38,700	10,800	4,150	6,230	16,400	4,790	2,140	4,470	3,390	1,290
5	950	950	29,800	9,300	5,430	6,070	12,100	4,470	5,400	3,990	3,690	1,200
6	950	1,030	17,400	7,990	10,800	5,750	10,200	3,990	14,200	5,270	4,150	1,110
7	950	1,110	11,300	7,630	11,000	5,430	8,920	3,840	21,300	7,270	7,090	1,110
8	880	1,110	9,110	7,630	13,000	5,110	8,730	3,540	21,600	5,430	5,750	1,110
9	950	1,110	8,730	9,680	20,800	5,110	9,110	3,390	20,500	3,840	3,990	1,110
10	950	1,030	6,740	10,800	22,200	6,230	8,170	3,240	24,500	3,390	3,090	1,110
11	950	1,030	5,750	10,400	20,000	7,450	7,270	3,090	21,300	3,690	3,090	1,110
12	950	1,030	8,920	9,870	16,600	6,740	6,740	3,090	17,000	4,310	3,840	1,030
13	1,030	1,030	14,500	9,300	13,000	6,400	6,400	3,090	12,400	5,270	3,090	1,030
14	1,110	950	29,200	8,920	10,600	13,300	6,570	2,940	8,920	10,200	2,390	950
15	1,200	950	42,100	8,350	18,200	19,400	6,570	2,660	6,910	14,000	2,140	950
16	1,200	950	45,200	7,630	26,000	19,400	6,910	2,520	5,750	12,600	1,900	950
17	1,110	1,970	49,000	6,910	26,000	14,700	6,230	2,520	4,950	10,600	1,790	950
18	1,030	9,040	47,700	6,400	24,500	10,800	5,590	2,520	4,630	8,730	1,790	880
19	950	11,900	41,800	6,070	19,400	9,190	5,270	2,660	5,110	6,230	2,020	880
20	950	10,400	33,100	9,300	13,800	8,730	4,790	3,090	6,740	5,110	2,020	950
21	1,030	9,490	22,800	11,700	10,400	8,540	4,950	3,840	6,740	7,420	1,790	950
22	1,110	7,990	15,900	8,540	8,730	9,490	13,800	3,540	7,270	13,500	1,580	950
23	1,110	5,910	10,400	6,570	9,870	9,870	22,800	2,940	8,730	14,000	1,480	950
24	1,030	4,470	8,350	6,570	17,600	9,300	21,900	2,520	7,630	11,700	1,480	950
25	950	3,990	7,270	10,800	21,300	8,540	19,200	2,260	6,400	10,200	1,480	950
26	880	4,790	6,400	15,000	17,400	8,920	16,400	2,260	5,430	8,540	1,480	880
27	880	4,630	5,430	12,600	13,300	10,200	13,300	2,260	4,630	6,740	1,380	880
28	880	8,780	5,270	9,680	10,600	12,400	10,100	2,260	3,990	5,590	1,290	880
29	880	19,200	5,750	6,740	8,730	11,500	8,350	2,140	3,690	8,350	1,290	880
30	880	21,100	9,680	5,590	-------	13,300	7,450	2,020	4,310	8,540	1,290	880
31	810	-------	14,500	5,430	-------	26,200	-------	2,020	-------	6,070	1,380	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,200	810	984	0.165	0.19
November	21,100	880	4,650	.778	.87
December	49,000	5,270	21,500	3.60	4.15
January	24,500	5,430	10,000	1.67	1.92
February	26,000	4,150	14,000	2.34	2.52
March	26,200	5,110	9,890	1.65	1.90
April	26,500	4,790	11,600	1.94	2.16
May	6,740	2,020	3,270	.547	.63
June	24,500	1,900	8,930	1.49	1.66
July	14,000	3,390	7,520	1.26	1.45
August	7,090	1,290	2,670	.446	.51
September	1,680	880	1,050	.176	.20
The year	49,000	810	7,990	1.34	18.16

MUSKINGUM RIVER AT McCONNELSVILLE, OHIO

LOCATION.—Water-stage recorder in SE. ¼ sec. 11, T. 10, N., R. 12 W., above Dam 7 at McConnelsville. Zero of gage is at elevation of crest of dam, 650.31 feet above mean sea level.

DRAINAGE AREA.—7,410 square miles.

RECORDS AVAILABLE.—October, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, about 75,600 second-feet Dec. 16 (gage height, 11.8 feet); minimum mean daily discharge, 864 second-feet Sept. 30.

1921–1928: Maximum discharge, about 76,600 second-feet Apr. 16, 1922 (gage height, 11.9 feet); minimum mean daily discharge, 622 second-feet Sept. 5, 1925.

The flood of Mar. 27, 1913, reached a stage of 33.5 feet (discharge (estimated), 200,000 second-feet).

REMARKS.—Records good except those for extremely high and extremely low stages, which are fair. Water diverted around dam by Elk Eye Milling Co. The milling company operated only 2 or 3 hours a day, causing a negligible diversion.

Daily and monthly discharge, in second-feet, 1927–28

Date	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,240	960	29,200	25,600	5,280	8,960	28,500	7,380	2,210	6,280	4,960	1,960
2	1,320	990	42,400	24,300	5,280	8,160	26,300	6,640	2,340	7,000	4,340	1,960
3	1,320	1,020	48,100	17,200	4,640	7,380	23,000	5,940	2,210	5,940	4,340	1,840
4	1,240	1,040	45,200	10,200	4,640	7,000	19,300	5,280	3,920	4,960	4,340	1,610
5	1,100	1,070	35,900	8,960	7,000	6,640	14,300	4,960	9,570	5,280	4,040	1,370
6	1,120	1,100	21,100	8,160	11,100	6,640	11,500	4,640	17,300	5,940	4,640	1,350
7	1,090	1,150	12,900	8,160	12,500	5,940	9,800	4,340	21,100	7,000	5,940	1,330
8	1,100	1,240	9,800	8,160	16,200	5,600	9,380	4,040	22,400	6,640	6,280	1,370
9	1,050	1,240	8,960	11,500	25,000	5,600	9,380	4,040	21,700	4,640	4,640	1,200
10	1,040	1,240	7,380	12,500	26,300	6,280	8,960	3,740	23,000	4,960	3,740	1,350
11	1,040	1,240	10,200	11,500	23,000	7,380	8,160	3,740	24,300	4,960	4,040	1,220
12	1,090	1,240	10,700	10,700	19,300	7,760	7,380	3,590	19,900	5,280	4,040	1,220
13	1,150	1,150	16,500	10,200	15,200	7,380	7,000	3,440	14,800	5,600	3,740	1,180
14	1,150	1,150	48,400	9,380	12,900	16,700	7,000	3,440	10,700	12,400	3,020	1,050
15	1,240	1,150	59,600	8,960	18,800	21,100	7,380	3,300	7,760	14,300	2,600	1,050
16	1,320	1,130	61,600	8,160	27,000	21,100	7,380	3,020	6,280	13,800	2,340	1,050
17	1,320	1,990	64,600	7,380	28,500	18,800	7,000	2,880	5,280	11,500	2,210	1,080
18	1,320	6,640	61,600	6,640	26,300	13,800	6,280	2,880	5,900	9,380	2,340	954
19	1,240	11,500	52,800	6,640	22,400	11,100	5,940	3,020	10,700	7,380	2,340	918
20	1,130	10,700	38,600	8,960	16,200	10,200	5,280	3,160	13,400	5,600	2,340	900
21	1,130	9,380	25,600	12,000	12,000	10,200	6,520	3,740	13,400	10,000	2,210	1,010
22	1,150	8,160	17,200	9,380	9,800	10,200	15,600	3,740	10,200	23,000	1,960	990
23	1,240	6,640	12,000	7,380	11,100	10,700	25,600	3,440	10,200	18,800	1,840	990
24	1,240	4,960	8,960	7,000	18,800	10,700	25,600	3,020	10,200	13,800	1,840	990
25	1,240	4,340	7,760	12,500	23,000	9,800	22,400	2,740	8,560	11,500	1,840	972
26	1,120	4,340	7,000	15,700	19,900	9,380	18,200	2,600	7,000	9,380	1,840	936
27	1,050	4,640	5,940	13,800	15,200	10,700	15,200	2,600	5,600	7,760	1,720	936
28	1,040	7,000	5,600	10,700	12,500	12,000	12,000	2,600	4,640	6,640	1,610	954
29	1,010	18,200	6,280	6,640	10,200	12,500	9,380	2,470	6,280	7,380	1,610	918
30	930	20,500	9,380	5,280	-------	18,700	8,160	2,470	5,940	8,560	1,610	864
31	945	-------	15,200	5,600	-------	27,000	-------	2,340	-------	6,640	2,880	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,320	930	1,150	0.155	0.18
November	20,500	960	4,570	.617	.69
December	64,600	5,600	26,000	3.51	4.05
January	25,600	5,280	10,600	1.43	1.65
February	28,500	4,640	15,900	2.15	2.32
March	27,000	5,600	11,100	1.50	1.73
April	28,500	5,280	12,900	1.74	1.94
May	7,380	2,340	3,720	.502	.58
June	24,300	2,210	10,900	1.47	1.64
July	23,000	4,640	8,780	1.18	1.36
August	6,280	1,610	3,140	.424	.49
September	1,960	864	1,180	.159	.18
The year	64,600	864	9,150	1.23	16.81

SANDY CREEK AT SANDYVILLE, OHIO

LOCATION.—Chain gage in sec. 8, T. 10 N., R. 1 W., on highway bridge half a mile south of Sandyville.

DRAINAGE AREA.—481 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 9,550 second-feet Dec. 14 (gage height, 10.4 feet); minimum, 49 second-feet Nov. 15 and 16 (gage height, 1.30 feet.)

1923–1928: Maximum discharge, 11,600 second-feet Jan. 20, 1927 (gage height, 11.4 feet); minimum, 48 second-feet June 24, 1925 (gage height, 1.15 feet).

REMARKS.—Records good except those for extremely high water, which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	136	9,350	2,300	308	510	1,840	412	187	640	450	156
2	86	100	4,870	880	274	470	1,500	378	209	395	395	133
3	123	125	1,930	730	274	430	1,000	342	150	342	360	130
4	125	156	1,280	780	308	378	1,280	325	325	291	308	128
5	102	162	685	780	1,930	430	830	308	1,070	412	360	133
6	117	120	550	595	830	360	685	291	2,600	830	1,280	123
7	107	145	550	510	685	360	685	274	2,600	412	595	125
8	139	128	640	830	1,580	378	830	258	1,280	325	395	123
9	93	130	378	880	2,300	470	685	258	1,420	274	325	107
10	125	112	412	780	1,420	685	550	258	1,500	325	640	120
11	102	89	450	730	1,140	550	510	274	1,420	274	685	123
12	209	107	1,070	685	830	510	640	274	940	730	430	123
13	162	69	1,660	685	730	685	550	225	640	1,000	291	123
14	133	115	8,780	595	1,000	3,360	550	225	490	1,930	258	105
15	130	84	5,430	550	4,730	1,750	550	225	430	1,210	225	123
16	69	117	5,150	490	4,340	1,210	470	225	378	780	225	98
17	117	550	4,730	490	2,400	830	450	225	325	510	193	105
18	102	1,070	2,500	470	1,500	780	412	258	430	412	193	107
19	133	550	1,350	730	1,070	685	395	242	830	342	187	107
20	145	308	940	1,140	830	640	360	430	595	2,020	187	136
21	128	291	830	430	640	830	430	342	470	5,150	162	136
22	110	308	730	412	595	880	2,110	274	1,420	1,580	162	123
23	76	274	640	430	1,140	780	1,280	242	1,070	830	150	107
24	117	242	595	430	1,930	685	940	209	940	595	162	112
25	96	360	510	1,580	880	730	730	225	685	470	156	112
26	115	325	450	830	595	1,280	640	225	490	395	130	102
27	107	308	412	595	550	1,580	550	209	412	450	148	102
28	107	1,420	412	470	550	1,070	510	209	342	2,200	136	98
29	112	2,110	940	412	510	830	470	209	360	830	123	93
30	89	2,110	1,580	378	-------	4,470	450	193	940	510	145	107
31	120	-------	1,750	378	-------	3,140	-------	193	-------	395	225	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	209	69	116	0.241	0.28
November	2,110	69	404	.840	.94
December	9,350	378	1,990	4.14	4.77
January	2,300	378	709	1.47	1.70
February	4,730	274	1,240	2.59	2.79
March	4,470	360	1,020	2.12	2.44
April	2,110	360	763	1.59	1.77
May	430	193	266	.553	.64
June	2,600	150	832	1.73	1.93
July	5,150	274	866	1.80	2.08
August	1,280	123	312	.649	.75
September	156	93	117	.243	.27
The year	9,350	69	719	1.49	20.36

NIMISHILLEN CREEK AT NORTH INDUSTRY, OHIO

LOCATION.—Water-stage recorder in SW. ¼ sec. 35, T. 10 N., R. 8 W., just below railroad bridge and 1 mile southeast of North Industry. Zero of gage is 970.77 feet above mean sea level.

DRAINAGE AREA.—175 square miles.

RECORDS AVAILABLE.—October, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 2,650 second-feet Dec. 1 (gage height, 7.3 feet); minimum, 13 second-feet Oct. 1 and 22 (gage height, 0.68 foot).

1921–1928: Maximum discharge, 2,950 second-feet June 29, 1924 (gage height, 7.9 feet); minimum, 6.4 second-feet Sept. 2, 1925 (gage height, 0.58 foot).

REMARKS.—Records excellent. Slight regulation by steel mills at Canton about 4 miles above gage.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	69	1,940	910	84	130	358	116	55	94	180	54
2	36	60	706	290	79	122	376	102	61	75	127	47
3	42	57	354	228	81	120	280	95	56	67	93	46
4	51	72	221	173	119	114	463	89	127	60	80	48
5	43	70	180	137	606	125	278	87	170	284	192	45
6	43	60	147	126	228	108	204	81	510	458	504	50
7	82	55	141	139	245	108	193	77	262	139	143	50
8	60	60	215	256	584	111	294	77	172	84	96	48
9	40	69	117	338	634	222	230	76	241	75	80	46
10	43	60	101	291	326	242	185	74	186	92	396	48
11	40	51	166	251	241	147	164	82	115	101	333	47
12	90	45	330	248	202	158	178	78	94	120	114	49
13	63	46	856	232	176	285	164	72	82	574	85	48
14	51	47	2,070	213	468	1,010	168	64	76	796	73	48
15	44	49	836	195	1,340	416	191	68	74	361	68	47
16	34	101	1,170	165	766	289	148	69	68	174	64	41
17	40	441	715	158	456	215	136	73	62	111	63	47
18	42	311	372	159	350	202	122	72	155	91	55	48
19	58	145	241	292	223	195	117	90	219	148	53	48
20	48	95	215	403	207	200	103	110	124	876	54	61
21	44	98	210	124	162	272	221	76	94	1,490	57	50
22	42	101	193	114	162	316	663	68	107	568	56	46
23	36	86	172	105	405	249	368	63	101	279	54	42
24	41	133	152	213	576	213	260	61	192	176	60	43
25	46	159	140	468	230	215	194	65	106	122	53	44
26	54	112	122	194	152	479	157	66	87	94	48	44
27	55	212	115	140	129	402	140	65	77	157	52	46
28	58	418	116	112	133	241	131	66	67	804	51	44
29	56	504	434	96	129	217	116	65	120	266	47	46
30	54	779	608	93	-------	980	124	58	201	135	106	44
31	53	-------	840	86	-------	437	-------	59	-------	102	63	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	90	34	49.2	0.281	0.32
November	779	45	152	.869	.97
December	2,070	101	458	2.62	3.02
January	910	86	224	1.28	1.48
February	1,340	79	327	1.87	2.02
March	1,010	108	275	1.57	1.81
April	663	103	224	1.28	1.43
May	116	58	76.3	.436	.50
June	510	55	135	.771	.86
July	1,490	60	289	1.65	1.90
August	504	47	113	.646	.74
September	61	41	47.2	.270	.30
The year	2,070	34	198	1.13	15.35

STILLWATER CREEK AT UHRICHSVILLE, OHIO

LOCATION.—Staff gage at waterworks pumping station 1 mile south of Uhrichsville and Dennison, in Tuscarawas County.

DRAINAGE AREA.—367 square miles.

RECORDS AVAILABLE.—July, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year, 7,430 second-feet Dec. 16 (gage height, 11.8 feet); minimum, 9 second-feet Sept. 29 and 30 (gage height, 0.36 foot).

1922–1928: Maximum discharge, that of Dec. 16, 1927; minimum, 2 second-feet Oct. 1, 1925, July 30 and 31, 1926 (gage height, 0.25 foot).

REMARKS.—Records good. Municipal water supply for Dennison and Uhrichsville diverted at gage, not included in tables of discharge. Gage-height record furnished by the Dennison Water Supply Co.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	36	3,500	1,460	355	525	2,560	439	75	568	292	170
2	30	60	4,220	890	272	482	2,960	355	71	292	292	92
3	32	71	3,850	611	252	418	2,060	292	71	202	397	50
4	32	102	2,820	568	252	397	940	272	108	292	654	34
5	32	118	1,340	460	568	397	611	252	568	202	611	30
6	28	122	568	418	1,400	376	504	252	1,880	742	397	28
7	30	142	439	376	1,160	313	439	227	2,300	611	525	21
8	46	122	418	439	1,160	313	525	194	2,370	355	334	21
9	50	90	418	742	2,000	313	654	182	2,630	223	231	26
10	50	71	166	890	2,180	525	482	170	2,820	252	231	26
11	50	71	313	742	2,000	611	418	165	2,560	397	568	21
12	54	79	1,220	568	1,340	482	439	165	1,880	313	272	21
13	83	71	1,880	482	790	460	611	170	840	611	174	21
14	114	71	4,590	439	790	1,100	568	137	504	1,100	133	17
15	90	71	7,190	376	1,820	1,640	568	120	397	1,520	108	17
16	60	71	7,430	334	2,500	1,280	568	108	334	1,640	96	17
17	40	418	6,950	292	2,760	790	482	120	252	1,520	83	30
18	32	1,760	5,990	292	2,240	611	418	137	231	790	124	26
19	54	2,120	3,710	272	1,280	568	376	145	397	355	174	11
20	174	2,370	2,760	568	790	525	334	120	439	313	133	12
21	166	2,120	1,280	697	840	697	334	165	397	697	83	11
22	102	840	742	313	482	940	1,520	153	313	1,220	71	30
23	50	568	568	397	890	840	2,000	104	252	1,340	67	34
24	40	397	482	376	1,880	890	2,240	79	231	1,220	57	21
25	36	397	397	1,280	2,060	568	2,180	71	219	790	41	13
26	36	355	252	1,820	2,000	611	1,760	88	190	418	44	11
27	32	397	252	1,520	1,220	995	1,100	104	198	292	47	11
28	34	1,640	334	1,050	742	1,050	742	88	157	697	34	10
29	36	2,370	525	568	611	790	654	83	145	1,280	32	9
30	36	2,630	1,400	504	-------	1,460	504	71	568	1,050	30	9
31	36	-------	1,580	397	-------	2,370	-------	67	-------	439	41	-------

Month	Observed discharge in second-feet			Diversion (mean)	Corrected for diversion (second-feet)		Run-off in inches
	Maximum	Minimum	Mean		Mean	Per square mile	
October	174	28	55.3	3.47	58.8	0.160	0.18
November	2,630	36	658	3.23	661	1.80	2.01
December	7,430	166	2,180	3.33	2,180	5.94	6.85
January	1,820	272	650	3.49	653	1.78	2.05
February	2,760	252	1,260	3.43	1,260	3.43	3.70
March	2,370	313	753	3.23	756	2.06	2.38
April	2,960	334	985	3.24	988	2.69	3.00
May	439	67	164	3.24	167	.455	.52
June	2,820	71	780	3.28	783	2.13	2.38
July	1,640	202	701	3.35	704	1.92	2.21
August	654	30	205	3.38	208	.567	.65
September	170	9	28.3	3.37	31.7	.086	.10
The year	7,430	9	700	3.34	703	1.92	26.03

NOTE.—Record of total gallons pumped each month furnished by the Dennison Water Supply Co.

MOHICAN RIVER AT GREER, OHIO

LOCATION.—Chain gage on highway bridge at Greer, Knox County. Zero of gage is 872.91 feet above mean sea level.

DRAINAGE AREA.—942 square miles.

RECORDS AVAILABLE.—September, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 13,900 second-feet Dec. 1 (gage height, 11.8 feet); minimum, 125 second-feet Sept. 13 and 17–19 (gage height, 1.46 feet).

1921–1928: Maximum discharge, 15,400 second-feet Mar. 21, 1927 (gage height, 12.7 feet); minimum, 93 second-feet Sept. 12, 1925 (gage height, 1.29 feet).

The flood of March, 1913, reached a stage of 27.0 feet (discharge (estimated), 55,000 second-feet).

REMARKS.—Records good except those estimated because of ice effect (Jan. 4–8, 29–31, and Feb. 1–4), which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	236	182	13,900	3,980	500	920	2,460	702	280	378	271	155
2	220	212	13,200	1,710		875	2,940	618	280	301	271	155
3	354	197	7,030	1,410		745	2,020	575	253	280	236	149
4	271	204	3,980	1,300		702	1,510	543	465	271	271	142
5	244	228	3,450	1,300	3,450	618	1,260	495	1,060	1,160	271	142
6	212	212	1,810	600	3,060	575	1,020	511	4,820	543	1,160	162
7	212	204	1,310		1,410	575	968	450	3,980	495	527	162
8	197	197	1,210		4,260	575	1,160	435	2,130	313	364	149
9	175	168	1,110	1,610	3,450	968	1,110	420	3,190	326	364	149
10	168	162	660	1,510	2,460	1,060	1,020	406	2,240	745	350	142
11	168	162	618	1,510	968	920	875	435	1,710	575	313	142
12	182	175	1,810	1,410	1,810	788	830	450	1,410	406	236	136
13	244	197	2,350	1,410	1,060	1,060	788	420	1,260	1,110	220	125
14	253	175	10,900	1,410	1,510	2,940	920	392	920	2,240	204	136
15	228	168	10,900	1,410	6,280	1,710	968	378	660	1,710	204	130
16	212	253	9,020	1,210	3,710	1,510	745	364	495	1,210	197	130
17	212	2,460	8,400	1,060	2,700	1,410	660	338	435	1,110	197	125
18	204	2,020	5,980	920	2,240	1,060	618	406	495	1,060	212	125
19	197	1,410	2,820	920	2,240	968	575	378	788	745	197	125
20	190	1,020	1,510	3,450	1,310	830	495	788	702	480	175	149
21	182	825	1,160	1,210	1,060	1,110	465	465	575	1,610	175	162
22	182	640	920	1,160	1,020	1,110	5,690	392	788	745	190	142
23	182	554	830	920	1,610	1,020	3,320	326	575	745	190	142
24	182	506	702	875	3,190	1,020	2,460	301	660	480	190	142
25	182	506	618	3,710	1,610	1,060	2,130	392	527	350	182	142
26	182	920	618	1,410	1,310	1,020	1,610	364	435	301	175	136
27	182	920	559	1,020	1,210	1,910	1,110	326	378	968	162	136
28	182	1,910	527	745	968	1,310	1,020	289	338	1,210	162	130
29	182	3,190	1,510	600	920	1,110	920	280	350	406	162	130
30	182	2,940	1,610		-------	6,580	830	271	511	289	162	130
31	182	-------	4,820		-------	3,840	-------	289	-------	262	175	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	354	168	206	0.219	0.25
November	3,190	162	764	.811	.90
December	13,900	527	3,740	3.97	4.58
January	3,980	----------	1,360	1.44	1.66
February	6,280	----------	1,960	2.08	2.24
March	6,580	575	1,350	1.43	1.65
April	5,690	465	1,420	1.51	1.68
May	788	271	426	.452	.52
June	4,820	253	1,090	1.16	1.29
July	2,240	262	736	.781	.90
August	1,160	162	263	.279	.32
September	162	125	141	.150	.17
The year	13,900	125	1,120	1.19	16.16

WALHONDING RIVER AT POMERENE, OHIO

LOCATION.—Water-stage recorder at highway bridge at Pomerene, Coshocton County, one-third mile above Honey Run. Zero of gage is 805.53 feet above mean sea level.

DRAINAGE AREA.—1,490 square miles.

RECORDS AVAILABLE.—September, 1921, to September, 1928. December, 1910, to March, 1913, published as Mohican River at Pomerene.

EXTREMES.—Maximum discharge during year, 23,400 second-feet Dec. 1 (gage height, 14.0 feet); minimum, 200 second-feet Sept. 19 (gage height, 1.50 feet).

1921–1928: Maximum discharge, that of Dec. 1, 1927; minimum, 101 second-feet Aug. 30, 1925 (gage height, 1.04 feet).

The flood of March, 1913, reached a stage of 21.6 feet (discharge (estimated), 80,000 second-feet).

REMARKS.—Records good except those estimated because of ice effect (Jan. 30 to Feb. 3), which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	438	356	21,400	8,140	}	1,540	4,100	1,180	440	740	419	264
2	378	372	15,200	3,620	} 900	1,430	3,830	1,070	440	596	440	254
3	408	438	8,980	2,540	}	1,320	3,310	960	454	529	393	245
4	470	378	5,450	2,150	910	1,260	2,670	905	724	544	433	232
5	408	356	3,830	2,020	2,640	1,300	2,280	850	1,760	912	393	228
6	350	344	2,670	1,780	2,810	1,160	1,900	850	4,400	1,300	1,900	245
7	344	333	2,150	1,540	1,900	1,060	1,780	795	5,280	795	960	254
8	372	328	2,280	1,780	5,170	1,060	2,160	740	3,680	640	596	250
9	356	328	1,780	2,670	7,070	1,210	2,150	690	3,960	552	475	24
10	344	328	1,430	2,410	4,300	1,900	1,780	640	3,830	674	419	232
11	344	339	1,430	2,280	3,090	1,320	1,540	640	2,810	960	447	228
12	408	344	3,290	2,280	2,670	1,260	1,430	690	2,020	740	433	220
13	408	333	4,780	2,150	2,150	1,660	1,320	640	1,780	880	378	220
14	438	322	16,900	2,150	2,560	4,940	1,210	596	1,420	3,660	332	216
15	408	325	15,300	2,150	9,180	3,550	1,600	544	1,120	2,280	326	220
16	378	470	12,900	2,020	7,450	2,670	1,320	529	795	1,540	316	216
17	367	2,450	10,200	1,730	4,460	2,280	1,160	529	690	1,360	316	212
18	367	4,140	5,280	1,540	3,680	1,900	1,170	552	690	1,300	316	204
19	356	2,150	3,380	1,660	2,810	1,780	1,010	552	1,240	1,070	326	208
20	350	1,430	2,540	4,780	2,540	1,540	960	848	1,360	850	304	224
21	361	1,110	2,020	2,280	2,010	1,660	1,380	740	1,070	1,380	274	232
22	378	1,010	1,660	1,660	1,780	1,660	8,320	596	2,380	1,240	274	232
23	372	910	1,430	1,660	2,280	1,660	6,080	529	1,420	960	310	220
24	356	820	1,260	1,540	5,280	1,540	3,950	475	1,600	795	274	216
25	350	1,430	1,160	4,620	3,530	1,780	3,230	490	1,180	596	304	212
26	344	1,210	1,060	2,670	2,410	2,020	2,540	537	960	506	283	212
27	339	1,210	1,010	2,020	2,020	2,810	2,020	483	850	461	269	212
28	339	4,300	960	1,540	1,780	2,410	1,740	461	740	1,280	264	212
29	339	6,690	1,210	1,160	1,660	1,900	1,480	440	740	646	264	208
30	339	6,720	2,280	900	-------	6,860	1,360	426	850	468	259	208
31	356	-------	4,000	900	-------	7,450	-------	426	-------	419	269	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	470	339	373	0.250	0.29
November	6,720	322	1,380	.926	1.03
December	21,400	960	5,140	3.45	3.98
January	8,140	----------	2,330	1.56	1.80
February	9,180	----------	3,130	2.10	2.26
March	7,450	1,060	2,190	1.47	1.70
April	8,320	960	2,360	1.59	1.77
May	1,180	426	658	.442	.51
June	5,280	440	1,690	1.13	1.26
July	3,660	419	989	.664	.76
August	1,900	259	418	.281	.32
September	264	204	226	.152	.17
The year	21,400	204	1,740	1.17	15.85

ROCKY FORK NEAR MANSFIELD, OHIO

LOCATION.—Chain gage in NE. ¼ sec. 26, T. 21 N., R. 18 W., at highway bridge on lower Lucas road, 2 miles southeast of Mansfield. Zero of gage is 1,120.88 feet above mean sea level.

DRAINAGE AREA.—38.3 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 2,280 second-feet Nov. 30 (gage height, 12.2 feet); minimum, 6.3 second-feet Nov. 7 (gage height, 1.04 feet). 1925–1928: Maximum and minimum discharge occurred in 1928.

REMARKS.—Records good. Slight diurnal fluctuation at low water due to operation of Mansfield sewage treatment works.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	10	267	68	17	27	93	24	13	12	15	9.6
2	20	9.8	99	36	15	25	70	23	17	14	13	8.9
3	11	8.8	52	29	17	24	45	21	12	13	16	8.6
4	11	10	32	23	44	31	37	19	132	10	13	12
5	10	8.5	31	20	162	27	32	21	192	60	49	12
6	10	7.7	28	25	53	15	32	18	298	18	28	16
7	13	8.2	33	29	237	28	87	18	147	15	15	11
8	8.5	8.9	19	99	267	21	50	19	81	11	11	10
9	8.8	8.2	30	64	99	76	37	18	99	118	12	9.6
10	7.5	9.6	16	47	49	23	32	18	43	34	14	8.9
11	10	8.6	81	66	42	23	32	25	30	29	13	10
12	48	7.8	99	47	30	34	30	20	23	21	10	8.9
13	11	7.1	980	71	32	132	25	15	20	433	11	9.2
14	10	9.6	450	45	267	93	61	16	18	112	12	9.6
15	9.8	8.6	112	42	222	45	29	17	16	46	12	10
16	8.3	41	298	33	99	41	28	18	15	24	13	9.2
17	8.5	252	52	37	61	37	26	20	11	21	10	11
18	9	54	29	30	49	30	23	18	39	18	9.6	12
19	10	31	22	252	36	33	23	19	47	17	11	12
20	9.8	23	25	66	34	48	22	15	24	50	12	17
21	9.2	31	23	28	29	52	331	17	23	25	25	11
22	8.3	25	21	20	29	54	207	16	18	16	9.6	11
23	7.9	20	20	23	177	46	105	17	20	16	11	7.8
24	9.8	118	18	58	99	45	74	16	19	15	12	8.6
25	9	37	15	59	38	43	48	23	18	13	11	12
26	8.8	26	15	32	30	93	38	15	16	14	8.9	11
27	8.3	78	18	23	27	69	33	11	15	34	10	10
28	9.8	252	21	20	28	37	29	13	14	13	11	11
29	8.8	162	81	16	32	51	24	14	20	10	11	11
30	8.1	1,080	56	18	-------	282	28	12	19	14	11	8.9
31	9	-------	282	17	-------	76	-------	13	-------	13	11	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	48	7.5	11.4	0.298	0.34
November	1,080	7.1	78.7	2.05	2.29
December	980	15	107	2.79	3.22
January	252	17	46.5	1.21	1.40
February	266	15	80.0	2.09	2.25
March	282	15	53.6	1.40	1.61
April	331	22	57.7	1.51	1.68
May	25	11	17.7	.462	.53
June	298	11	48.6	1.27	1.42
July	433	10	40.6	1.06	1.22
August	49	8.9	13.9	.363	.42
September	17	7.8	10.6	.277	.31
The year	1,080	7.1	47.0	1.23	16.69

JEROME FORK AT JEROMEVILLE, OHIO

LOCATION.—Chain gage in SW. ¼ sec. 5, T. 21 N., R. 15 W., at highway bridge at Jeromeville, 1 mile above mouth of Oldtown Run.

DRAINAGE AREA.—120 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 3,020 second-feet Dec. 14 (gage height, 11.0 feet); minimum, 4 second-feet Sept. 24 and 26–30 (gage height 0.90 foot).

1925–1928: Maximum and minimum discharge occurred in 1928.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	12	2,660	830	27	56	476	49	16	15	24	6
2	16	12	1,270	234	23	38	311	44	20	15	18	6
3	12	10	420	108	25	54	197	41	19	13	12	6
4	10	10	125	78	33	91	138	33	78	13	12	6
5	10	10	85	62	[a] 108	74	99	36	134	32	[a] 52	6
6	8	8	76	52	[a] 184	50	101	35	1,020	18	91	7
7	7	8	80	62	259	43	131	30	800	14	30	7
8	8	7	173	161	591	38	127	29	680	12	23	6
9	7	7	74	143	476	84	110	27	352	12	19	6
10	6	7	50	120	285	60	91	28	150	18	16	6
11	6	7	74	118	120	58	82	37	108	15	15	6
12	11	7	108	138	110	56	71	37	65	11	12	6
13	14	7	1,270	143	103	114	62	31	54	533	11	6
14	10	7	2,880	118	392	324	85	29	38	285	11	5
15	9	8	1,170	110	954	143	76	28	30	120	10	6
16	8	[a] 214	923	103	298	[a] 122	58	29	25	50	8	5
17	8	420	234	95	185	101	52	29	22	36	8	5
18	7	298	197	76	152	85	44	32	38	27	8	5
19	[a] 7	134	145	504	110	72	43	32	44	32	7	6
20	7	[a] 88	87	476	87	71	41	[a] 32	46	46	7	7
21	6	41	67	138	71	106	259	32	49	285	8	6
22	6	33	52	89	84	106	[a] 410	26	31	[a] 182	8	5
23	6	29	52	54	562	112	562	21	46	80	7	4
24	6	246	49	365	365	108	234	20	37	44	8	4
25	6	99	39	338	173	129	156	29	27	26	9	4
26	5	52	38	143	108	222	123	22	24	19	7	4
27	5	84	41	76	74	209	99	19	21	101	7	4
28	5	185	38	55	65	72	80	16	22	76	7	4
29	6	95	173	41	55	106	78	16	24	42	6	4
30	6	1,110	161	26	------	1,080	67	19	22	24	7	4
31	6	------	892	26	------	272	------	17	------	19	6	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	16	5	7.81	0.065	0.07
November	1,110	7	108	.900	1.00
December	2,880	38	442	3.68	4.24
January	830	26	164	1.37	1.58
February	954	23	210	1.75	1.89
March	1,080	38	137	1.14	1.31
April	562	41	149	1.24	1.38
May	49	16	29.2	.243	.28
June	1,020	16	135	1.12	1.25
July	533	11	71.5	.596	.69
August	91	6	15.3	.128	.15
September	7	4	5.40	.045	.05
The year	2,880	4	123	1.02	13.89

[a] Interpolated.

KOKOSING RIVER NEAR MILLWOOD, OHIO

LOCATION.—Chain gage on east line of sec. 3, T. 6 N., R. 10 W., at highway bridge 3 miles southeast of Millwood.

DRAINAGE AREA.—472 square miles.

RECORDS AVAILABLE.—October, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 8,000 second-feet Dec. 1 (gage height, 12.6 feet); minimum, 59 second-feet Sept. 16 and 19 (gage height, 1.14 feet).

1921–1928: Maximum discharge, 16,500 second-feet Mar. 20, 1927 (gage height, 12.0 feet); minimum, 36 second-feet Sept. 4, 1925 (gage height, 1.23 feet).

Flood of March, 1913, reached a stage of 19.0 feet (discharge (estimated), 28,000 second-feet).

REMARKS.—Records good except those for high water, which are poor. Discharge estimated Nov. 26 to Jan. 10 and Feb. 11–29.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	88			407	430	1,190	364	138	251	124	73
2	105	88			407	364	960	324	138	217	128	66
3	95	79	2,400	1,400	386	324	760	306	133	186	119	69
4	95	91			386	324	600	287	344	186	106	69
5	112	91			386	344	525	287	600	287	106	66
6	85	91			364	364	452	269	1,190	386	287	69
7	124	88			1,280	364	430	251	1,030	251	251	77
8	120	88	760	840	2,660	364	820	234	760	186	158	69
9	91	82			2,180	344	600	234	960	186	128	66
10	85	85			1,460	324	500	234	890	251	115	67
11	88	82		890		324	452	217	575	217	143	66
12	129	85		820		306	430	234	430	251	110	64
13	120	85	2,700	760	1,100	600	386	217	344	202	101	66
14	116	82		705		705	364	202	287	1,110	99	64
15	105	82		600		890	600	202	251	452	92	66
16	101	105		575		820	407	202	217	287	82	59
17	101	705		550		705	364	202	186	234	88	62
18	105	1,020	1,200	760	1,400	705	287	217	202	186	88	62
19	105	940		760		760	324	202	500	172	84	59
20	91	101		705		705	287	202	678	202	80	66
21	88	105		705		705	269	202	407	386	73	69
22	88	228		678		705	4,000	186	2,660	287	69	66
23	85	261	600	600	1,000	705	1,850	172	650	251	66	62
24	85	297		575		705	1,190	158	890	186	73	66
25	82	261		600		705	890	172	575	158	101	64
26	85			550		705	650	172	430	143	69	66
27	82			476		678	550	158	344	143	77	62
28	79	1,600		452	600	678	500	158	287	153	66	62
29	82		170	452		1,190	452	153	269	138	69	64
30	82			430	-------	5,250	407	143	344	128	69	62
31	91	-------		407	-------	2,070	-------	143	-------	117	80	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	129	79	97	0.206	0.24
November	1,600	79	444	.941	1.05
December	----------	----------	1,270	2.69	3.10
January	----------	407	782	1.66	1.91
February	----------	364	1,030	2.18	2.35
March	5,250	306	779	1.65	1.90
April	4,000	269	717	1.52	1.70
May	364	143	216	.458	.53
June	2,660	133	557	1.18	1.32
July	1,110	117	251	.532	.61
August	287	66	106	.225	.26
September	77	59	65.6	.139	.16
The year	----------	59	524	1.11	15.13

KILLBUCK CREEK AT LAYLAND, OHIO

LOCATION.—Chain gage in T. 7. N., R. 7 W., at highway bridge at Layland, three-tenths mile above Big Run.

DRAINAGE AREA.—507 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 3,360 second-feet Dec. 1 (gage height, 15.5 feet); minimum, 59 second-feet Sept. 16–19 and 28–30.

1923–1928: Maximum discharge, 3,370 second-feet Apr. 9, 1926, and Jan. 20, 1927 (gage height, 15.5 feet); minimum, 14 second-feet Aug. 17, 1925 (gage height, 1.10 feet).

Maximum known stage, 22.6 feet March, 1913.

REMARKS.— Records good except those for low water, which are fair. Discharge interpolated Oct. 1, Jan. 1, Feb. 12, June 24, and Aug. 14.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	87	3,360	2,090	303	496	1,660	402	144	317	155	80
2	83	87	3,160	2,160	277	464	1,690	359	144	201	166	80
3	79	95	2,760	1,950	251	432	1,420	331	134	155	155	73
4	79	100	2,510	1,280	277	448	1,010	303	264	155	134	70
5	79	95	2,090	910	1,180	417	832	290	682	402	124	70
6	79	95	1,570	718	870	345	646	277	1,660	629	990	76
7	75	95	775	612	578	359	629	264	1,880	359	682	84
8	144	91	612	646	1,600	345	646	238	1,390	201	303	73
9	100	87	448	813	2,120	432	646	225	1,360	177	213	73
10	91	87	387	775	1,780	700	544	225	1,330	264	177	70
11	79	83	387	775	1,130	664	512	251	950	177	277	66
12	87	83	646	718	897	464	480	251	756	166	155	66
13	155	83	970	700	664	512	448	213	448	201	134	62
14	113	83	2,800	682	890	2,230	432	201	331	910	124	62
15	83	79	2,650	629	2,340	2,060	432	189	290	544	114	62
16	91	83	2,680	528	2,260	1,260	402	189	251	251	105	59
17	91	786	2,880	480	2,060	832	373	201	225	213	100	59
18	91	1,240	2,720	448	1,880	718	345	201	238	166	110	59
19	91	533	2,510	528	1,630	664	345	201	345	155	110	59
20	91	336	1,810	1,360	756	612	317	578	317	264	110	62
21	87	271	1,010	910	578	700	303	345	277	1,540	105	73
22	87	271	718	512	544	664	2,160	251	794	990	134	70
23	87	247	561	512	813	629	2,020	201	417	528	124	66
24	83	259	448	464	1,840	578	1,750	177	347	345	105	66
25	83	452	417	1,360	1,510	682	1,060	201	277	264	114	62
26	79	297	331	930	718	794	682	201	225	225	96	62
27	79	350	303	595	578	851	595	189	201	189	84	62
28	79	1,140	317	464	578	682	528	166	177	595	84	59
29	79	1,630	417	432	544	561	496	155	201	331	80	59
30	79	1,560	1,300	345	-------	2,300	448	155	448	201	80	59
31	83	-------	2,020	345	-------	2,260	-------	155	-------	166	134	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	155	75	89.5	0.177	0.20
November	1,630	79	360	.710	.79
December	3,360	303	1,470	2.90	3.34
January	2,160	345	828	1.63	1.88
February	2,340	251	1,080	2.13	2.30
March	2,300	345	811	1.60	1.84
April	2,160	303	795	1.57	1.75
May	578	155	245	.483	.56
June	1,880	134	550	1.08	1.20
July	1,540	155	364	.718	.83
August	990	80	180	.355	.41
September	84	59	66.8	.132	.15
The year	3,360	59	569	1.12	15.25

WILLS CREEK AT CAMBRIDGE, OHIO

LOCATION.—Chain gage at fairground bridge on South Ninth Street at Cambridge, Guernsey County, 1 mile below Leatherwood Creek. Prior to Oct. 6 at Steubenville Avenue bridge, 1½ miles below present site.

DRAINAGE AREA.—407 square miles prior to Oct. 6; 406 square miles thereafter.

RECORDS AVAILABLE.—June, 1926, to September, 1928 (discontinued).

EXTREMES.—Maximum discharge during year, 4,870 second-feet Dec. 15 (gage height, 18.8 feet); minimum, 4 second-feet Oct. 2.

1926–1928: Maximum discharge, that of Dec. 15, 1927; minimum, 4 second-feet Aug. 14, 1926, and Oct. 2, 1927.

REMARKS.—Records good except those estimated because of ice, Jan. 3–10 and Feb. 1–4, which are fair. Municipal water supply of Cambridge is diverted above station.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	30	2,100	913		396	2,470	339	103	1,510	190	
2	4	35	2,560	493	175	358	1,720	282	81	1,480	226	
3	5	43	2,220			358	773	235	91	819	181	45
4	10	48	1,460			396	493	217	102	358	684	
5	9	77	470		842	415	396	172	1,010	473	320	
6	6	99	271	350	1,510	320	358	181	1,460	640	339	
7	6	99	209		1,150	282	320	172	1,860	282	217	
8	6	80	169		1,630	263	434	138	1,860	181	121	20
9	7	56	99		2,220	301	396	130	1,460	190	100	
10	7	69	82		2,250	596	301	113	1,180	473	87	
11	8	70	150	575	1,920	453	263	113	596	533	103	
12	9	72	1,460	493	1,230	415	358	130	377	1,180	83	
13	15	57	2,130	415	596	377	396	105	263	1,510	68	15
14	36	55	3,430	396	575	1,200	358	92	155	2,070	39	
15	22	43	4,800	301	1,430	1,540	728	78	199	2,470	29	
16	16	36	4,700	263	1,770	773	493	76	155	2,220	21	
17	18	848	4,310	263	1,430	513	358	83	99	1,430	30	
18	18	2,160	3,760	244	913	513	301	105	208	434	75	10
19	23	2,650	3,040	263	596	533	263	121	434	235	113	
20	73	2,400	2,160	1,090	575	596	226	121	1,090	208	61	
21	54	1,770	938	684	434	988	377	217	1,200	796	39	
22	27	665	473	473	415	1,150	1,720	146	1,230	1,830	49	
23	19	313	434	377	889	1,010	2,340	76	773	2,220	44	15
24	16	229	415	320	1,890	706	2,500	48	396	2,340	36	
25	20	401	339	1,200	2,040	513	2,220	52	434	2,160	25	
26	20	313	282	1,370	1,660	773	1,510	73	358	1,290	121	
27	20	357	226	913	773	1,570	640	62	282	358	52	
28	19	1,230	217	554	513	1,720	554	56	208	1,040	23	10
29	14	1,890	493	513	434	1,690	554	33	728	1,150	13	
30	20	1,720	1,200	377	-------	2,250	415	29	1,510	415	32	
31	29	-------	938	263	-------	2,810	-------	70	-------	208	105	-------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	73	4	18.1	May	339	29	125
November	2,650	30	597	June	1,860	81	663
December	4,800	82	1,470	July	2,470	181	1,050
January	1,370	----------	502	August	684	13	117
February	2,250	----------	1,050	September	----------	----------	19.2
March	2,810	263	832				
April	2,500	226	808	The year	4,800	----------	602

WILLS CREEK AT BIRDS RUN, OHIO

LOCATION.—Staff gage to Sept. 8 and water-stage recorder thereafter in SW. ¼ sec. 19, T. 4 N., R. 4 W., 200 feet below mouth of Birds Run at Birds Run, Guernsey County. Zero of gage is 740.98 feet above mean sea level.

DRAINAGE AREA.—730 square miles.

RECORDS AVAILABLE.—August, 1928, to September, 1928.

EXTREMES.—Maximum discharge during period, 293 second-feet Sept. 1 (gage height, 4.1 feet); minimum, 18 second-feet Sept. 30.

Maximum stage known, 27.0 feet March, 1913 (discharge (estimated), 15,000 second-feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	------	260	11	------	37	21	126	31
2	------	188	12	------	35	22	99	38
3	------	115	13	------	24	23	84	35
4	------	80	14	------	25	24	80	28
5	------	62	15	------	24	25	84	31
6	------	50	16	99	28	26	97	35
7	------	48	17	99	26	27	110	31
8	------	42	18	168	26	28	104	24
9	------	41	19	191	23	29	80	22
10	------	38	20	214	23	30	80	20
						31	132	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
August 16-31	214	80	115	0.158	0.09
September	260	20	49.7	.068	.08

LICKING RIVER AT TOBOSO, OHIO

LOCATION.—Chain gage at highway bridge at Toboso, Licking County, 3 miles below mouth of Rocky Fork. Zero of gage is 744.84 feet above mean sea level.

DRAINAGE AREA.—672 square miles.

RECORDS AVAILABLE.—September, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 13,400 second-feet Dec. 14 (gage height, 15.3 feet); minimum, 79 second-feet Oct. 10.

1921–1928: Maximum discharge, 15,600 second-feet Mar. 29, 1924 (gage height, 17.0 feet); minimum, 54 second-feet Sept. 5, 10–12, and 25–27, 1925.

The flood of March, 1913, reached a stage of 20.0 feet (discharge (estimated), 20,000 second-feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	124	108	9,620	2,790	371	615	1,530	400	150	445	302	172
2	132	108	2,880	1,200	310	548	1,080	356	153	334	302	160
3	124	112	1,600	960	310	525	860	334	150	272	570	149
4	128	108	950	810	330	525	760	313	202	313	414	138
5	116	124	692	760	1,600	525	638	292	740	1,960	330	138
6	86	120	560	592	1,080	435	615	292	3,260	900	286	178
7	82	116	485	548	860	435	615	272	1,960	615	392	155
8	86	108	610	910	4,360	414	760	256	1,250	356	294	149
9	86	112	460	1,740	4,260	458	660	248	1,600	272	255	144
10	79	108	535	1,320	2,200	760	548	244	2,360	2,610	232	128
11	82	116	385	1,080	1,530	570	502	248	1,190	690	330	128
12	93	112	2,700	1,080	1,200	592	502	248	740	378	278	128
13	108	108	2,880	960	1,080	638	458	232	540	313	225	120
14	100	100	13,400	960	1,200	6,860	480	221	400	2,970	204	112
15	108	100	6,200	860	4,990	2,440	570	209	356	1,670	188	107
16	100	132	5,650	760	2,520	1,390	458	202	292	900	172	110
17	100	360	3,260	660	1,670	960	414	198	256	515	175	110
18	93	890	1,880	615	1,320	860	392	194	292	356	178	107
19	93	410	1,080	570	860	760	392	202	1,190	292	172	105
20	93	306	960	1,740	810	810	350	209	4,060	248	172	110
21	86	261	810	710	660	860	350	209	2,970	2,040	166	105
22	90	238	710	615	615	760	4,160	190	2,520	5,980	158	105
23	93	225	660	502	1,390	660	2,880	176	1,740	2,120	155	102
24	93	230	592	480	2,970	592	1,740	173	1,740	1,200	155	100
25	93	216	570	3,260	1,460	570	1,190	187	1,250	810	155	100
26	93	225	480	1,200	910	525	845	173	690	615	152	100
27	96	216	458	760	660	810	690	180	490	502	152	98
28	100	1,880	458	615	710	660	590	173	378	960	149	98
29	100	2,280	548	502	638	592	540	170	468	525	149	98
30	96	1,320	910	570	-------	5,870	468	162	690	371	144	98
31	96	-------	1,460	458	-------	2,610	-------	159	-------	310	310	-------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	132	79	98.4	May	400	159	230
November	2,280	100	362	June	4,060	150	1,140
December	13,400	385	2,080	July	5,980	248	1,030
January	3,260	458	987	August	570	144	236
February	4,990	310	1,480	September	178	98	122
March	6,860	414	1,150				
April	4,160	350	868	The year	13.400	79	813

HOCKING RIVER BASIN

HOCKING RIVER NEAR LANCASTER, OHIO

LOCATION.—Chain gage in SW. ¼ sec. 28, T. 14 N., R. 18 W., at highway bridge 5 miles southeast of Lancaster.

DRAINAGE AREA.—92.8 square miles.

RECORDS AVAILABLE.—September, 1923, to September, 1928.

EXTREMES.—Maximum discharge, 1,160 second-feet June 6 (gage height, 7.0 feet); minimum, 15 second-feet Sept. 12 (gage height, 1.26 feet).

1923–1928: Maximum discharge, 2,270 second-feet Mar. 29, 1924 (gage height, 8.8 feet); minimum, 5 second-feet Aug. 11, 1925.

REMARKS.—Records good. Discharge estimated Dec. 14–16.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	25	71	155	164	65	86	53	41	136	120	24
2	20	35	71	297	116	72	78	44	33	97	128	27
3	18	53	62	316	180	72	76	39	32	85	57	22
4	18	64	57	242	147	72	73	39	335	78	37	21
5	18	64	47	131	335	62	69	56	561	74	34	20
6	18	52	39	76	198	69	64	51	862	69	78	21
7	27	35	39	58	139	73	131	48	530	65	48	23
8	25	32	44	164	198	60	108	47	510	58	45	22
9	22	27	40	242	354	86	76	48	410	90	49	22
10	21	23	40	93	198	86	72	46	218	82	50	22
11	21	22	86	69	180	73	66	55	112	54	48	18
12	25	23	172	50	155	86	100	56	97	55	44	16
13	23	26	335	38	131	260	86	48	81	71	40	19
14	25	25	450	34	180	335	75	46	76	85	32	22
15	24	23	350	46	215	198	69	44	65	62	27	19
16	26	48	250	61	180	155	66	41	41	61	25	17
17	24	147	172	62	198	139	68	40	29	61	29	17
18	23	198	139	60	189	116	65	46	75	53	33	17
19	23	100	100	75	123	108	66	108	280	53	28	19
20	25	42	79	155	93	108	75	86	747	71	24	27
21	21	25	79	224	65	123	242	45	614	262	24	20
22	22	21	72	224	60	108	539	33	410	262	23	17
23	23	24	58	189	76	100	455	30	334	90	21	17
24	23	53	57	206	62	76	180	30	218	60	29	17
25	25	40	206	215	69	76	139	189	176	49	72	19
26	24	27	198	206	100	242	100	108	136	45	61	18
27	23	69	147	189	100	155	86	76	112	42	25	17
28	21	147	46	224	65	86	86	39	112	40	22	17
29	20	100	116	224	56	100	73	29	218	37	22	25
30	19	56	78	206	------	297	64	50	152	34	22	22
31	18	------	147	206	------	116	------	47	------	32	23	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	27	18	22.1	0.238	0.27
November	198	21	54.2	.584	.65
December	------	39	124	1.34	1.54
January	316	34	153	1.65	1.90
February	354	56	149	1.61	1.74
March	335	60	122	1.31	1.51
April	539	64	118	1.27	1.42
May	242	29	55.4	.597	.69
June	862	29	254	2.74	3.06
July	262	32	77.8	.838	.97
August	128	21	42.6	.459	.53
September	27	16	20.1	.217	.24
The year	862	16	98.9	1.07	14.52

HOCKING RIVER AT ATHENS, OHIO

LOCATION.—Chain gage on Mill Street Bridge, three-fourths mile east of business section of Athens, Athens County. Zero of gage is 615.59 feet above mean sea level.

DRAINAGE AREA.—944 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 13,400 second-feet June 22 (gage height, 18.3 feet); minimum, 53 second-feet Sept. 26 (gage height, 2.60 feet).

1915–1928: Maximum discharge, 20,500 second-feet Apr. 16, 1922 (gage height, 21.8 feet); minimum, 14 second-feet Sept. 21, 1925 (gage height, 2.32 feet).

Maximum known stage, 26.7 feet in January, 1907.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	81	2,920	2,900	563	950	1,340	820	470	2,060	253	160
2	84	90	1,870	950	500	788	1,080	755	383	1,400	235	127
3	79	100	895	722	500	885	1,080	690	383	1,080	330	112
4	77	102	650	690	440	885	820	625	722	950	330	98
5	72	126	485	625	1,920	820	755	563	3,480	950	258	101
6	70	108	385	596	3,680	755	690	563	4,520	1,020	470	88
7	64	112	385	625	1,800	625	1,020	500	6,670	722	305	91
8	74	112	340	722	4,460	625	950	440	2,320	563	223	91
9	72	115	340	1,470	6,220	690	788	440	2,120	596	219	93
10	70	110	280	1,470	4,140	950	690	412	2,180	820	189	91
11	86	129	340	1,210	1,860	885	658	383	1,470	625	1,470	86
12	98	118	3,480	1,080	1,600	820	722	383	1,080	563	1,210	83
13	126	102	6,470	950	1,210	820	690	356	820	1,920	280	79
14	132	112	8,540	950	1,600	3,680	1,080	330	755	3,480	204	79
15	118	110	10,500	885	4,330	4,330	1,540	305	690	1,730	178	76
16	88	98	9,370	755	2,510	1,920	1,080	305	563	1,080	167	74
17	79	595	9,010	690	1,920	1,470	885	305	500	755	160	76
18	84	1,380	4,330	658	1,730	1,210	788	305	500	563	160	70
19	95	512	1,730	788	1,340	1,210	722	305	1,340	440	157	70
20	90	300	1,140	1,990	1,210	1,660	658	820	6,740	440	147	83
21	88	228	950	1,020	950	2,380	1,210	500	10,800	690	137	79
22	86	240	885	625	755	1,920	5,500	330	12,700	1,470	130	76
23	81	244	755	755	1,080	1,540	6,540	305	5,630	950	115	72
24	84	622	658	755	4,520	1,140	4,070	253	4,590	690	127	68
25	84	595	596	3,420	2,380	1,020	2,700	280	7,010	530	280	59
26	79	385	500	2,120	1,210	1,020	1,730	440	2,960	412	253	55
27	81	320	500	1,080	1,020	1,800	1,340	356	1,660	305	150	66
28	81	3,480	440	820	1,020	1,340	1,340	280	1,210	690	130	70
29	81	1,660	500	625	950	1,210	1,140	276	4,720	383	121	70
30	81	1,100	1,020	690	------	4,070	1,020	280	5,300	305	118	72
31	81	------	1,020	625	------	2,510	------	440	------	253	216	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	132	64	85.5	0.091	0.10
November	3,480	81	446	.472	.53
December	10,500	280	2,300	2.44	2.81
January	3,420	596	1,070	1.13	1.30
February	6,220	440	1,980	2.10	2.26
March	4,330	625	1,480	1.57	1.81
April	6,540	658	1,490	1.58	1.76
May	820	253	430	.456	.53
June	12,700	383	3,140	3.33	3.72
July	3,480	253	917	.971	1.12
August	1,470	115	281	.298	.34
September	160	55	83.8	.089	.10
The year	12,700	55	1,140	1.21	16.38

KANAWHA RIVER BASIN

SOUTH FORK OF NEW RIVER NEAR JEFFERSON, N. C.

LOCATION.—Chain gage at highway bridge a quarter of a mile below Bear Creek and 4 miles southeast of Jefferson, Ashe County.

DRAINAGE AREA.—207 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1926; July to September, 1928.

EXTREMES.—Maximum discharge during period (estimated), 6,660 second-feet Aug. 16 (gage height, 7.55 feet); minimum, 220 second-feet Aug. 4 (gage height, 1.28 feet).

1924–1926, 1928: Maximum discharge, that of Aug. 16, 1928; minimum, 65 second-feet Sept. 9, 1925 (gage height, 0.80 foot).

REMARKS.—Records good for discharges below 2,500 second-feet; fair above. Small regulation caused by old gristmills upstream.

Daily and monthly discharge, in second-feet, 1928

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	624	321	1,240	11	485	1,520	932	21	300	1,020	1,150
2	518	258	1,520	12	355	1,240	890	22	698	932	975
3	421	229	1,520	13	660	485	810	23	278	850	890
4	361	225	1,150	14	810	421	772	24	268	772	772
5	316	239	1,700	15	485	1,440	810	25	249	890	735
6	338	452	3,530	16	367	6,310	890	26	239	890	698
7	294	553	2,070	17	378	3,310	735	27	254	1,330	660
8	289	321	1,420	18	361	1,930	735	28	367	932	660
9	310	390	1,150	19	390	1,330	1,700	29	305	850	624
10	518	289	1,020	20	310	1,240	3,150	30	273	735	698
								31	384	890	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
July	810	239	394	1.90	2.19
August	6,310	225	1,050	5.07	5.84
September	3,530	624	1,190	5.75	6.42

NEW RIVER AT EGGLESTON, VA.

LOCATION.—Water-stage recorder at highway bridge at Eggleston, Giles County.
DRAINAGE AREA.—2,920 square miles.
RECORDS AVAILABLE.—October, 1914, to September, 1928.
EXTREMES.—Maximum discharge during year, 53,800 second-feet Aug. 17 (gage height, 18.04 feet); minimum, 830 second-feet Oct. 3 (gage height, 2.60 feet).

1914–1928: Maximum discharge, about 152,000 second-feet July 16, 1916 (gage height, 39.5 feet); minimum, 580 second-feet July 21, 1926 (gage height, 2.2 feet).

The flood of 1878 reached a stage of about 40 feet.

REMARKS.—Records good. Discharge Dec. 21–29, Jan. 2–13, and Jan. 28 to Feb. 4 estimated because of ice. Flow regulated by operation of power plants at Byllesby.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	913	1,020	1,990	6,480	3,100	2,840	4,220	7,100	3,380	2,940	1,820	5,540
2	995	1,300	2,270	5,100	2,500	2,800	3,380	6,350	3,280	2,940	1,440	9,210
3	886	1,780	11,300	3,900	3,600	2,730	3,170	5,180	2,660	3,270	1,630	14,100
4	1,610	1,580	10,500	3,900	3,200	2,740	3,240	4,790	3,480	2,580	2,060	11,000
5	2,400	1,740	8,410	3,500	3,790	2,220	2,940	4,150	4,380	1,720	1,670	8,710
6	1,430	1,180	8,340	3,000	3,070	2,590	2,820	4,560	6,130	2,480	2,360	20,200
7	1,300	1,090	8,050	3,300	3,340	2,290	2,580	4,220	5,160	2,220	3,240	26,500
8	1,320	1,950	11,200	3,700	3,320	2,430	4,050	6,930	3,600	2,030	2,960	13,900
9	1,360	2,020	12,800	3,800	4,370	2,360	3,770	6,850	3,470	1,530	2,560	9,890
10	1,180	1,840	8,360	4,400	4,660	3,670	4,580	6,440	3,340	2,220	3,940	7,260
11	1,480	1,730	5,790	4,100	4,260	4,600	5,080	5,420	2,910	2,420	3,910	6,360
12	2,520	1,890	4,900	4,200	3,880	3,660	7,810	5,030	4,800	2,530	12,600	6,180
13	13,500	1,730	5,070	3,900	3,360	3,530	11,000	4,290	4,760	3,000	9,030	4,540
14	7,510	1,700	5,090	3,330	3,380	2,840	8,780	3,020	5,000	3,150	5,510	5,270
15	4,570	1,540	5,240	3,540	3,620	3,390	7,050	3,780	5,020	3,440	3,510	4,310
16	2,910	1,740	8,440	3,140	3,970	3,250	5,910	3,520	4,200	3,300	7,660	5,160
17	2,140	2,180	13,600	3,530	3,630	3,920	5,270	3,410	3,060	2,590	47,600	4,970
18	1,920	9,950	10,400	3,430	3,600	4,320	4,340	3,220	3,320	2,570	22,600	5,180
19	2,030	9,880	7,710	4,000	3,820	3,690	3,960	3,310	3,620	2,200	11,200	6,840
20	1,680	6,020	5,950	6,140	2,670	4,900	4,090	3,850	4,070	2,310	8,470	20,500
21	1,390	3,480	4,200	5,350	2,880	4,070	4,270	3,850	3,360	2,360	7,100	19,300
22	1,410	2,930	4,300	4,120	2,510	4,500	4,870	4,970	3,370	2,260	5,270	11,300
23	1,630	2,770	4,000	3,450	3,380	4,580	4,230	5,510	2,850	1,780	4,620	8,360
24	1,410	2,600	3,500	3,360	3,720	4,680	5,140	5,260	3,510	2,150	5,230	6,840
25	1,450	1,840	3,200	3,800	3,790	4,450	4,770	4,280	3,260	2,140	4,760	6,290
26	1,550	2,780	3,200	4,470	3,880	4,320	4,530	4,010	3,160	1,930	6,420	5,440
27	1,510	1,580	2,900	4,280	3,220	4,450	4,330	3,460	3,440	1,530	8,260	5,150
28	1,420	1,660	2,900	3,700	3,140	4,280	10,200	3,340	3,260	1,840	8,870	4,600
29	1,650	1,730	3,000	3,000	3,030	3,910	9,620	3,780	3,000	1,800	7,170	4,820
30	1,240	2,060	3,630	2,800	-------	3,320	8,240	4,110	2,910	1,780	4,330	5,840
31	1,190	-------	4,650	2,900	-------	3,930	--------	3,540	-------	1,930	4,920	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	13,500	886	2,240	0.767	0.88
November	9,950	1,020	2,580	.884	.99
December	13,600	1,990	6,290	2.15	2.48
January	6,480	2,800	3,920	1.34	1.54
February	4,660	2,500	3,470	1.19	1.28
March	4,900	2,220	3,590	1.23	1.42
April	11,000	2,580	5,270	1.80	2.01
May	7,100	3,020	4,570	1.57	1.81
June	6,130	2,660	3,730	1.28	1.43
July	3,440	1,530	2,350	.805	.93
August	47,600	1,440	7,180	2.46	2.84
September	26,500	4,310	9,120	3.12	3.48
The year	47,600	886	4,520	1.55	21.09

NEW RIVER AT GLENLYN, VA.

LOCATION.—At steam power plant of Appalachian Electric Power Co., a quarter of a mile southeast of Glenlyn, Giles County, and a third of a mile above East River.

DRAINAGE AREA.—3,770 square miles.

RECORDS AVAILABLE.—August, 1927, to September, 1928.

EXTREMES.—Maximum discharge during period, 59,400 second-feet Aug. 17, 1928 (gage height, 13.47 feet); minimum, 1,130 second-feet Oct. 1 (gage height 2.34 feet).

REMARKS.—Records good. Discharge estimated Aug. 15–17, Sept. 21–23, Dec. 9–14, and 17–19, 1927. Flow regulated by operation of power plant at Byllesby.

Daily discharge, in second-feet, 1927–28

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1927			1927			1927		
1	-------	2,170	11	2,480	3,060	21	4,470	1,840
2	-------	1,980	12	2,280	5,420	22	4,940	1,600
3	-------	2,400	13	2,110	3,340	23	3,400	1,840
4	-------	2,180	14	1,990	2,480	24	3,630	1,970
5	-------	1,870	15	1,930	2,180	25	2,820	1,740
6	-------	2,020	16	1,720	1,980	26	2,570	1,360
7	-------	1,840	17	2,460	1,830	27	2,240	1,300
8	-------	1,920	18	2,200	1,520	28	2,050	1,430
9	-------	1,830	19	2,380	1,750	29	2,170	1,330
10	2,700	1,830	20	3,840	1,520	30	2,340	1,380
						31	2,640	-------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1927–28												
1	1,240	1,450	2,480	7,830	3,990	3,480	5,830	11,200	4,540	3,700	2,180	6,780
2	1,340	1,620	2,770	6,520	3,250	3,700	5,480	9,460	4,240	3,280	2,080	11,200
3	1,260	1,880	9,160	5,090	4,640	3,420	4,570	7,900	3,910	4,200	1,800	15,800
4	1,400	2,430	13,200	5,020	4,060	3,050	4,340	7,110	4,640	3,500	2,470	16,500
5	2,750	2,280	10,800	4,450	4,420	3,700	4,190	5,680	4,420	2,720	2,250	10,400
6	1,950	1,970	10,700	3,820	4,420	2,780	4,040	5,150	7,200	2,460	2,120	16,400
7	1,720	1,610	10,200	4,270	4,500	2,960	3,580	5,510	6,940	2,980	3,510	28,800
8	1,680	2,060	10,200	4,750	4,420	2,900	4,570	8,940	5,020	2,630	3,560	15,500
9	1,850	3,450	17,300	4,860	5,510	3,010	4,960	9,560	4,340	2,400	2,600	10,900
10	1,520	3,230	10,900	5,690	6,080	3,980	5,630	8,810	4,270	2,360	4,200	9,120
11	1,690	2,700	7,960	5,300	5,840	5,180	6,300	7,420	4,200	3,000	4,260	7,550
12	2,330	2,540	6,820	5,470	5,020	5,060	9,200	6,760	5,880	2,960	12,000	6,940
13	12,000	2,740	6,480	5,000	4,570	4,280	13,500	5,920	6,420	3,560	10,600	6,090
14	10,400	2,150	6,740	4,580	4,580	3,840	11,900	4,680	6,680	3,910	6,770	6,520
15	6,080	2,280	7,180	3,900	4,560	3,860	9,560	4,580	6,250	4,420	4,090	5,590
16	4,050	2,140	10,900	4,160	5,260	4,050	7,990	4,590	5,700	4,190	7,270	5,920
17	3,180	3,790	16,300	4,120	4,750	4,330	7,110	4,500	4,340	3,260	49,600	8,380
18	2,330	13,200	13,700	4,190	4,520	5,590	5,670	4,340	4,090	3,070	27,700	6,310
19	2,440	12,600	10,100	5,230	4,560	5,240	5,100	5,120	4,170	2,780	13,900	8,440
20	2,410	8,770	7,810	9,040	4,060	6,170	5,100	5,470	5,100	2,790	10,000	23,400
21	2,070	5,330	5,420	8,360	3,620	5,840	5,150	5,560	4,290	2,900	9,090	24,300
22	1,920	4,220	5,580	7,260	3,340	6,160	6,040	6,760	4,380	2,770	6,420	14,900
23	1,940	3,960	5,100	5,500	4,070	7,460	5,360	8,540	3,700	2,750	5,980	10,800
24	2,130	3,580	4,520	5,020	4,430	7,340	6,120	8,170	4,790	2,280	5,810	8,900
25	1,580	3,340	4,190	5,560	4,760	7,200	6,250	6,640	4,560	2,460	6,420	8,170
26	2,070	3,130	4,200	5,880	4,640	6,250	5,750	5,920	3,560	2,590	7,600	6,770
27	1,950	2,800	3,730	6,000	4,350	6,420	5,310	5,350	4,300	2,100	9,460	6,310
28	1,900	2,130	3,760	4,700	4,150	5,840	14,400	4,960	3,920	1,960	10,600	6,150
29	2,010	2,220	3,840	3,790	3,760	5,510	14,400	5,100	3,760	2,420	8,530	5,460
30	1,810	2,650	4,310	3,580	-------	5,100	12,800	5,420	3,860	2,080	5,930	6,780
31	1,630	-------	5,400	3,590	-------	5,920	-------	4,660	-------	2,310	5,750	-------

Monthly discharge of New River at Glenlyn, Va., 1927–28

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
1927					
September	5,420	1,300	2,030	0.538	0.60
1927–28					
October	12,000	1,240	2,730	.724	.84
November	13,200	1,450	3,610	.958	1.07
December	17,300	2,480	7,800	2.07	2.39
January	9,040	3,580	5,240	1.39	1.60
February	6,080	3,250	4,490	1.19	1.28
March	7,460	2,780	4,830	1.28	1.48
April	14,400	3,580	7,010	1.86	2.08
May	11,200	4,340	6,440	1.71	1.97
June	7,200	3,560	4,780	1.27	1.42
July	4,420	1,960	2,930	.777	.90
August	49,600	1,800	8,210	2.18	2.51
September	28,800	5,460	10,800	2.86	3.19
The year	49,600	1,240	5,740	1.52	20.73

NEW RIVER NEAR HINTON, W. VA.

LOCATION.—Staff gage at Packs Ferry, in Summers County, 2 miles above Greenbrier River and 3½ miles south of Hinton.

DRAINAGE AREA.—4,560 square miles.

RECORDS AVAILABLE.—December, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 44,300 second-feet Aug. 17 (gage height, 12.15 feet); minimum, 1,120 second-feet Oct. 2 (gage height, 2.23 feet).

1924–1928: Maximum discharge, 49,700 second-feet Jan. 17, 1924 (gage height, 13.03 feet); minimum, 680 second-feet Aug. 27, 1925 (gage height, 1.80 feet).

The floods of Apr. 21 and May 23, 1901, reached a stage of about 24.2 feet. The flood of 1878 probably reached a higher stage.

REMARKS.—Records good. Probably some regulation at low and medium low stages by power plants above station.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,310	1,520	2,610	7,620	4,990	4,720	7,940	15,700	5,260	4,990	2,430	7,000
2	1,120	1,240	3,030	5,260	3,970	4,450	7,300	12,300	4,990	4,450	2,160	11,500
3	1,240	1,680	11,400	4,990	4,720	3,970	5,530	9,980	4,990	4,720	1,910	17,100
4	1,240	2,430	16,600	3,030	4,990	3,970	4,720	8,260	4,450	4,210	2,430	15,700
5	2,250	2,080	13,100	4,210	4,450	3,490	5,530	7,000	4,720	3,490	2,610	12,300
6	2,430	2,250	13,100	3,970	5,800	3,030	4,990	6,700	6,700	2,610	2,250	10,700
7	1,750	1,680	11,900	4,450	5,530	3,250	4,450	7,620	7,940	3,490	3,030	33,800
8	1,520	1,680	13,100	4,990	5,800	3,030	4,450	9,980	5,800	2,610	3,730	19,400
9	1,680	4,990	20,000	5,530	6,700	3,490	6,700	11,900	4,990	2,610	3,030	12,300
10	1,680	4,450	12,700	5,530	7,300	3,490	5,530	10,700	4,990	2,430	3,730	9,980
11	1,380	3,250	8,900	6,400	7,000	5,260	6,100	8,580	4,720	3,250	4,720	8,260
12	1,830	2,810	7,940	5,530	6,100	6,100	9,260	7,620	4,720	3,490	11,200	7,300
13	8,850	2,810	7,000	5,530	5,530	4,450	15,700	6,400	7,940	3,970	13,500	7,000
14	13,900	2,250	7,940	5,800	4,990	4,720	13,900	6,100	6,700	4,450	7,940	5,260
15	7,000	2,250	8,260	4,450	5,530	3,970	11,500	4,450	7,300	4,990	6,100	6,100
16	4,210	2,080	12,700	4,990	5,800	4,450	9,260	5,260	6,700	4,720	9,200	6,400
17	3,490	3,440	21,100	3,970	5,260	4,990	7,940	5,260	4,990	3,970	43,000	10,300
18	2,610	18,400	17,600	4,450	5,260	7,000	6,700	5,800	4,450	3,250	34,300	6,400
19	2,430	16,200	12,300	7,300	5,260	7,300	6,100	7,300	4,450	3,030	16,600	7,300
20	2,430	10,700	8,900	13,100	5,800	6,700	6,100	6,100	7,300	2,610	11,500	29,600
21	2,160	6,700	6,400	10,700	4,210	8,580	6,100	6,700	5,530	2,810	10,700	30,400
22	1,750	4,720	5,800	7,940	4,210	8,580	6,400	6,700	5,260	3,030	7,300	18,500
23	1,830	4,210	6,100	6,400	3,970	11,900	6,700	9,260	4,990	2,430	6,700	12,300
24	2,250	3,970	4,720	5,530	4,720	10,700	6,400	9,260	4,720	2,250	5,800	9,980
25	1,750	3,730	4,720	6,100	5,260	9,260	7,300	8,580	5,530	2,430	7,300	8,900
26	1,910	2,610	4,990	6,700	4,990	7,940	7,300	7,620	4,210	2,610	8,580	7,300
27	1,910	3,730	4,450	6,100	5,530	7,620	8,260	7,300	4,210	2,610	11,100	6,400
28	1,830	2,160	4,450	6,100	4,450	6,700	20,000	6,700	4,450	2,080	11,500	6,100
29	1,680	2,250	3,970	4,720	4,450	6,400	20,500	5,530	4,720	2,250	9,260	5,260
30	2,000	2,430	4,720	4,210	-------	7,940	20,000	6,400	8,260	2,160	7,620	6,100
31	1,600	-------	5,260	3,970	-------	8,580	-------	5,530	-------	2,250	5,530	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	13,900	1,120	2,740	0.601	0.69
November	18,400	1,240	4,160	.912	1.02
December	21,100	2,610	9,220	2.02	2.33
January	13,100	3,030	5,790	1.27	1.46
February	7,300	3,970	5,260	1.15	1.24
March	11,900	3,030	6,000	1.32	1.52
April	20,500	4,450	8,620	1.89	2.11
May	15,700	4,450	7,830	1.72	1.98
June	8,260	4,210	5,530	1.21	1.35
July	4,990	2,080	3,230	.708	.82
August	43,000	1,910	8,930	1.96	2.26
September	33,800	5,260	11,800	2.59	2.89
The year	43,000	1,120	6,590	1.45	19.67

KANAWHA RIVER AT LOCK 2, AT MONTGOMERY, W. VA.

LOCATION.—Staff gage at Lock 2, at Montgomery, Fayette County.
DRAINAGE AREA.—8,470 square miles.
RECORDS AVAILABLE.—January, 1888, to September, 1920; October, 1927, to December, 1928.
EXTREMES.—Maximum discharge during year, 74,000 second-feet May 1 (gage height, 30.6 feet); minimum, 1,600 second-feet Oct. 4, 1927 (gage height, 18.5 feet).

1888–1920, 1927–28: Maximum discharge, about 250,000 second-feet May 23, 1901 (gage height, 49.65 feet); minimum, about 1,000 second-feet Oct. 12, 1917.

REMARKS.—Records fair.

Daily discharge, in second feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1927-28												
1	1,680	2,760	5,280	17,900	7,950	8,850	18,400	74,000	8,850	26,400	2,760	11,700
2	1,680	2,520	5,500	21,300	9,300	7,950	14,700	49,300	7,950	18,400	3,020	13,200
3	1,680	2,520	8,850	15,200	7,050	7,950	13,700	31,900	7,500	13,700	3,020	16,800
4	1,600	6,150	25,100	10,700	7,950	7,050	11,200	22,500	7,500	12,700	2,760	20,700
5	1,680	8,400	23,800	7,500	7,950	7,050	9,750	17,900	6,600	10,200	3,300	16,200
6	1,530	8,400	21,900	8,850	11,200	7,050	8,850	14,200	7,050	7,950	4,420	13,700
7	2,520	7,050	21,300	8,400	14,200	5,500	8,850	13,200	10,700	6,600	4,420	23,800
8	2,200	5,710	19,600	8,850	13,700	6,150	8,400	12,700	13,200	6,600	4,850	27,000
9	2,100	11,200	26,400	8,850	15,700	5,500	8,850	15,700	10,700	5,280	5,280	17,400
10	1,920	18,400	24,400	9,750	19,600	6,150	9,300	13,200	14,200	5,710	4,420	13,700
11	1,920	14,700	18,400	9,750	17,900	7,050	10,700	13,200	15,700	6,600	5,500	10,700
12	1,920	11,700	14,200	8,850	15,200	9,300	19,600	11,200	12,700	7,050	7,500	8,850
13	2,410	9,750	17,400	8,850	13,200	9,750	22,500	10,200	12,700	7,500	15,700	8,400
14	16,800	8,400	26,400	7,950	11,700	8,850	25,800	8,850	12,700	17,400	13,200	7,950
15	13,700	6,600	25,800	7,950	11,200	10,700	19,000	7,950	12,700	16,800	8,850	6,150
16	8,850	6,150	23,200	7,500	15,700	10,700	18,400	6,600	11,700	13,700	6,150	7,050
17	5,710	6,150	33,400	7,950	16,200	16,200	15,200	6,600	10,700	9,750	35,600	6,600
18	4,850	30,500	34,900	7,500	13,700	17,900	13,700	7,500	9,300	7,050	66,900	10,700
19	5,280	38,800	25,100	12,700	12,200	17,900	11,200	8,400	7,950	5,710	37,200	7,050
20	7,950	22,500	19,000	38,000	10,700	15,700	10,200	10,200	13,700	5,060	23,800	18,400
21	13,700	17,400	14,700	38,000	10,200	17,900	9,300	9,300	24,400	4,420	17,900	44,400
22	9,300	12,700	10,700	23,800	8,850	20,100	9,750	9,300	25,100	4,420	14,700	29,800
23	7,950	9,750	10,700	16,800	8,400	32,600	10,700	10,200	17,900	4,850	11,200	19,600
24	6,150	8,850	8,850	13,700	8,850	38,000	11,700	12,200	14,700	4,000	9,750	14,700
25	5,500	7,950	7,950	14,700	12,200	31,200	14,700	11,200	20,100	3,300	8,400	11,700
26	4,420	7,500	7,050	17,900	12,700	25,100	15,700	11,700	17,400	3,300	10,700	10,200
27	3,810	5,710	7,050	17,400	11,700	21,300	15,700	15,200	14,700	3,460	11,200	8,850
28	3,620	7,050	6,150	14,700	10,700	19,600	27,700	12,700	12,700	3,300	13,700	7,500
29	3,160	5,060	7,500	10,700	9,750	16,200	40,400	11,700	15,200	3,020	14,700	7,500
30	3,020	5,060	9,300	8,850	------	14,700	61,600	10,200	36,400	2,640	12,200	6,600
31	3,160	------	12,700	7,950	------	19,000	------	10,200	------	3,020	9,750	------

Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.
1928				1928			
1	9,300	5,930	45,200	16	4,640	5,930	13,700
2	11,700	6,150	40,400	17	4,000	5,710	13,700
3	9,300	5,710	22,500	18	4,850	5,930	14,700
4	8,400	5,500	14,700	19	5,500	10,200	16,800
5	7,050	5,710	12,200	20	5,280	17,400	15,700
6	6,600	7,050	10,700	21	6,150	15,700	12,700
7	6,150	5,930	9,300	22	5,710	14,700	11,200
8	7,050	6,600	8,400	23	6,150	11,700	9,300
9	6,600	6,150	7,050	24	4,850	10,700	8,400
10	6,600	7,500	7,500	25	10,200	9,300	7,500
11	5,500	6,600	7,050	26	14,200	8,850	6,600
12	5,710	6,600	5,280	27	10,700	7,950	6,150
13	5,500	6,600	5,060	28	8,850	6,150	6,150
14	5,280	5,710	5,710	29	7,050	7,050	6,600
15	4,850	6,150	9,750	30	7,950	12,200	7,500
				31	7,050	------	5,930

Monthly discharge of Kanawha River at Lock 2, at Montgomery, W. Va., 1927–28

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
1927–28					
October	16,800	1,550	4,900	0.579	0.67
November	38,800	2,520	10,500	1.24	1.38
December	34,900	5,280	16,900	2.00	2.31
January	38,000	7,500	13,500	1.59	1.83
February	19,600	7,050	11,900	1.40	1.51
March	38,000	5,500	14,500	1.71	1.97
April	61,600	8,400	16,500	1.95	2.18
May	74,000	6,600	15,500	1.83	2.11
June	36,400	6,600	13,800	1.63	1.82
July	26,400	2,640	8,060	.952	1.10
August	66,900	2,760	12,700	1.50	1.73
September	44,400	6,150	14,200	1.68	1.87
The year	74,000	1,530	12,700	1.50	20.48
1928					
October	14,200	4,000	7,060	.834	.961
November	17,400	5,500	8,110	.957	1.07
December	45,200	5,060	12,000	1.42	1.64

NORTH FORK OF NEW RIVER AT CRUMPLER, N. C.

LOCATION.—Chain gage on highway bridge at Crumpler, Ashe County.

DRAINAGE AREA.—276 square miles.

RECORDS AVAILABLE.—July to September, 1928. From August, 1908, to September, 1916, at site half a mile above confluence with South Fork.

EXTREMES.—Maximum discharge during period, 5,970 second-feet Aug. 16 (gage height (estimated), 6.84 feet); minimum, 248 second-feet Aug. 3 and 4 (gage height, 1.18 feet).

1908–1916, 1928. Maximum discharge, about 24,000 second-feet July 15, 1916; minimum, 108 second-feet July 2, 1914 (gage height, 1.10 feet at old site).

REMARKS.—Records good below 3,000 second-feet and fair above. Slight regulation caused by operation of old gristmills.

Daily and monthly discharge, in second-feet, 1928

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	------	263	883	11	------	1,510	710	21	365	1,020	1,980
2	------	263	2,670	12	328	1,020	613	22	328	644	1,370
3	------	248	2,310	13	677	426	553	23	294	524	1,100
4	------	248	2,200	14	677	365	472	24	328	644	975
5	------	310	2,910	15	365	952	498	25	294	710	677
6	------	346	4,510	16	346	4,840	524	26	294	1,180	644
7	------	365	2,200	17	346	3,060	613	27	278	1,020	582
8	------	346	1,370	18	346	1,760	498	28	278	710	524
9	------	346	1,020	19	328	1,760	2,020	29	263	644	472
10	------	365	818	20	384	1,460	3,360	30	263	710	553
								31	263	498	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
July 12–31	677	263	352	1.28	0.95
August	4,840	248	921	3.34	3.85
September	4,510	472	1,320	4.79	5.34

REED CREEK AT GRAHAMS FORGE, VA.

LOCATION.—Chain gage on highway bridge at Grahams Forge, Wythe County, 2½ miles below Glade Creek.

DRAINAGE AREA.—247 square miles.

RECORDS AVAILABLE.—July, 1908, to September, 1916; February, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 2,090 second-feet Dec. 16 (gage height, 3.75 feet); minimum, 47 second-feet Oct. 22 and 29 (gage height, 1.34 feet).

1908–1916, 1927–28: Maximum gage height, 12.1 feet July 16, 1916 (discharge not determined); minimum discharge, about 5 second-feet Dec. 22, 1909 (gage height, 1.17 feet).

REMARKS.—Records good. Discharge estimated Dec. 21, 22 and Jan. 3–5 because of ice. Low-water flow may be affected slightly by operation of power plants upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	60	78	432	183	139	286	438	157	139	136	352
2	73	58	382	222	153	120	236	364	150	123	83	1,460
3	75	71	1,280	200	168	123	209	297	161	120	69	795
4	84	94	543	190	161	117	175	260	209	102	62	525
5	79	85	620	185	161	113	168	236	246	102	73	387
6	79	67	660	183	183	117	161	236	890	99	91	525
7	77	62	472	179	231	113	164	413	419	88	99	459
8	79	65	543	164	270	104	161	750	313	99	76	358
9	84	107	419	196	370	150	146	543	260	91	80	288
10	73	110	292	192	313	265	164	376	227	113	123	250
11	84	83	246	171	260	222	231	302	260	104	161	223
12	259	73	213	171	236	213	705	255	660	99	395	197
13	136	69	213	161	204	200	890	227	472	96	164	182
14	71	65	217	157	200	196	543	196	382	246	110	171
15	69	69	246	153	209	236	401	183	276	175	104	160
16	62	65	1,660	153	200	251	313	175	217	123	795	157
17	60	543	1,100	150	188	330	260	164	231	107	1,100	167
18	65	506	506	153	192	407	222	168	196	96	459	175
19	62	192	413	580	171	413	209	183	171	91	341	206
20	65	136	265	1,050	183	364	222	251	157	88	245	890
21	58	110	250	543	171	426	217	347	204	83	210	710
22	50	102	230	364	150	506	209	318	179	80	175	459
23	56	85	217	307	161	580	209	580	150	73	160	341
24	60	78	196	255	175	506	200	426	255	71	154	283
25	54	80	183	276	157	376	188	307	196	78	164	245
26	58	78	175	241	146	318	175	265	171	76	231	223
27	58	73	150	217	143	281	260	227	150	78	240	201
28	60	65	161	200	139	251	995	217	123	69	201	178
29	52	76	161	188	139	222	660	188	129	71	175	171
30	56	67	175	209	-------	222	543	175	150	71	157	492
31	54	-------	292	200	-------	341	-------	164	-------	73	147	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	259	50	74.9	0.303	0.35
November	543	58	113	.457	.51
December	1,660	78	405	1.64	1.89
January	1,050	150	259	1.05	1.21
February	370	139	194	.785	.85
March	580	104	265	1.07	1.23
April	995	146	317	1.28	1.43
May	750	164	298	1.21	1.40
June	890	123	259	1.05	1.17
July	246	69	101	.409	.47
August	1,100	62	219	.887	1.02
September	1,460	157	374	1.51	1.68
The year	1,660	50	241	.976	13.21

PEAK CREEK AT PULASKI, VA.

LOCATION.—Chain gage on Washington Avenue Bridge in Pulaski, Pulaski County, three-eighths of a mile below Track Fork.

DRAINAGE AREA.—68 square miles.

RECORDS AVAILABLE.—February, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 2,790 second-feet Nov. 17 (gage height, 9.10 feet); minimum, 5 second-feet Oct. 1, 10, and 11 (gage height, 1.68 feet).

1927–28: Maximum discharge, that of Nov. 17, 1927; minimum, 5 second-feet Sept. 28–30, Oct. 1, 10, 11, 1927 (gage height, 1.68 feet).

REMARKS.—Records good. Gage not read Dec. 1 to Jan. 24 and Feb. 1 to Mar. 11.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Jan.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	7	-------	-------	44	109	20	17	12	990
2	5	7	-------	-------	41	76	19	15	9	694
3	13	11	-------	-------	34	61	20	27	8	265
4	11	12	-------	-------	29	50	26	15	12	131
5	9	11	-------	-------	28	40	18	14	8	139
6	7	10	-------	-------	26	51	404	13	11	316
7	9	8	-------	-------	29	404	139	8	11	139
8	8	54	-------	-------	27	265	80	11	11	88
9	8	102	-------	-------	[a]30	139	63	13	10	56
10	6	39	-------	-------	[a]30	[a]80	47	34	10	35
11	5	28	-------	-------	139	57	124	16	50	31
12	616	23	-------	60	303	54	139	19	54	27
13	109	18	-------	56	172	49	172	46	20	22
14	38	14	-------	54	[a]90	32	88	404	14	19
15	21	15	-------	52	[a]70	29	54	109	17	[a]18
16	16	16	-------	56	[a]60	26	37	55	734	[a]16
17	14	1,450	-------	60	49	27	35	33	219	15
18	10	219	-------	102	41	30	28	23	95	14
19	11	95	-------	102	40	30	20	21	57	66
20	13	54	-------	88	32	27	20	16	35	172
21	11	39	-------	116	33	28	31	14	31	109
22	10	30	-------	156	34	68	22	12	26	61
23	9	24	-------	164	36	44	19	11	17	44
24	8	20	-------	109	37	[a]55	[a]90	13	22	31
25	9	20	18	84	40	65	54	13	41	27
26	8	15	18	82	36	49	42	9	102	21
27	8	15	15	78	253	44	29	9	79	18
28	7	15	16	66	404	34	23	11	48	17
29	7	[a]15	23	57	209	28	25	8	37	19
30	7	[a]15	19	72	139	26	25	[a]10	27	156
31	6	-------	15	55	-------	19	-------	[a]10	23	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	616	5	33.0	0.485	0.56
November	1,450	7	80.00	1.18	1.32
April	404	26	84.5	1.24	1.38
May	404	19	67.6	.994	1.15
June	404	18	63.8	.938	1.05
July	404	8	33.2	.488	.56
August	734	8	59.7	.878	1.01
September	990	14	125	1.84	2.05

[a] Estimated.

WOLF CREEK NEAR BURKES GARDEN, VA.

LOCATION.—Staff gage 3 miles north of Burkes Garden, Tazewell County, and one-fourth mile below junction of Garden and Little Creeks.

DRAINAGE AREA.—36 square miles.

RECORDS AVAILABLE.—March, 1927, to March, 1928.

EXTREMES.—Maximum discharge during period, 332 second-feet Nov. 17 (gage height, 3.70 feet); minimum, 24 second-feet Mar. 10 (gage height, 0.98 foot).

1927–28: Maximum discharge, 377 second-feet Apr. 22, 1927 (gage height, 4.00 feet); minimum, 3 second-feet Sept. 6, 1927 (gage height, 0.43 foot).

REMARKS.—Records good for medium and high stages; fair for low. Regulation due to operation of power plant upstream. Discharge estimated Jan. 2–6 and Feb. 19, because of ice.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	28	25	27	75	42	37	16	30	28	317	30	49	57
2	27	26	28	65	49	36	17	29	332	243	32	46	53
3	26	28	29	55	41	36	18	28	187	143	32	49	66
4	25	29	132	45	42	30	19	31	99	104	161	46	75
5	26	28	132	40	57	30	20	25	75	89	215	43	75
6	29	27	126	40	137	29	21	25	53	75	126	40	75
7	28	26	126	36	115	26	22	25	49	62	94	37	104
8	27	25	120	36	115	24	23	25	38	53	80	45	243
9	31	62	115	35	110	42	24	25	36	46	75	41	215
10	30	53	104	32	94	40	25	25	32	41	94	38	161
11	29	36	80	32	80	42	26	28	29	36	75	38	120
12	40	31	84	35	66	41	27	26	27	34	62	41	94
13	37	28	94	31	57	41	28	27	26	30	53	40	84
14	35	27	89	31	57	45	29	26	25	38	53	40	80
15	32	27	132	30	62	45	30	27	26	62	53	-------	161
							31	26	-------	84	45	-------	137

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	40	25	28.3	0.786	0.91
November	332	25	51.3	1.42	1.58
December	317	27	92.7	2.58	2.97
January	215	30	61.2	1.70	1.96
February	137	37	59.2	1.64	1.77
March	243	24	75.6	2.10	2.42

GREENBRIER RIVER AT ALDERSON, W. VA.

LOCATION.—Chain gage at concrete arch highway bridge at Alderson, Monroe County, half a mile above mouth of Muddy Creek.

DRAINAGE AREA.—1,340 square miles.

RECORDS AVAILABLE.—July, 1895, to June, 1906; May, 1907, to September, 1928.

EXTREMES.—Maximum discharge during year, 18,000 second-feet May 1 (gage height, 9.0 feet); minimum, 106 second-feet Oct. 3 (gage height, 1.98 feet). 1895–1928: Maximum discharge (estimated), 60,000 second-feet May 13 and 14, 1918 (gage height, 22.0 feet); minimum, 46 second-feet Sept. 30 to Oct. 6, Oct. 17, 24, 27–31, and Nov. 7, 10, 11, 1904 (gage height, 1.40 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	303	746	6 860	1 360	1,500	3.160	16,400	1,060	5,120	287	1,360
2	112	295	760	3,970	1,200	1,360	2,580	11,000	980	2,920	264	1,360
3	106	318	980	4,250	1,060	1,200	2,280	6,570	816	2,690	242	1,200
4	157	592	2,920	4,540	1,060	1.060	2,000	4,250	802	2,090	366	1,280
5	148	2,480	3,420	3,690	1,130	980	1,820	2,800	830	1,580	474	1,060
6	184	1,660	3,970	1,910	1,280	905	1,660	2,180	1,660	1,280	395	980
7	179	592	3,290	1,580	1,660	830	1,580	2,090	3,160	980	366	905
8	212	1,280	5,700	1,500	1,910	774	1,500	1,820	2,180	830	425	905
9	184	2,580	5,120	1,430	4.250	760	1,660	1,580	1,740	746	400	788
10	170	2,690	3,290	1,280	3,970	1,060	1,580	1,430	1,580	2,690	376	676
11	184	2,690	2,800	1,200	3,040	1,360	1,580	1,280	1,820	2,090	1,910	499
12	218	2,380	2,480	1,060	2,480	1,360	3,420	1,130	1,820	2,000	1,360	405
13	1,820	2,000	2,380	905	2,000	1,280	3,690	980	1,660	2,920	905	366
14	2,920	1,580	6,280	905	1,910	1,280	3,160	905	1,580	9,370	690	326
15	1,360	1,360	5,120	980	7,440	1,580	2,800	830	1,500	6,000	499	303
16	980	1,130	5,120	1,130	6,570	1,660	2,280	760	1,280	2,380	1,500	287
17	760	1,740	6,860	1,130	3,970	2,280	1,910	732	1,130	1,580	8,760	287
18	550	8,330	5,120	1,130	3,040	3,970	1,740	980	1,130	1,280	5,410	271
19	437	6,720	3,290	4,540	2,580	3,040	1,580	905	980	1,060	3,690	376
20	486	3,420	2,280	4,100	2,090	2,480	1,430	905	5,700	816	2,480	3,970
21	1,500	2,380	2,090	11,900	1,820	2,580	1,280	905	9,800	648	1,660	3,690
22	2,000	1,820	1,740	7,730	1,500	3,420	1,200	788	4,540	564	980	2,180
23	1,500	1,500	1,500	3,970	1,660	11,600	1,200	830	3,160	499	830	1,580
24	1,130	1,360	1,200	2,280	2,090	10,100	1,500	1,060	3,290	425	788	1,130
25	980	1,200	1,060	3,420	2,380	7,440	1,660	1,130	3,690	366	690	802
26	746	1,060	802	4,250	2,090	5,700	2,580	1,360	3,420	318	634	690
27	606	980	732	3,040	1,660	4,250	2,580	1,910	2,480	295	1,280	511
28	511	905	537	2,280	1,740	3,290	5,410	1,740	1,820	326	3,040	449
29	437	816	830	1,740	1,660	2,580	5,000	1,580	1,500	310	2,090	415
30	366	774	1,660	1,500	-------	3,160	12,700	1,360	3,040	303	1,430	449
31	326	-------	2,690	1,360	-------	3,690	--------	1,200	-------	287	1,280	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,920	106	690	0.515	0.58
November	8,330	295	1,900	1.42	1.58
December	6,860	537	2,800	2.09	2.41
January	11,900	905	2,950	2.20	2.54
February	7,440	1,060	2,430	1.81	1.95
March	11,600	760	2,860	2.13	2.46
April	12,700	1,200	2,620	1.96	2.19
May	16,400	732	2,370	1.77	2.04
June	9,800	802	2,340	1.75	1.95
July	9,370	287	1,770	1.32	1.52
August	8,760	242	1,470	1.10	1.27
September	3,970	271	983	.734	.82
The year	16,400	106	2,100	1.57	21.31

GAULEY RIVER NEAR LEANDER, W. VA.

LOCATION.—Staff gage 100 feet below mouth of Ramsey Branch and 2⅓ miles by road from Leander, Fayette County. Zero of gage is 981.17 feet above mean sea level.

RECORDS AVAILABLE.—July, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 28,800 second-feet May 1 (gage height, 17.20 feet); minimum, 108 second-feet Oct. 2 (gage height, 2.62 feet).

1925–1928: Maximum discharge, about 41,400 second-feet Nov. 16, 1926 (gage height, 20.35 feet); minimum, 26 second-feet Sept. 15, 1925 (gage height, 1.69 feet).

Flood of Mar. 13, 1918, reached stage of about 34 feet, revised (discharge, about 112,000 second-feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	122	535	950	3,850	2,710	1,780	4,770	23,900	2,430	11,500	398	3,270
2	108	495	1,180	3,270	2,300	1,450	3,550	13,800	2,040	6,310	335	3,550
3	174	558	4,150	2,710	1,910	1,270	2,570	7,070	1,550	5,260	435	2,990
4	147	7,670	4,610	2,170	1,450	1,270	2,170	5,600	1,270	2,990	320	2,710
5	138	6,130	3,850	1,910	1,020	1,020	1,780	4.300	1,100	2,710	675	2,170
6	130	3,550	3,270	1,550	4,930	895	1,660	3,410	950	1,660	895	1,550
7	122	2,430	2,990	1,450	4,930	1,270	1,660	2,570	1,660	1,270	1,450	1,100
8	174	3,270	2,710	1,360	4,450	1,100	1,910	2,040	1,550	1,100	1,360	840
9	216	4,610	2,430	1,450	7,270	1,020	1,660	1,660	2,990	1,270	1,020	730
10	194	8,290	2,430	1,660	6,500	3,270	1,450	1,450	9,830	1,020	1,020	625
11	216	5,430	1,910	1,780	4,300	2,170	1.450	1,270	6,310	950	1,270	602
12	290	4,610	2,040	1,660	4,150	1,910	8,080	1,020	6,690	895	1,450	455
13	3,080	3,550	8,540	1,550	3,550	2,170	6.500	895	5,770	840	1,270	415
14	2,170	2,710	10,800	1,450	3,130	3,850	4.610	840	3,410	950	1,020	415
15	895	1,910	8,500	1,360	2,710	3,550	3.850	730	3,850	3,550	840	365
16	730	1,660	6,310	1,270	2,430	4,450	3,130	675	3,270	2,430	950	290
17	535	3,270	6,130	1,450	3,270	6,690	2,710	675	2,850	2,040	7,270	277
18	495	13,200	5,090	2,430	3,410	5,430	2,300	950	2,430	1,450	5,770	264
19	1,300	7,670	4,000	3,850	2,850	4,770	1,910	1,270	2,170	950	7,270	277
20	7,260	5,430	3,130	13,000	2,300	3,550	1,550	1,360	14,300	785	5,090	350
21	8,930	4,610	2,710	7,670	1,660	4,450	1,450	1,100	12,200	1,450	3,410	3,130
22	5,090	3,850	2,040	4,770	2,430	5,090	1,270	895	10,300	1,270	2.430	2,040
23	3,410	3,270	1,660	4,150	2,710	4,770	2,990	840	5,770	950	1,780	1,780
24	2,710	2,430	1,450	3,270	2,170	4,770	3,700	1,020	5,090	785	1,270	1,270
25	2,170	1,780	1,100	5,600	1,910	10,800	3,270	1,180	10,300	625	1,020	1,020
26	1,450	1,450	895	4,450	3,550	7,270	2,990	4,450	8,500	558	1,270	785
27	1,100	1,270	730	3,850	3,270	6,130	3,410	4,000	5,600	495	1,550	650
28	950	1,100	675	3,270	2,710	5,090	3,270	3,270	4,450	475	1,270	535
29	840	1,100	950	3,270	2,170	4,150	6,130	2,850	8,290	475	950	580
30	675	1,100	5,090	2,850	-------	4,930	18,600	2,990	20,300	415	785	495
31	580	-------	5,260	2,710	-------	4,610	-------	2,710	-------	455	1,660	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	8,930	108	1,500	1.22	1.41
November	13,200	495	3,630	2.95	3.29
December	10,800	675	3,470	2.82	3.25
January	13,000	1,270	3,130	2.54	2.93
February	7,270	1,020	3,180	2.59	2.79
March	10,800	895	3,710	3.02	3.48
April	18,600	1,270	3,540	2.88	3.21
May	23,900	675	3,250	2.64	3.04
June	20,300	950	5,570	4.53	5.05
July	11,500	415	1,870	1.52	1.75
August	7,270	320	1,850	1.50	1.73
September	3,550	264	1,180	.959	1.07
The year	23,900	108	2,980	2.42	33.00

RACCOON RIVER BASIN

RACCOON CREEK AT ADAMSVILLE, OHIO

LOCATION.—Staff gage on line between secs. 25 and 26, T. 6 N., R. 16 W., just above highway bridge at Adamsville.

DRAINAGE AREA.—537 square miles.

RECORDS AVAILABLE.—June, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 5,200 second-feet June 23 (gage height, 15.9 feet); minimum, 18 second-feet Nov. 11 (gage height, 1.64 feet).

1915–1928: Maximum discharge, 7,920 second-feet Apr. 21, 1920 (gage height, 21.10 feet); minimum, 4 second-feet Aug. 5–8, 1922 (gage height, 1.50 feet).

High-water marks indicate maximum stage of about 24.5 feet prior to installation of gage.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	25	1,870	554	483	530	3,750	750	107	4,250	183	608
2	24	27	1,660	830	414	602	2,230	626	107	2,480	202	324
3	26	28	1,270	725	347	578	1,200	530	107	980	127	164
4	30	29	725	650	283	530	830	483	115	677	136	118
5	34	32	483	554	369	530	700	437	174	518	242	102
6	34	30	369	437	775	483	602	391	483	452	242	94
7	28	28	304	347	1,270	414	578	347	554	387	262	89
8	26	29	262	304	1,830	347	650	304	830	303	232	95
9	41	34	242	347	2,390	304	626	262	725	282	192	107
10	30	26	192	602	2,480	304	530	242	483	324	136	109
11	25	19	262	860	2,030	414	483	232	530	262	106	113
12	38	21	1,070	750	1,200	460	460	242	437	262	174	116
13	62	24	2,480	602	890	460	437	222	304	282	202	118
14	50	25	3,340	530	1,040	1,070	775	202	232	775	92	113
15	41	27	3,420	483	1,660	1,480	1,240	174	183	1,200	72	82
16	38	29	4,250	437	1,990	1,580	1,270	165	140	631	102	64
17	37	725	4,550	347	1,690	1,270	920	148	131	303	99	45
18	40	626	4,800	325	1,010	1,100	750	148	131	252	92	36
19	33	483	4,450	675	890	1,070	650	165	369	222	89	32
20	26	347	2,310	1,340	830	1,240	578	183	1,440	154	77	27
21	28	212	800	1,300	626	1,550	1,100	156	3,560	113	62	24
22	29	148	650	830	554	1,910	2,800	140	4,350	631	57	20
23	27	148	530	578	1,480	1,910	3,700	123	5,100	1,690	51	21
24	28	202	437	626	2,310	1,480	3,800	115	4,700	1,070	45	22
25	31	530	414	1,800	2,480	1,070	3,650	107	4,250	725	54	20
26	30	460	414	2,070	1,830	860	2,930	99	2,750	562	73	21
27	28	325	391	1,580	1,270	800	1,580	99	2,230	324	69	22
28	26	283	304	950	830	725	1,410	99	1,620	232	67	20
29	25	1,410	242	830	675	700	1,200	99	3,900	212	65	22
30	23	1,830	325	725	-------	3,110	950	107	4,400	202	62	25
31	25	-------	460	578	-------	3,950	-------	107	-------	183	408	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	62	23	31.8	0.059	0.07
November	1,830	19	272	.507	.57
December	4,800	192	1,400	2.61	3.01
January	2,070	304	760	1.42	1.64
February	2,480	283	1,240	2.31	2.49
March	3,950	304	1,060	1.97	2.27
April	3,800	437	1,410	2.63	2.93
May	750	99	242	.451	.52
June	5,100	107	1,480	2.76	3.08
July	4,250	113	675	1.26	1.45
August	408	45	131	.244	.28
September	608	20	92.4	.172	.19
The year	5,100	19	729	1.36	18.50

BIG SANDY RIVER BASIN

RUSSELL FORK AT HAYSI, VA.

LOCATION.—Chain gage on highway bridge at Haysi, Dickenson County, 500 feet below mouth of McClure River.

DRAINAGE AREA.—286 square miles.

RECORDS AVAILABLE.—July, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 5,380 second-feet Apr. 29 (gage height, 7.69 feet); minimum, 1 second-foot Oct. 5 (gage height, 1.36 feet). 1926–1928: Maximum stage, 12.5 feet Dec. 21, 1926 (discharge not determined); minimum discharge, that of Oct. 5, 1927.

REMARKS.—Records good. Discharge estimated Jan. 3–8 because of ice.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	3	54	902	165	132	865	1,800	264	509	23	165
2	2	2	424	290	137	110	598	940	264	272	27	313
3	2	3	1,060		160	99	452	660	215	168	35	1,800
4	2	8	424		132	88	334	509	212	140	165	725
5	2	19	290		177	86	272	397	180	304	295	480
				150								
6	2	11	192		334	74	248	272	201	286	268	1,100
7	2	8	154		480	70	248	286	189	186	177	598
8	2	205	143		692	68	272	240	168	160	99	370
9	3	365	88	154	692	124	232	240	154	117	70	240
10	3	151	76	146	568	218	248	212	157	424	99	174
11	2	101	76	122	452	225	568	174	130	183	240	135
12	2	72	88	132	313	205	2,240	168	117	154	112	112
13	4	49	99	117	244	174	1,060	151	107	135	74	94
14	17	37	105	114	225	174	1,060	135	94	180	51	80
15	5	31	148	124	215	157	1,800	122	90	99	180	72
16	3	25	830	110	183	452	940	112	86	84	1,480	84
17	4	568	940	114	177	1,020	660	110	76	65	1,140	72
18	4	629	452	143	189	1,020	424	3,420	90	54	865	49
19	6	268	290	370	132	795	370	3,800	82	52	980	107
20	8	148	171	1,140	119	760	629	3,060	76	67	568	692
21	6	107	165	598	137	1,060	902	1,280	174	76	313	598
22	7	82	151	244	137	1,580	725	1,020	140	168	232	300
23	5	74	107	281	162	2,130	760	830	119	157	151	201
24	5	68	92	215	162	1,190	1,280	509	334	105	135	140
25	3	74	74	509	143	760	865	370	252	68	132	105
26	3	63	84	397	143	538	598	1,690	205	49	189	94
27	3	43	96	286	114	538	865	1,800	160	46	183	82
28	3	49	72	205	157	538	692	1,690	143	117	143	74
29	3	46	146	201	146	480	4,060	830	162	48	114	74
30	3	49	205	304	------	1,800	4,320	538	980	37	86	140
31	3	------	538	183	------	1,800	------	397	------	30	143	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	17	2	3.90	0.014	0.02
November	629	2	112	.392	.44
December	1,060	54	253	.885	1.02
January	1,140	110	268	.937	1.08
February	692	114	244	.853	.92
March	2,130	68	596	2.08	2.40
April	4,320	232	953	3.33	3.72
May	3,800	110	896	3.13	3.61
June	980	76	187	.654	.73
July	509	30	146	.510	.59
August	1,480	23	283	.990	1.14
September	1,800	49	309	1.08	1.20
The year	4,320	2	354	1.24	16.87

POUND RIVER NEAR HAYSI, VA.

LOCATION.—Chain gage at suspension footbridge 4 miles west of Haysi, Dickenson County.

DRAINAGE AREA.—217 square miles.

RECORDS AVAILABLE.—July, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,430 second-feet Apr. 30 (gage height, 8.10 feet); minimum, 2 second-feet Oct. 17 (gage height, 0.60 foot).

1926–1928: Maximum stage, 14.0 feet Dec. 21, 1926 (discharge not determined); minimum discharge, 1.2 second-feet Sept. 26, 1926 (gage height, 0.72 foot).

REMARKS.—Records good. Discharge estimated Jan. 3–7, because of ice. Discharge of Twin Branch, which is 50 feet below gage, included in records.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	5	54	970	130	92	760	1,420	254	760	25	413
2	5	6	410	410	124	73	540	810	240	314	19	466
3	5	10	1,300		235	52	396	540	200	200	15	1,210
4	5	10	352		140	51	298	413	175	138	22	712
5	5	10	370	130	175	47	240	330	163	187	24	396
6	5	10	220		615	41	213	283	163	396	163	362
7	5	205	161		690	35	268	240	175	240	140	330
8	5	690	158	142	615	37	254	226	130	163	83	226
9	5	220	102	153	640	68	226	187	136	163	48	175
10	5	164	61	122	565	300	226	163	200	362	38	130
11	3	87	79	76	430	235	466	138	140	226	213	95
12	8	55	59	89	300	190	1,280	123	108	152	53	56
13	8	43	70	94	220	140	760	125	110	113	56	70
14	9	34	282	100	190	132	1,640	95	106	346	44	59
15	7	29	352	100	205	113	1,420	80	95	226	90	52
16	8	28	1,090	85	155	352	760	78	85	152	712	52
17	2	450	1,030	89	132	1,090	666	77	71	102	918	62
18	6	855	590	102	153	810	413	810	59	80	1,090	42
19	12	352	352	745	144	622	379	2,300	51	64	1,030	41
20	12	175	250	1,670	147	666	712	2,040	76	54	622	298
21	11	64	190	640	140	918	666	974	117	111	362	314
22	10	85	92	282	127	1,030	580	918	86	93	200	200
23	8	51	76	265	140	1,030	760	760	413	98	136	127
24	8	34	76	390	142	712	712	466	413	82	108	93
25	7	71	54	745	134	540	502	330	314	46	123	77
26	6	67	44	565	124	448	540	1,280	240	38	125	60
27	8	59	38	352	115	413	1,030	1,490	213	35	110	51
28	7	52	40	250	111	379	1,800	1,420	187	50	130	48
29	6	44	150	335	98	346	3,430	712	213	55	64	41
30	5	49	352	158	------	1,420	3,330	540	1,210	36	46	58
31	6	------	640	155	------	1,280	------	346	------	29	152	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	12	2	6.68	0.031	0.04
November	855	5	134	.618	.69
December	1,300	38	293	1.35	1.56
January	1,670	76	314	1.45	1.67
February	690	98	246	1.13	1.22
March	1,420	35	441	2.03	2.34
April	3,430	213	842	3.88	4.33
May	2,300	77	636	2.93	3.38
June	1,210	51	205	.945	1.05
July	760	29	165	.760	.88
August	1,090	15	225	1.04	1.20
September	1,210	41	211	.972	1.08
The year	3,430	2	310	1.43	19.44

SCIOTO RIVER BASIN

SCIOTO RIVER AT LARUE, OHIO

LOCATION.—Chain gage on highway bridge just below Cleveland, Cincinnati, Chicago & St. Louis Railway bridge at Larue, Marion County. Zero of gage is 910.19 feet above mean sea level.

DRAINAGE AREA.—255 square miles.

RECORDS AVAILABLE.—August, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 8,460 second-feet Dec. 14 (gage height, 14.4 feet); minimum, 6 second-feet Sept. 10–30 (gage height, 2.10 feet).

1926–1928: Maximum discharge, 10,700 second-feet Mar. 20, 1927 (gage height, 15.0 feet); minimum, that of Sept. 10–30, 1928.

REMARKS.—Records good except those for periods of ice effect, Jan. 1–12, 28–31, Feb. 1–7, 20–29, which are fair. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	18	7,820			165	604	99	19	155	25	9
2	28	18	2,580			126	460	73	19	108	23	9
3	36	18	1,240	500		117	351	65	19	108	20	9
4	65	18	538		200	108	239	57	23	57	20	9
5	51	18	379			99	175	57	206	73	20	9
6	28	18	286			117	155	49	1,460	135	16	9
7	24	18	228			86	135	49	1,320	65	16	9
8	18	18	298		1,060	73	135	42	1,090	57	12	9
9	18	18	274	250	834	99	165	36	1,150	57	12	9
10	17	18	262		324	145	126	39	1,460	30	12	6
11	16	18	228		239	145	108	46	806	13	12	6
12	17	18	538		206	126	108	36	379	19	12	6
13	21	18	560	286	155	175	90	30	286	195	12	6
14	30	18	8,460	274	175	1,320	73	24	195	1,240	12	6
15	28	18	3,060	274	1,670	1,000	65	24	135	604	12	6
16	23	20	1,460	217	1,560	394	57	24	135	262	12	6
17	18	155	754	195	780	250	57	30	239	155	12	6
18	18	311	425	185	460	165	57	30	57	99	11	6
19	17	155	262	185	337	185	57	24	81	69	11	6
20	17	137	217	1,320		165	49	24	628	57	11	6
21	17	83	217	676	350	206	42	23	806	274	9	6
22	16	83	145	518		175	2,180	19	702	1,320	11	6
23	15	68	117	365		145	1,280	19	165	862	9	6
24	15	72	81	250		135	780	19	175	262	9	6
25	15	128	73	250		145	425	19	228	175	9	6
26	15	119	65	274	220	217	250	29	155	108	9	6
27	15	119	61	165		286	195	24	117	73	9	6
28	15	379	57			175	155	23	90	69	9	6
29	15	560	73	100		135	126	19	81	65	9	6
30	17	1,180	145		-------	2,280	117	19	155	37	9	6
31	17	-------	239		-------	1,610	-------	19	-------	31	9	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	65	15	21.9	0.086	0.10
November	1,180	18	128	.502	.56
December	8,460	57	1,000	3.92	4.52
January	1,320	----------	325	1.28	1.48
February	1,670	----------	416	1.63	1.76
March	2,280	73	341	1.34	1.54
April	2,180	42	294	1.15	1.28
May	99	19	35.2	.138	.16
June	1,460	19	413	1.62	1.81
July	1,320	13	220	.863	.99
August	25	9	12.7	.050	.06
September	9	6	6.90	.027	.03
The year	8,460	6	268	1.05	14.29

SCIOTO RIVER AT PROSPECT, OHIO

LOCATION.—Chain gage on highway bridge at Prospect, Marion County, five-eighths mile above Marion-Delaware County line. Zero of gage is 891.72 feet above mean sea level.

DRAINAGE AREA.—554 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 7,600 second-feet Dec. 2 (gage height, 12.9 feet); minimum, 13 second-feet Sept. 5 (gage height, 1.26 feet).

1925–1928: Maximum discharge, 10,100 second-feet Mar. 22, 1927 (gage height, 15.0 feet); minimum, 5.8 second-feet Sept. 5, 1925 (gage height, 1.12 feet).

Maximum stage known, 21.1 feet Mar. 25, 1913 (discharge (estimated by engineers of Franklin County Conservancy District), 27,000 second-feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	49	5,940	720	157	475	3,750	207	47	222	61	17
2	39	52	7,400	422	128	370	2,060	177	48	207	57	16
3	48	52	6,660	440	109	336	1,050	136	43	171	57	15
4	69	52	4,230	475	139	303	635	123	90	155	48	15
5	76	52	1,940	555	555	238	515	111	222	177	45	13
6	87	49	900	270	1,000	192	405	106	1,760	388	69	16
7	76	49	675	222	1,150	222	422	133	2,930	270	67	18
8	55	49	635	370	1,880	207	635	139	3,350	155	57	16
9	47	52	595	555	2,000	222	515	128	2,440	123	40	18
10	46	52	555	635	1,520	286	422	99	2,000	99	40	18
11	39	52	555	635	765	303	353	109	1,760	75	37	18
12	42	52	900	675	515	286	303	104	1,200	65	26	18
13	48	52	1,760	635	422	405	270	86	635	388	26	18
14	52	52	4,630	595	675	1,580	238	86	422	1,300	26	16
15	52	52	7,020	635	2,300	1,700	238	79	320	1,460	26	16
16	52	78	6,750	555	3,070	1,300	207	69	222	810	24	15
17	52	320	5,130	475	2,650	765	177	73	177	388	23	15
18	48	810	1,400	440	1,460	555	163	73	171	222	22	15
19	39	555	720	555	720	475	146	69	207	177	20	15
20	39	370	440	1,250	675	405	139	77	270	149	19	16
21	37	254	405	1,250	595	422	336	71	810	149	18	16
22	38	209	353	765	475	440	2,180	69	1,300	810	22	16
23	39	181	320	595	555	388	3,070	63	1,350	1,100	16	16
24	37	195	254	475	1,100	336	2,790	54	900	855	20	16
25	38	254	207	515	1,100	303	1.640	61	555	405	22	16
26	39	270	169	515	810	405	810	65	388	238	20	15
27	34	270	149	353	720	1,200	555	73	303	171	17	15
28	34	855	149	270	475	1,000	422	65	207	144	20	15
29	34	1,880	207	222	515	555	336	57	192	106	19	20
30	37	3,350	270	207	-------	2,790	303	54	238	86	16	20
31	37	-------	515	192	-------	3,990	-------	52	-------	75	18	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	87	34	46.6	0.084	0.10
November	3,350	49	354	.639	.71
December	7,400	149	1,990	3.59	4.14
January	1,250	192	531	.959	1.11
February	3,070	109	974	1.76	1.90
March	3,990	192	724	1.31	1.51
April	3,750	139	836	1.51	1.68
May	207	52	92.5	.167	.19
June	3,350	43	819	1.48	1.65
July	1,460	65	359	.648	.75
August	69	16	32.2	.058	.07
September	20	13	16.3	.029	.03
The year	7,400	13	563	1.02	13.84

SCIOTO RIVER NEAR DUBLIN, OHIO

LOCATION.—Water-stage recorder a quarter of a mile north of Delaware County line, three-fourths mile below O'Shaughnessy Dam, and 3 miles north of Dublin, Franklin County. Zero of gage is 775.00 feet above mean sea level.

DRAINAGE AREA.—988 square miles.

RECORDS AVAILABLE.—April, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 17,100 second-feet Dec. 1 (gage height, 11.7 feet); minimum, 5.2 second-feet Sept. 4 (gage height, 2.76 feet).

1921–1928: Maximum discharge, 28,200 second-feet Mar. 21, 1927 (gage height, 14.5 feet); minimum, 0.4 second-foot Nov. 8, 1924 (gage height, 2.21 feet).

The flood of March, 1913, reached a stage of 24.6 feet March 25.

REMARKS.—Records excellent. Discharge estimated Jan. 2–15. Water is stored at O'Shaughnessy Dam for water supply of city of Columbus. Monthly summaries of flow have been corrected for storage.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	81	16,700	1,220	259	562	4,770	326	84	349	128	106
2	77	31	12,000		213	492	3,090	280	88	259	103	103
3	77	31	8,270	750	206	430	1,640	240	66	213	95	68
4	112	31	5,600		216	400	950	220	165	220	88	8
5	137	31	2,760		680	349	637	216	490	240	90	10
6	137	30	1,280		1,170	302	492	199	3,200	302	125	14
7	134	30	805		1,640	302	598	192	3,800	400	122	28
8	128	30	718	650	4,370	280	1,120	155	3,990	280	111	39
9	128	48	562		3,620	280	850	155	3,800	210	95	81
10	128	92	430		2,450	302	598	152	2,920	165	98	61
11	128	92	492		1,280	374	460	159	2,300	131	192	59
12	131	92	1,120		760	374	400	149	1,640	117	125	59
13	46	92	3,120	1,000	598	492	349	140	950	128	122	59
14	23	92	10,300		1,920	1,890	374	128	562	580	122	59
15	102	92	10,600		5,600	2,450	400	128	400	1,400	122	59
16	102	94	9,110	760	4,770	2,020	326	122	302	1,060	122	61
17	102	97	5,600	676	3,800	1,220	280	125	259	525	122	59
18	104	97	2,760	562	2,300	760	240	125	400	326	122	61
19	102	335	950	1,120	1,220	637	240	140	828	220	125	70
20	102	485	492	2,760	760	598	216	149	3,800	202	125	77
21	104	358	460	1,340	598	562	1,030	128	2,450	240	128	66
22	104	293	400	850	598	598	5,390	131	4,770	1,650	131	66
23	107	272	374	637	760	525	5,180	131	3,260	1,520	131	66
24	107	252	302	637	1,640	492	3,990	64	1,760	1,220	122	66
25	107	293	240	950	1,640	460	2,450	114	1,170	676	111	66
26	107	358	202	637	1,000	562	1,340	103	718	349	108	64
27	110	358	178	460	598	1,760	805	103	460	259	108	64
28	110	678	192	326	598	1,520	562	111	349	240	106	62
29	110	2,600	220	259	562	1,060	430	100	326	202	103	62
30	110	5,450	302	259	-------	4,260	374	100	326	162	106	61
31	112	-------	900	259	-------	5,820	-------	88	-------	137	106	-------

Month	Observed			Corrected for storage		Corrected run-off in inches
	Maximum	Minimum	Mean	Mean	Per square mile	
October	137	23	105	65.2	0.066	0.08
November	5,450	30	430	511	.517	.58
December	16,700	178	3,140	3,110	3.15	3.63
January	2,760	259	805	805	.815	.94
February	5,600	206	1,580	1,580	1.60	1.73
March	5,820	280	1,040	1,060	1.07	1.23
April	5,390	216	1,320	1,300	1.32	1.47
May	326	64	151	147	.149	.17
June	4,770	66	1,520	1,520	1.54	1.72
July	1,650	117	451	450	.455	.52
August	192	88	117	64.3	.065	.07
September	106	8	59.5	24.8	.025	.03
The year	16,700	8	890	884	.895	12.17

SCIOTO RIVER AT COLUMBUS, OHIO

LOCATION.—Water-stage recorder at sewage treatment works of city of Columbus, Franklin County, four-tenths mile below highway bridge on Frank road. Zero of gage is 680.40 feet above mean sea level.

DRAINAGE AREA.—1,620 square miles.

RECORDS AVAILABLE.—April, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 22,600 second-feet Dec. 1 (gage height, 21.7 feet); minimum, 65 second-feet Oct. 2, 22 and Sept. 27–30 (gage height, 5.70 feet).

1921–1928: Maximum discharge, 28,600 second-feet Mar. 21, 1927 (gage height, 24.7 feet); minimum, 46 second-feet Nov. 2, 1924 (gage height, 5.51 feet).

Maximum known stage, 25.9 feet on Mar. 25, 1913.

REMARKS.—Records excellent. Water is diverted above station for municipal water supply of Columbus. Other diversions negligible. Flow regulated at Griggs and O'Shaughnessy Reservoirs for municipal water supply of Columbus. Table shows mean monthly discharge corrected for storage.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	115	22,000	3,430	525	1,270	6,870	830	260	700	402	138
2	65	87	21,600	1,430	525	1,190	4,530	700	241	640	402	122
3	115	87	12,800	970	425	1,110	2,880	610	241	525	320	118
4	87	87	8,090	970	425	970	1,970	552	403	500	260	118
5	115	87	4,400	970	830	900	1,430	525	723	888	300	115
6	148	87	2,570	900	2,670	830	1,190	500	3,970	610	260	181
7	148	87	1,790	900	2,880	700	1,350	475	6,720	790	280	141
8	115	87	1,520	830	8,730	700	2,070	425	5,720	830	360	115
9	115	87	1,350	1,610	8,090	640	1,880	380	5,580	670	360	115
10	87	87	1,110	2,170	4,920	760	1,430	380	4,660	830	300	112
11	87	87	1,190	2,070	2,770	1,040	1,110	402	3,550	618	280	109
12	87	87	2,170	1,970	1,880	970	970	380	2,670	795	320	95
13	148	87	4,660	2,070	1,430	970	865	340	1,790	850	260	101
14	184	87	17,600	1,970	1,880	3,320	900	340	1,270	781	241	109
15	115	87	18,400	2,070	10,200	4,530	970	300	970	2,880	260	104
16	87	222	15,200	1,880	8,890	4,400	865	300	730	2,880	222	93
17	87	380	9,370	1,610	6,140	3,210	730	280	610	1,430	218	95
18	87	1,700	4,660	1,350	4,150	2,270	640	280	859	900	207	101
19	87	1,430	1,970	1,430	2,370	1,610	580	280	2,260	670	203	90
20	87	760	1,190	5,580	1,610	1,350	501	320	8,450	622	203	95
21	87	1,040	1,190	2,990	1,610	1,190	1,790	320	4,840	1,210	188	98
22	65	640	1,110	1,520	1,270	1,190	8,570	280	6,010	4,030	188	87
23	87	525	970	1,350	1,430	1,190	9,210	260	4,920	2,670	188	85
24	87	580	830	1,270	3,430	1,040	6,420	260	2,880	1,880	224	76
25	87	525	640	2,470	3,550	1,040	4,150	280	2,070	1,350	203	76
26	87	1,040	525	1,970	2,170	1,190	2,570	260	1,520	900	170	76
27	87	830	475	1,350	1,520	2,370	1,790	241	1,110	640	177	65
28	87	1,270	475	970	1,430	2,770	1,430	280	900	610	177	65
29	87	6,000	640	700	1,350	2,170	1,110	260	865	500	177	65
30	87	5,860	1,040	580	-------	6,640	970	260	700	450	184	65
31	87	-------	1,790	525	-------	10,200	-------	280	-------	380	162	-------

Month	Observed			Corrected mean
	Maximum	Minimum	Mean	
October	184	65	99.1	66.1
November	6,000	87	804	895
December	22,000	475	5,270	5,230
January	5,580	525	1,670	1,670
February	10,200	425	3,070	3,070
March	10,200	640	2,060	2,090
April	9,210	501	2,390	2,360
May	830	241	374	366
June	8,450	241	2,580	2,590
July	4,030	380	1,100	1,100
August	402	162	248	193
September	181	65	101	59.5
The year	22,000	65	1,640	1,630

SCIOTO RIVER AT CHILLICOTHE, OHIO

LOCATION.—Chain gage on Bridge Street Bridge, at north end of Chillicothe, Ross County. Zero of gage is 594.02 feet above mean sea level.

DRAINAGE AREA.—3,850 square miles.

RECORDS AVAILABLE.—December, 1913, to September, 1914; April, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 44,300 second-feet Dec. 16 (gage height, 19.1 feet); minimum, 275 second-feet Sept. 28 and 29 (gage height, 1.9 feet).

1921–1928: Maximum discharge, 60,700 second-feet Mar. 31, 1924 (gage height, 22.9 feet); minimum, 190 second-feet Sept. 11, 1925 (gage height, 1.08 feet).

Maximum known stage, 39.8 feet Mar. 26, 1913 (discharge estimated at 260,000 second-feet by engineers of Franklin County Conservancy District).

REMARKS.—Records good. Water diverted for municipal water supply of Columbus. Flow regulated at Griggs and O'Shaughnessy Reservoirs; monthly mean discharge at this station only slightly affected. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	450	378	11,500	7,160	1,730	2,890	16,700	2,410	760	3,490	1,420	680
2	450	378	21,500	6,340	1,520	2,650	10,500	2,170	720	3,010	1,220	605
3	450	378	39,100	3,490	1,520	2,410	6,820	1,950	680	2,530	1,730	530
4	450	400	35,100	2,890	1,320	2,410	4,230	1,730	680	2,170	1,840	460
5	400	450	18,900	2,410	2,650	2,410	3,730	1,620	8,460	1,950	1,840	395
6	400	450	7,160	2,650	6,660	2,170	3,010	1,420	8,060	3,250	1,420	395
7	400	400	4,220	2,410	6,020	1,950	2,530	1,220	13,500	2,890	2,890	460
8	450	450	4,100	2,290	9,880	1,840	2,770	1,220	13,800	2,290	1,950	605
9	505	425	3,090	3,490	18,600	1,730	5,220	1,220	10,500	2,170	1,620	460
10	450	400	2,760	5,060	21,200	1,840	3,850	1,220	11,700	2,170	1,320	395
11	400	400	2,430	4,780	10,100	2,290	3,010	1,120	9,660	3,130	1,420	395
12	450	400	3,530	4,360	6,020	2,410	2,650	1,120	6,340	2,290	1,120	395
13	450	400	6,820	4,360	4,360	2,170	2,290	1,120	4,780	2,410	1,020	395
14	450	400	23,600	4,360	3,970	7,520	2,170	1,020	3,490	12,000	935	395
15	505	400	33,900	4,360	8,260	12,200	2,290	935	2,650	5,540	845	335
16	505	450	44,300	4,100	15,500	7,700	2,530	935	1,950	5,860	760	335
17	450	690	37,100	3,850	19,200	5,860	2,290	935	1,730	5,060	760	335
18	450	1,710	27,200	3,250	11,200	4,360	1,950	935	1,520	3,130	720	335
19	450	3,530	11,200	3,010	7,160	3,490	1,730	845	1,730	2,290	680	335
20	450	2,650	4,500	3,010	4,780	3,130	1,620	1,120	15,800	1,840	680	335
21	450	2,010	3,730	10,100	3,850	3,010	1,520	935	31,200	1,950	680	395
22	400	1,610	3,250	4,500	3,250	3,010	6,660	935	30,500	4,920	605	335
23	400	1,420	2,770	3,250	4,500	2,770	19,900	845	25,000	16,400	530	335
24	400	1,420	2,410	2,890	5,860	2,530	22,900	760	18,900	8,660	605	335
25	400	1,330	1,950	4,500	9,460	2,290	13,300	845	10,800	4,780	760	335
26	400	1,240	1,730	4,230	6,500	2,290	8,260	845	7,520	3,370	605	335
27	378	1,710	1,620	4,500	4,230	3,130	5,380	760	5,220	2,530	530	335
28	400	2,210	1,520	3,250	3,250	4,780	4,100	760	3,850	2,060	530	275
29	378	5,380	1,520	2,650	3,130	4,500	3,490	760	6,020	1,730	530	275
30	378	9,880	1,620	2,060	--------	3,730	2,890	760	4,920	1,840	530	287
31	378	-------	3,130	1,840	--------	14,700	--------	760	--------	1,620	720	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	505	378	430	0.112	0.13
November	9,880	378	1,440	.374	.42
December	44,300	1,520	11,800	3.07	3.54
January	10,100	1,840	3,920	1.02	1.18
February	21,200	1,320	7,090	1.84	1.98
March	14,700	1,730	3,880	1.01	1.16
April	22,900	1,520	5,680	1.48	1.65
May	2,410	760	1,140	.296	.34
June	31,200	680	8,750	2.27	2.53
July	16,400	1,620	3,850	1.00	1.15
August	2,890	530	1,060	.275	.32
September	680	275	394	.102	.11
The year	44,300	275	4,110	1.07	14.51

LITTLE SCIOTO RIVER NEAR MARION, OHIO

LOCATION.—Staff gage in SW. ¼ sec. 19, T. 5 S., R. 15 E., at outfall of sewage treatment works 300 feet below Erie Railroad crossing and 2 miles west of Marion.

DRAINAGE AREA.—73.3 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1928. September, 1923, to July, 1925, at site 3 miles downstream.

EXTREMES.—Maximum discharge during year, 1,270 second-feet Dec. 1 (gage height, 14.2 feet); minimum, 0.5 second-foot Sept. 26 and 30 (gage height, 1.38 feet).

1923–1928: Maximum discharge, 1,420 second-feet Mar. 22, 1927 (gage height, 15.2 feet); minimum, that of Sept. 26 and 30, 1928.

REMARKS.—Records fair. Discharge estimated Apr. 24 and 25 because of backwater from Scioto River. Water diverted above station; amount not known.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	3.2	1,250	133	28	79	456	46	13	16	12	5.1
2	3.6	2.1	1,190	149	23	67	226	40	16	15	11	3.7
3	4.7	2.2	1,030	85	23	62	133	38	13	15	10	3.7
4	3.7	2.0	718	57	26	54	91	36	34	14	8.6	3.4
5	3.5	2.0	285	48	275	42	73	36	62	67	26	2.6
6	3.2	1.8	149	44	157	38	62	32	522	305	23	5.1
7	4.5	1.7	125	42	141	40	85	28	434	73	32	2.9
8	3.1	1.8	149	85	511	40	149	28	401	44	20	3.1
9	2.5	2.0	79	141	346	50	97	28	315	34	14	2.3
10	3.0	2.0	67	111	173	60	73	26	325	30	12	2.1
11	2.7	2.1	85	111	104	44	62	28	173	24	12	2.2
12	10	2.5	181	104	79	48	60	26	97	19	8.6	2.3
13	4.0	1.8	489	97	73	79	50	22	62	157	8.6	2.6
14	4.7	1.7	1,230	97	141	456	54	21	50	610	7.4	2.3
15	4.2	2.0	1,180	111	622	235	48	20	40	379	7.0	2.4
16	3.6	11	1,030	85	412	149	42	21	34	133	7.0	2.0
17	3.5	215	706	79	315	91	40	21	30	73	6.8	1.7
18	3.0	235	245	67	190	79	38	21	36	50	6.6	1.5
19	3.0	100	91	104	104	67	38	20	40	42	5.7	1.2
20	3.3	58	79	325	85	60	34	19	52	34	5.0	1.2
21	2.7	46	67	111	79	62	67	18	42	57	5.3	1.2
22	3.0	41	48	97	67	62	670	17	36	52	5.0	2.0
23	2.7	33	46	62	125	52	456	15	34	40	4.8	1.5
24	3.2	46	36	54	325	48	251	15	28	30	4.6	1.4
25	3.2	85	34	104	165	46	251	18	24	23	4.2	1.6
26	3.2	48	30	62	85	91	118	18	23	23	4.2	.6
27	3.2	46	30	50	62	199	91	15	21	18	3.1	.7
28	3.2	265	30	46	73	97	73	15	18	18	3.7	.7
29	2.7	566	44	28	85	73	60	14	30	16	4.2	.8
30	2.7	706	62	32	-------	706	54	14	20	13	3.4	.6
31	2.5	-------	190	28	-------	544	-------	13	-------	12	7.4	-------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	10	2.5	3.52	May	46	13	23.5
November	706	1.7	84.4	June	522	13	101
December	1,250	30	354	July	610	12	78.6
January	325	28	88.7	August	32	3.1	9.46
February	622	23	169	September	5.1	.6	2.15
March	706	38	123				
April	670	34	133	The year	1,250	.6	97.3

OLENTANGY RIVER NEAR DELAWARE, OHIO

LOCATION.—Water-stage recorder in NW. ¼ sec. 1, T. 5 N., R. 19 W., at highway bridge a quarter of a mile north of Pennsylvania Railroad crossing and 4 miles north of Delaware. Zero of gage is 876.92 feet above mean sea level.

DRAINAGE AREA.—387 square miles.

RECORDS AVAILABLE.—December, 1923, to September, 1928. October, 1921, to December, 1923, at Delaware.

EXTREMES.—Maximum discharge during year, 12,000 second-feet Dec. 1 (gage height, 15.5 feet); minimum, 1.2 second-feet Sept. 28 and 29.

1921–1928: Maximum discharge, 15,000 second-feet May 20, 1922; minimum, 0.2 second-foot Sept. 12, 1925 (gage height, 0.45 foot).

REMARKS.—Records excellent except those for extremely low water, and for periods of ice effect (Dec. 19–27, Jan. 2–5, 26–31, Feb. 1–3, 19–22, 26–29, and Mar. 1–7) and of missing record (Aug. 21 to Sept. 5), which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	22	10,400	1,780			1,140	129	30	92	42	
2	50	24	5,480	1,400	130		715	107	30	64	38	
3	92	23	1,920	1,100			510	94	27	50	34	10
4	131	27	895	1,000	164	170	360	81	38	44	32	
5	80	29	590	900	1,200		270	80	158	52	34	
6	48	35	440	760	1,610		214	80	1,610	297	93	7.1
7	38	35	375	670	1,640		261	73	1,720	308	202	6.6
8	31	32	440	1,140	2,760	142	510	66	985	152	172	6.3
9	29	30	475	1,840	1,960	187	375	58	850	94	74	6.3
10	27	30	475	1,560	970	360	270	55	895	287	47	6.1
11	24	30	670	1,280	510	255	214	53	550	656	36	5.8
12	25	30	1,240	1,240	375	227	188	53	315	322	41	5.8
13	32	30	3,490	1,040	345	419	152	51	214	219	46	4.9
14	48	29	8,500	760	1,230	1,450	164	45	152	1,310	31	4.5
15	51	30	5,030	590	3,190	1,020	214	42	125	1,780	24	4.0
16	48	36	2,520	475	2,020	550	175	41	94	880	20	3.8
17	43	1,050	1,240	375	1,140	375	142	42	78	360	18	3.5
18	37	1,450	820	330	698	315	123	42	75	241	14	3.8
19	32	700		1,140		285	112	42	111	152	13	3.7
20	28	375		1,740		255	94	43	264	122	12	3.5
21	27	270		1,140	580	330	551	43	320	345		2.8
22	26	285		895		345	2,570	41	626	612		2.3
23	24	227	200	850	810	300	1,900	35	285	330		2.1
24	24	280		846	1,900	241	1,140	32	188	188		1.9
25	23	670		1,780	1,140	214	670	33	152	116		1.8
26	22	442				380	440	35	112	74	10	1.6
27	22	345			300	985	300	38	88	69		1.3
28	22	2,040	120	430		555	241	35	74	112		1.2
29	23	2,760	188			345	188	34	66	122		1.2
30	24	5,040	375		-------	3,600	152	33	80	78		1.6
31	22	-------	1,080		-------	2,440	-------	31	-------	51		------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	131	22	38.8	0.100	0.12
November	5,040	22	547	1.41	1.57
December	10,400	120	1,570	4.06	4.68
January	1,840	----------	942	2.43	2.80
February	3,190	----------	951	2.46	2.65
March	3,600	----------	541	1.40	1.61
April	2,570	94	478	1.24	1.38
May	129	31	53.8	.139	.16
June	1,720	27	344	.889	.99
July	1,780	44	309	.798	.92
August	202	----------	36.5	.094	.11
September	----------	1.2	4.78	.012	.01
The year	10,400	1.2	483	1.25	17.00

BIG WALNUT CREEK AT REES, OHIO

LOCATION.—Water-stage recorder in T. 4 N., R. 22 W., 3½ miles below Alum Creek and just below Scioto Valley Railway & Power Co.'s bridge at Rees. Zero of gage is 698.20 feet above mean sea level.

DRAINAGE AREA.—544 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1928. August, 1921, to October, 1927, at site three-tenths mile upstream.

EXTREMES.—Maximum discharge during year, 13,600 second-feet Dec. 14 (gage height, 14.9 feet); minimum, 17 second-feet Sept. 25 (gage height, 1.17 feet).

1921–1928: Maximum discharge, 18,000 second-feet Mar. 29, 1924; minimum, 5 second-feet Sept. 4, 5, and 10–12, 1925.

Maximum stage known, 20.5 feet Mar. 25, 1913.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	24	10,700	3,500	173	325	895	227	106	290	213	39
2	24	28	5,250	475	150	290	592	196	101	227	247	34
3	22	27	1,100	400	144	290	480	184	91	190	445	32
4	22	26	592	325	152	274	380	170	170	199	266	29
5	22	28	400	290	1,040	274	308	161	503	985	227	28
6	26	28	308	290	1,010	228	258	155	2,100	482	335	53
7	25	28	274	274	924	258	383	150	2,070	292	452	50
8	28	30	308	418	4,060	227	1,190	144	1,100	196	258	35
9	23	32	274	1,460	3,860	242	702	138	1,440	183	190	32
10	24	31	227	1,100	1,360	502	440	133	1,700	1,140	155	29
11	22	32	298	835	692	400	342	141	714	765	133	28
12	22	32	1,420	895	525	342	290	135	420	476	114	26
13	45	30	3,170	895	480	602	258	127	308	1,490	104	26
14	38	29	11,600	835	1,540	4,120	274	119	242	2,380	96	26
15	34	30	4,260	775	4,660	1,360	431	114	227	938	88	24
16	37	98	4,560	640	2,020	692	360	114	242	502	81	24
17	35	224	2,440	480	1,240	502	274	111	152	334	74	22
18	33	1,540	662	420	895	420	242	114	161	242	70	22
19	33	570	360	614	458	360	212	111	1,830	196	63	21
20	33	325	290	2,230	502	360	196	111	4,700	179	56	21
21	31	242	290	542	365	360	845	122	2,630	593	52	22
22	32	212	242	274	342	342	5,280	127	3,370	6,610	47	21
23	32	212	212	308	841	308	2,400	111	2,380	2,210	44	21
24	30	193	179	274	3,320	274	1,240	101	1,170	875	66	20
25	29	193	167	1,760	1,240	402	902	116	875	494	80	18
26	27	258	141	1,200	548	640	525	106	502	342	56	19
27	26	227	133	372	328	775	400	101	360	258	44	19
28	26	2,520	133	274	350	592	342	108	290	274	43	18
29	24	3,480	190	212	342	647	290	106	342	290	39	18
30	22	1,940	401	212	-------	4,890	242	108	325	242	40	19
31	22	-------	1,670	193	-------	2,300	-------	108	-------	190	48	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	45	20	28.0	0.051	0.06
November	3,480	24	422	.776	.87
December	11,600	133	1,690	3.11	3.58
January	3,500	193	735	1.35	1.56
February	4,660	144	1,160	2.13	2.30
March	4,890	227	761	1.40	1.61
April	5,280	196	699	1.28	1.43
May	227	101	131	.241	.28
June	4,700	91	1,020	1.88	2.10
July	6,610	179	776	1.43	1.65
August	452	39	136	.250	.29
September	53	18	26.5	.049	.05
The year	11,600	18	630	1.16	15.78

ALUM CREEK AT COLUMBUS, OHIO

LOCATION.—Water-stage recorder a quarter of a mile below Livingston Avenue Bridge at Columbus, Franklin County. Zero of gage is 733.62 feet above mean sea level.

DRAINAGE AREA.—190 square miles.

RECORDS AVAILABLE.—July, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 6,810 second-feet Dec. 1 (gage height, 12.6 feet); minimum, 5 second-feet Sept. 27 and 29 (gage height, 0.90 foot).

1923–1928: Maximum discharge, that of Dec. 1, 1927; minimum, 1.8 second-feet Sept. 7, 1925 (gage height, 0.79 foot).

REMARKS.—Records excellent.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	12	4,480	870	45	120	281	70	27	84	40	12
2	10	12	569	153	67	109	188	64	25	64	68	11
3	10	12	281	116	36	102	164	56	23	51	39	10
4	11	14	164	122	39	91	120	50	74	48	29	9.5
5	11	12	131	97	280	97	98	45	283	130	30	9
6	10	11	106	77	311	72	86	42	1,050	72	30	22
7	17	12	89	69	319	79	189	42	658	45	48	12
8	9.5	12	104	147	1,220	62	480	41	386	33	48	12
9	9	12	106	386	1,030	79	227	38	550	62	40	10
10	9	12	69	296	416	153	142	34	386	395	28	10
11	11	12	102	266	227	124	111	41	188	185	23	10
12	21	12	360	296	176	109	97	34	115	91	20	9.5
13	10	12	1,360	266	164	296	82	32	86	279	20	10
14	11	12	3,480	281	547	930	93	29	69	214	18	9
15	11	16	1,130	248	1,550	380	201	29	52	188	17	10
16	14	52	1,380	214	690	227	115	27	41	104	15	9
17	14	239	623	176	448	176	84	27	43	70	14	8.6
18	13	398	188	153	311	164	70	28	254	54	14	7.8
19	12	133	116	255	176	135	62	28	768	42	13	7.4
20	12	76	97	810	176	120	55	30	1,340	74	13	8.6
21	10	62	81	183	153	116	540	39	553	527	13	8.2
22	9.5	51	64	107	138	115	1,640	29	1,165	1,650	13	8.2
23	9.5	54	52	102	377	97	690	26	675	371	14	7.8
24	9.5	44	44	98	1,040	84	416	23	416	164	21	7.8
25	9	69	38	580	416	283	296	35	240	95	11	7.4
26	9	64	32	296	188	266	176	26	176	66	12	6.2
27	10	186	29	138	136	416	138	29	127	57	10	5.8
28	9.5	1,060	28	116	135	202	115	30	113	70	11	5.4
29	10	818	50	115	135	374	95	29	118	51	12	5.8
30	10	2,070	107	69	-------	1,700	81	31	104	47	18	5.8
31	10	-------	689	67	-------	553	-------	27	-------	40	12	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	21	9	11	0.058	0.07
November	2,070	11	185	.974	1.09
December	4,480	28	521	2.74	3.16
January	870	67	231	1.22	1.41
February	1,550	36	377	1.98	2.14
March	1,700	62	253	1.33	1.53
April	1,640	55	238	1.25	1.40
May	70	23	35.8	.188	.22
June	1,340	23	337	1.77	1.98
July	1,650	33	175	.921	1.06
August	68	10	23.0	.121	.14
September	22	5.4	9.19	.048	.05
The year	4,480	5.4	199	1.05	14.25

DARBY CREEK AT DARBYVILLE, OHIO

LOCATION.—Staff gage at highway bridge three-eighths mile northeast of Darbyville, Pickaway County. Zero of gage is 713.64 feet above mean sea level.
DRAINAGE AREA.—533 square miles.
RECORDS AVAILABLE.—October, 1921, to September, 1928.
EXTREMES.—Maximum discharge during year, 8,290 second-feet June 21 (gage height, 10.1 feet); minimum, 19 second-feet Sept. 28 (gage height, 2.08 feet). 1921–1928: Maximum discharge, 14,300 second-feet Mar. 30, 1924 (gage height, 13.2 feet); minimum, 7.5 second-feet Sept. 10–12, 1925 (gage height, 1.54 feet).
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	30	4,570	1,430	152	348	802	325	121	645	171	49
2	37	33	6,120	420	237	325	615	302	110	498	152	37
3	43	37	2,070	420	207	280	420	280	104	370	133	37
4	33	37	970	770	214	302	420	263	835	325	145	33
5	30	41	770	738	802	237	370	263	370	420	127	33
6	33	39	470	420	835	233	325	263	1,870	585	145	41
7	26	39	470	325	645	254	325	246	1,510	470	470	37
8	37	41	445	395	2,490	229	675	237	970	325	263	30
9	45	45	370	525	2,710	237	525	237	1,040	325	214	37
10	43	49	395	470	1,190	280	370	246	1,270	470	148	30
11	45	53	370	445	835	302	348	258	675	325	161	29
12	41	45	770	470	615	280	325	246	470	325	237	28
13	49	45	1,110	470	470	420	280	229	420	555	148	28
14	51	41	6,420	470	835	970	325	222	348	370	104	28
15	53	37	7,170	498	3,520	705	420	222	271	395	110	25
16	49	58	2,930	445	2,170	470	325	229	237	325	93	25
17	53	133	1,690	395	1,190	445	302	226	207	271	88	21
18	45	348	835	370	970	370	271	229	229	222	82	20
19	41	370	738	498	645	370	263	222	1,970	199	77	21
20	33	222	525	1,600	615	325	237	207	5,690	196	67	23
21	30	164	445	900	525	325	835	199	8,290	192	65	20
22	33	145	370	420	370	325	4,570	185	6,720	2,070	60	23
23	32	133	325	445	470	280	3,400	171	3,640	1,190	53	23
24	29	116	246	420	802	271	1,690	152	1,510	498	45	20
25	30	133	237	835	770	254	1,110	222	1,600	420	58	21
26	30	142	229	835	470	325	802	226	1,110	325	49	20
27	30	142	214	498	370	420	645	152	770	280	47	19
28	29	199	207	420	420	470	420	145	802	207	45	19
29	30	470	271	348	370	420	370	139	705	302	45	20
30	29	770	348	585	-------	1,600	325	139	645	246	41	20
31	28	-------	470	370	-------	1,600	-------	127	-------	214	53	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	53	26	37.4	0.070	0.08
November	770	30	139	.261	.29
December	7,170	207	1,370	2.57	2.96
January	1,600	325	569	1.07	1.23
February	3,520	152	894	1.68	1.81
March	1,600	229	441	.827	.95
April	4,570	237	737	1.38	1.54
May	325	127	220	.413	.48
June	8,290	104	1,480	2.78	3.10
July	2,070	192	437	.820	.95
August	470	41	119	.223	.26
September	49	19	27.2	.051	.06
The year	8,290	19	537	1.01	13.71

PAINT CREEK NEAR GREENFIELD, OHIO

LOCATION.—Chain gage at highway bridge in Fayette County a quarter of a mile north of county line and 2 miles north of Greenfield, Highland County.

DRAINAGE AREA.—251 square miles.

RECORDS AVAILABLE.—August, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, about 3,680 second-feet Dec. 15 (gage height 7.6 feet); minimum, 1.9 second-feet Sept. 28.

1926–1928: Maximum discharge, about 6,340 second-feet Aug. 17, 1926 (gage height, 10.5 feet); minimum, 1.7 second-feet Sept. 26, 1927 (gage height, 0.41 foot).

REMARKS.—Records good except those for very high water, which are poor. Discharge estimated because of ice Jan. 1–7.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	26	1,200		145	180	247	193	63	477	67	116
2	3.3	29	1,140		139	145	193	156	60	362	76	88
3	2.8	36	720	300	118	156	168	145	54	247	68	58
4	2.8	38	437		122	156	145	133	2,200	218	48	35
5	2.4	36	309		720	145	129	129	770	193	60	29
6	2.0	34	262	300	770	131	123	118	1,200	156	59	34
7	4.8	29	247	300	870	127	156	115	870	156	168	22
8	6.1	32	193	418	1,570	125	193	108	870	137	122	17
9	5.5	32	82	582	1,320	139	193	108	920	118	77	17
10	6.1	34	218	498	770	135	156	105	774	117	60	11
11	5.5	34	309	276	582	133	145	105	628	116	44	11
12	7.3	28	498	262	380	137	137	105	498	101	33	8.2
13	7.8	26	920	276	342	180	192	98	292	1,570	29	7.3
14	7.3	26	3,600	262	582	820	247	89	218	498	10	6.1
15	6.9	24	3,680	247	720	674	156	88	193	309	12	5.5
16	6.9	26	2,570	193	720	456	137	94	141	232	12	5.8
17	7.3	70	770	218	540	361	131	98	135	156	14	4.8
18	6.9	61	437	218	456	262	120	98	129	115	18	3.3
19	6.4	86	309	193	366	232	120	100	1,440	100	14	2.9
20	5.5	61	276	540	276	218	108	125	3,510	98	16	4.8
21	4.8	59	309	498	262	193	820	105	1,320	309	17	5.5
22	6.4	56	218	247	247	168	1,570	94	1,380	770	11	5.5
23	5.8	56	168	276	276	156	1,320	88	770	540	35	4.8
24	5.8	98	180	218	456	143	870	77	582	276	14	3.9
25	6.9	67	146	540	361	139	628	82	582	193	12	3.9
26	5.8	67	111	342	232	156	456	88	498	145	11	3.9
27	5.5	67	156	276	193	168	361	87	326	122	8.2	2.2
28	9.6	437	111	193	232	168	309	86	623	103	5.2	1.9
29	16	456	168	206	206	145	247	74	920	77	2.9	4.5
30	21	828	309	206	------	145	206	74	674	71	2.6	6.1
31	24	------	380	176	------	342	------	66	------	58	27	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	24	2	7.09	0.028	0.03
November	------	24	98.6	.393	.44
December	3,680	82	659	2.63	3.03
January	------	------	305	1.22	1.41
February	1,570	118	482	1.92	2.07
March	820	125	220	.876	1.01
April	1,570	108	333	1.33	1.48
May	193	66	104	.414	.48
June	3,510	54	755	3.01	3.36
July	1,570	58	263	1.05	1.21
August	168	2.6	37.2	.148	.17
September	116	1.9	17.6	.070	.08
The year	3,680	1.9	273	1.08	14.77

PAINT CREEK NEAR BOURNEVILLE, OHIO

LOCATION.—Water-stage recorder at highway bridge 1¼ miles southwest of Bourneville, Ross County, and 1¼ miles above Twin Creek.

DRAINAGE AREA.—808 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 15,700 second-feet Dec. 14 (gage height, 13.6 feet); minimum, 33 second-feet Oct. 6 (gage height, 2.13 feet).

1923–1928: Maximum discharge, 27,700 second-feet Aug. 20, 1926 (gage height, 17.9 feet); minimum, 14 second-feet Sept. 12 and 13, 1925 (gage height, 1.69 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	34	5,220	1,610	480	655	655	655	224	1,610	265	151
2	42	39	3,290	760	445	560	560	560	224	1,100	265	185
3	39	39	1,890	655	445	560	480	520	198	820	293	156
4	37	42	1,200	760	445	560	445	480	449	655	293	132
5	36	47	940	705	3,700	560	413	445	3,070	605	251	109
6	34	48	760	655	2,510	520	413	445	3,940	560	211	103
7	38	44	655	605	2,540	480	480	413	2,400	480	211	113
8	44	46	655	760	4,950	480	705	383	1,610	445	237	101
9	54	49	480	1,260	3,680	480	705	383	1,800	445	251	91
10	48	50	413	1,100	2,400	520	560	368	2,000	560	198	82
11	42	49	650	955	1,610	480	520	353	1,430	480	173	77
12	48	46	2,440	885	1,260	480	480	368	1,020	445	154	70
13	53	44	4,520	885	1,020	480	445	338	885	1,710	135	63
14	59	41	12,900	885	1,520	3,660	1,470	308	760	2,500	130	60
15	50	40	10,500	885	2,100	2,300	1,110	293	605	1,020	120	56
16	48	53	7,300	760	1,800	1,520	705	293	480	655	115	54
17	44	656	3,310	705	1,520	1,180	560	293	445	520	111	50
18	47	640	2,000	655	1,340	955	560	293	413	445	107	48
19	42	480	1,180	1,380	955	885	520	293	445	413	95	43
20	41	368	885	2,050	885	885	480	323	2,240	368	88	41
21	39	323	820	1,020	705	955	3,130	323	4,120	376	80	40
22	37	279	760	705	705	760	4,600	293	2,300	881	79	43
23	36	251	655	820	1,260	655	4,020	279	1,710	1,810	76	42
24	35	670	520	1,070	2,100	605	2,840	265	2,000	1,020	74	39
25	35	560	480	3,530	1,260	560	2,100	251	2,300	655	90	38
26	39	413	413	1,340	885	670	1,610	265	1,430	480	95	37
27	36	372	413	1,020	705	760	1,260	265	1,020	413	73	40
28	37	4,520	445	760	760	605	1,020	265	760	383	66	43
29	35	1,890	636	605	655	560	885	251	3,430	338	63	47
30	36	1,780	1,020	605	-------	560	760	237	2,730	308	64	49
31	35	-------	1,650	560	-------	560	-------	237	-------	279	191	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	59	34	41.6	0.051	0.06
November	4,520	34	464	.574	.64
December	12,900	413	2,230	2.76	3.18
January	3,530	560	998	1.24	1.43
February	4,950	445	1,540	1.91	2.06
March	3,660	480	821	1.02	1.18
April	4,600	413	1,150	1.42	1.58
May	655	237	346	.428	.49
June	4,120	198	1,550	1.92	2.14
July	2,500	279	735	.910	1.05
August	293	63	150	.186	.21
September	185	37	73.4	.091	.10
The year	12,900	34	838	1.04	14.12

LITTLE SALT CREEK NEAR JACKSON, OHIO

LOCATION.—Chain gage in SE. ¼ sec. 12, T. 7 N., R. 19 W., at highway bridge 3½ miles northwest of Jackson and half a mile below mouth of Rock Run.
DRAINAGE AREA.—76.5 square miles.
RECORDS AVAILABLE.—July, 1925, to September, 1928.
EXTREMES.—Maximum discharge during year, 1,170 second-feet Mar. 30 (gage height, 12.2 feet); minimum, 0.7 second-foot Oct. 22–24.
1925–1928: Maximum discharge, 1,470 second-feet Aug. 18, 1926 (gage height, 13.2 feet); minimum, 0.4 second-foot Sept. 9, 1925.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	0.9	146	44	27	74	234	58	8.1	605	5.1	5.3
2	1.4	1.1	78	30	23	60	139	46	7.1	153	10.3	3.2
3	1.4	1.4	50	17.5	22	74	98	40	6.1	74	9.9	2.5
4	1.4	1.6	30	12.7	25	56	74	35	14.3	58	6.8	2.1
5	1.4	3.0	24	11.1	98	58	58	33	30	48	5.1	2.3
6	1.4	2.1	19.0	12.3	139	46	53	28	19.2	30	5.1	2.1
7	1.9	2.0	19.0	15.9	185	40	146	26	15.1	24	21	2.0
8	2.1	1.9	27	27	492	35	139	24	16.3	19.6	35	1.8
9	1.9	3.0	18.0	51	365	46	86	21	18.4	17.9	5.6	1.8
10	1.7	2.6	8.4	46	185	42	63	18.8	26	20	4.5	1.8
11	1.7	2.1	12.0	44	132	35	58	21	17.5	13.5	4.0	1.8
12	4.4	1.9	451	40	86	35	80	20	13.1	12.3	3.3	2.0
13	6.2	1.9	374	51	74	35	53	17.5	9.9	111	2.8	1.8
14	3.9	1.6	520	48	177	325	153	15.1	11.1	104	3.0	1.8
15	3.0	1.9	342	44	375	139	185	13.9	8.8	37	2.8	1.8
16	2.6	8.8	997	33	177	118	98	14.3	7.5	22	3.2	1.8
17	2.1	118	899	30	139	146	139	14.3	6.4	15.5	4.0	1.8
18	2.6	88	297	28	132	177	80	14.3	15.1	11.1	4.0	1.8
19	2.6	40	139	225	111	153	80	13.5	9.5	10.3	3.8	2.1
20	1.7	22	71	375	71	225	56	35	470	9.5	3.0	3.3
21	1.1	14.0	60	111	53	375	279	22	405	51	2.8	3.2
22	.7	16.0	46	80	48	252	481	14.3	153	201	2.6	2.8
23	.7	16.0	40	56	306	153	593	11.9	68	80	2.5	2.5
24	.7	64	35	92	536	111	426	9.9	146	42	5.3	2.8
25	.8	42	28	481	234	86	234	14.3	448	17.5	5.1	2.8
26	.8	20	20	177	118	71	139	15.1	217	14.3	4.5	2.8
27	.9	16.0	17.9	111	92	68	104	13.1	92	11.9	4.0	2.8
28	.9	125	17.5	53	74	51	139	11.1	53	11.9	3.5	2.8
29	.9	88	35	42	74	46	98	9.5	617	7.5	3.0	3.3
30	1.0	78	46.0	33	-------	997	68	8.1	969	6.4	2.8	5.6
31	.9	-------	74	30	-------	779	-------	9.5	-------	5.6	5.1	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	6.2	0.7	1.83	0.024	0.03
November	125	.9	26.2	.342	.38
December	997	8.4	159	2.08	2.40
January	481	11.1	79.1	1.03	1.19
February	536	22	158	2.07	2.23
March	997	35	158	2.07	2.39
April	593	53	154	2.01	2.24
May	58	8.1	20.9	.273	.31
June	969	6.1	130	1.70	1.90
July	605	5.6	59.5	.778	.90
August	35	2.5	5.92	.077	.09
September	5.6	1.8	2.54	.033	.04
The year	997	.7	79.2	1.04	14.10

OHIO BRUSH CREEK BASIN

OHIO BRUSH CREEK NEAR WEST UNION, OHIO

LOCATION.—Chain gage on bridge 2 miles southwest of Cedar Mills and 7 miles east of West Union, Adams County.

DRAINAGE AREA.—388 square miles.

RECORDS AVAILABLE.—August, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 11,300 second-feet Dec. 14 (gage height, 13.4 feet); minimum, 1.4 second-feet Sept. 16 and 17 (gage height, 1.06 feet).

1926–1928: Maximum discharge, 12,600 second-feet Jan. 19, 1927 (gage height, 14.4 feet); minimum, that of Sept. 16 and 17, 1928.

REMARKS.—Records good except those for periods of ice effect, Jan. 16, 17, 26, 27 and Dec. 20–22, 1927, and for high stages, which are fair.

Daily and monthly discharge, in second-feet, 1926–1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1926								
1	-------	63	11	-------	28	21	1,010	19
2	-------	57	12	33	27	22	677	19
3	-------	186	13	289	22	23	289	17
4	-------	99	14	94	22	24	198	21
5	-------	69	15	258	20	25	163	1,780
6	-------	59	16	4,450	73	26	128	940
7	-------	105	17	2,130	87	27	103	239
8	-------	67	18	4,230	43	28	87	130
9	-------	45	19	6,900	30	29	75	96
10	-------	37	20	2,790	23	30	70	132
						31	60	-------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1926–27												
1	117	1,150	378	502	587	354	4,560	1,080	109	54	239	16
2	452	617	265	332	502	309	1,300	557	85	49	90	19
3	870	402	205	354	427	250	677	378	90	1,380	61	20
4	427	309	195	427	378	221	557	4,010	4,890	139	52	13
5	1,780	242	183	452	2,040	205	109	940	838	81	51	11
6	1,010	201	218	309	1,380	218	402	530	309	61	43	9.4
7	378	177	156	231	1,010	242	289	378	208	56	33	8.0
8	211	160	148	183	617	870	246	427	156	46	740	16
9	153	250	174	168	452	378	2,890	402	128	40	740	11
10	125	378	557	177	378	269	1,150	269	109	36	186	24
11	109	201	378	121	332	218	587	246	647	31	97	30
12	101	158	289	128	309	198	402	186	198	28	70	19
13	87	139	740	148	677	186	378	163	141	26	54	12
14	80	136	477	2,310	5,220	2,490	557	870	1,220	24	1,780	11
15	73	134	289	477	1,380	708	378	677	617	21	647	10
16	66	617	148	200	772	477	332	402	239	21	186	9.1
17	61	289	153	200	557	354	378	258	153	708	111	8.4
18	70	214	125	708	2,220	5,220	354	1,010	2,590	354	92	7.6
19	64	180	101	7,860	1,460	4,010	2,400	1,950	1,150	90	83	7.6
20	72	156	156	7,980	1,220	2,890	740	708	452	59	69	6.2
21	101	134	1,220	3,690	1,150	7,260	502	378	265	139	61	5.7
22	94	121	2,790	11,800	1,860	1,700	378	265	235	139	54	5.2
23	69	109	1,080	3,790	3,290	905	289	211	198	269	48	4.6
24	92	113	870	2,040	1,460	647	231	189	153	96	40	4.1
25	2,790	115	940	1,380	1,080	477	201	254	115	49	32	4.6
26	740	250	3,590	1,100	870	378	186	201	113	33	28	5.2
27	378	530	1,010	813	617	309	168	136	113	25	23	4.1
28	258	246	1,700	530	427	254	158	117	87	22	21	4.1
29	354	309	1,860	1,860	-------	218	2,130	150	69	19	18	4.6
30	772	617	805	1,950	-------	198	5,580	208	60	24	16	5.2
31	3,690	-------	557	905	-------	214	-------	211	-------	708	16	-------

Daily and monthly discharge, in second-feet, of Ohio Brush Creek near West Union, Ohio, 1926–1928—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1927–28												
1	5.4	10	1,780	677	143	250	289	146	37	477	427	11
2	4.6	9.4	502	198	123	208	214	130	33	289	72	8.7
3	4.4	11	289	156	119	309	158	109	30	208	117	9.4
4	4.1	13	198	146	123	246	146	109	1,150	163	85	6.9
5	3.6	14	158	123	2,790	208	123	101	647	218	51	6.2
6	3.2	16	136	123	905	134	117	97	5,580	192	67	4.4
7	5.9	18	115	132	2,400	123	838	87	740	117	254	4.4
8	9.8	21	139	205	3,090	125	587	78	332	94	130	3.9
9	8.7	21	87	870	1,540	150	289	87	557	117	121	3.6
10	6.9	18	81	452	647	235	201	73	617	402	57	3.1
11	7.6	20	195	427	530	160	177	73	246	121	33	3.1
12	20	21	4,010	427	402	148	160	77	186	80	36	3.1
13	24	18	4,890	452	354	107	132	75	171	1,220	25	2.3
14	33	20	6,660	378	708	1,950	239	63	141	805	19	1.7
15	31	19	1,540	332	940	647	838	59	289	239	14	1.7
16	22	24	4,780	239	557	740	427	54	134	134	15	1.5
17	16	2,400	1,150	205	530	587	332	54	97	97	14	1.5
18	11	587	530	183	647	557	402	60	105	83	12	3.1
19	10	186	289	2,310	332	647	332	64	132	64	14	2.3
20	9.1	115		1,460	557	1,300	261	261	1,220	73	16	2.7
21	9.8	78	170	354	192	1,150	3,690	168	870	117	15	2.3
22	9.1	72		258	221	740	2,890	99	309	218	12	1.8
23	8.0	63	139	246	2,130	477	1,700	69	211	119	9.1	2.3
24	6.9	2,220	103	772	2,220	332	1,010	56	838	80	10	2.0
25	5.9	378	96	2,890	617	269	587	47	5,340	49	15	1.8
26	5.7	189	75	708	332	228	402	46	740	40	27	1.8
27	5.2	134	69	332	269	427	332	48	354	39	27	1.8
28	4.9	4,890	85	192	309	250	269	48	402	105	18	1.8
29	8.0	1,080	211	224	261	211	221	42	5,340	42	12	2.9
30	8.0	557	530	208	-------	1,220	174	42	1,220	28	14	4.1
31	9.8	-------	1,780	163	-------	427	-------	38	-------	24	19	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
1926					
August 12–31	6,900	33	1,200	3.09	2.30
September	1,780	17	152	.392	.44
1926–27					
October	3,690	61	505	1.30	1.50
November	1,150	109	288	.742	.83
December	3,590	101	702	1.81	2.09
January	11,800	121	1,710	4.41	5.08
February	5,220	309	1,170	3.02	3.14
March	7,260	186	1,050	2.71	3.12
April	5,580	109	950	2.45	2.73
May	4,010	117	573	1.48	1.71
June	4,890	60	525	1.35	1.51
July	1,380	19	156	.402	.46
August	1,780	16	186	.479	.55
September	30	4.1	10.5	.027	.03
The year	11,800	4.1	650	1.68	22.75
1927–28					
October	33	3.2	10.4	0.027	0.03
November	4,890	9.4	441	1.14	1.27
December	6,660	69	1,000	2.58	2.97
January	2,890	123	511	1.32	1.52
February	3,090	119	827	2.13	2.30
March	1,950	107	470	1.21	1.39
April	3,690	117	585	1.51	1.68
May	261	38	82.6	.213	.25
June	5,580	30	936	2.41	2.69
July	1,220	24	195	.503	.58
August	427	9.1	56.7	.146	.17
September	11	1.5	3.57	.009	.01
The year	6,660	1.5	424	1.09	14.86

WHITEOAK CREEK BASIN

WHITEOAK CREEK NEAR GEORGETOWN, OHIO

LOCATION.—Chain gage on highway bridge 600 feet below mouth of Opossum Run and 1¾ miles southwest of Georgetown, Brown County.

DRAINAGE AREA.—221 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,950 second-feet Dec. 14 (gage height, 9.1 feet); minimum, 0.5 second-foot Sept. 28 (gage height, 0.41 foot).

1923–1928: Maximum discharge, 6,800 second-feet Dec. 31, 1923 (gage height, 11.0 feet); minimum discharge, that of Sept. 28, 1928; minimum gage height, 0.35 foot Sept. 1, 1925.

REMARKS.—Records good except those estimated because of ice (Jan. 3–8), which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	5.4	2,260	510	50	87	68	56	9.4	209	6.2	3.6
2	4.5	5.1	309	78	52	92	56	48	8.2	119	7.0	2.5
3	4.9	5.8	162		48	108	50	43	7.0	84	81	2.1
4	4.5	6.8	107		49	131	44	39	105	92	209	1.9
5	5.4	7.1	81	75	2,400	119	40	38	687	885	58	1.8
6	5.4	8	68		940	110	36	34	995	235	79	5.1
7	6.4	12	62		1,750	68	1,480	31	222	101	56	6.2
8	7.1	12	80	210	2,480	59	510	29	108	62	25	12
9	5.4	11	110	596	1,050	89	172	27	84	44	19	12
10	10	10	70	184	359	108	108	25	209	119	12	7.6
11	14	11	174	184	196	94	81	24	101	87	8.2	4.7
12	17	15	3,040	263	161	74	70	25	78	45	5.5	2.8
13	20	10	2,880	278	139	79	64	24	172	81	4.3	2.1
14	64	8.0	4,050	309	450	2,100	3,620	25	359	687	3.2	1.4
15	30	6.8	735	235	687	309	552	21	235	135	2.8	1.3
16	17	15	2,640	161	309	209	196	20	78	66	2.8	1.1
17	11	735	470	123	263	235	139	22	50	43	4.7	1.2
18	8.4	687	139	115	359	196	184	20	105	29	73	1.2
19	6.8	152	68	1,480	139	222	209	22	101	31	32	1.2
20	5.8	84	62	1,480	121	412	150	64	1,110	84	12	1.2
21	5.4	55	70	175	86	687	1,290	59	1,230	24	5.5	1.1
22	4.7	42	59	64	87	196	2,260	31	184	71	3.2	1.0
23	4.7	37	56	74	940	133	940	22	995	309	2.8	.8
24	4.7	1,540	40	431	1,610	101	359	17	1,750	81	5.1	.7
25	4.0	342	31	2,480	278	87	209	14	2,560	39	3.0	.7
26	4.0	127	24	309	119	81	139	13	342	24	36	.6
27	3.6	88	22	150	101	161	108	11	161	17	25	.6
28	3.6	4,320	37	68	92	123	92	14	150	13	13	.6
29	4.3	885	376	70	84	82	78	12	2,720	10	6.2	.7
30	5.1	359	412	66	-------	89	65	11	940	8.2	7.0	1.1
31	5.8	-------	1,290	60	-------	84	-------	12	-------	7.0	4.7	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	64	3.6	9.78	0.0443	0.05
November	4,320	5.1	320	1.45	1.62
December	4,050	22	645	2.92	3.37
January	2,480	60	340	1.54	1.78
February	2,480	48	531	2.40	2.59
March	2,100	59	217	.982	1.13
April	3,620	36	446	2.02	2.25
May	64	11	27.5	.124	.14
June	2,720	7	529	2.39	2.67
July	885	7	124	.561	.65
August	209	2.8	26.2	.119	.14
September	7.6	.6	2.70	.0122	.01
The year	4,320	.6	266	1.20	16.40

LITTLE MIAMI RIVER BASIN

LITTLE MIAMI RIVER AT SPRING VALLEY, OHIO

LOCATION.—Chain gage in T. 4, R. 5, at highway bridge three-eighths mile southwest of Spring Valley and 2½ miles below mouth of Sugar Creek.

DRAINAGE AREA.—361 square miles.

RECORDS AVAILABLE.—September, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 5,740 second-feet Dec. 14 (gage height, 10.8 feet); minimum, 43 second-feet Sept. 19 and 29 (gage height, 1.50 feet).

1925–1928: Maximum discharge, 8,220 second-feet Jan. 19, 1927 (gage height, 12.6 feet); minimum, that of Sept. 19 and 29, 1928.

REMARKS.—Records good except those for periods of ice effect (Jan. 1–5), and of no gage-height record (Apr. 22, 23, May 6, 7, July 6–8, 24–26), which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	76	5,020		217	306	534	306	147	194	97	67
2	88	88	1,440		196	278	430	292	174	126	97	62
3	88	88	810	300	206	321	351	292	147	97	97	60
4	82	82	464		228	336	306	265	240	111	97	57
5	76	82	464		2,050	306	278	278	396	690	97	57
6	82	82	396	396	890	278	252	258	1,560	563	104	58
7	464	88	351	278	935	265	610	237	770	436	97	56
8	147	88	156	690	1,920	265	650	217	770	310	97	54
9	116	88	147	610	1,220	265	570	217	935	183	90	54
10	102	82	147	464	730	278	464	206	650	172	84	52
11	88	82	570	430	534	252	366	217	464	162	84	50
12	109	82	770	430	464	265	321	217	366	153	78	49
13	130	82	1,330	430	430	265	321	206	306	255	78	48
14	116	82	5,500	381	770	534	430	196	278	242	78	52
15	109	88	2,250	366	1,440	499	464	174	240	217	78	48
16	102	123	1,220	336	890	396	351	196	206	172	72	47
17	95	164	770	306	690	351	278	185	196	97	72	45
18	95	228	534	292	650	336	252	185	206	135	72	45
19	102	278	430	336	610	292	252	206	217	135	67	43
20	88	252	336	336	464	265	228	206	4,450	135	67	48
21	95	206	336	321	351	252	2,180	185	3,580	153	67	47
22	88	196	292	351	336	265	1,000	185	1,330	194	67	48
23	88	185	278	306	396	240	1,000	174	810	205	62	47
24	88	206	252	292	570	228	935	164	770	185	72	45
25	82	206	240	650	464	217	770	185	650	166	78	45
26	88	196	228	430	336	336	534	174	570	146	67	47
27	76	770	217	351	306	381	464	185	472	126	62	48
28	88	810	228	292	336	336	430	174	368	118	67	47
29	82	690	850	292	321	499	381	164	472	111	62	48
30	88	2,180	850	278	-------	980	336	164	402	97	59	53
31	82	-------	499	240	-------	690	-------	156	-------	104	67	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	464	76	107	0.296	0.34
November	2,180	76	265	.734	.82
December	5,500	147	883	2.45	2.82
January	690	240	367	1.02	1.18
February	2,050	196	653	1.81	1.95
March	980	217	348	.964	1.11
April	2,180	228	525	1.45	1.62
May	306	156	209	.579	.67
June	4,450	147	738	2.04	2.28
July	690	97	200	.554	.64
August	104	59	78.5	.217	.25
September	67	43	50.9	.141	.16
The year	5,500	43	367	1.02	13.84

LITTLE MIAMI RIVER AT MILFORD, OHIO

LOCATION.—Water-stage recorder 500 feet below highway bridge in Milford, Clermont County, 1¼ miles above mouth of East Fork, subsequent to Aug. 17. Prior to that date a chain gage at 0.72 foot higher datum at bridge was used.

DRAINAGE AREA.—1,190 square miles.

RECORDS AVAILABLE.—March, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 46,300 second-feet Dec. 14 (gage height, 13.8 feet); minimum, 53 second-feet Sept. 28 (gage height, 0.73 foot, referred to chain gage at the bridge).

1925–1928: Maximum discharge, that of Dec. 14, 1927; minimum, 38 second-feet Sept. 9, 1925 (gage height, 0.60 foot).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	71	10,700	900	655	850	1,420	800	185	1,880	250	150
2	89	101	5,150	800	460	800	850	700	178	1,300	320	141
3	111	87	2,470	800	320	1,010	800	610	240	900	394	128
4	138	91	1,540	700	800	1,120	655	570	2,470	750	335	113
5	164	130	1,240	700	22,100	1,120	655	570	9,910	900	292	109
6	158	105	1,010	750	3,260	850	750	530	7,260	1,060	250	105
7	144	103	900	1,060	4,930	655	700	495	3,260	750	232	105
8	130	109	900	2,620	8,310	610	1,880	495	3,430	610	232	99
9	135	107	900	2,620	4,510	800	1,480	460	3,430	460	215	99
10	123	111	495	1,420	3,260	1,010	955	460	2,780	460	196	99
11	121	125	2,780	1,420	1,880	850	900	430	2,620	430	185	97
12	168	97	4,310	1,420	1,540	750	900	400	2,170	388	168	89
13	290	82	12,000	1,540	1,420	955	900	370	1,610	850	158	91
14	240	89	37,300	1,360	3,600	4,710	2,940	250	1,300	1,420	155	84
15	185	84	9,910	1,360	4,310	2,020	1,300	228	850	610	152	80
16	130	141	4,310	1,010	2,940	1,480	1,010	215	530	495	164	80
17	135	1,240	2,320	900	2,320	1,300	900	215	700	346	141	82
18	141	1,880	1,540	1,010	1,880	1,120	800	370	495	388	158	75
19	116	955	1,010	3,430	1,480	900	750	430	2,470	295	152	75
20	68	700	800	1,740	1,240	850	700	700	3,770	310	150	78
21	82	495	955	1,360	1,010	750	11,600	570	3,770	400	141	75
22	69	460	800	800	1,060	655	11,100	570	1,740	5,150	130	77
23	80	495	610	900	1,060	570	5,400	460	1,420	3,100	118	73
24	89	2,470	460	800	3,100	495	4,130	330	2,940	1,010	141	71
25	97	900	430	2,620	1,610	1,120	2,620	305	2,780	655	147	73
26	103	570	460	1,480	1,120	1,120	2,020	285	2,020	495	150	68
27	91	2,470	495	1,060	1,010	1,610	1,540	270	1,180	430	147	71
28	95	17,000	495	750	900	1,010	1,480	260	2,940	382	133	65
29	95	3,600	2,020	700	955	800	1,180	245	8,710	331	123	84
30	95	2,620	1,880	655	--------	1,480	955	232	2,780	280	125	84
31	68	--------	3,950	610	--------	1,610	--------	211	--------	260	121	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	290	68	124	0.104	0.12
November	17,000	71	1,250	1.05	1.17
December	37,300	430	3,680	3.09	3.56
January	3,430	610	1,270	1.07	1.23
February	22,100	320	2,860	2.40	2.59
March	4,710	495	1,130	.950	1.10
April	11,600	655	2,110	1.77	1.98
May	800	211	421	.354	.41
June	9,910	178	2,660	2.24	2.50
July	5,150	260	874	.734	.85
August	394	118	186	.156	.18
September	150	65	90.7	.076	.08
The year	37,300	65	1,380	1.16	15.77

EAST FORK OF LITTLE MIAMI RIVER AT PERINTOWN, OHIO

LOCATION.—Chain gage on highway bridge at Perintown, Clermont County, 5 miles above junction with Little Miami River.

DRAINAGE AREA.—477 square miles.

RECORDS AVAILABLE.—May, 1915, to May, 1920; January, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 17,400 second-feet Nov. 28 (gage height, 16.5 feet); minimum, 2.5 second-feet Sept. 28 (gage height, 0.38 foot).

1915–1920: Maximum stage, 19.77 feet Apr. 20, 1920; minimum, −0.18 foot Oct. 3–6, 1917. Discharge not determined.

1925–1928: Maximum discharge, 20,700 second-feet Feb. 14, 1926 (gage height, 18.0 feet); minimum, that of Sept. 28, 1928.

REMARKS.—Records good except those for extremely high water and periods of ice effect (Jan. 4–8, Feb. 2–4), which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	13	5,620	1,750	127	180	127	127	19	595	38	19.5
2	17	15	1,110	270		168	109	100	16	317	155	21
3	14	15	440	147	100	256	106	95	17	232	475	15.9
4	13	18	285			229	107	84	147	186	438	12.4
5	12	14	204		8,530	242	78	89	5,860	2,120	127	10.4
6	11	18	168	140	2,680	204	70	82	4,230	555	93	9.1
7	13	18	147		5,140	158	332	62	2,360	258	220	7.6
8	15	18	285		5,990	127	1,410	65	421	165	136	8.0
9	16	13	204	650	2,680	137	421	59	440	136	74	7.6
10	20	18	137	349	890	180	216	54	890	175	52	7.3
11	14	18	890	316	500	229	158	52	402	286	38	5.8
12	18	24	4,230	366	349	180	118	48	229	155	32	13.5
13	63	23	8,110	520	316	180	109	42	168	2,200	29	11.3
14	59	21	12,200	402	1,110	4,780	3,390	42	147	3,020	25	12.4
15	47	23	2,440	520	1,750	840	1,230	37	137	515	20	9.1
16	44	26	3,200	366	790	460	460	44	99	258	16.5	6.2
17	38	2,440	1,290	270	605	480	285	40	81	175	15.9	6.5
18	24	1,820	384	216	650	285	384	39	316	127	350	5.8
19	21	560	191	3,390	349	332	300	37	460	106	76	5.5
20	18	204	147	2,760	229	650	256	45	2,600	87	39	5.2
21	19	147	147	480	180	500	4,120	42	1,750	87	53	4.1
22	17	118	147	180	180	300	5,500	34	500	99	37	4.6
23	13	99	137	204	1,290	191	2,520	33	940	875	26	4.6
24	12	2,040	118	204	2,840	147	890	33	2,680	401	50	4.9
25	10	1,050	99	4,230	695	137	500	29	3,690	197	85	4.1
26	13	349	78	840	242	118	332	21	740	116	70	3.6
27	12	216	76	349	191	216	242	21	285	91	85	3.0
28	13	13,800	76	229	216	191	204	21	180	73	67	2.8
29	13	3,020	840	147	204	158	180	19	7,290	57	43	5.8
30	13	1,050	1,170	147	-------	137	158	15	2,280	48	29	7.3
31	13	-------	4,900	137	-------	137	-------	16	-------	42	39	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	63	10	20.8	0.044	0.05
November	13,800	13	907	1.90	2.12
December	12,200	76	1,600	3.35	3.86
January	4,230	----------	650	1.36	1.57
February	8,530	----------	1,350	2.83	3.05
March	4,780	118	404	.847	.98
April	5,500	70	810	1.70	1.90
May	127	15	49.3	.103	.12
June	7,290	16	1,310	2.75	3.07
July	3,020	42	444	.931	1.07
August	475	15.9	97.9	.205	.24
September	21	2.8	8.16	.017	.02
The year	13,800	2.8	632	1.32	18.05

LICKING RIVER BASIN

LICKING RIVER AT FARMERS, KY.

LOCATION.—Chain gage on Rowan-Bath County line, 200 feet above Chesapeake & Ohio Railway bridge and three-fourths mile west of Farmers.

DRAINAGE AREA.—768 square miles.

RECORDS AVAILABLE.—May to September, 1928; July, 1915, to June, 1920, at site 300 feet downstream.

EXTREMES.—Maximum discharge during period, 11,400 second-feet June 30 (gage height, 25.6 feet); minimum, 26 second-feet Sept. 19 (gage height, 1.48 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	-------	492	11,100	213	410	16	-------	990	1,590	101	47
2	-------	410	5,930	186	186	17	-------	790	990	199	40
3	-------	320	4,980	199	150	18	-------	603	603	990	34
4	-------	790	3,760	337	116	19	-------	649	410	1,860	30
5	-------	5,480	1,650	287	88	20	-------	450	287	1,590	55
6	-------	2,770	1,230	173	56	21	-------	256	390	1,350	42
7	-------	1,720	890	1,650	51	22	940	2,420	430	1,050	39
8	-------	1,410	696	2,490	46	23	696	2,280	372	649	31
9	-------	1,470	513	890	73	24	492	1,350	304	272	34
10	-------	7,580	558	287	63	25	492	1,050	272	287	40
11	-------	6,630	696	256	68	26	4,000	1,290	256	242	34
12	-------	3,190	940	242	68	27	4,730	1,530	410	227	39
13	-------	2,420	1,410	173	56	28	2,910	1,110	649	186	33
14	-------	1,930	4,360	256	53	29	1,530	8,880	696	150	44
15	-------	1,410	3,760	90	50	30	840	11,400	410	128	47
						31	696	-------	337	287	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
May 22-31	4,730	492	1,730	2.25	0.84
June	11,400	256	2,440	3.18	3.55
July	11,100	256	1,640	2.14	2.47
August	2,490	90	558	.727	.84
September	410	30	70.8	.092	.10

LICKING RIVER AT CATAWBA, KY.

LOCATION.—Water-stage recorder three-quarters of a mile east of Catawba, Pendleton County, and three-quarters of a mile above mouth of Kinkaid Creek. Zero of gage is 498.37 feet above mean sea level.

DRAINAGE AREA.—3,300 square miles.

RECORDS AVAILABLE.—July to September, 1928. July, 1916, to September, 1920, at site half a mile downstream.

EXTREMES.—Maximum discharge during year, 23,900 second-feet July 15 (gage height, 20.5 feet); minimum, 83 second-feet Sept. 28 and 29 (gage height, 4.70 feet).

REMARKS.—Records excellent. Discharge estimated Aug. 31 to Sept. 9.

Daily and monthly discharge, in second-feet, 1928

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1		1,200		11	3,750	1,630	325	21	1,810	1,360	118
2		1,810		12	3,100	1,200	289	22	2,530	1,200	111
3		2,310		13	8,600	1,000	260	23	2,420	1,280	105
4		2,310		14	16,400	840	231	24	2,640	1,200	100
5		1,450	440	15	23,700	800	209	25	3,350	800	94
6		2,530		16	14,900	688	187	26	2,010	612	89
7		2,110		17	6,040	612	175	27	1,630	505	89
8		1,360		18	3,610	800	156	28	1,360	440	86
9		2,640		19	2,420	1,120	141	29	1,360	440	94
10		3,350	380	20	2,010	1,630	128	30	1,280	505	103
								31	1,450	440	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
July 11-31	23,700	1,280	5,070	1.54	1.20
August	3,350	440	1,300	.349	.45
September	----------	86	248	.075	.08

SOUTH FORK OF LICKING RIVER AT HAYES, KY.

LOCATION.—Chain gage at county highway bridge half a mile northeast of Hayes, Pendleton County, and 2½ miles south of Falmouth. Datum of gage lowered 2.0 feet May 23. Zero of gage is 538.10 feet above mean sea level.

DRAINAGE AREA.—922 square miles.

RECORDS AVAILABLE.—July, 1916, to July, 1920; May to September, 1928.

EXTREMES.—Maximum discharge during year, 22,600 second-feet June 30 (gage height, 15.9 feet); minimum, 22 second-feet Sept. 26, 27, and 30 (gage height 2.06 feet).

REMARKS.—Records good. Discharge interpolated July 20-23.

Daily and monthly discharge, in second-feet, 1928

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	-------	235	18,900	127	2,750	16	-------	665	4,450	55	40
2	-------	190	5,100	415	955	17	-------	505	1,360	52	40
3	-------	168	1,790	129	530	18	-------	555	885	54	37
4	-------	885	1,100	99	338	19	-------	1,460	635	168	36
5	-------	1,180	2,900	112	235	20	-------	1,180	595	285	34
6	-------	2,180	3,200	355	165	21	-------	820	555	235	32
7	-------	1,100	2,180	235	125	22	-------	608	515	220	30
8	-------	955	1,020	205	101	23	355	2,900	475	182	28
9	-------	788	820	285	82	24	250	1,270	435	415	25
10	-------	3,500	725	355	70	25	1,180	1,360	1,270	173	23
11	-------	3,810	1,020	220	60	26	2,460	665	530	118	22
12	-------	1,670	1,180	205	52	27	2,600	580	338	88	22
13	-------	1,020	5,610	92	49	28	755	1,020	235	56	23
14	-------	955	9,130	73	49	29	555	13,200	182	70	23
15	-------	885	13,900	63	45	30	395	21,900	145	62	22
						31	285	-------	129	62	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
May 23-31	2,600	250	982	1.07	0.36
June	21,900	168	2,270	2.46	2.74
July	18,900	129	2,620	2.84	3.27
August	415	52	170	.184	.21
September	2,750	22	201	.218	.24

MIAMI RIVER BASIN

MIAMI RIVER AT SIDNEY, OHIO

LOCATION.—Water-stage recorder at North Street Bridge at Sidney, Shelby County. Zero of gage is 924.74 feet above mean sea level.

DRAINAGE AREA.—543 square miles.

RECORDS AVAILABLE.—February, 1914, to September, 1928.

EXTREMES.—Maximum discharge during year, 9,780 second-feet Dec. 14 (gage height, 10.7 feet); minimum, 42 second-feet Sept. 27 (gage height, 0.98 foot).

1914–1928: Maximum discharge, about 20,700 second-feet Mar. 20, 1927 (gage height, 14.4 feet); minimum, 9 second-feet Sept. 18 and 19, 1917 (gage height, −1.5 feet).

Maximum stage known, 19.6 feet Mar. 25, 1913 (discharge estimated by Miami Conservancy District at 44,000 second-feet).

REMARKS.—Records excellent except those for extremely high water and periods of ice effect (Jan. 1–7, 21–31, Feb. 1, 2, 19–29), which are fair. Water to feed Miami & Erie Canal is diverted from river at Port Jefferson; diversion not included in tables of discharge.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	136	119	8,180		170	304	1,820	428	100	525	138	58
2	144	127	4,140		170	275	1,310	289	96	1,150	132	55
3	152	127	2,200		172	261	1,040	235	90	558	117	52
4	144	119	1,420	500	183	261	835	209	202	428	106	120
5	136	119	985		945	248	690	209	871	694	98	275
6	127	119	785		885	209	645	209	3,550	429	96	304
7	119	119	690		804	209	645	199	2,890	304	98	304
8	119	119	690	785	1,820	199	645	172	2,040	235	94	304
9	119	119	428	985	1,620	209	645	172	2,040	199	94	289
10	111	119	518	885	1,140	222	558	172	1,750	172	113	289
11	111	119	645	885	835	209	363	172	1,360	160	94	289
12	127	119	935	885	690	209	289	172	985	147	86	289
13	144	127	2,900	835	645	394	248	153	735	334	78	275
14	136	119	8,580	735	1,310	1,140	235	145	558	645	76	261
15	136	127	4,840	690	3,070	885	235	138	480	690	74	289
16	127	127	2,980	645	2,360	558	209	140	410	462	72	275
17	119	256	1,890	600	1,750	410	209	145	378	304	74	261
18	119	331	1,260	518	1,310	348	199	145	394	222	80	235
19	111	291	760	939		333	183	142	546	183	86	209
20	119	331	735	1,420		318	183	145	1,250	285	76	235
21	119	317	690		530	333	734	138	1,310	1,040	71	166
22	111	304	600			318	2,440	130	2,120	785	69	72
23	111	291	518	490		275	2,200	121	2,350	518	65	54
24	111	244	480			248	1,620	117	2,020	318	72	44
25	111	222	480			264	1,140	128	1,260	235	74	44
26	111	200	462			1,260	785	128	885	183	69	45
27	111	190	462		290	1,200	600	117	690	199	60	45
28	111	350	480	230		690	558	111	558	318	58	43
29	111	1,020	600			683	518	106	558	235	57	44
30	111	3,510	690		-------	3,250	462	104	690	172	57	44
31	111	-------	1,140		-------	2,710	-------	111	-------	142	57	------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	152	111	122	May	428	104	165
November	3,510	119	327	June	3,550	90	1,110
December	8,580	428	1,680	July	1,150	142	396
January	1,420	-------	585	August	138	57	83.6
February	3,070	-------	853	September	304	43	176
March	3,250	199	595				
April	2,440	183	741	The year	8,580	43	568

MIAMI RIVER AT TAYLORSVILLE, OHIO

LOCATION.—Water-stage recorder at outlet works of Taylorsville Dam, three-fourths mile north of Taylorsville, Montgomery County. Zero of gage is 700.00 feet above mean sea level.

DRAINAGE AREA.—1,160 square miles.

RECORDS AVAILABLE.—January, 1922, to September, 1928. January, 1914, to September, 1917, at station at Tadmor.

EXTREMES.—Maximum discharge during year, 14,000 second-feet Dec. 14 (gage height, 70.80 feet); minimum stage not recorded.

1922–1928: Maximum discharge, 26,700 second-feet June 9, 1924 (gage height, 72.6 feet); minimum, 48 second-feet Sept. 7–9, 1925.

Discharge of the flood of March, 1913, at former gaging station at Tadmor estimated by Miami Conservancy District at 127,000 second-feet.

REMARKS.—Records good except those for periods of ice effect (Dec. 19–2?, Jan. 2–10, Feb. 26, 27) and estimated periods (Oct. 1 to Nov. 25, July 26 to Sept. 30), which are fair. Flow at high stages automatically regulated at retarding ba ins on Miami River and Loramie Creek. Gage-height record and part of discharge measurements furnished by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			11,700	1,680	526	638	3,480	670	330	1,090		
2			8,760		500	580	2,500	607	330	1,440		
3	260	220	4,320		500	552	1,980	500	330	1,230	240	220
4			2,610	1,250	554	552	1,480	450	352	955		
5			1,780		2,600	500	1,140	450	680	2,160		
6			1,310		2,180	475	955	425	5,460	1,680		
7			1,090	1,600	2,740	450	955	400	6,120	1,040		
8	210	210	1,090	1,600	4,300	450	955	376	4,300	670	200	310
9			905	1,350	3,480	500	865	352	4,300	552		
10			710	1,350	2,280	500	780	352	4,300	500		
11			975	1,480	1,680	500	670	352	2,970	450		
12			1,380	1,480	1,380	526	526	352	2,080	425		
13	240	220	2,590	1,480	1,230	580	526	330	1,480	504		300
14			11,500	1,380	2,950	1,980	500	352	1,140	1,680		
15			10,300	1,280	6,680	1,780	450	330	865	1,780		
16			5,800	1,230	5,050	1,180	450	330	670	1,380	160	
17			3,740	1,140	3,610	955	450	352	580	955		
18	210	490	2,610	1,090	2,730	1,040	425	352	607	740		290
19			1,800	1,530	1,980	910	400	352	858	580		
20			1,500	3,500	1,880	820	376	352	3,550	526		
21			1,250	1,780	1,580	780	1,260	352	3,220	980		
22			1,150	1,040	1,280	695	5,810	352	4,940	1,090		
23		500	910	955	1,280	607	4,900	352	4,750	955	140	230
24			780	955	2,080	552	3,610	352	5,970	607		
25			695	1,380	1,580	552	2,500	352	3,220	552		
26	200	420	638	1,230	850	1,660	1,680	352	2,180			
27		420	638	1,040	850	2,500	1,230	330	1,780			
28		561	670	528	695	1,380	955	330	1,380	420	120	190
29		1,060	820	450	670	1,200	865	330	1,180			
30		3,070	955	475	------	5,930	740	307	1,140			
31		------	1,680	475	------	5,050	------	307	------			------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	------	------	219	0.189	0.22
November	3,070	------	458	.395	.44
December	11,700	638	2,800	2.41	2.78
January	3,500	450	1,280	1.10	1.27
February	6,680	500	2,060	1.78	1.92
March	5,930	450	1,170	1.01	1.16
April	5,810	376	1,450	1.25	1.39
May	670	307	379	.327	.38
June	6,120	330	2,370	2.04	2.28
July	2,160	------	872	.752	.87
August	------	------	168	.145	.17
September	------	------	257	.222	.25
The year	11,700	------	1,120	.966	13.13

MIAMI RIVER AT DAYTON, OHIO

LOCATION.—Staff gage at Main Street Bridge at Dayton, Montgomery County, except Nov. 5, 1927, to June 25, 1928, when water-stage recorder was operating. Zero of gage is 721.00 feet above mean sea level.

DRAINAGE AREA.—2,510 square miles.

RECORDS AVAILABLE.—March, 1905, to December, 1909; April, 1913, to September, 1928.

EXTREMES.—Maximum discharge during year, 24,400 second-feet Dec. 1 (gage height, 9.7 feet); minimum, 284 second-feet Sept. 28 (gage height, 0.4 foot).

1913–1928: Maximum discharge at Millers Ford, 3½ miles below gage, estimated by engineers of Miami Conservancy District at 59,800 second-feet Apr. 21, 1920 (gage height, 16.0 feet, old datum); minimum, 122 second-feet Sept. 5 and 8, 1925.

Maximum stage known, 29.0 feet Mar. 26, 1913 (discharge estimated by Miami Conservancy District, 250,000 second-feet).

REMARKS.—Records good. Discharge estimated because of ice Jan. 1–7, 23, 24, 29–30, Feb. 1–3. Miami & Erie Canal diverts water around gage; diversion not included in tables of discharge. Flood flow automatically regulated at four retarding basins above station. Gage-height record furnished by United States Weather Bureau and Miami Conservancy District. Part of discharge measurements made by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	565	355	21,700			1,730	7,800	1,850	722	2,370	860	357
2	485	355	19,700		1,200	1,610	4,530	1,850	684	2,110	815	357
3	525	355	9,640			1,610	3,550	1,610	603	2,510	955	317
4	485	385	5,500		1,110	1,610	2,940	1,380	1,060	2,110	722	406
5	485	385	3,870	2,000	3,710	1,380	2,370	1,380	1,380	4,530	955	317
6	415	355	3,240		5,500	1,380	2,110	1,380	8,830	4,530	860	465
7	745	355	2,370		3,550	1,380	1,980	1,220	12,900	3,090	770	530
8	565	355	2,370	2,110	9,640	1,220	2,650	1,000	9,100	2,510	770	498
9	565	355	2,110	2,650	8,050	1,270	2,110	908	7,800	1,730	684	530
10	565	355	1,730	2,940	5,090	1,380	1,850	955	8,830	1,490	684	498
11	525	355	1,980	2,650	3,550	1,380	1,610	1,000	5,930	1,270	684	498
12	565	385	2,940	2,650	2,940	1,380	1,610	955	3,870	1,160	684	465
13	1,050	305	3,240	2,650	2,370	1,380	1,380	860	2,940	1,110	566	530
14	945	330	17,900	2,370	2,650	2,370	1,380	860	2,370	2,940	566	530
15	525	330	21,700	2,510	8,830	4,190	1,490	860	2,110	4,360	566	530
16	485	415	13,700	2,110	11,800	2,790	1,380	955	1,610	2,790	530	465
17	450	1,160	8,050	1,980	8,570	2,370	1,160	1,000	1,380	2,110	530	530
18	415	1,380	4,530	1,980	5,500	2,240	1,270	955	1,610	1,730	465	465
19	415	1,100	3,390	1,850	4,190	2,110	1,060	1,060	2,240	1,490	406	465
20	415	945	2,370	7,070	3,240	1,980	1,060	1,060	10,800	1,160	406	465
21	355	945	2,370	4,030	2,370	1,850	3,090	955	12,900	2,110	406	465
22	355	845	2,240	2,370	2,650	1,850	11,800	860	12,200	1,980	406	406
23	415	845	1,980	2,500	2,370	1,730	11,200	860	11,200	1,850	406	357
24	355	845	1,610	2,500	3,390	1,610	8,830	770	12,200	1,490	436	357
25	355	845	1,610	2,940	3,090	1,610	6,150	860	8,570	1,270	436	357
26	355	845	1,490	2,650	2,790	1,610	4,190	860	4,900	1,060	406	317
27	355	845	1,490	2,110	1,850	3,870	3,240	860	3,870	1,060	406	317
28	355	1,380	1,490	1,980	1,980	2,940	2,510	860	3,240	1,060	406	300
29	355	2,240	1,730		1,850	2,110	2,240	770	2,940	1,160	406	337
30	305	5,290	2,110	1,500	--------	6,600	2,110	770	2,650	1,000	357	317
31	355	--------	2,650		--------	10,500	--------	770	--------	908	382	--------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	1,050	305	487	May	1,850	770	1,040
November	5,290	305	841	June	12,900	603	5,380
December	21,700	1,490	5,570	July	4,530	908	2,000
January	7,070	--------	2,420	August	955	357	578
February	11,800	1,110	4,010	September	530	300	425
March	10,500	1,220	2,360				
April	11,800	1,060	3,360	The year	21,700	300	2,360

MIAMI RIVER NEAR MIAMISBURG, OHIO

LOCATION.—Water-stage recorder in sec. 35, Miami Township, at Cleveland, Cincinnati, Chicago & St. Louis Railway bridge 1½ miles south of Miamisburg and 2½ miles below mouth of Bear Creek.

DRAINAGE AREA.—2,720 square miles.

RECORDS AVAILABLE.—August, 1924, to September, 1928.

EXTREMES.—Maximum discharge during year, 27,500 second-feet Dec. 2 (gage height, 11.6 feet); minimum, 218 second-feet Sept. 30 (gage height, 0.47 foot).

1924–1928: Maximum discharge, 43,000 second-feet Mar. 22, 1927 (gage height, 14.9 feet); minimum, 116 second-feet Sept. 7, 1925 (gage height, 0.39 foot).

REMARKS.—Records excellent except those for short periods (Dec. 19–22 and Jan. 1–6) when float was frozen, which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	870	620	22,600		1,520	2,110	7,670	2,230	1,030	2,590	930	510
2	780	585	22,400		1,520	1,990	5,060	1,990	1,030	2,470	930	440
3	825	585	11,200		1,520	1,870	3,860	1,870	980	2,720	880	475
4	780	585	6,000	2,990	1,520	1,870	3,120	1,870	1,080	2,230	780	510
5	740	585	4,020		4,930	1,870	2,590	1,750	1,680	5,120	780	510
6	700	585	3,120		6,600	1,750	2,350	1,750	7,860	4,880	980	635
7	1,090	620	2,720	2,110	5,620	1,630	2,350	1,630	13,600	3,260	980	780
8	915	585	2,590	2,470	9,840	1,630	2,470	1,520	10,400	2,470	880	780
9	740	585	2,350	2,980	9,330	1,630	2,350	1,410	8,120	1,990	780	730
10	660	620	1,990	3,120	6,400	1,630	2,110	1,410	8,830	1,800	780	780
11	660	620	2,720	2,980	4,180	1,750	1,990	1,410	7,020	1,600	880	730
12	780	550	3,120	2,850	3,260	1,750	1,870	1,410	4,520	1,410	780	680
13	780	585	4,960	2,850	2,850	1,750	1,750	1,360	3,260	1,520	730	730
14	700	585	18,800	2,720	3,700	2,850	1,630	1,240	2,720	2,960	680	730
15	700	585	24,400	2,590	11,900	4,180	1,630	1,240	2,350	3,860	680	680
16	700	780	14,900	2,470	13,600	3,120	1,520	1,240	1,990	2,980	635	635
17	660	1,800	8,590	2,350	9,580	2,590	1,410	1,240	1,870	2,350	590	730
18	660	1,770	5,060	2,230	6,600	2,470	1,410	1,240	1,990	1,870	680	635
19	660	1,450		2,740	4,700	2,230	1,300	1,240	2,230	1,630	590	635
20	620	1,250	2,990	6,130	3,700	2,230	1,240	1,240	9,220	1,520	590	635
21	620	1,150		4,520	3,260	2,110	4,910	1,240	13,000	1,990	590	635
22	620	1,150		2,590	2,980	2,110	13,000	1,240	12,000	2,350	590	635
23	585	1,100	2,230	2,350	2,720	1,990	13,600	1,240	13,000	1,990	590	510
24	585	1,150	1,990	2,350	3,400	1,750	10,100	1,240	13,300	1,750	635	550
25	585	1,200	1,870	3,120	3,550	1,630	6,810	1,190	9,580	1,410	590	475
26	585	1,100	1,750	3,120	2,720	1,990	4,700	1,190	5,620	1,360	550	440
27	585	1,330	1,630	2,470	2,350	3,860	3,550	1,140	4,180	1,300	590	440
28	585	2,110	1,750	1,990	2,230	3,260	2,980	1,080	3,550	1,240	590	440
29	550	2,590	2,350	1,870	2,230	3,290	2,590	1,080	3,120	1,360	590	440
30	550	9,950	2,470	1,630	-------	6,060	2,350	1,030	2,850	1,190	550	394
31	585	-------	3,260	1,630	-------	11,200	-------	1,030	-------	1,030	550	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,090	550	692	0.254	0.29
November	9,950	550	1,290	.474	.53
December	24,400	1,630	6,220	2.29	2.64
January	6,130	1,630	2,780	1.02	1.18
February	13,600	1,520	4,770	1.75	1.89
March	11,200	1,630	2,650	.974	1.12
April	13,600	1,240	3,810	1.40	1.56
May	2,230	1,030	1,390	.511	.59
June	13,600	980	5,730	2.11	2.35
July	5,120	1,030	2,200	.809	.93
August	980	550	708	.260	.30
September	780	394	598	.220	.25
The year	24,400	394	2,720	1.00	13.63

MIAMI RIVER AT HAMILTON, OHIO

LOCATION.—Water-stage recorder in NE. ¼ sec. 6, T. 1 N., R. 3 E., 1,000 feet below Columbia Bridge at Hamilton. Zero of gage is 500.00 feet above mean sea level.

DRAINAGE AREA.—3,640 square miles.

RECORDS AVAILABLE.—April, 1927, to September, 1928. February, 1910, to September, 1917, at site seven-tenths mile upstream.

EXTREMES.—Maximum discharge during year, 40,800 second-feet Nov. 30 (gage height, 72.5 feet); minimum, 256 second-feet Sept. 30 (gage height, 57.80 feet).

1927–1928: Maximum and minimum discharges occurred during 1928.

Maximum stage known, 599.2 feet (mean sea level datum) at former site Mar. 26, 1913.

REMARKS.—Records good except those for Jan. 1–6 and Sept. 2–3 and 25–27, which are fair. The Miami & Erie Canal diverts water from this basin above station; diversion not included in tables of discharge. Flow at low stages regulated by power plant and by five retarding basins above station. Gage-height record and part of discharge measurements furnished by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	823	669	30,000	4,400	1,800	2,780	9,500	3,140	948	3,420	1,190	518
2	916	625	25,900	3,700	1,740	2,620	5,920	2,860	842	3,000	1,130	470
3	1,060	560	13,100	3,300	1,750	2,570	4,780	2,610	910	3,140	1,070	470
4	1,170	600	7,740	3,100	1,990	2,470	3,990	2,310	1,220	2,740	964	574
5	780	530	5,580	2,900	10,800	2,390	3,420	2,160	2,640	8,350	974	509
6	742	550	4,460	2,800	8,150	2,180	3,140	2,050	9,650	6,820	1,050	518
7	2,660	578	3,780	2,520	8,710	2,100	2,860	1,910	6,820	4,460	1,060	600
8	1,340	599	3,560	3,140	12,600	2,040	3,140	1,870	8,140	3,280	1,110	638
9	850	578	3,140	3,560	10,900	2,040	2,860	1,800	9,330	2,620	962	610
10	747	576	2,640	3,700	7,740	2,060	2,670	1,670	9,420	2,210	896	674
11	696	546	4,720	3,560	5,420	2,100	2,500	1,700	7,940	1,970	850	677
12	932	532	4,940	3,420	4,300	2,160	2,320	1,630	5,580	1,770	867	606
13	1,070	516	11,500	3,420	3,840	2,500	2,080	1,540	4,140	1,790	958	619
14	882	502	23,600	3,280	6,930	3,280	2,200	1,480	3,420	2,150	835	638
15	788	588	22,100	3,140	12,600	4,940	2,170	1,400	2,860	3,990	734	538
16	702	704	15,400	2,860	13,800	4,140	2,020	1,340	2,390	3,700	702	532
17	698	3,370	9,570	2,650	10,600	3,420	1,880	1,340	2,080	2,860	729	618
18	684	2,620	6,280	2,530	7,540	3,000	1,880	1,350	2,280	2,340	598	597
19	676	1,900	4,620	3,200	5,920	3,000	1,750	1,330	2,860	2,030	670	562
20	653	1,510	3,700	6,820	4,780	2,780	1,660	1,570	8,960	1,830	770	542
21	644	1,400	3,420	5,580	4,140	2,670	10,300	1,490	12,900	1,760	642	535
22	680	1,350	3,140	3,420	3,990	2,580	17,000	1,340	10,600	3,280	642	440
23	592	1,260	2,860	3,000	3,840	2,470	15,800	1,260	13,200	2,740	606	482
24	577	1,550	2,500	3,000	4,620	2,240	11,800	1,180	13,100	2,240	636	566
25	574	1,630	2,250	4,300	4,620	2,200	8,840	1,060	11,400	1,880	577	460
26	582	1,500	2,020	3,990	3,700	3,580	6,640	1,000	7,180	1,670	584	
27	604	1,470	2,050	3,140	3,280	3,990	5,260	1,030	5,420	1,520	666	
28	581	5,870	2,130	2,230	3,140	4,140	4,300	1,140	4,460	1,400	560	384
29	548	4,940	3,840	1,870	3,000	3,700	3,700	1,010	4,780	1,390	584	432
30	504	14,600	3,420	2,040	--------	6,820	3,420	904	3,700	1,500	608	338
31	537	--------	4,460	1,900	--------	10,200	--------	1,080	--------	1,310	572	------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	2,660	504	816	May	3,140	904	1,600
November	14,600	502	1,810	June	13,200	842	5,970
December	30,000	2,020	7,690	July	8,350	1,310	2,750
January	6,820	1,870	3,310	August	1,190	560	800
February	13,800	1,740	6,080	September	677	338	536
March	10,200	2,040	3,200				
April	17,000	1,660	4,990	The year	30,000	338	3,280

LORAMIE CREEK AT LOCKINGTON, OHIO

LOCATION.—Water-stage recorder in NE. ¼ sec. 30, T. 7 N., R. 6 E., just below Lockington Dam, half a mile northwest of Lockington. Zero of gage is 800.00 feet above mean sea level.

DRAINAGE AREA.—261 square miles.

RECORDS AVAILABLE.—October, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,170 second-feet Dec. 14 (gage height, 82.7 feet); minimum, 7.4 second-feet Oct. 25 (gage height, 75.82 feet).

1915–1928: Maximum discharge, 9,900 second-feet May 7, 1916 (gage height, 10.4 feet, original datum); minimum, 5 second-feet Nov. 18, 1915, Sept. 1, 9–12, 16–20, 26, 27, and Oct. 2–19, 1924.

Maximum known stage, 15.6 feet, original datum, Mar. 25, 1913 (discharge estimated by Miami Conservancy District at 25,600 second-feet).

REMARKS.—Records good except those for periods of ice effect (Dec. 19–28, Jan. 1–6, 21, 28–31, Feb. 1, 2) and lost record (Feb. 19–27), which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	9	1,130	180	150	93	920	83	18	132	29	10
2	11	9	304	150	150	75	688	72	18	132	23	10
3	11	10	131	120	168	72	522	66	15	93	18	11
4	11	10	80	100	189	70	288	62	84	122	16	10
5	11	9	59	80	777	62	303	64	564	348	15	9
6	11	9	48	70	339	52	86	65	2,710	259	15	9
7	10	9	45	66	488	46	93	55	1,510	124	15	9
8	9	9	76	143	644	47	100	48	1,110	68	14	9
9	9	9	63	188	468	49	78	46	1,560	60	14	9
10	9	9	51	158	259	58	67	46	1,300	54	16	9
11	9	9	88	168	132	53	61	42	732	47	22	9
12	9	10	161	210	108	60	59	41	410	39	16	9
13	10	9	1,380	222	108	253	50	36	330	194	13	9
14	10	9	3,020	199	1,360	482	48	30	222	688	11	9
15	10	9	1,300	188	1,590	210	44	25	108	562	13	9
16	10	12	920	168	980	158	37	23	67	393	12	9
17	10	16	732	168	644	365	32	24	60	314	11	9
18	9	16	562	158	542	345	33	26	61	259	14	9
19	9	13	350	721	350	259	32	26	128	188	15	9
20	9	13	250	547	250	234	32	26	562	140	12	9
21	9	13	200	300	170	199	942	24	394	100	11	10
22	8	13	150	140	150	124	1,760	22	453	58	11	11
23	8	14	120	86	160	93	1,240	21	1,650	41	10	11
24	8	13	80	128	200	80	822	18	1,060	89	15	9
25	8	13	70	286	150	177	602	19	502	168	15	9
26	8	13	50	209	100	840	361	18	361	168	15	8
27	8	12	50	116	80	573	196	18	300	168	13	9
28	8	13	50	150	83	345	124	18	153	158	12	8
29	8	38	67	280	100	634	100	16	108	108	11	9
30	8	1,270	86	250	-------	2,440	93	18	116	48	12	8
31	8	-------	244	180	-------	1,510	-------	16	-------	35	11	-------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	11	8	9.26	May	83	16	35.9
November	1,270	9	54.0	June	2,710	15	556
December	3,020	45	384	July	688	35	173
January	721	66	198	August	29	10	14.5
February	1,590	80	375	September	11	8	9.23
March	2,440	46	324				
April	1,760	32	327	The year	3,020	8	204

STILLWATER RIVER AT ENGLEWOOD, OHIO

LOCATION.—Water-stage recorder in NW. ¼ sec. 23, T. 5 N., R. 5 E., 1,000 feet below Englewood Dam and half a mile southeast of Englewood. Zero of gage is 700.00 feet above mean sea level.

DRAINAGE AREA.—646 square miles.

RECORDS AVAILABLE.—November, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 5,610 second-feet Dec. 15 (gage height, 77.7 feet); minimum, 32 second-feet Sept. 25 (gage height, 70.53 feet).

1925–1928: Maximum discharge, 8,580 second-feet Mar. 22, 1927 (gage height, 79.4 feet); minimum, 25 second-feet July 27, 1926 (gage height, 70.20 feet).

The peak discharge during flood of March, 1913, was estimated by Miami Conservancy District at 85,400 second-feet.

REMARKS.—Records excellent. Flow automatically retarded at high stages at Englewood retarding basin. Gage-height record and part of discharge measurements furnished by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	75	4,860	1,060	347	376	1,560	430	156	448	148	56
2	105	80	4,880	532	320	370	967	378	156	354	137	58
3	111	84	3,220	554	285	356	704	360	152	321	135	62
4	93	78	1,380	504	296	360	534	342	201	311	126	57
5	93	84	849	437	1,250	360	443	334	628	1,220	122	53
6	81	88	636	406	1,940	344	391	320	3,210	1,350	115	87
7	89	73	491	394	1,580	325	376	303	4,620	952	111	76
8	84	81	467	417	2,290	304	358	275	3,000	595	111	62
9	78	80	532	590	2,200	313	340	254	2,450	430	102	62
10	66	79	400	605	1,400	312	322	245	2,770	352	105	56
11	71	79	464	552	886	312	294	247	1,900	301	157	56
12	100	79	519	551	634	316	276	247	1,050	282	122	60
13	106	79	1,140	536	512	338	256	231	734	309	102	69
14	105	74	4,550	510	1,060	1,010	258	210	568	1,160	93	79
15	111	88	5,440	464	4,030	1,160	248	205	414	1,350	86	60
16	109	125	4,170	418	4,320	758	221	206	354	740	74	63
17	102	238	1,780	405	2,660	596	224	199	315	470	86	50
18	92	231	837	394	1,520	497	213	215	432	352	77	55
19	90	262	523	630	1,050	446	205	219	620	310	81	60
20	95	225	383	1,980	762	453	204	228	3,220	265	78	54
21	84	200	400	1,150	607	454	736	221	3,890	253	76	54
22	78	178	361	544	530	444	3,620	215	4,320	279	78	52
23	79	166	350	528	506	402	4,320	193	4,320	282	69	57
24	77	188	349	477	664	372	3,120	178	4,170	266	63	37
25	79	197	350	810	695	362	1,870	187	2,550	230	64	43
26	76	179	326	848	474	386	1,180	184	1,370	197	62	61
27	79	203	315	531	406	612	874	181	990	188	77	48
28	82	290	342	420	417	450	716	177	799	176	77	45
29	75	367	381	372	392	388	584	164	660	171	70	53
30	81	1,540	430	360	------	1,700	494	168	548	188	70	62
31	69	------	885	364	------	3,000	------	156	------	149	58	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	111	66	87.8	0.136	0.16
November	1,540	73	193	.299	.33
December	5,440	315	1,360	2.11	2.43
January	1,980	360	592	.916	1.06
February	4,320	285	1,170	1.81	1.95
March	3,000	304	577	.893	1.03
April	4,320	204	864	1.34	1.50
May	430	156	241	.373	.43
June	4,620	152	1,690	2.62	2.92
July	1,350	149	460	.712	.82
August	157	58	94.6	.146	.17
September	87	37	58.2	.090	.10
The year	5,440	37	611	.946	12.90

GREENVILLE CREEK NEAR GREENVILLE, OHIO

LOCATION.—Chain gage on highway bridge on west line of sec. 31, T. 10 N., R. 3 E., 1½ miles east of Greenville.

DRAINAGE AREA.—141 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 1,920 second-feet Dec. 1 (gage height, 7.4 feet); minimum, 18 second-feet Oct. 23 and 30 (gage height, 1.52 feet).

1923–1928: Maximum discharge, 4,200 second-feet June 9, 1924; minimum, 10 second-feet Sept. 9, 1925.

REMARKS.—Records good except those for periods of ice effect, Dec. 21 and Jan. 1–5, which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	22	1,920		66	101	289	117	42	133	51	26
2	46	23	1,170		49	92	225	109	36	117	47	24
3	39	22	605	150	68	98	168	95	39	98	44	27
4	34	24	335		63	89	133	89	289	101	46	24
5	27	21	205		605	86	117	95	433	335	38	23
6	28	19	150	81	515	76	109	86	1,120	575	41	21
7	23	22	125	86	545	71	117	78	1,120	289	34	22
8	22	21	358	142	575	73	109	73	665	186	31	24
9	21	22	225	168	515	76	98	71	840	133	34	20
10	24	23	101	142	289	83	86	68	875	101	29	21
11	23	24	117	150	205	81	83	78	487	86	34	22
12	32	27	215	142	159	78	78	73	289	83	27	27
13	66	22	289	142	142	83	73	66	246	142	32	24
14	38	26	1,720	133	382	407	76	63	186	605	28	20
15	28	24	1,270	125	950	246	66	61	142	312	26	21
16	32	31	665	109	950	186	61	66	117	177	23	20
17	31	81	335	101	545	150	63	76	98	125	26	21
18	23	83	186	95	382	133	66	71	109	101	31	32
19	22	61	159	117	225	133	63	81	177	89	26	21
20	21	49	95	433	186	133	61	89	1,420	78	28	20
21	20	44	86	186	168	133	117	71	1,720	205	27	21
22	24	32	86	168	142	142	1,320	63	1,030	186	22	20
23	18	27	81	98	159	133	1.120	59	665	150	26	19
24	23	39	63	109	236	133	735	51	605	98	28	22
25	21	51	51	335	159	98	433	57	433	76	59	21
26	20	47	49	133	95	117	289	53	358	68	34	20
27	21	35	53	150	53	109	246	51	289	61	31	21
28	20	61	59	101	117	86	196	55	236	133	28	22
29	19	177	117	92	117	83	168	39	215	73	22	20
30	18	433	150	81	------	665	150	47	168	59	26	21
31	21	------	382	71	------	515	------	46	------	53	22	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	66	18	26.9	0.191	0.22
November	433	19	53.1	.377	.42
December	1,920	49	369	2.62	3.02
January	433	71	143	1.01	1.16
February	950	49	299	2.12	2.29
March	665	71	151	1.07	1.23
April	1,320	61	230	1.63	1.82
May	117	39	70.9	.503	.58
June	1,720	36	482	3.42	3.82
July	605	53	162	1.15	1.33
August	59	22	32.3	.229	.26
September	32	19	22.2	.157	.18
The year	1,920	18	169	1.20	16.33

MAD RIVER NEAR URBANA, OHIO

LOCATION.—Chain gage on west line of sec. 35, T. 5 E., R. 11 N., half a mile above Pennsylvania Railroad crossing and 2½ miles west of Urbana.

DRAINAGE AREA.—157 square miles.

RECORDS AVAILABLE.—September, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 1,760 second-feet Feb. 7 (gage height, 5.0 feet); minimum, 69 second-feet Sept. 18 and 22 (gage height, 1.22 feet).

1925–1928: Maximum discharge, 2,320 second-feet Mar. 21, 1927 (gage height, 5.8 feet); minimum, 50 second-feet Oct. 21, 1925 (gage height, 0.90 foot).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	90	1,070	111	135	173	161	173	96	198	173	84
2	145	118	535	109	135	173	173	173	93	186	173	81
3	145	125	224	125	188	173	161	140	100	173	149	84
4	125	111	188	125	212	186	173	131	123	173	149	98
5	135	125	107	145	188	173	173	173	254	136	96	107
6	135	111	104	156	200	173	173	173	254	140	119	111
7	135	125	118	166	1,760	186	198	173	240	149	123	115
8	145	121	118	177	420	173	145	161	225	136	140	119
9	125	125	114	188	254	123	173	173	225	161	127	76
10	145	125	107	188	240	173	173	173	123	149	149	73
11	166	125	114	177	198	198	140	173	131	145	149	96
12	156	107	121	188	186	198	173	149	173	161	109	89
13	145	104	121	188	173	173	198	149	198	149	142	138
14	145	107	114	188	225	173	198	161	186	140	173	173
15	145	116	111	177	420	136	173	107	161	173	138	142
16	145	145	105	188	316	131	198	111	149	173	113	94
17	156	135	104	156	316	149	145	123	186	140	134	81
18	145	125	102	156	254	173	127	123	198	149	138	69
19	125	111	105	263	198	173	107	127	212	161	102	72
20	111	111	111	212	149	173	123	173	438	173	86	75
21	118	125	102	212	173	149	225	107	475	173	79	72
22	121	90	104	188	186	149	212	111	420	254	86	69
23	123	87	102	188	198	173	198	100	420	254	89	72
24	102	87	107	166	186	173	186	103	438	620	96	81
25	90	90	109	145	173	198	198	107	350	350	103	78
26	104	92	111	145	173	198	186	103	254	225	79	75
27	104	111	107	135	186	198	173	96	240	145	83	95
28	90	145	111	166	198	173	173	100	225	111	75	88
29	95	145	114	166	198	198	186	103	212	123	78	78
30	100	118	114	145	-------	186	186	107	198	161	87	75
31	104	-------	177	135	-------	186	-------	111	-------	198	94	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	166	90	128	0.815	0.94
November	145	87	115	.732	.82
December	1,070	102	163	1.04	1.20
January	263	109	167	1.06	1.22
February	1,760	135	270	1.72	1.86
March	198	123	173	1.10	1.27
April	225	107	174	1.11	1.24
May	173	96	135	.860	.99
June	475	93	233	1.48	1.65
July	620	111	186	1.18	1.36
August	173	75	117	.745	.86
September	173	69	92	.586	.65
The year	1,760	69	162	1.03	14.06

MAD RIVER NEAR SPRINGFIELD, OHIO

LOCATION.—Water-stage recorder in NW. ¼ sec. 16, T. 4, R. 9, 150 feet below Rock Run and 3 miles west of Springfield. Zero of gage is 881.95 feet above mean sea level.

DRAINAGE AREA.—485 square miles.

RECORDS AVAILABLE.—March, 1924, to September, 1928. January, 1904, to March, 1906, and February, 1914, to February, 1924, at site 1¾ miles upstream.

EXTREMES.—Maximum discharge during year, 7,270 second-feet Dec. 1 (gage height, 8.51 feet); minimum, 173 second-feet Sept. 17 (gage height, 1.66 feet).

1914–1928: Maximum discharge, 11,400 second-feet Mar. 29, 1924 (gage height, 11.5 feet); minimum, 110 second-feet July 20 and 25, 1925 (gage height, 1.44 feet).

Maximum stage known, 16.9 feet Mar. 25, 1913 (discharge estimated by Miami Conservancy District, 55,400 second-feet).

REMARKS.—Records excellent.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	280	275	5,730	595	383	533	595	472	292	533	348	216
2	286	264	1,400	564	366	502	533	472	280	595	331	216
3	275	270	958	472	366	502	472	442	253	502	320	216
4	280	280	785	442	378	502	442	442	442	595	308	205
5	275	286	688	406	1,720	502	412	442	657	1,030	343	210
6	264	275	626	406	785	472	406	442	1,310	657	595	226
7	366	280	595	412	1,320	442	597	412	818	533	371	216
8	314	286	595	626	2,250	442	720	412	657	472	354	210
9	275	292	502	626	1,400	472	533	412	818	442	314	205
10	275	280	472	533	920	502	472	406	720	412	354	200
11	280	292	657	533	752	502	472	412	533	400	297	194
12	308	292	818	533	657	472	442	406	472	400	275	194
13	320	286	1,550	533	626	533	412	400	442	533	270	189
14	308	286	4,660	533	1,220	752	502	389	412	502	264	194
15	292	297	1,490	502	2,360	657	472	389	389	502	264	189
16	286	412	1,150	472	1,230	564	442	395	366	442	258	184
17	280	752	818	472	995	533	412	400	348	389	258	179
18	286	564	657	472	850	472	406	400	400	366	264	179
19	286	442	595	734	720	472	395	406	1,230	354	248	179
20	275	400	533	885	657	472	377	406	5,080	533	242	184
21	264	400	533	533	595	472	1,520	395	2,700	848	248	189
22	264	383	502	502	595	472	2,690	377	2,840	472	242	189
23	248	360	472	472	626	442	1,310	354	1,400	442	231	184
24	253	406	472	502	850	442	995	343	1,150	395	237	184
25	258	406	412	920	688	442	818	343	995	366	248	184
26	264	395	406	595	595	472	688	337	752	354	231	184
27	264	472	406	472	533	533	595	320	688	371	221	184
28	264	818	412	412	533	502	564	320	626	502	226	184
29	258	785	595	412	533	602	533	303	657	400	226	189
30	258	2,430	595	412	-------	1,050	502	326	626	354	253	194
31	264	-------	818	406	-------	688	-------	303	-------	348	237	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	366	248	280	0.577	0.67
November	2,430	264	456	.940	1.05
December	5,730	406	997	2.06	2.38
January	920	406	529	1.09	1.26
February	2,360	366	879	1.81	1.95
March	1,050	442	530	1.09	1.26
April	2,690	377	658	1.36	1.52
May	472	303	390	.804	.93
June	5,080	253	945	1.95	2.18
July	1,030	348	485	1.00	1.15
August	595	221	286	.590	.68
September	226	179	195	.402	.45
The year	5,730	179	550	1.13	15.48

MAD RIVER NEAR DAYTON, OHIO

LOCATION.—Water-stage recorder in SW. ¼ sec. 7, T. 2, R. 8, just below Huffman Dam, 6 miles northeast of Dayton. Zero of gage is 700.00 feet above mean sea level.

DRAINAGE AREA.—632 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1928. November, 1914, to September, 1921, at site 1 mile upstream.

EXTREMES.—Maximum discharge during year, 6,420 second-feet Dec. 1 (gage height, 85.4 feet); minimum 190 second-feet Sept. 24.

1924–1928: Maximum discharge, 9,880 second-feet Jan. 20, 1927 (gage height, 86.6 feet); minimum, 123 second-feet Sept. 6–12, 1925 (gage height, 79.4 feet).

Maximum stage known, 14.0 feet, former gage datum, Mar. 25, 1913 (discharge estimated by Miami Conservancy District, 75,700 second-feet).

REMARKS.—Records good except those estimated, Jan. 3–6, which are fair. Flow at high stages automatically regulated at Huffman retarding basin. Gage-height record and part of discharge measurements furnished by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	298	316	5,800	920	430	525	680	525	323	880	364	252
2	298	298	3,030	640	376	525	600	492	323	800	346	234
3	298	298	1,500	604	376	525	525	460	312	800	329	230
4	298	298	1,160	568	400	525	460	460	364	720	306	223
5	298	316	960	532	2,250	525	430	460	640	1,030	300	219
6	281	298	800	496	1,190	492	430	492	1,200	1,100	580	219
7	373	298	720	460	1,300	460	562	492	1,440	800	400	227
8	353	298	760	600	3,110	460	840	492	840	640	376	219
9	316	298	562	800	1,950	460	600	492	880	600	329	219
10	298	298	525	720	1,240	525	492	460	1,000	562	329	215
11	298	298	680	680	920	525	460	460	720	525	334	204
12	298	281	1,080	680	760	525	460	492	562	492	289	208
13	334	298	1,440	680	720	525	430	460	562	492	274	208
14	316	281	5,230	640	1,140	760	492	460	525	562	265	211
15	316	281	3,160	600	3,180	760	525	430	460	562	270	208
16	298	334	1,680	525	1,680	640	430	430	430	562	265	200
17	298	615	1,160	525	1,240	562	430	430	430	492	270	197
18	298	665	880	492	1,080	525	430	430	460	460	289	200
19	298	477	720	706	880	492	394	430	798	460	274	204
20	298	435	680	1,340	800	492	382	430	6,380	430	265	204
21	298	393	600	640	680	460	2,450	430	5,000	1,060	265	208
22	298	393	600	640	640	460	3,770	400	3,840	720	265	204
23	298	373	562	525	680	460	1,860	388	2,410	562	270	200
24	298	373	525	525	1,000	430	1,330	370	1,860	492	256	197
25	298	414	525	1,120	840	430	1,080	352	1,590	460	260	194
26	298	393	460	760	640	525	880	352	1,240	430	265	194
27	298	435	460	600	562	600	760	352	1,080	400	247	194
28	281	715	460	562	562	562	680	346	920	430	238	194
29	281	875	640	525	562	746	600	329	920	460	238	197
30	298	1,860	800	492	-------	1,330	562	329	920	430	234	200
31	281	-------	960	492	-------	920	-------	317	-------	382	247	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	337	281	303	0.479	0.55
November	1860	281	440	.696	.78
December	5,800	460	1,260	1.99	2.29
January	1,340	460	648	1.03	1.19
February	3,180	376	1,080	1.71	1.84
March	1,330	430	573	.907	1.05
April	3,770	382	801	1.27	1.42
May	525	317	427	.676	.78
June	6,380	312	1,280	2.03	2.26
July	1,100	382	606	.959	1.11
August	580	234	298	.472	.54
September	252	194	209	.331	.37
The year	6,380	194	660	1.04	14.18

BUCK CREEK AT SPRINGFIELD, OHIO

LOCATION.—Staff gage at power plant of Ohio Edison Co., 300 feet below Fountain Avenue Bridge in Springfield, Clark County.

DRAINAGE AREA.—130 square miles.

RECORDS AVAILABLE.—May, 1924, to September, 1928. July, 1914, to September, 1921, at Plum Street Bridge, half a mile downstream.

EXTREMES.—Maximum discharge during year, 2,800 second-feet June 20 (gage height, 7.4 feet); minimum, 35 second-feet Sept. 8, 10, 11, 15, 17–20, and 24–29 (gage height, 2.30 feet).

1924–1928: Maximum discharge, about 10,500 second-feet June 8, 1924 (gage height, 14.2 feet); minimum, 13 second-feet July 10, 1925 (gage height, 2.30 feet).

Maximum stage known, 12.3 feet at Plum Street gage Mar. 25, 1913 (discharge estimated by Miami Conservancy District, 11,100 second-feet).

REMARKS.—Records good. Gage-height record furnished by Ohio Edison Co.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	68	715	138	81	120	141	104	77	172	83	59
2	66	61	267	104	74	111	130	100	74	152	83	52
3	68	72	186	96	76	118	118	100	72	128	76	51
4	66	72	157	89	91	123	106	100	217	146	77	49
5	68	72	123	87	670	118	104	111	250	550	85	51
6	70	77	111	96	186	113	106	104	392	172	186	61
7	172	79	104	96	550	108	319	93	172	128	113	64
8	81	72	102	172	450	102	234	93	138	98	96	42
9	70	76	85	152	319	144	172	98	234	96	83	46
10	66	76	83	116	202	138	130	93	157	100	116	41
11	66	74	250	116	141	111	128	104	111	91	70	38
12	120	76	234	118	128	141	133	96	111	111	76	48
13	85	70	450	128	128	152	118	96	104	172	70	43
14	59	76	850	123	470	234	172	93	113	149	49	45
15	49	81	319	125	430	157	138	100	102	186	64	38
16	68	120	284	118	302	125	130	91	87	116	64	39
17	70	234	172	111	217	128	130	93	81	93	68	36
18	51	130	130	106	217	128	113	89	186	85	70	35
19	68	85	111	133	202	125	106	102	510	79	68	36
20	77	87	104	202	141	125	104	91	1,940	144	66	35
21	70	96	98	113	133	125	805	85	630	267	64	46
22	68	85	91	98	120	120	550	81	630	125	64	48
23	66	83	87	104	186	118	337	85	284	104	64	43
24	66	81	85	172	217	108	267	81	267	87	64	36
25	66	89	76	284	144	128	202	102	267	79	68	35
26	66	87	77	133	135	152	157	85	202	72	66	35
27	74	118	79	118	130	157	135	89	172	91	66	35
28	74	267	76	89	128	118	106	87	157	202	66	35
29	79	172	157	87	125	202	120	87	172	89	63	36
30	66	715	144	87	-------	337	108	93	144	83	64	43
31	66	-------	186	85	-------	186	-------	77	-------	89	64	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	172	49	73.2	0.563	0.65
November	715	61	118	.908	1.02
December	850	76	193	1.48	1.71
January	284	85	122	.939	1.08
February	670	74	220	1.69	1.82
March	337	102	141	1.08	1.24
April	805	104	187	1.44	1.61
May	111	77	93.8	.722	.83
June	1,940	72	268	2.06	2.30
July	550	72	137	1.05	1.21
August	186	49	76.6	.589	.68
September	64	35	43.4	.334	.37
The year	1,940	35	139	1.07	14.52

TWIN CREEK NEAR GERMANTOWN, OHIO

LOCATION.—Water-stage recorder in NW. ¼ sec. 11, T. 3 N., R. 4 E., a quarter of a mile below Germantown Dam and 1½ miles northwest of Germantown. Zero of gage is 700.00 feet above mean sea level.

DRAINAGE AREA.—275 square miles.

RECORDS AVAILABLE.—December, 1926, to September, 1928. April, 1914, to December, 1923, at site 1 mile downstream.

EXTREMES.—Maximum discharge during year, 6,410 second-feet Dec. 1 (gage height, 27.05 feet); minimum, 7 second-feet Sept. 26 (gage height, 18.28 feet).

1914–1923, 1926–1928: Maximum discharge, 8,480 second-feet Apr. 21, 1920; minimum, that of Sept. 26, 1928.

Maximum stage known, 18.3 feet, old datum, Mar. 25, 1913 (discharge estimated by Miami Conservancy District, 66,000 second-feet).

REMARKS.—Records good. Discharge estimated January 2–7, because of ice. Flow at high stages automatically regulated at Germantown retarding basin. Gage-height record and part of discharge measurements furnished by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	24	6,080	363	209	140	344	200	54	150	36	16
2	259	24	2,960	360	162	130	256	162	49	130	33	16
3	256	24	1,270		94	121	200	130	41	121	32	16
4	115	25	910		149	121	162	112	108	219	32	15
5	69	25	690		1,520	112	140	112	347	2,410	30	14
6	53	25	542	550	740	107	130	112	1,740	850	31	14
7	276	24	449		1,270	99	140	101	850	426	33	15
8	74	25	426	640	1,630	94	140	94	640	273	32	15
9	52	26	325	404	1,030	101	121	91	970	200	30	15
10	43	26	290	256	615	112	101	91	690	162	65	14
11	39	25	542	226	404	121	99	92	449	130	45	14
12	97	26	590	226	325	121	101	96	308	112	41	12
13	101	25	969	226	290	140	94	86	226	130	32	12
14	95	25	2,920	213	1,290	308	103	78	174	121	29	11
15	64	25	1,270	200	1,760	290	108	74	140	107	25	11
16	52	37	910	162	910	226	91	75	112	91	24	10
17	44	363	640	150	690	187	86	86	105	77	25	10
18	40	228	426	140	542	150	92	91	207	68	54	10
19	36	137	344	542	363	150	91	130	283	64	36	10
20	33	95	325	890	325	150	83	150	2,150	62	29	9
21	32	79	250	347	226	140	1,300	112	1,030	146	26	10
22	30	76	213	273	213	130	3,250	96	575	150	22	10
23	28	66	162	200	256	121	1,630	80	1,090	94	19	10
24	28	136	130	214	363	108	1,030	74	1,030	73	23	9
25	26	214	110	518	273	103	795	67	690	60	30	8
26	26	139	94	354	187	150	590	65	472	53	23	8
27	26	246	83	256	150	174	449	63	344	49	20	8
28	26	694	77	320	174	130	363	59	308	43	18	8
29	24	690	362	495	162	353	308	57	273	41	17	10
30	24	2,200	344	472	-------	770	256	57	200	39	17	12
31	24	-------	518	344	-------	518	-------	48	-------	37	17	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	276	24	71.0	0.258	0.30
November	2,200	24	192	.698	.78
December	6,080	77	814	2.96	3.41
January	890	140	354	1.29	1.49
February	1,760	94	563	2.05	2.21
March	770	94	183	.666	.77
April	3,250	83	422	1.53	1.71
May	200	48	94.9	.345	.40
June	2,150	41	522	1.90	2.12
July	2,410	37	216	.786	.91
August	65	17	29.9	.109	.13
September	16	8	11.7	.043	.05
The year	6,080	8	288	1.05	14.28

WHITEWATER RIVER AT BROOKVILLE, IND.

LOCATION.—Chain gage to Sept. 27 and water-stage recorder thereafter in sec. 32, T. 9 N., R. 2 W., at highway bridge three-fourths mile south of Brookville and 2,000 feet below junction of East and West Forks.

DRAINAGE AREA.—1,180 square miles.

RECORDS AVAILABLE.—June, 1915, to May, 1920; October, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 28,400 second-feet Dec. 1 (gage height, 15.05 feet); minimum, 152 second-feet Sept. 21, 25, and 28 (gage height, 1.70 feet).

REMARKS.—Records good. Gage heights Oct. 1 to Aug. 24 furnished by Department of Conservation, State of Indiana.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	585	282	28,400	1,520	880	1,420	1,920	1,320	520	1,140	353	240
2	1,420	282	4,880	965	800	1,230	1,720	1,230	520	922	405	213
3	655	260	3,160	880	800	1,230	1,420	1,140	490	840	405	220
4	585	305	2,460	880	880	1,230	1,320	1,050	922	762	460	192
5	460	260	2,020	800	16,400	1,230	1,230	1,050	2,570	3,680	405	206
6	405	260	1,720	880	3,960	1,010	1,140	1,050	8,480	3,280	353	213
7	1,230	305	1,620	1,010	3,960	1,050	1,230	922	3,540	1,820	353	202
8	965	305	2,130	1,420	5,540	965	1,320	800	2,460	1,320	353	206
9	460	305	1,420	1,520	4,240	1,050	1,140	800	6,080	1,140	305	213
10	405	305	1,420	1,420	2,920	1,140	1,050	800	5,200	965	353	199
11	379	305	2,680	1,320	2,240	1,050	965	840	2,570	840	305	188
12	520	305	2,800	1,230	1,920	1,050	965	840	2,020	725	305	192
13	655	305	3,680	1,320	1,820	1,140	880	725	1,620	725	260	185
14	585	305	19,500	1,230	6,080	1,920	965	690	1,420	1,230	260	192
15	520	305	4,100	1,230	9,420	1,720	922	690	1,140	965	260	196
16	460	353	3,160	1,140	3,960	1,420	840	655	1,050	762	260	188
17	460	1,920	2,240	1,050	3,040	1,420	800	725	922	655	220	185
18	432	1,140	1,720	1,050	2,800	1,230	965	922	2,350	585	965	178
19	405	655	1,420	1,140	1,920	1,230	880	965	1,820	552	405	178
20	379	520	1,320	3,400	2,020	1,230	800	1,720	4,400	520	353	178
21	353	405	1,230	1,520	1,520	1,230	2,800	1,050	3,960	520	305	168
22	353	460	1,100	1,230	1,620	1,140	15,800	880	2,350	1,420	282	178
23	329	405	1,100	1,230	1,920	1,050	6,620	725	2,680	725	260	196
24	329	880	965	1,140	2,680	880	3,680	655	2,800	520	305	172
25	305	800	880	2,920	2,020	965	2,920	655	2,350	460	405	172
26	305	655	800	1,820	1,420	2,460	2,460	655	1,920	432	329	165
27	305	655	800	1,320	1,420	1,820	2,020	620	1,720	405	260	172
28	305	6,620	840	965	1,420	1,320	1,820	585	1,420	460	260	152
29	260	3,040	1,720	965	1,420	1,230	1,620	552	1,520	490	240	165
30	260	1,920	1,620	965	-------	2,920	1,420	585	1,320	432	240	175
31	305	-------	1,820	880	-------	2,460	-------	585	-------	405	240	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,420	260	496	0.420	0.48
November	6,620	260	827	.701	.78
December	28,400	800	3,380	2.86	3.30
January	3,400	800	1,300	1.10	1.27
February	16,400	800	3,140	2.66	2.87
March	2,920	880	1,370	1.16	1.34
April	15,800	800	2,120	1.80	2.01
May	1,720	552	854	.724	.83
June	8,480	490	2,400	2.03	2.26
July	3,680	405	958	.812	.94
August	965	240	338	.286	.33
September	240	152	189	.160	.18
The year	28,400	152	1,440	1.22	16.59

KENTUCKY RIVER BASIN

NORTH FORK OF KENTUCKY RIVER AT JACKSON, KY.

LOCATION.—Chain gage at highway bridge at Jackson, 4 miles below mouth of Quicksand Creek.
DRAINAGE AREA.—1,100 square miles.
RECORDS AVAILABLE.—June to September, 1928.
EXTREMES.—Maximum discharge during period, 17,200 second-feet June 30 (gage height, 19.8 feet); minimum, 92 second-feet Sept. 29 (gage height, 1.57 feet).
REMARKS.—Records good except those for extremely high water, which are poor. Discharge interpolated Sept. 7.

Daily and monthly discharge, in second-feet, 1928

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	602	4,860	152	1,560	16	796	836	209	141
2	1,100	2,160	152	1,400	17	639	717	369	141
3	678	1,400	141	1,660	18	796	530	1,830	113
4	796	1,100	119	1,500	19	602	430	3,490	102
5	796	1,720	108	921	20	463	369	1,500	186
6	717	1,610	198	566	21	566	326	965	198
7	639	1,200	530	496	22	1,010	326	602	326
8	566	878	284	463	23	921	2,000	463	298
9	1,100	2,280	245	602	24	1,880	1,010	354	232
10	5,500	3,280	220	312	25	2,000	566	312	174
11	2,050	2,000	186	258	26	4,020	398	298	152
12	1,400	1,400	152	209	27	2,340	369	398	111
13	1,300	1,560	152	198	28	1,300	312	398	102
14	1,100	1,660	174	163	29	8,960	258	369	96
15	921	1,100	163	141	30	13,800	209	326	104
					31	-------	186	836	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
June	13,800	463	1,980	1.80	2.01
July	4,860	186	1,200	1.09	1.26
August	3,490	108	506	.46	.53
September	1,560	96	431	.39	.44

KENTUCKY RIVER AT LOCK 14, AT HEIDELBERG, KY.

LOCATION.—Staff gage at Lock 14, at Heidelberg, Lee County, one-fourth mile above mouth of Sturgeon Creek. Zero of gage is 631.00 feet above mean sea level.

DRAINAGE AREA.—2,610 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 29,500 second-feet June 30 (gage height, 18.6 feet); minimum, about 75 second-feet Nov. 1–4 (gage height, 8.6 feet).

1925–1928: Maximum discharge, 59,000 second-feet Dec. 23, 1926 (gage height, 29.8 feet); minimum, about 14 second-feet Oct. 1, 1925 (gage height, 7.7 feet).

REMARKS.—Records good except those for low water and extremely high water, which are fair, and those for extremely low water, which are poor. Gage-height record furnished by United States Engineer Corps.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	125	75	590	18,700	2,010	2,210	9,590	15,800	1,390	19,400	400	2,900
2	125	75	690	10,600	1,730	1,730	6,980	9,590	1,730	8,600	400	2,900
3	125	75	2,010	3,410	1,390	1,560	5,120	6,350	1,390	7,300	315	2,430
4	110	75	6,040	1,560	1,310	1,310	3,680	4,530	2,540	2,540	315	2,900
5	95	95	3,960	1,640	1,310	1,160	3,020	2,900	6,660	9,590	315	2,540
6	95	95	2,210	1,640	3,020	1,030	2,320	2,540	5,120	11,200	240	1,640
7	95	95	1,640	1,640	4,820	1,030	2,010	2,010	3,410	5,730	540	1,100
8	95	358	1,310	1,640	6,980	970	2,110	1,820	2,430	3,410	800	910
9	95	2,900	1,030	1,730	6,980	910	2,110	1,470	5,120	3,020	590	745
10	110	3,280	855	1,820	5,730	2,110	1,730	1,240	18,300	6,350	445	590
11	125	1,820	745	1,640	4,820	3,150	1,730	1,160	11,600	5,730	400	490
12	175	1,100	800	1,560	6,980	2,780	6,040	1,160	6,350	3,280	315	400
13	240	800	2,010	1,470	3,150	2,430	10,200	1,030	4,530	6,980	278	315
14	315	640	8,270	1,310	2,780	2,430	9,920	910	3,410	8,270	240	278
15	315	540	7,620	1,310	4,240	2,660	12,900	800	3,960	4,820	400	240
16	315	590	7,300	1,160	4,530	6,980	10,900	690	3,150	2,660	400	240
17	315	19,000	7,620	1,160	3,410	20,500	7,620	590	2,320	1,730	400	175
18	240	21,500	6,660	1,030	3,280	17,900	5,420	1,100	1,730	1,240	1,820	175
19	240	8,600	4,240	5,730	2,900	11,600	3,960	3,280	1,640	1,100	5,730	175
20	240	3,960	2,320	20,800	2,660	9,590	3,960	14,300	1,240	910	3,680	125
21	208	2,210	1,560	15,100	2,430	10,900	6,660	17,900	1,390	1,030	1,820	125
22	175	1,560	1,240	7,620	2,430	12,300	8,270	10,200	2,320	910	1,240	175
23	175	1,160	1,030	4,530	3,150	10,900	16,900	6,350	2,660	3,960	855	358
24	175	910	910	3,680	4,240	8,930	21,500	4,820	6,040	4,240	640	445
25	125	800	800	6,040	7,300	6,350	17,200	3,280	8,600	1,640	590	358
26	125	690	690	7,300	3,680	6,040	10,200	3,960	10,200	1,030	490	208
27	125	690	590	6,350	3,020	5,730	9,590	6,980	10,200	1,560	590	175
28	125	690	490	3,960	2,660	5,730	21,500	9,590	5,420	970	590	175
29	95	590	640	2,320	2,430	5,120	25,200	9,260	25,900	690	590	175
30	95	590	5,420	1,730	------	10,900	23,000	5,730	28,100	540	640	175
31	95	------	9,590	1,820	------	17,200	------	3,410	------	400	1,730	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	315	95	165	0.063	0.07
November	21,500	75	2,520	.966	1.08
December	9,590	490	2,930	1.12	1.29
January	20,800	1,030	4,580	1.75	2.02
February	7,300	1,310	3,630	1.39	1.50
March	20,500	910	6,260	2.40	2.77
April	25,200	1,730	9,040	3.46	3.86
May	17,900	590	4,990	1.91	2.20
June	28,100	1,240	6,300	2.41	2.69
July	19,400	400	4,220	1.62	1.87
August	5,730	240	897	.344	.40
September	2,900	125	788	.302	.34
The year	28,100	75	3,850	1.48	20.09

KENTUCKY RIVER AT LOCK 10, NEAR WINCHESTER, KY.

LOCATION.—Staff gage at Lock 10, in Madison County, 8 miles southwest of Winchester, Clark County. Zero of gage is 558.6 feet and crest of dam is 567.6 feet above mean sea level.

DRAINAGE AREA.—3,990 square miles.

RECORDS AVAILABLE.—October, 1909, to September, 1928.

EXTREMES.—Maximum discharge during year, 46,800 second-feet June 30 (gage height, 22.8 feet); minimum, 165 second-feet Nov. 2 (gage height, 9.40 feet).

1909–1928: Maximum discharge, about 68,500 second-feet Mar. 29, 1913 (gage height, 35.1 feet); minimum mean daily discharge, about 10 second-feet Sept. 28, 1913.

REMARKS.—Records good except those for extremely low and extremely high water, which are fair. Gage-height record furnished by the United States Engineer Corps.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	338	178	840	15,600	2,860	3,690	15,100	22,200	3,690	42,600	680	3,480
2	300	172	840	16,400	2,860	3,270	9,760	13,900	2,860	24,300	960	3,480
3	272	224	960	7,760	2,490	2,860	6,840	8,740	2,150	8,740	960	3,270
4	244	237	3,270	3,690	2,150	2,490	5,280	6,020	5,280	5,770	960	2,860
5	230	224	5,040	2,670	2,320	2,150	4,350	4,810	8,740	18,700	1,830	3,060
6	198	184	3,480	2,490	3,480	1,990	3,690	3,910	8,400	16,400	630	2,670
7	198	210	2,490	2,490	6,020	1,750	3,270	3,270	6,840	10,050	1,370	1,990
8	210	415	1,990	2,670	8,400	1,600	3,270	2,860	5,040	7,440	3,270	1,440
9	204	2,320	1,600	3,270	9,080	1,520	3,270	2,490	11,200	6,560	2,860	1,090
10	204	3,690	1,300	3,480	8,080	1,520	3,060	2,150	22,700	9,420	1,440	840
11	178	3,060	1,090	3,060	6,560	2,860	2,670	1,830	22,200	10,100	900	730
12	258	1,990	1,230	3,060	5,520	3,690	3,060	1,600	11,600	8,740	680	585
13	630	1,370	5,040	2,670	4,580	3,270	8,400	1,520	9,080	10,800	549	540
14	730	1,020	13,500	2,490	4,350	3,690	11,600	1,300	7,140	19,700	472	391
15	594	730	13,100	2,320	5,280	3,690	14,300	1,160	5,770	11,600	455	375
16	439	1,160	20,700	1,990	6,020	5,520	13,500	1,090	5,280	6,020	585	375
17	489	18,200	12,000	1,990	5,770	17,800	10,500	960	3,910	3,910	680	360
18	352	31,400	10,100	1,990	5,040	23,200	7,440	1,090	4,130	2,860	960	375
19	447	21,700	7,440	10,800	4,580	17,800	5,770	4,350	3,270	2,320	8,080	315
20	423	7,760	5,040	21,700	4,130	13,100	4,810	7,440	2,490	1,830	6,560	258
21	368	4,130	3,480	23,800	3,910	13,100	5,040	17,800	3,910	1,600	3,910	217
22	265	2,670	2,490	13,500	3,480	14,300	7,760	15,100	8,740	1,990	2,490	204
23	230	1,990	2,150	7,440	3,690	13,900	12,000	8,080	5,280	6,840	1,670	300
24	230	1,600	1,670	3,270	7,760	11,600	19,200	5,770	5,280	9,420	1,230	431
25	322	1,370	1,520	9,080	6,840	9,080	22,200	4,810	11,200	4,810	1,230	506
26	338	1,090	1,300	9,420	6,280	7,440	15,100	6,280	14,700	2,670	1,160	472
27	300	960	1,090	8,400	5,040	7,760	11,600	6,280	13,900	2,670	960	391
28	237	900	960	6,560	4,580	6,840	19,700	8,080	9,760	4,350	900	315
29	217	840	960	4,580	4,130	6,560	26,900	10,100	39,700	2,320	840	360
30	217	730	1,830	3,480	------	8,400	27,900	8,080	45,000	1,670	1,020	352
31	204	------	6,560	2,860	------	17,800	------	5,280	------	840	1,830	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	730	178	318	0.080	0.09
November	31,400	172	3,750	.940	1.05
December	20,700	840	4,360	1.09	1.26
January	23,800	1,990	6,610	1.66	1.91
February	9,080	2,150	5,010	1.26	1.36
March	23,200	1,520	7,560	1.89	2.18
April	27,900	2,670	10,200	2.56	2.86
May	22,200	960	6,080	1.52	1.75
June	45,000	2,150	10,300	2.58	2.88
July	42,600	840	8,630	2.16	2.49
August	8,080	455	1,680	.421	.49
September	3,480	204	1,070	.268	.30
The year	45,000	172	5,460	1.37	18.62

KENTUCKY RIVER AT LOCK 6, AT WARWICK, KY.

LOCATION.—Staff gage at Lock 6, 1 mile northwest of Warwick, Woodford County.

DRAINAGE AREA.—5,140 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 61,100 second-feet June 30 (gage height, 26.0 feet); minimum, 110 second-feet Sept. 24 (gage height, 9.1 feet).

1925–1928: Maximum discharge, 75,400 second-feet Dec. 26, 1926 (gage height, 33.7 feet); minimum, 30 second-feet Oct. 8 and 9, 1925 (gage height, 9.0 feet).

REMARKS.—Records good except those for extremely high stages, which are fair, and those for extremely low stages, which are poor. Flow partly regulated by operation of hydroelectric plants on Dix River and at Lock 7 on Kentucky River. Gage-height record furnished by United States Engineer Corps.

Daily discharge, in second-feet, of Kentucky River at Lock 6 at Warwick, Ky., 1925–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1925–26												
1		1,670	7,470	1,450	6,330	7,870	7,470	3,730	1,900	1,020	6,700	5,970
2		1,900	5,620	1,380	7,470	7,470	6,700	3,590	3,170	1,020	2,390	5,970
3		1,900	4,630	1,230	9,550	6,700	5,620	2,900	2,770	820	2,260	19,800
4		1,900	3,880	1,450	19,300	6,700	4,630	2,900	2,640	820	1,560	21,000
5		1,900	4,020	1,780	23,200	6,700	4,020	2,900	2,260	1,020	2,020	14,900
6		1,900	5,280	1,900	25,400	5.620	3,730	2,900	2,140	1,080	1,670	8,700
7	125	3,040	4,630	2,020	14,400	4,320	3,450	2.640	1,670	8,280	1,670	5,970
8		11,800	4,020	2,390	10,400	5,620	3,450	2,640	1,670	7,470	1,300	5,970
9		12,300	4,020	2,390	7,470	5,970	3,170	1,900	1,670	4,020	1,230	4,950
10		14,400	3,730	1,450	6,700	5,970	2,900	2,260	1,560	2,520	766	3,450
11		11,400	2,900	1,450	5,620	5,970	2,900	2,640	1,230	1,780	640	3,730
12		10,400	2,640	1,450	4,950	5,620	4,630	3,170	1,080	1,670	1,020	3,310
13		24,800	2,390	1,450	4,320	5,280	11,800	3,170	1,450	1,450	820	2,520
14		23,700	1,900	1,450	8,700	5,280	10,900	3,170	1,900	1,780	820	2,020
15	210	18,200	2,140	1,450	18,800	5,280	9,550	2,900	2,140	1,450	960	1,450
16	2,770	11,400	2,140	1,450	28,100	5,970	8,700	7,080	3,450	1,450	1,230	1,450
17	7,470	7,470	2,140	1,670	28,600	5,970	7,470	25,900	6,330	1,230	3,040	1,450
18	9,550	5,970	1,900	9,550	17,600	6,330	5,970	36,400	4,320	1,230	4,630	1,450
19	5,970	6,330	1,670	14,900	11,800	6,330	5,280	27,000	3,450	1,020	13,300	1,170
20	3,880	5,280	1,450	17,100	11,800	5,970	4,630	10,400	2,640	1,020	14,900	960
21	2,640	3,880	1,450	24,800	14,900	5.970	3,880	5,970	2,520	1,020	16,000	1,020
22	1,780	3,450	1,450	53,300	16,600	5,970	3,310	4,630	1,900	1,020	10,000	1,020
23	1,560	2,900	1,450	51,700	14,400	15,400	3,170	3,880	1,670	820	6,330	1,230
24	2,230	2,640	1,450	53,800	10,000	17,100	3,310	3,450	1,450	820	5,970	1,230
25	1,020	2,390	1,450	44,000	10,000	14,900	3,730	2,770	1,450	820	13,800	1,230
26	3,590	2,390	1,450	14,400	10,400	13,300	3,880	2,390	1,670	3,730	16,000	2,640
27	7,870	15,400	1,450	8,700	10,400	10 900	3,730	1,780	1,560	1,780	17,600	2,640
28	7,470	21,500	1,450	7,080	9,550	10,000	3,450	1.450	1,450	3,040	13,800	2,390
29	4,020	17,100	1,450	6,700	--------	9,120	3,730	1,450	1,230	3,450	6,700	2,640
30	3.040	17,600	1,450	5,970	--------	8,280	3,730	1,230	1,020	7,080	3,880	3,310
31	2,020	--------	1,450	4,320	--------	7,470	--------	1,230	--------	5,620	3,880	--------

Daily discharge, in second-feet, of Kentucky River at Lock 6 at Warwick, Ky., 1925–1928—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1926–27												
1	6,700	11,400	15,400	23,700	31,300	9,550	35,600	5,620	47,300	1,450	2,390	766
2	8,280	12,800	12,300	13,300	28,100	7,870	34,600	5,280	54,800	1,170	2,390	640
3	6,700	10,900	10,400	10,400	17,100	7,470	28,600	4,950	53,300	1,020	1,450	640
4	5,280	7,080	8,280	8,280	10,900	6,700	18,200	4,950	27,000	1,380	1,450	350
5	5,620	5,970	6,330	7,080	9,550	5,620	7,080	5,970	16,000	6,330	1,450	350
6	9,550	4,630	5,970	5,970	7,870	6,700	10,000	5,280	14,400	6,700	1,450	480
7	4,950	3,880	4,950	5,280	9,120	8,280	7,470	4,950	9,120	3,880	1,380	820
8	3,880	3,310	4,020	4,950	10,400	23,700	7,470	8,280	7,080	3,450	1,020	820
9	2,900	3,590	4,020	4,020	10,400	32,300	15,400	18,200	5,620	2,020	1,020	820
10	2,520	3,040	4,630	4,020	10,000	36,000	35,600	27,600	4,950	1,450	1,020	1,020
11	2,390	2,640	10,900	4,020	9,550	26,400	37,800	24,200	4,020	1,230	1,020	1,020
12	2,640	7,080	16,000	3,730	7,470	19,300	36,400	14,400	4,020	1,230	1,080	820
13	7,080	6,330	15,400	3,730	7,470	10,900	25,400	10,900	4,020	1,230	1,020	820
14	10,400	4,950	14,900	3,450	7,870	14,400	25,900	10,000	5,620	1,230	1,300	820
15	6,700	4,950	17,100	4,020	8,700	22,000	29,200	9,550	9,550	1,230	1,450	820
16	3,880	13,800	13,800	4,020	7,080	28,100	33,300	9,120	7,870	1,230	1,450	820
17	2,640	16,000	10,000	3,590	6,700	21,000	33,800	9,120	6,700	1,450	1,230	820
18	2,390	19,800	7,470	3,880	6,700	14,900	24,200	7,470	5,280	1,230	1,170	766
19	2,390	14,900	5,280	6,700	21,500	11,800	30,300	7,470	3,880	1,780	1,080	640
20	3,450	9,550	5,620	19,800	29,200	11,800	25,900	7,080	4,630	2,390	3,450	640
21	10,000	7,080	17,100	47,000	32,800	19,800	19,800	5,970	4,020	2,020	3,450	766
22	8,700	5,970	45,000	61,300	26,400	13,800	18,200	4,320	3,730	1,560	2,520	1,020
23	6,700	5,280	53,800	58,200	22,600	11,400	27,600	4,020	3,040	4,950	1,900	1,020
24	6,330	5,620	63,400	52,800	25,400	7,870	31,300	4,320	2,900	2,770	1,450	880
25	23,700	4,320	69,300	36,000	32,800	6,700	22,600	10,000	2,640	1,450	1,170	640
26	19,800	10,900	75,000	27,000	30,800	5,620	13,800	13,800	2,260	1,450	1,020	640
27	16,000	15,400	69,400	17,600	18,800	4,950	9,550	10,900	2,390	1,450	1,020	640
28	10,000	19,800	65,200	12,300	12,800	4,320	7,080	10,000	2,260	1,230	1,020	480
29	7,080	22,000	62,400	14,400	--------	4,020	6,330	38,200	2,140	1,230	820	480
30	5,970	21,500	46,700	19,800	--------	3,730	5,620	34,600	1,780	1,230	820	480
31	7,870	--------	36,900	25,400	--------	7,870	--------	37,800	--------	1,230	820	------
1927–28												
1	480	273	1,450	10,000	3,730	4,630	17,100	28,100	4,630	57,500	1,670	3,730
2	389	480	1,900	17,600	3,730	4,020	14,400	19,300	3,730	45,700	2,390	4,320
3	140	480	2,020	13,300	3,730	3,590	10,000	11,400	3,310	18,800	2,770	4,020
4	820	441	1,670	6,700	3,590	3,040	7,080	8,280	3,450	8,700	2,640	3,590
5	1,230	350	5,280	3,880	2,770	2,770	5,280	5,970	13,300	21,500	1,900	3,450
6	1,020	350	5,280	3,450	2,900	2,640	4,320	3,880	11,800	25,400	1,450	3,590
7	1,020	350	4,020	3,040	4,950	2,390	4,020	3,880	9,550	17,600	1,450	3,310
8	880	441	3,310	3,170	10,400	2,390	4,020	3,590	6,700	10,000	2,260	2,640
9	528	694	3,170	3,880	10,400	2,140	3,730	3,170	12,300	10,000	4,020	2,020
10	350	3,730	2,640	4,020	9,550	2,140	3,450	2,770	32,300	11,800	3,170	1,170
11	350	3,310	2,020	4,020	8,280	2,140	3,450	2,640	29,200	11,400	2,260	1,450
12	480	1,780	1,900	3,730	7,470	2,900	3,450	2,390	21,500	11,800	1,230	1,450
13	640	1,450	5,970	3,450	5,970	3,730	3,450	2,260	13,800	19,300	1,230	1,080
14	1,020	1,080	18,200	3,450	5,620	3,730	7,470	1,560	10,900	29,800	1,230	1,230
15	1,230	1,450	18,200	3,170	6,330	4,320	13,800	1,560	8,700	21,000	1,380	1,380
16	1,020	1,450	23,200	2,900	7,080	4,630	14,900	1,450	6,330	11,400	880	1,170
17	640	17,600	19,300	2,900	7,080	11,400	12,800	1,230	5,620	6,700	1,450	1,020
18	820	30,800	13,800	2,770	6,700	23,700	8,700	1,450	7,470	4,320	1,900	1,230
19	820	31,300	10,400	10,400	5,620	23,700	7,080	2,770	5,970	3,880	4,950	1,450
20	820	14,900	7,870	23,700	4,950	18,200	5,620	5,970	4,020	3,450	7,870	766
21	820	7,470	4,950	27,000	4,630	14,900	5,280	11,800	3,730	3,040	6,330	960
22	820	4,630	4,020	21,000	4,320	15,400	6,700	18,800	13,300	2,640	3,880	1,020
23	640	3,590	3,590	10,900	5,620	16,000	10,400	11,800	8,700	4,320	3,310	766
24	389	3,040	3,170	7,470	10,900	13,800	16,000	6,700	7,080	10,900	2,520	923
25	480	2,390	2,900	11,400	10,000	10,900	21,500	5,280	9,550	9,550	2,020	1,080
26	480	2,140	2,140	10,900	7,470	8,700	20,400	6,700	13,300	3,730	1,450	880
27	480	1,670	1,780	10,000	7,080	8,280	12,800	6,700	16,000	2,900	1,450	1,170
28	350	1,170	1,560	4,630	5,620	7,470	14,400	7,080	14,900	3,880	1,300	880
29	350	1,450	1,450	6,700	5,280	7,470	24,800	9,120	42,500	4,020	1,900	528
30	350	1,450	1,560	4,950	--------	9,550	28,100	9,550	60,900	3,040	1,560	480
31	140	--------	3,170	4,020	--------	14,400	--------	6,700	--------	2,260	3,450	------

Monthly discharge, in second-feet, of Kentucky River at Lock 6, at Warwick, Ky., 1925–28

Month	Maximum	Minimum	Mean
1925–26			
October	9,550	-------	2,190
November	24,800	1,670	8,900
December	7,470	1,450	2,730
January	53,800	1,230	11,100
February	28,600	4,320	13,100
March	17,100	4,320	7,720
April	11,800	2,900	5,100
May	36,400	1,230	5,820
June	6,330	1,020	2,180
July	8,280	820	2,300
August	17,600	640	5,700
September	21,000	960	4,520
The year	53,800	-------	5,890
1926–27			
October	23,700	2,390	7,180
November	22,000	2,640	9,480
December	75,000	4,020	25,700
January	61,300	3,450	16,600
February	32,800	6,700	16,400
March	36,000	3,730	13,400
April	37,800	5,620	22,100
May	38,200	4,020	12,100
June	54,800	1,780	10,700
July	6,700	1,020	2,050
August	3,450	820	1,460
September	1,020	350	725
The year	75,000	350	11,500
1927–28			
October	1,230	140	645
November	31,300	273	4,720
December	23,200	1,450	5,870
January	27,000	2,770	8,020
February	10,900	2,770	6,270
March	23,700	2,140	8,230
April	28,100	3,450	10,500
May	28,100	1,230	6,900
June	60,900	3,310	13,500
July	57,500	2,260	12,900
August	7,870	880	2,490
September	4,320	480	1,760
The year	60,900	140	6,810

KENTUCKY RIVER AT LOCK 4, AT FRANKFORT, KY.

LOCATION.—Staff gage at Lock 4, at Frankfort, Franklin County, one-fourth mile below Benson Creek. Zero of gage is 464.05 feet and crest of dam is 470.35 feet above mean sea level.

DRAINAGE AREA.—5,480 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 66,500 second-feet June 30 and July 1 (gage height, 28.7 feet); minimum, about 160 second-feet Oct. 3 and 4 (gage height, 6.0 feet).

1925–1928: Maximum discharge, 72,700 second-feet Dec. 26, 1926 (gage height, 34.9 feet); minimum discharge, about 160 second-feet Oct. 1–14, 1925, and Oct. 3 and 4, 1927; minimum stage, 4.6 feet Jan. 29, 1927 (discharge not determined).

REMARKS.—Records good except those for ordinary low water and for extremely high water, which are fair, and those for extremely low water, which are poor. Flow of Dix River regulated at Dix Dam. Gage-height record furnished by United States Engineer Corps.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	620	300	2,000	9,620	4,090	5,340	19,100	26,500	5,340	65,900	2,000	4,440
2	450	300	2,140	16,700	3,920	4,980	14,300	20,800	4,090	62,000	2,000	4,620
3	300	620	2,140	14,900	3,750	4,260	10,100	12,600	3,410	33,600	2,600	4,620
4	300	620	2,000	7,780	3,410	3,920	7,340	8,680	4,260	10,600	3,080	4,090
5	940	620	4,090	4,620	3,240	3,240	6,100	6,500	12,600	24,500	1,640	3,750
6	1,000	620	5,720	3,750	3,410	3,080	5,340	5,340	12,100	30,400	1,940	3,920
7	1,070	345	4,620	3,580	5,340	2,600	4,440	4,620	10,100	19,100	1,390	3,580
8	1,220	620	3,750	3,580	11,100	2,440	4,260	3,750	7,780	12,100	2,000	2,920
9	940	940	3,240	3,750	11,600	2,290	4,260	3,580	8,680	11,100	4,090	2,290
10	450	2,760	3,080	4,620	10,600	2,290	4,090	2,600	30,400	12,100	3,750	1,540
11	300	4,090	2,760	4,440	9,620	2,290	3,750	2,600	29,000	13,800	2,760	1,720
12	1,390	3,580	3,410	4,440	7,780	3,580	3,580	2,290	22,400	12,600	1,540	1,390
13	860	2,760	7,780	3,920	6,920	4,090	3,410	2,290	13,800	24,500	1,460	1,390
14	620	2,140	17,300	3,920	6,100	4,440	13,200	1,920	11,600	42,000	1,460	1,460
15	1,000	1,720	19,600	3,410	6,500	4,260	13,200	1,920	9,620	25,500	1,220	1,220
16	1,000	2,000	20,800	3,080	7,340	5,720	14,900	1,920	7,780	13,800	1,290	674
17	620	16,700	21,300	3,080	7,340	11,100	13,200	2,140	6,100	8,220	1,390	800
18	800	28,500	14,300	2,920	7,340	21,300	10,100	3,080	9,140	5,720	2,000	1,070
19	800	33,100	11,600	11,100	6,100	24,000	7,780	3,580	7,340	4,620	3,580	1,070
20	746	19,100	8,680	23,500	5,720	19,100	6,500	5,340	5,340	3,920	8,220	1,070
21	800	8,220	6,500	25,000	5,340	14,900	6,500	9,620	4,090	3,410	6,920	450
22	800	5,720	4,440	22,400	4,980	14,300	7,340	17,900	12,100	3,240	4,620	1,290
23	746	4,260	3,410	13,200	9,140	15,500	9,620	13,200	11,100	6,100	3,580	620
24	345	3,240	3,240	9,620	12,100	14,300	13,800	8,220	7,340	9,140	2,920	345
25	300	2,760	3,080	11,600	11,100	11,600	20,200	6,100	8,220	9,140	2,290	1,460
26	620	2,920	2,600	12,100	9,140	9,620	21,300	6,100	12,100	5,720	1,720	674
27	674	1,920	2,290	11,100	7,780	9,140	14,300	6,920	14,900	4,090	1,720	1,290
28	746	1,640	2,140	9,620	6,500	9,140	13,800	6,500	15,500	3,920	1,640	1,070
29	800	1,640	2,140	7,340	5,720	8,220	21,800	8,680	55,600	4,620	1,720	1,000
30	450	1,720	2,140	5,720	-------	8,680	26,500	4,620	65,700	3,580	1,800	1,000
31	345	-------	3,080	5,340	-------	12,600	-------	7,340	-------	2,920	4,090	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	1,390	300	711	May	26,500	1,920	7,010
November	33,100	300	5,180	June	65,700	3,410	14,300
December	21,300	2,000	6,300	July	65,900	2,920	15,900
January	25,000	2,920	8,700	August	8,220	1,220	2,660
February	12,100	3,240	7,000	September	4,620	345	1,890
March	24,000	2,290	8,460				
April	26,500	3,410	10,800	The year	65,900	300	7,400

KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY.

LOCATION.—Staff gage at Lock 2, at Lockport, Henry County, just below mouth of Sixmile Creek.

DRAINAGE AREA.—6,310 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 75,700 second-feet July 1 (gage height, 36.0 feet); minimum, 370 second-feet Nov. 1–4 (gage height, 7.4 feet).

1925–1928: Maximum discharge, 84,400 second-feet Jan. 23, 1927 (gage height, 41.7 feet); minimum (estimated), 160 second-feet Oct. 1–12, 1925 (gage height, 7.1 feet).

REMARKS.—Records good except those for very high and very low stages, which are fair. Gage-height record furnished by United States Engineer Corps.

Daily discharge, in second-feet, of Kentucky River at Lock 2 at Lockport, Ky., 1925–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1925–26												
1		2,380	10,600	1,720	9,750	11,000	8,540	3,930	3,110	1,100	5,560	6,630
2		2,150	8,150	1,520	11,000	9,750	8,150	3,640	2,740	980	3,110	5,910
3		2,150	6,630	1,520	14,900	8,150	7,000	3,370	3,370	980	2,620	17,800
4		2,150	5,560	1,620	19,600	7,380	6,270	3,370	3,110	1,100	2,500	22,000
5		2,150	5,910	2,150	21,500	7,000	5,210	3,110	2,740	1,330	2,260	18,200
6	160	2,150	7,760	2,380	28,100	6,630	4,230	3,110	2,380	980	2,150	12,700
7		8,940	5,910	2,380	22,500	6,630	4,540	2,860	2,150	5,210	3,370	7,760
8		16,800	6,270	2,620	14,000	6,270	11,800	2,500	1,930	10,600	1,930	7,000
9		16,300	5,210	2,620	10,600	7,000	5,560	2,380	1,930	7,000	1,330	6,270
10		16,800	4,540	2,150	8,940	7,000	4,540	2,620	1,720	3,640	980	4,540
11		15,400	4,230	1,720	7,380	7,380	4,230	2,860	1,520	2,620	820	3,930
12		23,500	3,370	1,720	6,270	6,630	6,630	3,110	1,330	2,040	1,520	4,230
13	217	33,900	3,370	1,720	5,910	6,630	9,750	3,370	1,620	1,930	1,620	3,110
14	510	31,400	2,620	1,720	17,300	6,270	14,000	3,640	2,040	1,720	980	2,740
15	555	22,000	3,110	1,720	19,600	6,270	11,800	3,110	2,260	1,930	3,640	2,500
16	5,210	15,400	2,860	1,720	25,400	6,630	11,400	3,640	2,740	1,720	2,260	2,150
17	9,750	11,000	2,740	4,230	35,200	7,000	9,750	16,800	5,560	1,720	2,620	1,930
18	11,800	7,760	2,620	13,100	26,300	7,380	8,150	33,500	6,270	1,420	8,150	1,820
19	8,940	7,380	2,260	19,600	17,800	7,000	6,630	38,700	4,540	1,150	8,940	1,720
20	5,210	7,000	2,150	20,100	13,100	7,000	5,910	15,900	3,370	1,150	15,400	1,030
21	3,640	5,560	1,820	35,500	14,500	6,630	4,870	8,540	2,500	1,150	17,300	1,030
22	2,500	4,540	2,260	60,200	18,200	9,340	4,230	5,910	2,150	1,150	14,500	1,150
23	2,040	3,640	2,260	67,200	16,800	15,400	5,210	4,540	2,040	1,150	8,540	1,150
24	2,260	3,110	1,930	67,800	13,100	19,600	4,230	3,640	1,820	980	9,340	1,330
25	1,930	2,860	1,820	68,200	21,500	18,200	3,930	3,110	1,520	980	13,100	1,420
26	2,380	2,500	1,720	55,800	14,000	15,900	3,930	2,620	1,620	980	15,900	2,500
27	7,380	11,000	1,720	15,400	13,600	13,600	4,230	2,380	1,720	2,040	14,900	3,110
28	8,940	25,400	1,720	9,750	12,300	11,800	4,870	2,150	1,420	2,620	18,200	3,110
29	6,270	21,500	2,150	8,150	-------	11,000	4,230	1,930	1,330	3,640	9,750	2,860
30	3,640	15,400	2,150	7,000	-------	10,200	3,930	1,620	1,240	5,560	5,560	3,640
31	2,620	-------	1,930	6,630	-------	8,940	-------	1,720	-------	6,630	4,230	-------
1926–27												
1		5,910	14,900	19,200	56,500	50,800	21,500	39,000	8,540	51,700	2,040	2,150	820
2		10,600	14,900	16,300	25,800	50,000	14,000	50,800	7,380	60,200	1,930	2,260	660
3		8,540	14,000	13,100	13,600	34,500	9,340	39,300	6,630	65,300	2,740	5,210	510
4		6,270	11,000	11,000	11,000	16,300	8,540	26,300	9,340	64,800	1,930	2,740	370
5		13,600	8,540	8,940	9,340	12,700	7,760	16,300	8,150	31,400	2,740	2,040	370
6		11,800	6,630	7,380	8,540	11,000	7,760	12,300	7,760	15,400	7,760	1,620	370
7		8,940	5,560	6,630	7,380	10,200	10,600	10,200	6,630	11,800	5,210	1,330	412
8		5,910	4,540	5,910	6,630	11,000	24,400	9,750	14,000	8,940	3,110	1,620	1,030
9		4,870	4,540	5,210	5,910	12,300	34,500	17,300	19,200	7,380	2,500	1,420	1,150
10		4,230	6,270	5,910	5,560	12,300	41,900	31,000	26,800	6,270	2,040	1,240	1,150
11		3,110	5,910	8,150	4,870	11,800	40,200	46,500	29,000	5,560	1,620	1,150	1,150
12		3,370	6,630	16,300	4,870	10,200	21,100	49,800	19,200	4,870	1,520	980	932
12		11,400	8,150	16,300	4,540	8,540	15,400	45,500	13,100	4,870	1,520	932	820
14		15,400	6,630	16,300	5,910	16,800	14,500	31,800	12,700	5,910	1,330	1,420	932
15		11,400	6,270	16,800	4,870	11,400	20,600	32,100	11,400	8,940	1,420	2,040	980
16		7,380	14,000	15,900	5,210	9,750	29,400	36,800	10,600	8,940	1,520	1,820	980
17		4,870	15,900	12,700	4,540	9,340	26,800	41,600	10,600	8,150	1,520	1,820	820
18		3,640	20,100	9,750	6,270	11,400	31,400	34,500	10,600	25,800	1,330	1,520	660
19		3,370	17,800	7,380	22,000	17,800	18,700	37,100	14,500	9,750	1,520	1,330	660
20		3,930	12,700	7,000	35,500	27,700	21,500	34,500	10,200	6,630	2,150	2,740	510
21		9,750	9,340	20,100	59,800	37,100	49,800	24,400	8,540	5,910	2,380	3,370	510
22		11,400	7,000	51,900	79,400	42,800	41,300	19,600	7,000	5,210	2,040	2,860	980
23		8,150	6,630	63,300	84,000	39,600	27,700	22,500	5,560	5,560	3,370	2,380	980
24		11,400	6,270	68,300	82,800	35,800	19,200	32,800	9,750	3,930	3,370	1,930	868
25		23,500	5,910	74,100	77,600	42,800	17,300	29,000	11,800	3,370	2,040	1,620	820

Daily discharge, in second-feet, of Kentucky River at Lock 2 at Lockport, Ky., 1925–28—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1926–27												
26	24,400	10,200	80,900	69,800	49,300	18,700	17,300	17,800	4,870	1,720	1,520	708
27	19,600	15,400	82,700	62,200	43,300	16,300	12,300	15,400	3,110	1,420	1,330	660
28	14,900	18,700	81,200	57,100	30,600	10,200	9,340	14,500	3,110	1,330	1,030	555
29	11,400	22,500	79,800	55,400	-------	5,910	7,760	24,400	3,110	1,330	820	615
30	8,150	24,900	76,200	54,400	-------	5,210	14,000	50,500	2,500	1,330	820	708
31	14,500	-------	68,200	53,500	-------	10,200	-------	46,500	-------	5,910	820	------
1927–28												
1	660	370	2,620	8,940	4,540	6,630	19,200	32,500	6,270	75,200	2,620	4,540
2	510	370	2,380	15,900	4,230	5,910	16,800	26,300	4,230	71,700	2,380	4,870
3	510	370	2,380	16,300	4,230	4,870	11,800	15,900	3,640	62,400	2,150	4,540
4	510	370	2,150	10,200	3,930	4,230	8,540	10,200	8,940	19,600	3,110	4,230
5	660	510	3,110	5,910	3,640	3,930	7,000	7,380	12,300	43,800	1,930	3,640
6	1,150	510	5,910	4,540	3,930	3,370	5,910	5,910	14,500	45,200	2,150	3,640
7	1,150	510	5,560	3,930	7,000	3,110	5,210	4,870	12,300	24,900	1,720	3,640
8	1,520	510	4,230	3,930	11,800	2,860	4,870	4,230	8,940	15,900	1,520	3,110
9	980	980	3,370	4,540	13,600	2,860	4,540	3,640	14,000	12,700	3,640	2,380
10	820	2,150	3,110	5,560	12,700	2,620	4,870	3,110	30,600	13,600	3,930	2,150
11	510	4,230	4,540	5,210	11,400	2,380	4,230	2,860	35,500	14,000	2,860	1,720
12	3,640	3,930	7,760	5,210	9,340	3,640	3,930	2,860	27,700	16,300	1,930	1,720
13	1,720	2,860	11,400	4,540	8,150	4,870	3,930	2,150	16,800	29,800	1,520	1,520
14	1,150	2,150	20,100	4,540	7,380	5,560	20,600	2,150	13,600	49,300	1,520	1,330
15	1,150	1,930	24,400	3,930	7,760	5,210	14,500	1,930	11,000	41,000	1,330	1,330
16	980	3,370	26,800	3,640	8,150	8,150	15,900	1,930	9,340	18,700	1,150	980
17	820	19,600	34,800	3,370	8,540	12,700	14,900	1,720	7,760	11,000	1,330	980
18	660	33,900	28,500	3,370	8,150	21,500	12,300	5,910	9,340	7,380	1,720	980
19	980	38,400	28,100	13,100	7,380	27,700	9,340	5,210	10,200	5,910	2,380	1,150
20	980	25,800	29,000	26,300	6,270	23,500	7,380	5,560	7,380	4,870	7,760	1,330
21	980	11,000	28,500	28,500	6,270	18,200	11,800	9,340	5,210	3,930	7,760	820
22	820	7,000	23,900	27,200	5,910	17,300	9,750	17,800	10,600	3,370	5,210	1,150
23	820	5,210	14,500	17,300	11,400	16,800	11,400	15,900	14,000	6,270	3,930	660
24	660	4,230	4,540	13,600	16,300	15,900	14,900	9,340	9,340	8,940	3,110	660
25	510	3,110	3,370	14,900	14,500	14,000	20,100	7,380	8,540	10,600	2,380	980
26	660	3,110	3,110	14,900	11,800	11,400	23,000	6,630	12,700	6,630	2,150	980
27	820	2,620	2,620	13,600	9,750	10,200	16,800	7,380	15,900	4,540	1,930	1,520
28	660	2,620	2,620	11,800	8,150	10,200	14,000	7,380	17,300	3,930	2,150	1,330
29	660	2,150	3,640	9,340	7,380	9,340	21,100	8,940	53,900	5,210	1,720	1,330
30	660	2,150	3,110	7,000	-------	9,750	28,100	10,600	71,100	3,640	1,520	1,150
31	510	-------	4,540	5,560	-------	12,700	-------	8,940	-------	3,110	3,370	------

Monthly discharge, in second-feet, Kentucky River at Lock 2, at Lockport, Ky., 1925–28

Month	Maximum	Minimum	Mean
1925–26			
October	11,800	-------	2,830
November	33,900	2,150	11,400
December	10,600	1,720	3,800
January	68,200	1,520	15,800
February	35,200	5,910	16,400
March	19,600	6,270	9,210
April	14,000	3,930	6,590
May	38,700	1,620	6,250
June	6,270	1,240	2,460
July	10,600	980	2,490
August	18,200	820	6,550
September	22,000	1,030	5,180
The year	68,200	-------	7,350
1926–27			
October	24,400	3,110	9,860
November	24,900	4,540	11,100
December	82,700	5,210	31,400
January	84,000	4,540	31,800
February	50,800	8,540	24,200
March	49,800	5,210	20,700
April	50,800	7,760	27,700
May	50,500	5,560	15,100
June	65,300	2,500	15,100
July	7,760	1,330	2,380
August	5,210	820	1,800
September	1,150	370	756
The year	84,000	370	15,900
1927–28			
October	3,640	510	930
November	38,400	370	6,200
December	34,800	2,150	11,100
January	28,500	3,370	10,200
February	16,300	3,640	8,400
March	27,700	2,380	9,720
April	28,100	3,930	12,200
May	32,500	1,720	8,260
June	71,100	3,640	16,100
July	75,200	3,110	20,800
August	7,760	1,150	2,710
September	4,870	660	2,010
The year	75,200	370	9,060

SOUTH FORK OF KENTUCKY RIVER AT BOONEVILLE, KY.

LOCATION.—Tape gage on highway bridge at Booneville, Owsley County, 600 feet above Meadow Creek. Zero of gage is 645.47 feet above mean sea level.

DRAINAGE AREA.—697 square miles.

RECORDS AVAILABLE.—March, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, about 15,800 second-feet Nov. 17 (gage height, 20.2 feet); minimum, 4 second-feet Nov. 3 (gage height, 1.05 feet).

1925–1928: Maximum discharge, 44,100 second-feet Dec. 22, 1926 (gage height, 34.5 feet); minimum, 3.6 second-feet Sept. 26 and 27, 1928 (gage height, 0.86 foot).

REMARKS.—Records good except those for extremely high and low stages, which are fair. Discharge interpolated Apr. 10–12. Flow in Meadow Creek included in records.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	6	182	7,060	545	625	2,140	1,700	545	2,940	193	915
2	13	6	228	1,620	440	545	1,480	1,210	440	1,410	119	585
3	10	4	1,410	1,030	390	423	1,090	915	406	915	104	545
4	9	6	1,150	810	390	374	860	760	1,210	670	119	475
5	7	9	760	625	475	342	715	585	3,340	4,180	111	423
6	7	6	510	585	715	327	625	510	1,840	5,140	96	312
7	6	7	193	475	1,340	282	625	423	1,280	1,840	111	193
8	14	468	358	440	1,840	254	715	390	915	1,090	216	144
9	17	1,060	312	510	1,770	312	585	358	4,700	860	204	111
10	13	507	254	510	1,410	1,480	774	312	7,440	1,090	153	90
11	13	290	228	475	1,150	1,150	962	282	2,300	715	127	72
12	16	197	241	406	970	970	1,150	254	1,550	545	104	58
13	41	162	440	390	760	760	1,340	241	1,150	1,410	83	49
14	39	140	1,840	374	760	860	2,540	204	1,090	1,480	72	43
15	41	123	2,070	342	1,280	970	3,500	172	1,480	715	72	36
16	43	140	1,620	327	1,210	2,860	2,000	153	1,030	510	74	34
17	43	13,100	2,070	312	1,090	6,970	1,410	144	760	358	90	30
18	37	8,040	1,480	312	1,030	3,260	1,090	406	585	358	127	26
19	31	1,480	1,340	3,500	915	2,140	915	1,150	510	282	228	23
20	26	760	670	8,340	810	1,920	1,210	5,760	406	254	193	38
21	23	510	475	2,700	810	2,860	2,220	3,100	358	440	182	35
22	19	374	406	1,210	760	2,620	2,300	1,480	760	268	144	32
23	16	312	342	970	915	2,070	5,680	1,340	970	2,460	111	36
24	12	268	282	860	1,090	1,550	4,360	1,030	2,460	715	90	45
25	11	241	228	2,000	1,090	1,210	2,380	715	1,920	390	90	43
26	11	228	182	1,770	1,030	1,210	1,480	1,150	3,260	254	95	35
27	10	216	162	1,280	860	1,700	1,920	1,620	1,840	254	104	32
28	9	193	172	970	760	1,620	8,140	2,380	1,090	172	95	30
29	8	172	297	625	715	1,340	6,040	1,410	7,940	127	111	34
30	7	144	2,780	625	-------	6,680	2,860	970	8,440	119	374	30
31	7	-------	4,700	625	-------	4,440	-------	715	-------	111	810	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	43	6	18.5	0.027	0.03
November	13,100	4	972	1.39	1.55
December	4,700	162	883	1.27	1.46
January	8,340	312	1,360	1.95	2.25
February	1,840	390	942	1.35	1.46
March	6,970	254	1,750	2.51	2.89
April	8,140	585	2,100	3.01	3.36
May	5,760	144	1,030	1.48	1.71
June	8,440	358	2,070	2.97	3.31
July	5,140	111	1,030	1.48	1.71
August	810	72	155	.222	.26
September	915	23	152	.218	.24
The year	13,100	4	1,040	1.49	20.23

EAGLE CREEK AT GLENCOE, KY.

LOCATION.—Chain gage at highway bridge half a mile south of Glencoe, Gallatin County.
DRAINAGE AREA.—445 square miles.
RECORDS AVAILABLE.—April, 1915, to September, 1920; May to September, 1928.
EXTREMES.—Maximum discharge during period, 14,800 second-feet June 29 (gage height, 15.2 feet); minimum, 1.5 second-feet Sept. 26–28 (gage height 0.16 foot).
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	-------	82	4,590	15	12.0	16	-------	146	285	7.8	2.2
2	-------	68	705	12	7.8	17	-------	117	182	6.7	2.0
3	-------	54	338	13	12.0	18	-------	182	126	8.7	1.7
4	-------	1,570	210	21	36.0	19	-------	705	103	8.5	2.2
5	-------	3,930	5,540	20	38.0	20	-------	1,060	84	7.6	1.9
6	-------	3,710	4,040	17	23.0	21	-------	390	67	5.6	2.2
7	-------	705	470	64	14.0	22	-------	255	59	4.6	1.7
8	-------	338	255	470	10.0	23	-------	655	91	6.7	1.7
9	-------	390	815	270	7.8	24	-------	815	81	11	1.7
10	-------	2,870	320	117	6.5	25	68	2,370	57	338	1.7
11	-------	655	182	64	5.0	26	2,570	408	46	136	1.6
12	-------	302	136	33	4.5	27	515	355	43	68	1.7
13	-------	302	2,770	22	3.8	28	195	355	40	42	1.5
14	-------	210	5,420	15	3.1	29	158	10,000	36	23	1.9
15	-------	210	605	10	2.6	30	136	9,620	26	16	1.9
						31	98	-------	18	11	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
May 25–31	2,570	68	534	1.20	0.31
June	10,000	54	1,430	3.21	3.58
July	5,540	18	895	2.01	2.32
August	470	4.6	60.1	.135	.16
September	38	1.5	7.12	.016	.02

GREEN RIVER BASIN

GREEN RIVER NEAR CANMER, KY.

LOCATION.—Chain gage at highway bridge 2½ miles north of Canmer, Hart County.

DRAINAGE AREA.—1,630 square miles.

RECORDS AVAILABLE.—August to November, 1928 (discontinued).

EXTREMES.—Maximum discharge during period, 5,600 second-feet Aug. 31 (gage height, 13.0 feet); minimum, 95 second-feet Oct. 15 (gage height, 4.64 feet).

REMARKS.—Records good. Discharge interpolated Aug. 26, Sept. 2, 9, 16, 22, 23, 30, Oct. 7, 21, 28, and Nov. 4.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Oct.	Nov.	Day	Aug.	Sept.	Oct.	Nov.
1	--------	3,980	107	458	16	--------	167	99	--------
2	--------	2,480	107	502	17	--------	163	850	--------
3	--------	970	109	480	18	--------	163	2,920	--------
4	--------	735	123	458	19	--------	150	1,920	--------
5	--------	600	152	435	20	--------	138	1,360	--------
6	--------	525	480	435	21	735	13	1,050	--------
7	--------	315	342	415	22	1,430	125	735	--------
8	--------	375	203	395	23	502	121	2,920	--------
9	--------	337	168	--------	24	435	116	2,130	--------
10	--------	298	158	--------	25	435	112	1,430	--------
11	--------	280	135	--------	26	446	107	970	--------
12	--------	280	123	--------	27	458	105	790	--------
13	--------	280	125	--------	28	415	101	850	--------
14	--------	209	103	--------	29	375	99	910	--------
15	--------	171	95	--------	30	335	103	625	--------
					31	3,900	--------	575	--------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
Aug. 21-31	3,900	335	861	0.528	0.22
September	3,980	99	458	.281	.31
October	2,920	95	731	.448	.52
November 1-8	502	395	447	.274	.08

GREEN RIVER AT MUNFORDVILLE, KY.

LOCATION.—Chain gage at highway bridge in Munfordville, Hart County.
DRAINAGE AREA.—1,790 square miles.
RECORDS AVAILABLE.—February, 1915, to December, 1922; October, 1927, to September, 1928.
EXTREMES.—Maximum discharge during year, 24,100 second-feet June 11 (gage height 29.2 feet); minimum, 105 second-feet on several days.
1915–1922, 1927–28: Maximum discharge, 42,400 second-feet Dec. 18, 1915 (gage height, 44.5 feet); minimum, 39 second-feet Sept. 2, 1921 (gage height, 2.2 feet).
REMARKS.—Records fair except those for very low stages, which are poor. Discharge estimated Sept. 25–30. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	405	105	1,910	1,910	1,560	2,560	3,300	3,300	1,630	22,000	570	1,980
2	260	128	1,490	2,930	1,420	1,840	2,400	2,190	1,490	21,600	630	1,490
3	260	185	1,140	1,910	1,140	1,700	1,630	1,630	1,350	17,700	875	460
4	405	155	1,000	1,770	1,000	1,490	1,490	1,420	3,460	4,880	940	570
5	185	155	1,000	1,770	1,000	1,490	1,280	1,350	18,300	2,330	875	570
6	128	185	1,000	1,490	1,070	1,350	940	1,210	21,200	1,490	690	630
7	220	185	940	1,000	1,420	1,280	1,070	1,210	20,900	3,530	570	690
8	260	2,930	940	875	7,040	1,140	940	1,070	12,800	2,930	570	690
9	260	3,160	940	875	8,400	1,280	875	1,000	6,520	1,980	750	515
10	260	2,930	940	875	7,210	1,280	875	940	21,900	1,490	1,420	405
11	260	2,780	630	1,770	4,360	1,630	875	875	24,100	1,280	875	405
12	260	2,780	460	1,630	2,780	1,490	940	875	23,800	1,910	810	260
13	515	2,190	460	1,350	2,480	1,350	810	690	15,900	2,120	690	185
14	630	1,980	1,490	1,210	2,120	1,350	1,140	570	10,300	12,000	515	185
15	515	1,490	2,930	1,140	2,120	1,210	1,770	515	4,960	14,200	515	155
16	515	1,490	2,930	1,070	2,120	1,420	1,560	515	3,680	13,600	405	155
17	515	3,680	3,680	1,070	2,120	1,560	1,350	460	2,780	10,700	305	155
18	460	8,320	3,680	940	2,120	3,830	1,210	570	3,830	8,480	750	155
19	460	12,900	3,680	940	1,770	5,800	1,140	4,060	4,880	5,180	1,350	155
20	460	5,180	2,860	10,000	1,770	4,580	1,000	9,540	4,430	2,050	1,210	155
21	260	2,780	2,700	12,900	1,630	3,000	1,350	16,200	3,300	1,490	875	155
22	185	2,190	2,190	7,980	1,560	1,490	3,300	15,300	3,080	1,350	630	128
23	185	2,190	1,490	4,200	2,400	1,420	4,800	7,300	10,700	2,480	405	128
24	155	2,050	1,490	2,780	5,030	1,420	4,580	3,300	8,660	3,080	355	128
25	128	2,050	1,350	5,560	5,330	1,560	4,280	1,980	5,030	1,910	405	115
26	128	1,840	1,140	7,980	3,760	1,490	3,530	1,490	3,080	1,490	355	110
27	128	1,840	1,000	7,640	3,380	1,280	2,190	2,400	1,490	1,280	260	110
28	128	1,840	1,000	4,500	3,080	1,210	1,560	4,960	1,350	1,140	260	105
29	128	1,490	630	2,700	2,780	1,210	3,380	4,580	10,300	750	220	105
30	105	1,490	630	2,120	------	1,140	4,880	3,530	20,200	570	305	105
31	105	------	750	1,770	------	1,910	------	1,910	------	515	2,120	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	630	105	286	0.160	0.18
November	12,900	105	2,420	1.35	1.51
December	3,680	460	1,560	.871	1.00
January	12,900	875	3,120	1.74	2.01
February	8,400	1,000	3,000	1.68	1.75
March	5,800	1,140	1,830	1.02	1.18
April	4,880	810	2,010	1.12	1.25
May	16,200	460	3,130	1.75	2.02
June	24,100	1,350	9,180	5.12	5.71
July	22,000	515	5,400	3.02	3.48
August	2,120	220	694	.388	.45
September	1,980	105	372	.208	.23
The year	24,100	105	2,740	1.53	20.77

GREEN RIVER AT LOCK 6, AT BROWNSVILLE, KY.

LOCATION.—Staff gage at Lock 6, 1 mile northeast of Brownsville, Edmonson County. Zero of gage is 413.16 feet and crest of dam is 421.1 feet above mean sea level.

DRAINAGE AREA.—2,740 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1928.

EXTREMES.—Maximum discharge during year, 36,900 second-feet June 11 (gage height, 23.4 feet); minimum, 370 second-feet on several days (gage height, 8.70 feet).

1924–1928: Maximum discharge, 62,800 second-feet Jan. 24, 1927 (gage height, 34.3 feet); minimum, 205 second-feet on many days in October, November, 1924, August, September, October, 1925, and September, 1927 (gage height, 8.6 feet).

REMARKS.—Records good for medium and low stages, fair for high stages. Gage-height record furnished by United States Engineer Corps.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,030	370	1,300	2,180	3,160	3,940	4,790	5,230	2,790	32,500	1,300	7,140
2	725	370	1,680	3,540	2,790	3,540	4,790	3,940	2,610	30,800	1,680	5,230
3	615	370	2,090	3,740	2,610	3,160	3,540	3,160	3,160	21,700	2,000	2,430
4	415	370	1,920	2,430	2,430	2,790	2,790	2,160	8,430	8,690	1,680	1,680
5	370	370	1,840	1,920	2,260	2,430	2,430	2,260	19,300	6,640	1,760	1,300
6	370	370	1,520	1,760	2,430	2,430	2,260	2,090	26,600	8,170	1,150	1,100
7	510	415	1,450	1,760	3,160	2,090	2,090	1,840	26,600	8,170	1,300	900
8	2,000	5,230	1,300	1,840	5,690	2,090	1,920	1,760	20,000	6,890	1,160	900
9	1,520	6,160	1,230	2,180	9,500	2,090	1,920	1,600	23,800	5,230	1,520	780
10	840	4,790	1,160	2,430	9,500	2,430	1,760	1,450	31,700	4,790	1,680	780
11	560	3,160	1,160	2,790	7,140	2,970	1,760	1,450	36,100	5,010	1,450	725
12	1,680	2,090	1,380	2,790	5,230	2,790	1,760	1,300	34,600	5,690	1,230	670
13	2,090	1,520	2,090	2,430	4,150	2,610	1,600	1,160	30,600	6,400	1,160	615
14	2,090	1,230	5,690	2,430	4,150	2,430	1,600	1,160	23,800	13,900	1,030	560
15	1,100	1,030	8,690	2,430	3,940	2,260	2,790	1,160	15,800	15,800	1,030	560
16	900	1,760	9,230	2,180	4,360	3,160	3,160	1,030	10,600	15,100	900	460
17	725	9,770	8,690	2,090	4,360	5,690	2,790	1,030	8,170	10,600	780	460
18	615	14,200	8,170	2,180	4,360	8,170	2,430	1,600	8,430	5,230	965	460
19	560	15,100	7,650	4,790	3,940	8,170	2,090	5,230	9,770	3,740	1,380	460
20	460	12,600	5,010	11,200	3,540	6,640	1,760	12,600	9,500	3,160	1,760	460
21	460	7,140	3,540	14,200	3,160	5,690	2,430	15,800	8,170	2,790	1,520	460
22	460	3,540	2,790	13,200	3,160	5,230	3,940	16,800	10,900	2,610	1,300	460
23	460	2,260	2,430	8,170	5,460	4,570	6,160	12,600	13,900	3,940	1,100	460
24	415	2,610	2,090	5,690	8,430	3,940	7,140	6,640	13,900	4,790	900	460
25	370	2,090	1,840	6,640	8,980	3,740	6,890	4,150	10,300	3,540	965	415
26	370	2,000	1,760	9,770	7,650	3,350	4,790	3,350	8,690	2,430	965	370
27	370	1,680	1,520	9,770	6,160	3,540	3,940	4,360	6,400	2,090	900	370
28	370	1,600	1,450	7,910	5,230	3,540	3,940	5,690	8,170	2,000	780	370
29	370	1,450	1,600	5,230	4,360	3,350	5,230	6,160	19,600	1,680	780	370
30	370	1,450	1,600	4,150	-------	3,160	6,160	5,230	27,100	1,520	840	370
31	370	-------	1,840	3,540	-------	3,160	-------	3,540	-------	1,450	1,920	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,090	370	760	0.277	0.32
November	15,100	370	3,570	1.30	1.45
December	9,230	1,160	3,090	1.13	1.30
January	14,200	1,760	4,750	1.73	1.99
February	9,500	2,260	4,870	1.78	1.92
March	8,170	2,090	3,710	1.35	1.56
April	7,140	1,600	3,360	1.23	1.37
May	16,800	1,030	4,440	1.62	1.87
June	36,100	2,610	16,000	5.84	6.52
July	32,500	1,450	7,970	2.91	3.36
August	2,000	780	1,270	.464	.53
September	7,140	370	1,060	.387	.43
The year	36,100	370	4,550	1.66	22.62

GREEN RIVER AT LOCK 1, AT SPOTTSVILLE, KY.

LOCATION.—Staff gage above dam at Lock 1, at Spottsville, Henderson County. Zero of gage is 342.58 feet above mean sea level.

DRAINAGE AREA.—9,000 square miles.

RECORDS AVAILABLE.—January to September, 1928.

EXTREMES.—Maximum stage during year, 27.6 feet July 5 (discharge not determined); minimum discharge, 400 second-feet Sept. 29 and 30 (gage height, 6.9 feet).

REMARKS.—Records fair. Backwater from Ohio River existed on days for which no record is shown. Gage-height record furnished by United States Engineer Corps.

Daily and monthly discharge, in second-feet, 1928

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,200					11,300		4,100	2,920
2	7,650					8,550		3,580	6,800
3	8,550	6,800				8,550		3,080	8,100
4	8,550	6,000				13,300		4,620	6,000
5	7,200	6,000				22,400		4,800	4,100
6	5,200	6,800	6,800			35,300		4,620	2,770
7		10,400	6,000					4,280	2,320
8		14,800	5,200					3,920	2,180
9		17,000	5,200					3,240	1,900
10			6,400					3,080	1,630
11			7,650					3,080	1,370
12	7,650		8,550					3,080	1,370
13	8,100		8,550					3,080	1,370
14	7,650		8,550	6,400	2,770			3,080	1,370
15	6,800		8,550		2,770			2,920	1,370
16	6,800		16,000		2,770			2,320	1,370
17	6,000		20,000		2,920			1,760	1,370
18	5,600				6,800			1,630	1,370
19	10,400				11,300			1,630	1,370
20	20,600				16,500			2,320	1,130
21					26,900			3,080	910
22					30,400			3,080	910
23					31,800		6,000	2,770	910
24					30,400		6,400	2,470	910
25					26,200		7,650	2,320	910
26					19,400		6,800	1,630	910
27					12,300		6,400	1,630	910
28					12,300		6,000	2,040	635
29					14,300		5,000	2,320	400
30					15,400		4,450	2,180	400
31					14,300		4,450	2,470	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
February 3–9			9,680	1.08	0.24
March 6–17	20,000	5,200	8,950	.994	.44
April					
May 14–31	31,800	2,770	15,500	1.72	1.15
June 1–6	35,300	8,550	16,600	1.84	.34
July 23–31		4,450	5,910	.657	.22
August	4,800	1,630	2,910	.323	.37
September	8,100	400	2,000	.222	.25

BARREN RIVER AT LOCK 1, AT GREENCASTLE, KY.

LOCATION.—Staff gage above dam at Lock 1, half a mile southwest of Greencastle, Warren County. Zero of gage is 404.79 feet above mean sea level.

DRAINAGE AREA.—1,950 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1928.

EXTREMES.—Maximum discharge during year, 21,800 second-feet July 2 (gage height, 15.8 feet); minimum, 273 second-feet on several days (gage height, 7.5 feet).

1924–1928: Maximum discharge, 37,500 second-feet Dec. 24, 1926 (gage height, 27.0 feet); minimum, 69 second-feet Sept. 12–14, 1925 (gage height, 7.23 feet).

REMARKS.—Records good except those for extremely high and low stages, which are fair. Gage-height record furnished by United States Engineer Corps.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	586	273	705	1,680	2,110	2,580	5,490	3,820	2,110	21,100	1,160	3,180
2	273	273	1,370	4,740	1,940	2,580	3,600	2,980	1,760	21,800	1,940	2,110
3	273	322	1,230	2,980	1,850	2,110	2,780	2,390	1,760	15,400	3,180	1,440
4	273	322	1,020	1,760	1,520	1,760	2,300	2,110	6,030	7,830	2,200	1,160
5	273	273	957	1,520	1,520	1,680	1,850	1,940	16,500	9,170	2,110	894
6	273	273	830	1,370	1,520	1,600	1,760	1,760	19,500	4,980	1,760	768
7	768	273	705	1,300	1,940	1,440	1,600	1,600	19,800	4,980	1,370	705
8	1,230	1,160	705	1,230	4,500	1,370	1,520	1,440	15,000	5,490	1,160	705
9	1,020	1,020	705	1,300	8,490	1,370	1,520	1,370	10,200	3,820	1,090	474
10	768	957	705	1,600	6,030	2,780	1,440	1,370	14,700	3,180	1,090	474
11	530	894	586	1 680	4,270	3,600	1,300	1,230	12,000	3,180	957	474
12	1,020	645	705	1,600	3,600	3,180	1,230	1,090	6,600	3,600	1,090	474
13	1,020	586	705	1,520	2,980	2,390	1,230	1,020	5,760	3,180	830	474
14	1,230	474	3,600	1,520	2,390	2,110	1,370	1,020	9,170	7,510	768	370
15	1,020	474	7,830	1,370	2,580	2,020	2,110	894	12,000	10,600	705	370
16	768	645	6,600	1,370	2,580	2,390	3,600	894	9,170	5,490	705	370
17	530	2,580	4,500	1,230	2,390	6,600	2,780	830	5,760	3,390	586	370
18	474	6,600	4,500	1,300	2,300	9,170	2,020	1,090	4,500	2,580	645	370
19	474	6,900	3,390	3,180	2,110	7,200	1,850	1,300	4,500	2,110	1,680	370
20	370	3,820	2,390	10,600	1,680	4,980	1,850	3,180	4,040	1,680	1,440	322
21	370	2,300	1,940	11,300	1,680	3,820	6,310	6,600	4,040	1,520	1,160	273
22	370	1,760	1,600	7,200	1,680	3,600	9,170	4,980	4,500	1,520	894	273
23	322	1,370	1,370	4,500	2,580	3,180	11,300	3,180	3,600	3,600	768	273
24	273	1,160	1,230	3,600	5,490	2,780	11,000	2,390	3,180	3,180	645	273
25	273	1,090	1,230	4,980	6,600	2,580	6,900	1,760	3,180	2,780	645	273
26	273	957	1,020	8,160	5,230	2,580	4,500	1,520	4,740	1,850	645	273
27	273	957	957	*6,600	4,040	4,500	3,600	1,940	3,820	1,520	1,940	273
28	273	830	957	4,740	3,390	5,490	4,040	5,490	4,040	1,440	1,090	273
29	273	705	957	3,600	2,780	4,270	5,490	6,600	7,510	2,780	894	273
30	273	705	957	2,780	-------	3,600	4,740	4,040	18,500	1,940	768	273
31	273	-------	1,230	2,390	-------	3,180	--------	2,780	--------	1,370	1,440	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,230	273	530	0.272	0.31
November	6,900	273	1,350	.693	.77
December	7,830	586	1,840	.944	1.09
January	11,300	1,230	3,380	1.73	1.99
February	8,490	1,520	3,160	1.62	1.75
March	9,170	1,370	3,310	1.70	1.96
April	11,300	1,230	3,680	1.89	2.11
May	6,600	830	2,410	1.24	1.43
June	19,800	1,760	7,930	4.02	4.48
July	21,800	1,370	5,310	2.72	3.14
August	3,180	586	1,200	615	.71
September	3,180	273	620	.318	.35
The year	21,800	273	2,890	1.48	20.09

POND RIVER NEAR WHITE PLAINS, KY.

LOCATION.—Chain gage at Illinois Central Railroad bridge 3 miles northeast of White Plains, Hopkins County.
DRAINAGE AREA.—315 square miles.
RECORDS AVAILABLE.—June to September, 1928.
EXTREMES.—Maximum discharge during period, 6,850 second-feet June 30 (gage height, 15.80 feet); minimum, 0.1 second-foot Sept. 20 and 21 (gage height, 0.64 foot).
REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	--------	4,900	13.3	7.8	16	3,230	770	4.6	.5
2	--------	3,530	13.0	10.4	17	2,960	369	4.6	.5
3	--------	2,610	11.5	9.2	18	2,610	155	4.6	.3
4	--------	1,700	11.8	8.6	19	2,150	93	8.6	.2
5	--------	980	12.1	7.4	20	1,930	61	16.1	.1
6	3,530	590	35.0	6.0	21	2,000	42	11.9	.1
7	3,690	478	16.6	5.0	22	2,000	31	9.5	1.2
8	3,380	785	12.1	4.2	23	2,150	35	8.0	2.0
9	2,230	1,360	10.0	3.2	24	2,150	82	7.2	1.8
10	3,090	1,480	9.2	2.2	25	1,650	67	6.2	1.4
11	3,090	1,520	7.6	1.5	26	1,090	26	5.4	1.1
12	2,960	1,390	5.8	1.0	27	665	16.0	5.2	1.0
13	2,510	1,450	5.0	.8	28	840	14.0	5.4	.9
14	2,720	1,450	5.0	.9	29	4,540	42	5.6	.9
15	2,720	1,360	4.0	.6	30	6,850	40	5.2	1.1
					31	--------	19.4	4.8	--------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
June 6-30	6,850	665	2,670	8.48	7.90
July	4,900	16.0	885.0	2.81	3.24
August	35.0	4.6	9.19	.029	.03
September	10.4	.1	2.73	.009	.01

WABASH RIVER BASIN

WABASH RIVER AT LOGANSPORT, IND.

LOCATION.—Chain gage in sec. 35, T. 27 N., R. 1 E., at Cicott Street Bridge at Logansport, 1,000 feet below Eel River. Zero of gage is 573.21 feet above mean sea level.

DRAINAGE AREA.—3,830 square miles.

RECORDS AVAILABLE.—April, 1903, to July, 1906; May, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 40,300 second-feet Dec. 1 (gage height, 13.85 feet); minimum, 435 second-feet Sept. 10, 11, and 13–30 (gage height, 3.0 feet).

1923–1928: Maximum discharge, 57,400 second-feet Mar. 15, 1925 (gage height, 15.9 feet); minimum, 111 second-feet Oct. 22, 1924 (gage height, 2.04 feet).

Maximum known stage, 25.5 feet Mar. 26, 1913.

REMARKS.—Records good. Gage-height record furnished by Department of Conservation, State of Indiana.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,780	705	40,300	6,250	1,770	4,000	17,200	1,770	705	2,330	955	1,100
2	4,000	765	36,800	1,770	1,770	3,140	12,200	1,250	825	1,950	825	825
3	3,350	765	26,600	1,770	1,500	2,730	8,200	1,250	705	1,590	825	705
4	2,930	765	15,800	3,350	1,680	2,730	5,200	1,250	825	1,590	705	705
5	2,040	765	9,950	3,780	6,550	2,330	3,350	1,250	825	5,700	825	705
6	1,420	765	6,550	2,730	12,600	1,950	2,930	1,420	5,450	11,400	825	600
7	1,250	765	8,550	2,140	8,200	1,950	2,530	1,250	10,600	5,700	2,140	510
8	1,020	765	19,400	2,730	6,550	1,770	2,330	955	8,200	3,560	2,530	510
9	890	765	15,000	3,780	10,600	1,590	2,930	1,100	6,550	2,530	1,590	510
10	825	765	9,250	3,560	8,550	2,330	3,560	1,100	8,900	2,140	1,100	435
11	765	705	5,200	3,350	5,450	2,730	1,950	955	7,850	1,420	955	435
12	2,240	705	4,460	3,560	3,560	2,330	1,950	1,100	5,200	1,590	825	510
13	3,350	705	5,450	3,350	2,730	2,530	1,770	1,100	3,350	1,420	705	435
14	2,730	705	27,500	3,560	3,780	5,950	1,590	955	2,330	1,590	705	435
15	2,140	705	29,800	3,350	23,000	8,200	1,770	1,100	1,590	3,350	705	435
16	1,680	765	22,100	3,350	21,200	6,550	1,250	1,100	1,420	5,200	600	435
17	1,340	765	13,400	2,930	15,000	4,950	1,420	955	1,100	2,330	600	435
18	1,250	765	8,550	2,730	10,600	3,350	1,420	1,100	1,250	1,950	600	435
19	1,020	765	4,460	4,950	6,850	2,530	1,250	4,460	1,100	1,420	510	435
20	890	705	2,730	16,200	6,250	2,330	1,100	6,250	12,200	1,250	510	435
21	890	652	2,530	10,600	4,700	1,950	1,250	3,560	14,200	1,100	705	435
22	890	652	2,530	4,700	3,560	1,950	1,590	2,140	13,000	4,000	705	435
23	890	652	2,430	3,560	3,780	1,950	8,900	1,420	11,000	5,200	705	435
24	765	2,040	2,240	2,930	4,460	1,590	9,250	1,250	9,600	5,700	705	435
25	765	4,700	2,040	4,700	4,700	1,770	5,200	1,250	6,250	2,930	600	435
26	705	3,780	1,860	5,450	3,350	1,770	4,000	955	4,950	2,530	510	435
27	652	2,330	1,500	3,560	2,930	1,590	2,930	1,100	3,140	1,420	510	435
28	652	3,140	1,500	4,460	2,930	1,770	2,140	1,100	2,530	1,250	510	435
29	652	15,800	1,860	1,590	3,560	1,590	1,950	825	2,140	955	4,700	435
30	652	26,600	2,930	1,590	--------	1,590	1,950	955	2,730	955	2,930	435
31	652	--------	4,700	1,770	--------	13,000	--------	955	--------	955	1,770	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,000	652	1,520	0.397	0.46
November	26,600	652	2,510	.655	.73
December	40,300	1,500	10,900	2.85	3.29
January	16,200	1,590	4,000	1.04	1.20
February	23,000	1,500	6,630	1.73	1.87
March	13,000	1,590	3,110	.812	.94
April	17,200	1,100	3,840	1.00	1.12
May	6,250	825	1,520	.397	.46
June	14,200	705	5,020	1.31	1.46
July	11,400	955	2,810	.73	.85
August	4,700	510	1,080	.282	.33
September	1,100	435	513	.134	.15
The year	40,300	435	3,610	.943	12.86

WABASH RIVER AT LAFAYETTE, IND.

LOCATION.—Tape gage in sec. 20, T. 23 N., R. 4 W., at Brown Street Bridge at Lafayette. Zero of gage is 504.14 feet above mean sea level.

DRAINAGE AREA.—7,200 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 66,000 second-feet Dec. 2 (gage height, 21.9 feet); minimum, 960 second-feet Sept. 24, 25, 28, 29 (gage height, 1.1 feet).

Maximum stage known, 32.9 feet Mar. 26, 1913 (discharge not determined); minimum, 0.3 foot on several days.

REMARKS.—Records good. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,210	2,340	54,000	13,100	4,950	8,200	10,000	3,340	1,880	-------	2,500	4,230
2	11,000	2,500	63,500	8,600	3,690	7,400	17,400	3,340	1,250	-------	2,180	3,690
3	9,400	3,170	61,500	4,590	4,410	6,640	14,100	3,340	1,480	-------	1,880	3,690
4	8,400	3,340	51,800	5,690	4,590	6,070	10,000	2,830	1,360	-------	1,880	2,830
5	6,830	3,000	38,900	8,200	12,700	4,950	7,020	2,660	2,340	-------	2,180	2,500
6	4,590	2,340	25,500	8,800	22,500	5,310	5,880	3,000	3,870	-------	1,880	1,880
7	3,690	2,500	19,500	9,000	20,700	4,770	6,070	2,030	12,700	-------	2,340	1,740
8	3,870	2,660	37,300	10,000	17,400	4,410	6,070	2,830	12,700	-------	4,050	1,740
9	3,340	2,660	41,800	12,000	17,000	4,410	6,070	2,500	10,000	-------	3,510	1,610
10	3,000	2,660	29,200	13,500	19,500	4,950	5,310	2,500	13,100	-------	3,340	1,610
11	2,500	2,830	19,700	10,000	14,800	6,260	4,410	2,660	13,300	-------	2,660	1,610
12	3,870	2,030	16,100	10,400	11,000	5,310	4,410	2,500	9,200	-------	2,180	3,340
13	8,800	2,180	16,100	10,200	8,400	6,070	4,050	2,340	-------	-------	1,250	1,880
14	9,000	2,500	32,000	9,800	9,400	7,210	3,870	1,740	-------	-------	1,740	1,740
15	8,600	3,340	46,400	9,800	18,300	12,900	3,510	2,180	-------	-------	1,610	2,500
16	7,600	3,510	48,600	9,200	34,100	13,100	3,510	2,340	-------	-------	1,360	1,140
17	5,310	3,510	41,800	9,200	32,400	9,800	3,690	2,030	-------	-------	1,360	1,140
18	4,230	2,660	28,500	8,600	22,000	6,830	3,510	2,660	-------	-------	2,500	1,740
19	3,510	3,340	16,100	8,200	15,400	5,880	3,000	2,500	13,500	-------	1,360	1,610
20	3,690	2,830	10,800	21,700	11,800	5,690	2,830	9,400	-------	-------	1,040	1,360
21	3,170	1,610	9,400	24,600	8,600	5,310	3,000	6,830	-------	-------	2,030	1,360
22	2,340	2,340	9,000	15,000	7,800	4,950	3,340	4,770	-------	-------	2,030	1,360
23	2,340	2,830	9,000	10,800	8,600	4,230	4,770	3,690	-------	-------	2,180	1,140
24	2,180	3,170	7,400	9,200	9,000	4,050	12,000	2,660	-------	-------	2,660	950
25	2,340	5,880	7,020	12,400	9,400	4,230	9,400	2,660	-------	-------	1,880	950
26	2,030	9,600	6,260	13,100	9,000	3,690	7,020	2,660	-------	-------	1,480	1,040
27	2,660	8,200	6,260	11,200	7,600	4,230	5,310	1,480	-------	-------	1,140	1,040
28	2,340	5,880	5,690	8,800	6,640	4,410	5,130	1,360	-------	2,830	1,140	1,040
29	2,500	15,600	5,880	5,690	6,450	4,230	3,690	1,880	-------	1,880	2,660	950
30	2,500	33,800	7,600	3,690	-------	4,770	3,000	2,030	-------	1,610	7,400	950
31	1,740	-------	10,000	4,410	-------	4,950	-------	1,480	-------	2,500	6,260	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	11,000	1,740	4,660	0.647	0.75
November	33,800	1,610	4,830	.671	.75
December	63,500	5,690	25,200	3.50	4.04
January	24,600	3,690	10,300	1.43	1.65
February	34,100	3,690	13,000	1.81	1.95
March	13,100	3,690	5,970	.829	.96
April	17,400	2,830	6,050	.840	.94
May	9,400	1,360	2,910	.404	.47
August	7,400	1,040	2,380	.331	.38
September	4,230	950	1,810	.251	.28

WABASH RIVER AT MONTEZUMA, IND.

LOCATION.—Chain gage in sec. 35, T. 16 N., R. 9 W., at highway bridge at Montezuma.

DRAINAGE AREA.—11,100 square miles

RECORDS AVAILABLE.—October, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 74,800 second-feet Dec. 4 (gage height, 24.85 feet); minimum, 1,510 second-feet Sept. 27 and 28 (gage height, 2.32 feet).

REMARKS.—Records good. Gage-height record furnished by Department of Conservation, State of Indiana.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21,000	3,660	54,500	14,400	13,700	11,700	16,200	5,390	3,330	11,700	3,660	6,480
2	28,000	3,830	67,500	14,100	13,900	11,700	18,000	5,210	3,330	10,200	3,660	5,570
3	27,400	4,000	74,000	13,700	14,100	11,100	18,000	5,030	3,170	8,000	3,490	4,680
4	22,500	4,510	74,800	14,100	12,100	10,000	15,300	5,030	3,660	10,000	3,330	3,830
5	18,300	4,680	71,700	13,900	25,300	9,400	13,000	4,680	8,800	30,700	3,330	3,490
6	14,400	4,680	64,700	14,800	30,100	8,800	11,300	4,680	11,300	37,600	5,210	3,830
7	11,300	4,680	57,000	15,700	31,000	8,600	10,000	4,510	10,600	34,800	4,340	3,170
8	9,600	4,000	56,500	15,700	33,100	8,400	10,400	4,340	16,900	29,800	3,830	2,850
9	9,000	3,660	54,000	15,500	32,200	8,200	10,200	4,340	23,800	19,000	4,680	2,700
10	7,430	3,830	52,500	15,300	31,600	7,810	9,200	4,170	19,800	13,200	4,680	2,400
11	6,290	3,830	50,600	15,700	29,200	8,600	8,800	4,340	17,600	10,200	4,340	2,260
12	17,600	3,660	47,400	22,800	25,600	8,800	8,200	4,850	16,900	8,400	3,830	2,550
13	23,200	3,660	39,800	18,000	19,800	8,400	7,620	4,340	12,600	8,000	3,330	3,490
14	22,800	3,660	44,600	17,400	18,500	9,200	7,430	4,000	11,500	8,000	2,700	3,170
15	19,000	4,000	47,400	16,200	29,200	10,200	6,860	4,000	7,810	7,430	2,550	3,010
16	14,600	5,210	47,900	15,500	30,400	14,100	6,860	3,830	6,480	6,110	2,550	2,850
17	12,800	6,480	52,000	14,800	32,200	13,700	6,480	4,680	7,240	6,670	2,550	2,700
18	9,400	6,480	49,700	14,400	32,800	12,400	6,290	5,750	5,030	7,050	2,700	1,990
19	8,600	5,750	47,400	14,400	31,300	10,600	6,290	6,670	8,800	6,110	2,700	1,860
20	7,810	5,750	34,800	27,700	29,800	8,800	6,110	6,860	22,800	5,570	2,700	1,860
21	7,240	5,390	30,400	28,000	19,500	8,400	5,750	9,810	25,600	10,900	2,550	1,860
22	6,290	4,850	19,200	23,500	14,400	8,000	6,860	9,400	28,000	10,000	2,550	1,860
23	5,750	4,340	15,300	22,000	13,700	7,620	6,860	7,240	26,200	7,430	2,550	1,740
24	5,390	5,210	13,900	20,800	13,900	7,240	7,240	5,930	22,200	8,400	3,490	1,620
25	4,850	7,240	12,100	21,000	13,500	7,050	9,200	5,210	18,500	8,600	3,490	1,620
26	4,680	10,200	11,100	21,500	13,000	6,290	11,500	4,680	15,000	6,860	3,330	1,510
27	4,510	11,500	10,000	19,800	12,800	6,110	9,200	4,680	12,100	7,430	2,850	1,510
28	4,340	11,700	10,900	16,200	11,900	6,110	7,810	4,340	10,000	5,030	2,700	1,510
29	4,000	17,600	12,800	13,700	11,300	6,860	7,240	3,830	10,600	4,680	5,570	1,510
30	4,000	32,800	13,000	10,900	-------	9,200	5,750	3,830	14,400	4,000	5,750	1,510
31	3,830	-------	13,200	11,900	-------	9,810	-------	3,660	-------	3,330	8,000	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	28,000	3,830	11,800	1.06	1.22
November	32,800	3,660	6,690	.603	.67
December	74,800	10,000	40,300	3.63	4.18
January	28,000	10,900	17,200	1.55	1.79
February	33,100	11,300	22,100	1.99	2.15
March	14,100	6,110	9,140	.823	.95
April	18,000	5,750	9,330	.841	.94
May	9,810	3,660	5,140	.463	.53
June	28,000	3,170	13,500	1.22	1.36
July	37,600	3,330	11,500	1.04	1.20
August	8,000	2,550	3,640	.328	.38
September	6,480	1,510	2,700	.243	.27
The year	74,800	1,510	12,700	1.14	15.64

WABASH RIVER AT TERRE HAUTE, IND.

LOCATION.—Staff gage in sec. 21, T. 12 N., R. 9 W., at Wabash Avenue Bridge at Terre Haute. Zero of gage is 442.90 feet above mean sea level.

DRAINAGE AREA.—12,200 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1928. At Vandalia Railway bridge, 2,600 feet upstream, August, 1902, to December, 1903; February, 1905, to July, 1906.

EXTREMES.—Maximum discharge during year, 78,600 second-feet Dec. 5 (gage height, 23.9 feet); minimum, 1,770 second-feet Sept. 26 (gage height, 3.04 feet).

Maximum known stage, about 33.0 feet Mar. 27, 1913.

REMARKS.—Records good. Gage heights Oct. 1 to Aug. 20 computed from records at United States Weather Bureau gage, 3,300 feet upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14,400	4,310	37,500	18,700	15,000	12,400	10,500	6,250	3,990	14,200	3,670	7,440
2	25,400	3,990	50,100	17,200		12,400	15,100	5,750	3,370	11,800	4,150	6,590
3	28,600	4,150	65,200	7,780		13,000	18,900	5,590	3,370	9,940	3,830	5,590
4	25,100	4,630	76,800	7,780		12,600	18,000	5,750	3,670	9,030	3,830	4,470
5	21,100	4,630	76,800	7,950	23,900	10,700	15,100	5,750	11,300	15,100	3,520	3,990
6	16,800	4,790	76,800	8,490	31,000	9,940	12,600	5,270	11,500	30,200	4,790	3,990
7	13,600	4,630	70,500	9,940	31,000	9,570	11,100	5,270	12,600	34,100	5,430	3,990
8	11,600	4,790	65,200	11,800	33,200	9,570	11,100	4,950	12,400	33,600	5,430	3,220
9	10,300	4,470	62,800	13,800	34,600	9,210	11,100	4,470	24,400	26,600	4,150	3,000
10	9,210	4,150	58,000	15,100	34,100	8,670	10,500	4,470	23,900	18,900	4,950	2,770
11	7,780	3,990	56,400	18,000	32,300	8,670	9,570	4,470	18,900	13,000	4,790	2,630
12	8,310	4,150	55,000	19,600	29,400	9,570	9,210	4,790	18,700	10,700	3,830	2,490
13	24,400	4,310	50,800	20,700	24,400	9,750	8,130	4,950	16,300	7,440	3,520	3,830
14	24,800	4,310	50,100	18,200	20,900	9,940	7,780	4,470	13,000	6,420	2,630	4,630
15	22,000	4,470	49,400	17,400	28,600	10,500	7,440	4,310	10,500	7,440	2,770	3,520
16	18,200	4,790	50,800	16,300	29,800	13,000	7,440	3,990	8,490	8,670	2,490	3,370
17	15,300	6,080	50,800	15,900	30,600	15,500	7,270	4,150	7,100	7,100	2,490	3,220
18	11,500	6,760	52,900	15,100	32,800	14,600	7,100	5,430	6,420	8,130	2,490	2,490
19	9,570	6,420	53,600	15,100	33,600	12,400	6,930	6,930	6,930	8,310	2,490	2,360
20	8,850	5,750	52,200	25,100	34,100	10,500	6,760	7,950	15,300	6,420	2,920	2,360
21	7,780	5,430	46,700	26,900	29,000	9,390	6,930	7,440	25,700	7,100	2,770	2,360
22	7,100	5,110	32,800	27,200	20,200	8,850	7,610	10,700	25,400	10,700	2,770	2,360
23	6,420	4,470	22,000	26,600	16,800	8,490	7,610	9,210	27,200	9,570	3,070	2,300
24	6,250	4,790	20,200	19,800	15,500	7,780	7,610	7,100	25,400	7,950	3,670	2,230
25	5,750	5,910	15,100	18,200	15,300	7,440	10,700	6,080	21,600	9,210	3,830	1,990
26	5,270	9,210	13,400	20,000	14,600	7,440	12,600	5,430	18,700	8,850	3,600	1,770
27	5,110	11,800	12,000	20,700	14,200	7,270	11,500	5,110	15,100	7,440	3,370	1,880
28	4,790	12,000	11,500	17,800	14,400	7,100	9,210	4,790	12,600	6,420	3,070	1,880
29	4,790	13,000	12,800	13,400	13,000	7,270	7,950	4,150	11,100	5,430	5,270	1,880
30	4,630	22,900	14,600	13,000	-------	12,600	6,930	3,990	14,400	4,470	6,930	1,940
31	4,470	-------	16,300		-------	12,400	-------	3,830	-------	3,990	8,310	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	28,600	4,470	12,600	1.03	1.19
November	22,900	3,990	6,340	.520	.58
December	76,800	11,500	44,500	3.65	4.21
January	27,200	7,780	16,700	1.37	1.58
February	34,600	13,000	24,000	1.97	2.12
March	15,500	7,100	10,300	.845	.97
April	18,900	6,760	10,000	.820	.91
May	10,700	3,830	5,570	.456	.53
June	27,200	3,370	14,300	1.17	1.30
July	34,100	3,990	11,900	.977	1.12
August	8,310	2,490	3,900	.320	.37
September	7,440	1,770	3,220	.264	.29
The year	76,800	1,770	13,600	1.11	15.11

WABASH RIVER AT MOUNT CARMEL, ILL.

LOCATION.—Staff gage at Southern Railway bridge at Mount Carmel. Zero of gage is 372.45 feet above mean sea level.

DRAINAGE AREA.—28,600 square miles.

RECORDS AVAILABLE.—January, 1908, to September, 1913; October, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 128,000 second-feet Dec. 9 and 17 (gage height, 22.1 feet); minimum, 3,920 second-feet Sept. 30 (gage height, 1.02 feet).

1908–1913, 1927–28: Maximum gage height, 31.0 feet Mar. 30, 1913 (discharge not determined); minimum, 0.3 foot Sept. 12, 1908 (discharge not determined).

REMARKS.—Records good. Discharge estimated Sept. 26–29. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1927–28.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26,900	8,830	48,500	35,000	23,200	33,200	30,500	42,200	13,400	36,400	10,900	14,000
2	29,600	8,580	62,200	35,000	20,000	31,000	31,000	30,500	12,500	36,400	10,100	13,400
3	35,000	8,330	67,000	33,200	19,600	30,500	32,800	25,600	10,900	34,100	11,100	12,200
4	36,800	8,080	71,400	33,200	18,400	30,500	35,000	20,800	10,600	30,000	10,100	11,100
5	36,800	8,080	76,300	24,000	24,400	30,000	39,500	18,800	13,400	27,400	8,830	10,100
6	35,400	7,830	82,800	19,200	44,000	27,800	37,200	15,000	22,400	26,900	8,830	9,080
7	31,000	8,330	96,000	18,000	58,900	25,600	30,500	14,600	30,500	35,000	8,580	7,580
8	26,400	8,830	109,000	19,200	70,000	23,600	25,600	13,700	35,000	40,000	9,080	7,580
9	22,400	8,830	124,000	22,000	77,100	22,400	23,200	13,100	47,600	46,200	9,080	7,580
10	19,600	8,580	124,000	24,800	85,500	22,400	22,400	12,500	55,400	50,400	8,830	7,080
11	18,400	8,330	122,000	27,800	93,700	23,600	21,600	12,000	59,900	50,900	8,830	6,830
12	18,000	8,080	111,000	31,400	101,000	23,600	20,000	11,700	61,000	44,000	9,830	6,330
13	17,600	8,330	109,000	32,300	105,000	21,600	19,200	11,400	59,900	35,000	9,830	6,080
14	24,800	8,580	117,000	34,600	102,000	22,000	18,000	10,900	58,400	28,200	9,330	5,830
15	31,400	8,830	122,000	33,600	96,000	23,600	17,600	10,900	54,900	24,000	8,580	6,080
16	35,400	8,830	124,000	31,800	85,500	23,600	16,400	10,900	49,400	22,800	7,580	6,830
17	34,600	9,830	126,000	30,000	77,100	24,400	16,000	10,600	39,500	19,600	7,330	6,330
18	31,400	11,400	126,000	29,600	73,500	28,200	15,400	19,200	30,000	16,800	7,330	5,830
19	26,400	12,500	124,000	29,600	72,800	30,000	15,400	29,600	28,200	15,700	7,080	5,830
20	21,200	13,400	124,000	38,600	73,500	28,700	14,600	35,400	27,400	15,000	7,080	5,830
21	16,400	14,000	122,000	46,200	73,500	26,000	14,600	35,400	31,800	14,300	7,080	5,580
22	14,600	14,000	120,000	50,900	70,000	23,600	33,200	32,800	44,000	14,000	7,080	5,100
23	12,800	12,800	115,000	54,900	60,400	22,000	46,700	31,400	49,400	13,400	7,080	5,100
24	12,200	12,200	101,000	56,400	53,400	20,800	50,400	28,700	52,900	15,400	7,080	5,340
25	11,700	12,200	77,900	53,400	46,200	19,200	52,400	23,200	54,900	14,600	7,330	5,100
26	11,100	12,200	58,900	48,500	41,800	18,000	52,400	18,800	55,900	14,000	8,830	4,860
27	10,300	13,400	44,900	46,200	39,000	17,200	55,400	16,800	53,400	14,000	11,400	4,860
28	9,830	17,200	36,400	44,900	37,200	16,800	56,400	15,700	47,200	14,000	12,000	4,380
29	9,580	26,000	31,800	41,800	35,400	16,000	55,900	15,400	40,800	12,800	10,900	4,380
30	9,330	33,600	31,800	37,200	-------	15,700	51,400	14,300	37,200	11,400	10,600	3,920
31	9,080	-------	33,200	29,600	-------	25,600	-------	14,000	-------	11,100	13,400	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	36,800	9,080	22,100	0.773	0.89
November	33,600	7,830	11,700	.409	.46
December	126,000	31,800	91,600	3.20	3.69
January	56,400	18,000	35,300	1.23	1.42
February	105,000	18,400	61,300	2.14	2.31
March	33,200	15,700	24,100	.843	.97
April	56,400	14,600	31,700	1.11	1.24
May	42,200	10,600	19,900	.696	.80
June	61,000	10,600	39,600	1.38	1.54
July	50,900	11,100	25,300	.885	1.02
August	13,400	7,080	9,060	.317	.37
September	14,000	3,920	7,000	.245	.27
The year	126,000	3,920	31,500	1.10	14.98

TIPPECANOE RIVER AT PULASKI, IND.

LOCATION.—Chain gage in sec. 9, T. 29 N., R. 2 W., at highway bridge at Pulaski.
DRAINAGE AREA.—1,100 square miles.
RECORDS AVAILABLE.—October, 1927, to September, 1928.
EXTREMES.—Maximum discharge during year, 7,410 second-feet Dec. 3 (gage height, 8.23 feet); minimum, 365 second-feet Sept. 24 and 26–30.
REMARKS.—Records good. Gage-height record furnished by Department of Conservation, State of Indiana.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,990	635	6,470	2,080	4,510	1,390	1,170	685	475	712	415	1,410
2	2,380	850	6,930	4,640	3,990	1,310	1,240	660	475	795	415	1,250
3	2,280	910	7,410	4,250	3,740	1,240	1,240	660	455	685	398	1,100
4	2,080	970	6,170	4,250	3,260	1,170	1,100	660	475	660	398	1,100
5	1,810	910	5,870	4,250	3,260	1,170	1,030	712	495	795	415	900
6	1,720	850	5,160	4,250	2,580	1,100	1,100	740	635	1,030	435	840
7	1,470	795	6,170	4,120	2,280	1,030	1,170	740	660	910	475	780
8	1,310	795	6,170	3,860	2,180	1,030	1,170	712	685	850	495	620
9	1,170	740	5,300	3,260	2,280	1,100	1,100	685	712	740	475	595
10	1,100	712	5,440	2,580	2,180	1,100	1,100	660	712	635	540	548
11	1,030	740	5,580	2,480	1,810	1,170	1,030	635	685	585	780	502
12	1,390	795	4,900	2,690	1,550	1,100	970	610	610	562	960	480
13	1,810	795	4,900	2,380	1,390	1,170	970	585	540	562	900	480
14	1,990	795	6,020	2,280	1,900	1,310	1,030	585	518	562	725	460
15	1,810	795	6,170	2,280	2,380	1,550	970	562	495	585	548	460
16	1,720	910	6,620	2,180	2,690	1,550	970	562	475	562	440	440
17	1,470	910	5,870	1,990	2,580	1,470	970	610	475	540	400	440
18	1,310	910	4,510	1,900	2,380	1,390	910	660	475	495	400	420
19	1,240	850	3,500	2,280	2,080	1,240	850	850	540	495	382	420
20	1,100	795	3,140	2,480	1,630	1,170	795	910	712	540	420	400
21	1,030	795	2,910	2,580	1,470	1,100	795	850	795	585	570	400
22	910	740	2,910	4,640	1,470	1,100	795	740	740	610	698	382
23	910	795	2,910	4,250	1,630	1,030	795	660	660	610	725	382
24	850	970	2,380	4,770	1,810	1,030	795	635	635	585	725	365
25	795	1,310	2,180	4,510	1,630	1,100	795	610	635	585	840	382
26	795	1,720	1,990	2,690	1,550	1,100	740	610	610	540	780	365
27	712	1,810	1,810	6,470	1,470	1,100	740	610	585	510	698	365
28	685	2,380	1,810	5,580	1,390	1,030	740	585	562	495	645	365
29	685	2,180	2,080	5,300	1,390	1,030	712	562	635	475	595	365
30	660	5,030	2,180	5,160	-------	1,030	685	540	712	435	840	365
31	660	-------	2,280	4,900	-------	1,100	-------	495	-------	435	1,030	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,380	660	1,320	1.20	1.38
November	5,030	635	1,140	1.04	1.16
December	7,410	1,810	4,440	4.04	4.66
January	6,470	1,900	3,590	3.26	3.76
February	4,510	1,390	2,220	2.02	2.18
March	1,550	1,030	1,180	1.07	1.23
April	1,240	685	949	.863	.96
May	910	495	657	.599	.69
June	795	455	596	.542	.60
July	1,030	435	618	.562	.65
August	1,030	382	599	.545	.63
September	1,410	365	579	.526	.59
The year	7,410	365	1,490	1.35	18.49

VERMILION RIVER NEAR DANVILLE, ILL.

LOCATION.—Chain gage in sec. 22, T. 19 N., R. 11 W., at Chicago & Eastern Illinois Railroad bridge, 2 miles southeast of Danville. Zero of gage is 503.99 feet above mean sea level.

DRAINAGE AREA.—1,280 square miles.

RECORDS AVAILABLE.—November, 1914, to August, 1921; June to September, 1928.

EXTREMES.—Maximum discharge during period, 8,640 second-feet July 6 (gage height, 14.4 feet); minimum, 28 second-feet Sept. 17 (gage height, 2.06 feet).

1914–1921, 1928: Maximum discharge, 12,800 second-feet Apr. 21, 1920 (gage height, 19.7 feet); minimum, 2.0 second-feet Oct. 14, 1920 (gage height, 1.58 feet).

REMARKS.—Records fair. Flow regulated at times by storage reservoir on North Fork of Vermilion River 4 miles above gage.

Daily and monthly discharge, in second-feet, 1928

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1		450	147	83	16	605	475	92	137
2		450	149	83	17	605	450	110	73
3		425	128	90	18	605	378	68	117
4		6,400	157	94	19	632	295	117	96
5		3,600	175	86	20	605	450	106	88
6		7,760	162	83	21	475	770	140	83
7		5,280	240	85	22	525	715	102	62
8		2,960	209	65	23	1,010	425	126	50
9		1,810	170	73	24	475	425	275	71
10		1,880	135	88	25	500	335	275	55
11		1,130	132	60	26	475	275	135	55
12		890	123	224	27	355	240	83	56
13	632	770	121	135	28	400	224	100	80
14	632	632	90	128	29	525	112	65	83
15	605	890	130	175	30	715	100	60	80
					31		157	100	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
June 13-30	1,010	355	576	0.450	0.30
July	7,760	100	1,330	1.04	1.20
August	275	60	136	.106	.12
September	224	50	91.3	.071	.08

EMBARRASS RIVER AT STE. MARIE, ILL.

LOCATION.—Chain gage in sec. 30, T. 6 N., R. 14 W., at highway bridge at Ste. Marie. Zero of gage is 447.14 feet above mean sea level.

DRAINAGE AREA.—1,540 square miles.

RECORDS AVAILABLE.—October, 1909, to December, 1912; August, 1914, to September, 1928.

EXTREMES.—Maximum discharge during year, 10,600 second-feet Dec. 3 and 16; minimum, 88 second-feet Sept. 26–28 (gage height, 1.24 feet).

1909–1912, 1914–1928: Maximum discharge, 39,000 second-feet May 30, 1927 (gage height, 24.3 feet); minimum, 1.0 second-foot Sept. 5–9 and Oct. 19,1914 (gage height, 1.1 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,370	490	7,430	1,850	1,160	1,310	1,080	445	545	1,350	3,740	143
2	3,480	465	8,160	1,670	940	1,270	780	420	470	1,050	690	171
3	4,480	465	10,600	1,430	880	1,190	630	395	470	880	320	143
4	3,730	465	9,110	1,390	1,940	1,270	570	395	2,160	750	240	130
5	3,680	415	8,160	1,350	7,480	1,230	545	395	5,060	690	280	124
6	3,930	415	7,720	1,310	8,570	1,050	880	395	2,980	840	260	105
7	4,260	390	7,930	1,310	9,860	880	1,270	370	1,720	940	211	105
8	5,540	390	8,160	1,270	9,700	840	1,800	320	3,740	1,080	186	105
9	4,940	365	8,160	1,850	9,290	2,480	1,630	320	5,970	1,020	186	105
10	2,280	365	7,820	1,900	8,460	2,340	1,550	300	4,400	780	194	99
11	2,010	340	5,930	1,720	6,320	1,670	1,350	280	3,380	630	164	99
12	3,930	515	5,120	1,590	4,880	1,190	1,120	280	2,530	520	136	99
13	5,860	675	6,280	1,550	3,740	2,080	940	280	2,730	470	130	93
14	6,590	440	8,430	1,550	5,900	1,630	940	280	2,390	1,050	130	93
15	6,280	440	9,780	1,630	8,140	1,020	840	280	1,390	545	130	178
16	5,180	765	10,600	1,430	8,570	880	780	280	1,160	445	124	171
17	4,260	675	8,040	1,350	5,360	810	720	6,820	980	395	117	143
18	2,880	615	5,000	1,270	3,580	780	660	7,750	980	345	111	130
19	2,190	615	3,480	4,340	2,780	720	630	5,120	840	370	111	124
20	1,670	675	2,630	7,220	2,260	690	600	4,220	6,040	345	105	117
21	1,430	515	2,080	5,620	1,900	600	2,390	2,120	5,000	1,020	105	111
22	1,160	465	1,760	2,930	1,670	570	2,880	2,030	3,980	690	99	99
23	985	440	1,470	2,390	1,590	545	1,390	1,720	3,740	345	93	93
24	885	415	1,310	2,390	1,470	545	910	1,230	2,440	370	211	93
25	795	675	1,160	4,100	1,310	520	780	940	2,030	370	178	88
26	735	615	1,050	2,530	1,160	520	690	880	1,760	280	143	88
27	645	675	940	1,940	1,050	495	600	1,270	1,270	250	136	88
28	615	3,080	750	1,850	980	470	545	840	1,080	230	130	88
29	565	3,330	1,670	1,720	1,160	880	495	780	3,980	202	3,860	93
30	515	4,320	1,760	1,430	-------	6,740	470	690	4,340	194	2,390	93
31	515	-------	2,630	1,310	-------	3,430	-------	630	-------	186	320	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	6,590	515	2,850	1.85	2.13
November	4,320	340	817	.531	.59
December	10,600	750	5,330	3.46	3.99
January	7,220	1,270	2,170	1.41	1.63
February	9,860	880	4,210	2.73	2.94
March	6,740	470	1,310	.851	.98
April	2,880	470	1,020	.662	.74
May	6,820	280	1,370	.890	1.03
June	6,040	470	2,650	1.72	1.92
July	1,350	186	601	.390	.45
August	3,860	93	491	.319	.37
September	178	88	114	.074	.08
The year	10,600	88	1,910	1.24	16.85

WEST FORK OF WHITE RIVER NEAR NOBLESVILLE, IND.

LOCATION.—Chain gage in sec. 4, T. 19 N., R. 5 E., at highway bridge 7 miles northeast of Noblesville.

DRAINAGE AREA.—800 square miles.

RECORDS AVAILABLE.—July to September, 1922; October, 1927, to September, 1928. May, 1915, to June, 1922, at gage 2 miles downstream.

EXTREMES.—Maximum discharge during year, 8,400 second-feet Apr. 2 and 3 (gage height, 12.29 feet Apr. 3); minimum, 122 second-feet Sept. 30 (gage height, 4.59 feet).

Maximum known discharge, 20,800 second-feet Mar. 21, 1927 (gage height, 16.05 feet); minimum, 77 second-feet Oct. 4–6, 1922 (gage height, 4.5 feet).

REMARKS.—Records good. Gage-height record furnished by Department of Conservation, State of Indiana.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	330	165	5,740	375	1,000	965	7,900	-------	398	1,890	232	498
2	310	162	6,380	445	1,260	925	8,400	-------	525	1,710	270	420
3	270	150	6,730	470	1,530	815	8,400	-------	555	1,620	290	375
4	250	156	7,100	555	2,070	710	7,700	-------	780	1,350	330	398
5	232	165	7,100	525	2,340	645	6,910	-------	1,800	1,170	310	352
6	232	171	6,730	555	2,250	615	6,380	-------	3,600	965	270	330
7	270	184	5,890	585	2,340	645	5,740	-------	4,440	850	250	290
8	310	187	5,050	615	2,620	615	5,180	-------	4,220	888	232	232
9	330	187	4,680	645	2,520	645	4,560	-------	3,700	925	208	232
10	330	187	4,330	745	2,340	615	4,000	-------	3,200	1,000	212	232
11	310	208	3,900	850	2,250	525	3,400	-------	2,810	1,080	212	215
12	310	208	3,800	965	2,250	470	2,990	-------	2,340	1,170	232	232
13	352	194	3,700	1,080	2,160	445	2,520	-------	2,070	1,260	232	215
14	398	198	4,330	1,350	2,070	420	2,250	-------	1,800	1 260	232	215
15	420	194	5,590	1 620	1,980	398	1,800	-------	1,440	1,080	270	215
16	352	194	6,210	1,620	1,710	398	1,440	-------	1,080	965	310	215
17	330	190	3,400	1,620	1,530	445	965	-------	925	850	310	215
18	290	208	1,710	1,800	1,350	498	615	-------	780	745	290	212
19	310	232	1,710	2,160	1,260	498	398	-------	815	615	250	212
20	330	232	1,710	2,340	1,170	470	330	-------	1,080	498	232	212
21	352	250	1,800	2,250	1,260	498	250	-------	1,530	445	215	198
22	352	250	1,980	2,250	1,260	555	270	-------	1,890	445	232	190
23	330	270	2,070	2,250	1,170	498	352	-------	2,250	420	250	187
24	290	352	2,070	2,160	1,000	470	445	-------	2,520	420	310	168
25	250	420	1,980	1,980	965	420	420	-------	2,720	398	375	165
26	232	498	1,890	1,710	888	420	-------	-------	2,620	420	352	159
27	212	615	1,800	1,440	780	445	-------	-------	2,430	420	330	142
28	190	1,080	1,800	1,170	815	445	-------	310	2,430	375	310	132
29	174	2,620	1,890	965	1,000	745	-------	330	2,250	352	445	130
30	171	4,330	1,980	815	-------	3,900	-------	375	2,070	330	850	122
31	171	-------	2,070	850	-------	6,910	-------	330	-------	250	678	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	420	171	290	0.362	0.42
November	4,330	150	482	.602	.67
December	7,100	1,710	3,780	4.72	5.44
January	2,340	375	1,250	1.56	1.80
February	2,620	780	1,630	2.04	2.20
March	6,910	398	873	1.09	1.26
April 1–25	8,400	250	3,340	4.18	3.89
June	4,440	398	2,040	2.55	2.84
July	1,890	250	844	1.06	1.22
August	850	208	307	.384	.44
September	498	122	237	.296	.33

WEST FORK OF WHITE RIVER AT SPENCER, IND.

LOCATION.—Chain gage in sec. 29, T. 10 N., R. 3 W., at highway bridge at Spencer.

DRAINAGE AREA.—2,910 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 15,800 second-feet Dec. 4 and June 10 (gage height, 14.52 feet June 10); minimum, 330 second-feet Sept. 27 and 28 (gage height, 2.00 feet).

REMARKS.—Records good. Gage-height record furnished by Department of Conservation, State of Indiana.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,900	650	11,600	2,100	2,500	3,410	11,700	2,800	1,250	4,840	1,430	1,250
2	2,100	770	13,600	2,500	2,000	2,800	12,600	2,300	1,250	4,070	1,340	980
3	3,850	650	14,600	4,730	1,900	2,700	9,160	2,200	1,020	3,300	1,250	890
4	3,740	690	15,800	3,740	3,000	2,700	6,040	2,100	2,100	2,900	1,160	770
5	3,300	650	11,000	3,740	10,500	2,500	5,320	2,100	7,480	2,800	1,160	730
6	2,000	610	6,160	4,400	15,500	2,300	4,840	2,100	9,690	11,600	1,160	650
7	1,610	610	4,840	4,400	14,900	1,900	4,070	1,900	12,600	13,600	1,610	610
8	1,340	610	4,960	4,400	12,900	2,200	3,200	1,800	13,100	9,550	1,610	570
9	1,120	570	5,560	4,510	10,700	2,100	3,000	1,160	14,100	6,040	1,610	535
10	1,020	570	4,960	2,700	9,160	2,100	2,800	1,700	15,800	4,510	1,610	535
11	935	570	3,630	2,600	7,600	2,000	2,600	1,700	15,500	3,630	2,000	500
12	1,120	610	3,960	2,500	5,800	2,000	2,400	1,700	14,900	3,000	1,160	500
13	2,300	690	4,070	2,700	5,080	1,900	2,300	1,160	8,900	2,700	1,070	500
14	3,000	730	10,200	2,600	4,400	2,600	2,300	1,700	6,040	2,600	980	470
15	3,000	610	14,100	2,600	9,290	3,300	2,200	1,520	4,620	3,100	890	500
16	2,400	770	15,500	2,500	10,400	3,850	2,100	1,520	3,740	3,410	850	470
17	1,900	935	14,900	2,400	12,600	3,520	2,000	1,520	3,100	3,000	810	500
18	1,610	690	9,690	2,300	11,800	3,300	2,000	1,700	2,900	2,500	890	470
19	1,340	770	4,730	4,510	7,600	2,800	2,000	2,300	3,410	2,100	810	470
20	1,250	850	4,180	5,560	5,680	2,500	1,900	3,850	5,920	1,900	770	440
21	1,120	770	3,200	4,400	4,620	2,400	2,300	3,000	9,970	1,800	730	410
22	1,020	770	3,200	4,730	4,180	2,200	12,900	2,500	10,800	2,000	650	380
23	935	690	2,700	3,630	3,960	2,100	13,200	2,000	12,800	2,200	650	380
24	850	730	2,400	3,100	3,960	2,000	12,600	1,700	12,600	3,100	2,200	380
25	850	770	2,300	5,080	3,850	1,900	10,100	1,520	7,990	2,600	2,100	380
26	770	770	2,100	4,730	3,630	1,900	6,160	1,430	7,860	2,000	1,070	355
27	730	935	2,000	4,510	3,200	1,800	6,040	1,430	5,920	1,800	890	330
28	690	3,200	1,800	3,630	3,000	1,800	3,960	1,340	4,960	1,700	730	330
29	690	4,070	2,100	2,800	2,900	1,800	3,410	1,430	4,290	1,430	1,700	380
30	690	4,620	2,700	3,300	-------	3,850	3,100	1,340	4,290	1,610	1,610	440
31	650	-------	2,900	3,000	-------	11,200	-------	1,250	-------	1,610	1,340	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	3,850	650	1,610	0.553	0.64
November	4,620	570	1,030	.354	.40
December	15,800	1,800	6,630	2.28	2.63
January	5,560	2,100	3,560	1.22	1.41
February	15,500	1,900	6,780	2.33	2.51
March	11,200	1,800	2,760	.948	1.09
April	13,200	1,900	5,280	1.81	2.02
May	3,850	1,160	1,860	.639	.74
June	15,800	1,020	7,630	2.62	2.92
July	13,600	1,430	3,650	1.25	1.44
August	2,200	650	1,220	.419	.48
September	1,250	330	537	.185	.21
The year	15,800	330	3,530	1.21	16.47

EAST FORK OF WHITE RIVER AT SEYMOUR, IND.

LOCATION.—Chain gage in sec. 6, T. 6 N., R. 6 E., at highway bridge 1 mile north of Seymour.

DRAINAGE AREA.—2,380 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 22,600 second-feet Dec. 2 (gage height, 10.1 feet); minimum, 260 second-feet Sept. 11, 13, 14, and 17 (gage height, 2.60 feet).

REMARKS.—Records good. Gage-height record furnished by Department of Conservation, State of Indiana.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,020	482	17,200	2,020	1,800	2,720	4,240	2,480	1,030	2,020	966	522
2	1,800	464	22,600	2,020	1,700	2,600	4,240	2,250	966	1,700	934	522
3	1,590	464	20,600	2,020	1,590	2,480	3,720	2,140	934	1,590	902	500
4	1,200	464	18,900	1,910	1,490	2,260	2,720	2,020	902	1,800	842	410
5	1,030	464	16,300	1,910	3,720	2,250	2,250	2,020	902	5,050	786	394
6	870	464	12,400	1,910	16,900	2,140	2,140	1,910	2,600	4,780	730	330
7	758	464	6,740	1,910	14,000	2,020	2,020	1,800	3,720	3,720	814	346
8	730	464	9,100	1,910	16,300	1,910	2,020	1,700	4,510	2,480	786	346
9	706	464	5,050	2,020	15,000	1,910	1,910	1,590	4,780	3,720	758	330
10	682	464	2,140	2,720	9,400	1,800	1,800	1,490	5,610	3,720	758	288
11	682	464	1,800	2,720	6,740	1,800	1,800	1,390	5,050	3,460	730	260
12	682	464	1,390	2,600	5,330	1,800	1,700	1,390	4,510	3,210	730	274
13	2,250	446	2,020	2,480	4,240	1,910	1,590	1,390	3,720	2,720	682	260
14	2,020	446	6,450	2,260	4,240	2,480	1,590	1,390	2,720	2,250	610	260
15	1,390	482	21,600	2,260	10,000	2,960	1,590	1,390	2,250	1,800	588	316
16	1,060	1,390	20,600	2,250	10,000	2,840	1,590	1,300	2,020	1,590	566	316
17	902	1,910	15,600	2,250	9,400	2,720	1,490	1,300	1,800	1,200	566	260
18	786	2,020	14,000	2,140	8,800	2,600	1,490	1,390	1,910	998	634	274
19	730	1,800	9,400	2,140	7,030	2,480	1,390	1,490	1,800	934	610	330
20	706	1,390	8,200	5,890	5,890	2,260	1,390	1,800	1,910	870	588	302
21	682	1,300	6,740	5,050	5,050	2,250	1,800	2,020	2,020	842	566	316
22	634	1,200	5,890	4,510	4,240	2,020	12,400	2,020	2,250	842	544	302
23	610	1,130	4,780	3,720	3,080	1,910	14,300	1,800	2,840	1,030	522	330
24	588	1,060	4,240	2,720	2,720	1,910	12,400	1,590	2,840	1,300	634	316
25	566	1,030	3,720	3,720	2,600	1,800	9,400	1,390	3,210	1,200	934	302
26	544	998	2,720	3,460	2,480	1,800	7,030	1,390	2,480	1,170	786	316
27	544	1,030	2,250	3,080	2,250	2,020	5,050	1,300	2,250	1,130	658	302
28	522	3,210	1,800	2,480	2,140	2,140	3,720	1,300	2,020	1,100	610	302
29	500	12,100	1,590	2,140	2,020	2,020	2,960	1,200	2,480	1,060	588	316
30	500	12,400	2,250	2,020	--------	2,020	2,720	1,170	2,600	1,030	566	330
31	482	--------	2,140	1,910	--------	3,460	--------	1,100	--------	998	544	--------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,250	482	928	0.390	0.45
November	12,400	446	1,700	.714	.80
December	22,600	1,390	8,720	3.66	4.22
January	5,890	1,910	2,650	1.11	1.28
February	16,900	1,490	6,210	2.61	2.82
March	3,460	1,800	2,240	.942	1.09
April	14,300	1,390	3,820	1.60	1.78
May	2,480	1,100	1,610	.677	.78
June	5,610	902	2,620	1.10	1.23
July	5,050	842	1,980	.832	.96
August	966	522	695	.292	.34
September	522	260	332	.140	.16
The year	22,600	260	2,780	1.17	15.91

EAST FORK OF WHITE RIVER AT SHOALS, IND.

LOCATION.—Water-stage recorder in sec. 30, T. 3 N., R. 3 W., at highway bridge at Shoals. Zero of gage is 442.97 feet above mean sea level.

DRAINAGE AREA.—4,900 square miles.

RECORDS AVAILABLE.—June, 1903, to July, 1906; October, 1908, to September, 1916; October, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 32,300 second-feet Dec. 19 (gage height, 21.15 feet); minimum, 369 second-feet Sept. 17 (gage height, 2.18 feet).

1903–1906, 1908–1916, 1926–1928: Maximum stage, 42.2 feet Mar. 28, 1913 (discharge not determined); minimum discharge, 170 second-feet on several days.

REMARKS.—Records good except those for period Aug. 12 to Sept. 30, which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,280	915	23,500	5,700	4,030	5,900	3,820	5,900	2,450	6,300	1,350	915
2	5,700	915	25,300	5,500	3,820	5,700	4,660	5,080	2,280	6,900	1,350	1,030
3	4,240	760	24,500	4,240	3,610	5,700	5,290	4,450	2,110	8,300	970	970
4	3,210	715	25,900	3,210	3,610	5,900	5,080	4,030	2,280	5,900	860	970
5	2,630	715	28,800	3,410	8,620	6,100	4,450	3,820	3,010	4,660	1,220	915
6	2,280	715	30,700	3,210	14,900	5,900	3,820	3,410	4,870	3,410	1,220	860
7	1,870	715	29,300	3,610	17,400	5,290	3,820	3,010	6,700	5,500	1,220	760
8	1,490	810	23,200	3,820	22,100	4,870	3,410	2,820	8,300	7,900	1,350	715
9	2,030	715	14,800	4,240	25,800	4,450	3,410	2,820	9,270	9,650	1,490	670
10	2,630	670	8,890	4,450	27,700	4,450	3,210	2,820	9,650	9,650	2,450	630
11	2,450	715	7,700	4,870	28,500	4,450	3,210	2,630	9,080	8,890	2,110	670
12	2,450	810	11,700	4,870	27,000	4,450	3,010	2,450	8,300	7,100	1,640	550
13	4,240	860	15,400	4,870	23,000	4,450	3,010	2,280	7,500	5,700	1,560	550
14	4,030	810	25,600	4,870	18,400	4,450	2,820	2,280	6,900	4,660	1,160	510
15	4,660	1,030	28,300	4,660	15,900	5,080	2,820	2,280	5,700	3,410	1,030	510
16	4,240	2,110	27,500	4,660	15,700	6,500	2,820	2,280	4,450	2,630	1,030	510
17	3,010	2,630	29,000	4,450	16,900	6,500	3,210	5,360	3,820	2,280	860	461
18	2,280	3,610	31,400	4,240	17,600	6,100	3,210	5,700	3,210	1,950	970	510
19	1,950	4,660	32,000	5,500	17,400	5,900	3,210	4,870	2,820	1,790	1,090	475
20	1,560	5,080	29,800	9,080	15,200	5,700	3,010	5,080	3,820	1,790	654	510
21	1,350	4,660	23,700	11,000	11,100	5,700	7,700	4,870	4,450	1,640	970	510
22	1,280	3,610	15,400	11,300	7,900	5,500	21,800	4,660	3,820	2,110	915	550
23	1,160	2,630	8,700	9,840	6,900	4,870	22,200	4,450	3,610	1,950	810	503
24	1,030	2,820	5,700	7,900	7,100	4,450	21,800	3,820	3,210	1,790	1,390	510
25	1,030	3,410	4,450	7,500	8,100	4,240	24,800	3,210	4,660	1,640	3,820	550
26	1,030	4,030	3,820	8,500	9,080	3,820	27,200	4,870	5,900	1,490	4,240	510
27	915	4,660	3,610	9,270	8,700	3,820	27,400	4,870	6,300	2,110	3,210	503
28	915	6,700	3,410	7,500	7,300	3,820	22,700	4,450	6,100	1,790	1,720	489
29	860	12,800	3,610	5,500	6,300	3,820	14,900	4,030	6,300	2,280	1,420	550
30	810	16,200	4,030	4,660	--------	3,820	8,700	3,010	6,100	1,640	1,220	550
31	670	--------	4,870	4,240	--------	3,820	--------	2,450	--------	1,350	915	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	8,280	670	2,460	0.502	0.58
November	16,200	670	3,050	.622	.69
December	32,000	3,410	17,900	3.65	4.21
January	11,300	3,210	5,830	1.19	1.37
February	28,500	3,610	13,800	2.82	3.04
March	6,500	3,820	5,020	1.02	1.18
April	27,400	2,820	9,020	1.84	2.05
May	5,900	2,280	3,810	.778	.90
June	9,650	2,110	5,230	1.07	1.19
July	9,650	1,350	4,130	.843	.97
August	4,240	654	1,490	.304	.35
September	1,030	461	631	.129	.14
The year	32,000	461	6,000	1.22	16.67

LITTLE WABASH RIVER AT WILCOX, ILL.

LOCATION.—Chain gage in SW. ¼ sec. 3, T. 2 N., R. 8 E., at highway bridge at Wilcox, a quarter of a mile below mouth of Big Muddy Creek.

DRAINAGE AREA.—1,130 square miles.

RECORDS AVAILABLE.—August, 1914, to September, 1928.

EXTREMES.—Maximum discharge during year, 6,390 second-feet Feb. 8 (gage height, 21.6 feet); minimum, 10 second-feet Sept. 24 (gage height, 2.01 feet).

1914–1928: Maximum discharge (estimated), 14,000 second-feet Aug. 22, 1915; minimum, 2 second-feet Sept. 1, 1926 (gage height, 1.65 feet).

REMARKS.—Records good. Discharge estimated because of ice Jan. 3–8.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	149	74	3,840	1,020	419	684	4,120	171	99	2,170	615	160
2	1,060	90	4,400	1,640	340	684	2,590	171	90	1,540	1,140	108
3	2,120	74	4,610		288	924	1,040	182	228	1,040	1,840	66
4	2,260	82	5,110		1,460	1,040	433	171	1,140	379	2,120	59
5	2,500	90	5,300		3,460	615	301	149	2,410	204	2,100	52
				900								
6	2,590	99	4,770		5,500	447	288	149	2,660	193	1,800	45
7	2,740	90	4,610		5,400	490	264	149	2,100	193	419	19
8	2,560	90	4,400		6,390	599	1,900	149	1,300	392	171	32
9	1,460	99	3,700	702	5,400	774	2,170	128	1,400	240	149	28
10	1,870	74	3,910	738	5,110	1,040	962	90	1,560	193	128	26
11	1,480	59	3,700	774	4,400	1,770	649	90	2,070	171	128	26
12	1,180	74	3,520	774	4,050	1,180	419	90	1,160	171	123	27
13	2,170	82	3,120	810	2,140	1,400	447	82	792	149	70	23
14	2,380	505	4,120	867	1,870	1,560	447	74	1,260	128	52	19
15	2,470	475	4,610	702	3,460	1,140	461	90	1,140	216	52	21
16	2,660	475	5,300	792	4,190	981	433	118	599	171	45	18
17	2,660	461	5,110	1,260	3,910	649	475	228	327	149	45	22
18	2,900	447	4,690	1,380	3,840	366	288	1,200	228	128	42	45
19	1,000	405	3,640	1,900	3,120	314	240	2,020	366	149	42	27
20	551	366	2,740	3,770	2,020	301	240	2,070	848	128	39	26
21	301	193	1,820	4,330	1,040	264	810	2,470	2,660	99	35	21
22	264	171	981	3,340	490	228	2,700	1,460	3,980	128	28	18
23	182	138	615	2,620	447	216	2,980	583	4,400	128	28	11
24	182	138	447	1,870	490	216	2,170	340	4,400	193	35	10
25	128	128	392	1,820	433	193	1,140	193	4,190	264	45	12
26	118	149	240	1,640	314	193	615	204	3,910	366	340	11
27	118	379	240	1,460	301	171	464	171	2,380	182	340	11
28	99	366	461	1,420	264	615	314	149	1,240	182	70	14
29	82	1,060	702	1,040	490	1,040	204	128	666	149	48	17
30	74	2,070	1,140	615	------	2,530	182	118	1,900	128	314	17
31	90	------	1,040	447	------	4,190	------	99	------	149	216	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,900	74	1,300	1.15	1.33
November	2,070	59	300	.265	.30
December	5,300	240	3,010	2.66	3.07
January	4,330	447	1,390	1.23	1.42
February	6,390	264	2,450	2.17	2.34
March	4,190	171	865	.765	.88
April	4,120	182	992	.878	.98
May	2,470	74	435	.385	.44
June	4,400	90	1,720	1.52	1.70
July	2,170	99	325	.288	.33
August	2,120	28	407	.360	.42
September	160	10	33	.029	.03
The year	6,390	10	1,100	.973	13.24

SKILLET FORK AT WAYNE CITY, ILL.

LOCATION.—Chain gage in SW. ¼ sec. 7, T. 2 S., R. 6 E., at highway bridge 1 mile north of Wayne City. Zero of gage is 408.73 feet above mean sea level.
DRAINAGE AREA.—475 square miles.
RECORDS AVAILABLE.—June to September, 1928. August, 1908, to December, 1912; June, 1914, to September, 1921, at station 2 miles downstream.
EXTREMES.—Maximum discharge during period, 4,970 second-feet June 21 (gage height, 21.3 feet); minimum, 2.9 second-feet Sept. 14 (gage height, 3.52 feet). 1908–1912, 1914–1921, 1928: Maximum discharge, 15,800 second-feet Aug. 22, 1915; no flow for many days in September to December, 1908.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	-------	235	4.5	116	16	400	45	3.9	32
2	-------	116	4.8	52	17	120	25	3.7	24
3	-------	69	4.1	28	18	488	13	8.6	20
4	-------	48	3.9	18	19	444	9.4	15	18
5	-------	34	3.9	13	20	1,130	7.0	7.8	14
6	-------	400	3.9	11	21	4,720	6.0	6.5	11
7	-------	1,580	4.1	8.6	22	4,480	5.2	5.2	11
8	-------	1,160	41	6.8	23	2,910	55	6.0	8.2
9	-------	400	69	5.8	24	1,380	30	488	6.5
10	-------	150	32	5.0	25	690	13	170	5.5
11	367	69	13	4.2	26	444	7.4	48	4.8
12	180	37	8.2	3.9	27	422	5.8	25	4.5
13	618	26	6.2	3.3	28	594	4.8	23	4.2
14	1,480	18	4.8	3.1	29	1,400	4.1	23	4.2
15	1,060	28	4.1	41	30	630	3.5	726	5.2
					31	-------	3.7	488	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
June 11–30	4,720	120	1,200	2.53	1.88
July	1,580	3.5	149	.314	.36
August	726	3.7	72.7	.153	.18
September	116	3.1	16.4	.035	.04

SALINE RIVER BASIN

MIDDLE FORK OF SALINE RIVER NEAR HARRISBURG, ILL.

LOCATION—Chain gage in SW. ¼ sec. 13, T. 9 S., R. 6 E., at highway bridge 2 miles east of Harrisburg. Zero of gage is 338.51 feet above mean sea level.

DRAINAGE AREA.—198 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,050 second-feet June 21 (gage height, 21.5 feet); minimum, 0.4 second-foot September 8 and 9 (gage height, 1.16 feet).

1922–1928: Maximum discharge, that of June 21, 1928; minimum, 0.3 second-foot Sept. 20, 21, and 26, 1927.

REMARKS.—Records fair, except those for days when stage was changing rapidly, which are poor. Backwater from Ohio River existed on days for which no discharge is shown.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,460	2.8	350	90	24	161	16	20	3.4	-------	1.9	11
2	750	6.6	120	64	18	149	13	17	3.4	-------	2.8	3.0
3	64	4.6	80	15	15	110	11	14	80	-------	1.4	1.4
4	24	6.1	44	14	38	72	11	13	870	-------	1.3	1.2
5	13	5.0	40	13	80	68	11	13	950	-------	24	.8
6	7.6	4.6	40	13	250	56	720	12	179	-------	23	.7
7	11	120	44	36	645	35	660	7.4	40	-------	26	.5
8	8.5	1,010	50	68	497	32	566	6.5	85	-------	34	.4
9	5.0	1,110	34	56	120	72	85	3.8	332	-------	6.7	.4
10	4.6	435	19	42	72	64	68	2.7	990	-------	3.0	.6
11	3.7	131	-------	40	60	41	44	5.7	630	-------	2.0	.6
12	855	110	-------	48	44	38	32	4.7	72	0.9	1.6	.7
13	1,370	76	-------	68	44	72	22	3.4	930	795	.5	.5
14	950	207	-------	64	258	56	29	2.3	1,400	137	1.2	.5
15	110	660	-------	56	155	48	34	4.7	---------	34	1.0	.5
16	28	1,180	-------	40	137	508	24	7.4	---------	16	1.0	.5
17	15	1,580	-------	41	214	855	23	4.9	---------	9.4	5.5	.6
18	9.8	910	-------	186	120	890	20	80	---------	6.1	85	1.0
19	7.6	359	-------	1,240	80	341	19	41	3,240	13	29	.6
20	6.4	72	-------	910	52	179	15	72	3,320	64	7.4	.9
21	5.8	56	-------	519	35	80	1,740	56	4,050	13	26	.8
22	2.4	22	-------	214	60	64	3,080	214	3,720	6.1	16	.8
23	3.9	68	-------	56	825	48	1,980	41	3,040	4.2	12	.8
24	3.7	193	-------	167	1,490	44	1,310	15	2,520	2.6	85	.8
25	4.1	95	-------	214	870	38	810	10	2,440	2.2	38	.8
26	5.0	64	-------	100	455	32	405	7.7	1,840	2.0	29	.8
27	6.1	46	-------	50	149	29	200	26	1,030	2.0	3.2	1.0
28	5.0	46	-------	36	125	16	44	11	1,460	1.3	2.6	1.2
29	3.3	50	-------	26	137	26	36	5.4	---------	1.0	1.0	1.2
30	3.3	200	274	24	-------	32	28	4.2	---------	1.0	1.0	1.6
31	3.3	---------	125	24	-------	28	-------	3.4	---------	1.0	52	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,460	2.4	185	0.934	1.08
November	1,580	2.8	294	1.48	1.65
January	1,240	13	146	.737	.85
February	1,490	15	244	1.23	1.33
March	890	16	138	.697	.80
April	3,080	11	402	2.03	2.26
May	214	2.3	23.5	.119	.14
August	85	.5	16.9	.085	.10
September	11	.4	1.21	.006	.007

TRADEWATER RIVER BASIN

TRADEWATER RIVER NEAR DALTON, KY.

LOCATION.—Chain gage at Wilson Highway bridge 3 miles southwest of Dalton, Hopkins County.
DRAINAGE AREA.—280 square miles.
RECORDS AVAILABLE.—June to September, 1928.
EXTREMES.—Maximum discharge during period, 3,440 second-feet June 30 (gage height, 20.0 feet); minimum, 0.4 second-foot Sept. 23–26 (gage height, 0.97 foot).
Flood of January, 1913, reached a stage of about 22.1 feet.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	--------	3,200	9.0	1.7	16	2,020	116	1.5	.9
2	--------	2,840	7.1	1.5	17	1,980	62	1.3	.8
3	--------	2,510	5.8	1.4	18	1,950	48	1.2	.8
4	--------	2,260	5.2	1.3	19	1,920	40	1.1	.7
5	--------	1,950	5.2	1.2	20	2,020	34	.9	.6
6	--------	1,400	4.8	1.2	21	2,160	30	1.1	.6
7	--------	644	4.6	1.4	22	2,260	26	1.1	.5
8	--------	264	4.6	1.4	23	2,260	24	1.1	.4
9	2,160	134	4.4	1.4	24	2,200	21	1.5	.4
10	2,160	91	3.8	1.3	25	2,060	20	1.6	.4
11	2,120	62	3.1	1.2	26	1,770	20	1.4	.4
12	2,020	46	3.9	1.2	27	1,190	19	1.4	.5
13	2,020	140	3.6	1.2	28	1,130	15	1.4	.5
14	2,020	172	3.2	1.2	29	2,960	11	1.4	.5
15	2,060	200	2.2	1.2	30	3,400	11	1.5	.5
					31	--------	10	2.0	--------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
June 9–30	3,400	1,130	2,080	7.43	6.08
July	3,200	10	530	1.89	2.18
August	9	.9	2.97	.016	.02
September	1.7	.4	.943	.0034	.004

CUMBERLAND RIVER BASIN

CUMBERLAND RIVER AT BARBOURVILLE, KY.

LOCATION.—Chain gage on highway bridge at Barbourville, Knox County, a quarter of a mile above Richland Creek. Elevation of zero of gage is 942.26 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—982 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year, 18,200 second-feet June 30 (gage height, 24.0 feet); minimum, 17 second-feet Oct. 3 (gage height, 0.17 foot).

1922–1928: Maximum discharge, 40,100 second-feet Dec. 22, 1926 (gage height, 45.9 feet); minimum, 4.4 second-feet Sept. 12, 1925 (gage height, −0.04 foot.)

REMARKS.—Records good except those above 4, 000 second-feet and for period of missing record (January 13–23), which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	34	315	10,000	1,050	910	4,330	5,460	1,360	11,200	205	3,000
2	23	33	720	5,080	980	810	3,610	3,610	1,280	4,330	195	3,990
3	21	39	2,860	2,860	840	690	2,720	2,150	1,620	1,720	170	4,840
4	30	39	2,320	1,540	810	630	1,540	1,620	5,110	1,200	180	5,700
5	22	36	1,280	1,200	875	600	1,360	1,360	6,210	2,150	272	2,420
6	33	42	910	980	2,450	570	1,200	1,200	4,540	5,030	359	965
7	42	39	690	980	3,150	480	1,440	1,040	3,820	3,000	377	1,360
8	34	58	750	910	3,710	452	2,280	890	2,570	1,820	261	1,040
9	38	136	980	910	4,080	1,440	1,820	820	1,820	2,150	300	855
10	34	425	875	875	3,710	4,540	1,620	715	1,820	2,720	371	680
11	34	480	780	750	2,450	3,260	1,360	615	1,720	1,720	485	518
12	35	320	780	690	1,740	2,280	4,840	518	1,540	2,720	785	425
13	55	266	4,400	500	1,450	2,280	4,540	485	1,200	2,030	455	377
14	116	205	4,900	450	1,450	1,540	4,120	455	1,360	4,580	256	305
15	120	160	4,580	400	1,450	1,360	5,900	413	2,280	3,720	485	261
16	92	276	5,900	400	1,360	3,500	4,990	401	1,720	1,720	485	294
17	96	1,960	7,410	350	1,200	7,670	3,130	413	1,440	1,120	1,540	283
18	57	4,980	4,710	500	1,280	5,740	2,150	890	1,440	820	3,610	261
19	48	1,450	2,860	2,600	1,200	4,280	1,720	3,130	1,040	648	2,150	220
20	38	875	2,450	4,200	1,120	3,720	5,940	10,300	820	582	2,420	220
21	38	570	980	6,000	980	3,500	8,950	10,200	715	518	1,620	278
22	40	425	875	3,500	980	3,380	7,280	5,030	648	890	820	518
23	40	337	750	2,200	1,050	3,000	11,100	5,150	615	1,200	615	425
24	33	260	540	1,450	1,120	3,000	11,800	3,260	750	1,360	485	283
25	35	245	510	4,350	1,280	2,720	6,040	1,920	1,920	715	550	215
26	38	250	425	4,450	1,280	3,000	3,260	2,280	5,070	341	615	210
27	35	240	354	3,300	1,120	4,460	3,910	4,620	3,500	347	485	180
28	36	215	332	2,080	1,120	4,380	8,220	7,670	1,720	413	419	155
29	33	205	2,580	1,200	980	3,380	7,740	4,740	5,320	401	401	170
30	31	175	5,600	1,280	-------	3,820	6,550	2,720	17,400	323	256	582
31	31	-------	6,320	1,360	-------	7,150	--------	1,720	--------	245	680	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	120	21	44.7	0.046	0.05
November	4,980	33	492	.501	.56
December	7,410	315	2,250	2.29	2.64
January	10,000	350	2,170	2.21	2.55
February	4,080	810	1,600	1.63	1.76
March	7,670	452	2,860	2.91	3.36
April	11,800	1,200	4,520	4.60	5.13
May	10,300	401	2,770	2.82	3.25
June	17,400	615	2,750	2.80	3.12
July	11,200	245	1,990	2.03	2.34
August	3,610	170	721	.734	.85
September	5,700	155	1,030	1.05	1.17
The year	17,400	21	1,930	1.97	26.78

CUMBERLAND RIVER AT CUMBERLAND FALLS, KY.

LOCATION.—Staff gage 400 feet above falls at Cumberland Falls post office, Whitley County, and 13 miles east of Cumberland Falls railroad station. Elevation of zero of gage is 823.48 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—2,010 square miles.

RECORDS AVAILABLE.—August, 1907, to December, 1911; April, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 31,600 second-feet June 30 (gage height, 8.5 feet); minimum, 26 second-feet Nov. 1 and 2 (gage height, 1.09 feet).

1907–1911, 1915–1928: Maximum discharge, 59,600 second-feet Jan. 28, 1918 (gage height, 12.5 feet); minimum, 12 second-feet Sept. 10–12, 1925 (gage height, 1.02 feet).

REMARKS.—Records good except those for period of missing gage-height record, July 30 to August 7, which are fair. Low-water flow may be slightly regulated by operation of power plant at Williamsburg, 25 miles upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	25	445	18,000	2,330	1,890	9,460	9,460	3,180	26,800	250	920
2	43	25	644	10,400	2,220	1,670	6,470	7,260	2,680	14,500	220	5,410
3	35	35	3,180	6,470	1,890	1,560	4,150	4,760	3,050	5,410	210	5,750
4	28	48	4,450	3,440	1,670	1,360	3,440	3,300	15,600	3,180	200	5,750
5	28	58	3,570	3,050	1,670	1,250	2,800	2,680	18,000	3,440	210	6,100
6	28	53	2,220	2,220	2,560	1,160	2,440	2,330	11,400	6,100	320	3,440
7	28	39	1,670	2,110	4,150	1,110	2,220	2,110	7,260	6,100	450	2,440
8	78	53	1,560	2,000	5,750	1,020	2,560	1,890	5,080	5,080	742	2,000
9	68	83	1,460	2,000	6,100	2,330	3,180	1,670	4,150	4,450	686	1,670
10	39	93	1,460	2,000	6,100	7,680	2,800	1,460	3,570	4,450	578	1,360
11	28	78	1,360	1,890	4,760	6,860	2,800	1,360	3,440	3,850	489	1,060
12	39	214	1,460	1,780	4,150	5,080	5,750	1,230	3,300	3,300	920	890
13	63	380	4,760	1,560	3,300	3,850	7,680	1,040	3,440	3,850	1,250	742
14	53	300	8,550	1,560	2,920	3,850	8,110	920	4,150	3,050	890	630
15	48	230	8,110	1,460	2,800	3,300	10,400	830	4,150	5,410	604	552
16	43	273	7,680	1,460	2,680	5,410	9,460	742	3,570	3,850	742	500
17	63	13,400	9,460	1,270	2,680	12,400	6,860	728	3,300	2,440	1,890	500
18	116	9,000	9,460	1,360	2,560	12,400	4,760	1,180	2,560	1,890	3,180	539
19	98	6,100	6,470	5,410	2,440	9,460	3,850	3,050	2,330	1,460	3,180	478
20	83	2,920	3,180	8,550	2,330	7,260	10,400	12,900	2,110	1,230	2,680	412
21	73	2,000	2,440	10,400	2,110	6,470	18,600	16,800	1,780	1,160	2,220	370
22	73	1,140	1,890	7,260	2,000	6,100	23,000	14,000	1,560	1,250	1,890	350
23	63	815	1,560	4,450	2,110	5,410	23,000	10,400	1,460	1,460	1,200	714
24	53	714	1,460	3,300	2,220	4,760	21,700	6,860	2,000	1,890	1,020	672
25	48	617	1,360	5,080	2,330	4,450	15,000	5,080	3,570	1,130	954	526
26	39	539	1,160	7,260	2,330	4,150	9,000	4,760	5,410	830	845	390
27	31	489	845	6,470	2,330	5,410	7,680	8,110	6,860	604	875	340
28	28	445	800	4,450	2,220	6,860	15,000	18,600	4,760	456	860	310
29	28	390	2,220	3,300	2,000	6,100	15,600	11,900	30,200	390	700	290
30	28	370	8,550	2,560	-------	5,410	12,900	5,410	30,900	370	526	350
31	28	-------	16,800	2,330	-------	6,860	-------	3,850	-------	300	1,160	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	116	28	50.1	0.025	0.03
November	13,400	25	1,360	.677	.76
December	16,800	445	3,880	1.93	2.22
January	18,000	1,270	4,350	2.16	2.49
February	6,100	1,670	2,920	1.45	1.56
March	12,400	1,020	4,930	2.45	2.82
April	23,000	2,220	9,040	4.50	5.02
May	18,600	728	5,380	2.68	3.09
June	30,900	1,460	6,490	3.23	3.60
July	26,800	300	3,860	1.92	2.21
August	3,180	200	1,030	.512	.59
September	6,100	290	1,520	.756	.84
The year	30,900	25	3,730	1.86	25.23

CUMBERLAND RIVER AT BURNSIDE, KY.

LOCATION.—Staff gage on South Fork of Cumberland River 700 feet above mouth, at Burnside, Pulaski County, in pool formed by Dam 21, 28 miles downstream. Elevation of zero of gage is 583.5 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—4,890 square miles, including South Fork.

RECORDS AVAILABLE.—October, 1914, to September, 1928.

EXTREMES.—Maximum discharge during year, 106,000 second-feet June 30 (gage height, 51.0 feet); minimum, 150 second-feet Oct. 1–9 and Oct. 16 to Nov. 7 (gage height, 1.9 feet).

1914–1928: Maximum discharge, about 157,000 second-feet Jan. 29, 1918 (gage height, 69.5 feet); minimum, 65 second-feet Sept. 6–20, 1925 (gage height, 1.85 feet). Lower stages have been recorded but were due to lowering of pool at Dam 21.

REMARKS.—Records fair below 30,000 second-feet; subject to error above that stage. Discharge interpolated Oct. 8–11. Tables of discharge include flow in main river and South Fork. Stage at low water affected by manipulation of the level of pool at the lock.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	150	150	1,240	48,900	5,700	5,000	19,900	20,300	8,050	92,800	1,350	5,000
2	150	150	1,580	31,600	5,560	4,720	17,200	16,100	6,700	49,600	1,580	7,900
3	150	150	2,060	19,200	5,000	4,160	12,400	12,200	5,280	22,700	1,700	11,300
4	150	150	6,400	11,500	4,300	3,600	9,400	9,100	17,100	11,000	1,820	10,700
5	150	150	7,900	7,150	4,300	3,340	7,450	7,150	58,500	8,050	2,060	9,880
6	150	150	6,120	5,980	5,140	2,950	6,400	5,980	41,600	13,800	2,430	8,050
7	150	150	4,300	5,280	7,300	2,820	5,560	5,000	25,400	19,000	2,950	5,140
8	150	200	3,600	5,000	11,200	2,560	5,000	4,440	16,500	14,500	2,820	4,020
9	150	820	2,950	5,140	15,000	3,340	6,260	3,880	12,200	9,880	2,300	3,340
10	200	2,060	3,340	6,260	14,500	14,100	6,400	3,470	33,800	9,720	1,940	2,560
11	200	1,130	2,950	6,400	12,400	17,200	5,560	2,950	22,500	10,400	1,940	2,060
12	200	820	2,690	5,700	10,200	13,600	7,450	2,820	12,400	8,050	2,430	1,820
13	200	630	6,400	5,280	8,200	10,000	15,600	2,430	13,100	7,900	2,060	1,350
14	200	540	13,600	4,860	7,150	8,950	15,000	2,300	11,000	23,300	1,940	1,240
15	200	540	19,900	4,440	7,750	9,720	28,300	2,180	15,400	15,000	1,820	1,130
16	150	720	18,200	4,020	8,500	10,400	24,300	1,940	13,600	11,800	1,580	1,020
17	150	35,100	22,700	3,600	8,050	31,600	18,200	1,700	10,000	8,200	1,460	1,020
18	150	68,000	22,100	3,600	7,750	32,700	13,100	1,580	7,900	5,420	3,340	1,020
19	150	32,300	16,700	8,350	7,150	24,300	10,500	2,560	6,550	4,020	5,000	1,020
20	150	12,700	11,000	29,800	6,400	19,000	10,700	11,300	5,840	3,740	4,580	1,020
21	150	7,000	7,600	27,200	5,700	18,800	28,700	27,700	4,860	3,340	3,880	920
22	150	4,720	5,700	19,200	5,000	16,500	27,200	23,100	5,140	3,080	3,340	820
23	150	3,340	4,580	13,100	5,560	14,500	46,300	17,800	6,120	3,600	2,560	540
24	150	2,820	3,880	9,400	6,850	12,500	42,700	17,200	5,420	4,020	1,940	540
25	150	2,180	3,600	12,700	7,150	10,500	31,400	12,200	6,120	5,700	2,430	540
26	150	1,940	2,950	20,900	7,000	11,500	22,900	9,100	14,300	3,340	2,820	540
27	150	1,820	2,300	17,400	6,260	11,500	15,800	10,700	17,600	2,560	2,300	540
28	150	1,580	1,940	13,400	5,700	12,200	28,700	30,100	13,600	2,060	2,060	450
29	150	1,460	2,060	10,200	5,280	12,700	30,100	29,200	20,100	3,080	1,820	450
30	150	1,130	16,300	7,450	-------	15,200	27,000	18,000	106,000	2,060	1,460	450
31	150	-------	23,500	6,400	-------	21,700	-------	11,500	-------	1,700	3,880	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	200	150	160	0.033	0.04
November	68,000	150	6,150	1.26	1.41
December	23,500	1,240	8,070	1.65	1.90
January	48,900	3,600	12,200	2.49	2.87
February	15,000	4,300	7,450	1.52	1.64
March	32,700	2,560	12,300	2.52	2.90
April	46,300	5,000	18,200	3.72	4.15
May	30,100	1,580	10,500	2.15	2.48
June	106,000	4,860	18,100	3.70	4.13
July	92,800	1,700	12,400	2.54	2.93
August	5,000	1,350	2,440	.499	.58
September	11,300	450	2,880	.589	.66
The year	106,000	150	9,220	1.89	25.69

CUMBERLAND RIVER AT CELINA, TENN.

LOCATION.—Staff gage at boat landing at Celina, Clay County, 900 feet below mouth of Obey River. Elevation of zero of gage is 487.7 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—7,320 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year, 114,000 second-feet July 1 (gage height, 43.9 feet); minimum, 300 second-feet Oct. 22 to Nov. 2, Nov. 6 and 7 (gage height, 0.7 foot).

1922–1928: Maximum discharge, about 176,000 second-feet Dec. 29, 1926 (gage height, 57.2 feet); minimum, 92 second-feet Sept. 2, 11–14, and 26, 1925 (gage height, 0.2 foot).

REMARKS.—Records good below 10,000 second-feet, fair between 10,000 and 35,000 second-feet, and fair to poor above 35,000 second-feet. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	440	300	2,180	41,400	9,150	7,520	32,500	42,900	18,400	110,000	2,980	6,400
2	440	300	2,180	53,100	8,100	6,960	29,000	32,500	12,900	112,000	3,900	7,520
3	440	365	2,290	53,100	7,380	6,400	24,300	23,400	11,600	112,000	3,320	9,000
4	440	365	2,400	35,800	6,820	5,880	18,800	18,000	19,600	102,000	3,320	12,600
5	440	365	3,320	19,400	6,270	5,230	14,000	13,300	41,400	68,200	3,320	12,600
6	365	300	8,250	11,600	6,270	4,740	10,900	10,400	63,000	26,100	3,100	11,600
7	365	300	7,800	8,400	7,100	4,380	9,300	8,550	71,000	20,800	4,260	10,600
8	365	365	6,140	7,240	12,300	4,140	8,250	7,240	57,900	21,700	4,740	7,660
9	365	440	4,740	8,400	15,000	6,270	7,800	6,270	33,800	21,700	4,500	5,490
10	725	725	4,020	9,150	18,000	11,800	7,520	5,620	24,800	23,200	3,900	4,620
11	525	1,260	3,900	9,000	19,400	13,800	8,250	5,100	34,000	16,700	3,780	3,670
12	440	2,060	3,900	9,150	17,200	21,900	8,850	4,500	35,200	14,300	3,100	3,100
13	725	1,830	8,100	8,700	14,000	19,200	9,780	4,380	23,200	13,100	2,640	2,640
14	440	1,370	10,400	7,800	11,800	16,500	16,500	3,900	26,800	18,600	2,860	2,290
15	365	1,150	19,000	7,100	10,900	14,700	29,000	3,560	28,000	28,000	2,640	2,060
16	365	1,040	25,400	6,400	10,700	16,700	32,200	3,440	21,700	25,200	2,750	1,830
17	365	5,750	29,000	5,880	11,200	28,800	34,000	3,100	20,000	16,900	2,520	1,600
18	440	22,100	28,000	5,750	11,200	37,800	27,300	2,980	15,900	12,900	2,520	1,370
19	440	55,200	29,200	12,100	10,300	45,000	19,800	3,320	13,800	9,000	2,860	1,260
20	365	61,200	23,900	24,300	9,460	39,600	22,800	10,900	10,900	6,960	4,860	1,260
21	365	36,000	18,600	35,000	8,700	31,200	25,700	14,700	9,460	6,010	5,620	1,260
22	300	14,000	11,400	38,000	7,660	25,200	42,000	27,600	11,200	5,750	5,100	1,150
23	300	7,240	8,100	30,500	8,700	22,500	57,900	31,000	9,620	9,940	4,380	1,150
24	300	5,100	6,400	21,000	9,460	20,400	61,500	25,200	8,700	9,000	3,780	1,040
25	300	4,020	5,360	19,600	9,460	17,600	63,000	21,300	9,620	6,540	6,270	1,040
26	300	3,670	4,620	19,800	9,940	16,500	56,400	17,200	11,400	7,520	4,860	1,040
27	300	3,100	4,020	24,100	9,460	16,500	42,300	16,900	14,700	6,270	4,260	1,040
28	300	2,520	3,560	24,300	8,850	16,700	39,000	28,000	20,800	4,860	3,670	1,040
29	300	2,400	3,560	19,000	7,950	16,100	41,100	30,500	33,000	3,900	3,100	1,040
30	300	2,180	4,500	14,700	-------	30,800	47,400	38,000	80,800	3,210	2,750	1,040
31	300	-------	14,800	11,200	-------	33,000	-------	29,200	-------	3,670	2,980	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	725	300	394	0.054	0.06
November	61,200	300	7,900	1.08	1.20
December	29,200	2,180	9,970	1.36	1.57
January	53,100	5,750	19,400	2.65	3.06
February	19,400	6,270	10,400	1.42	1.53
March	45,000	4,140	18,200	2.49	2.87
April	63,000	7,520	28,200	3.85	4.30
May	42,900	2,980	15,900	2.17	2.50
June	80,800	8,700	26,400	3.61	4.03
July	112,000	3,210	27,300	3.73	4.30
August	6,270	2,520	3,700	.505	.58
September	12,600	1,040	4,000	.546	.61
The year	112,000	300	14,300	1.95	26.61

CUMBERLAND RIVER AT CARTHAGE, TENN.

LOCATION.—Staff gage at highway bridge at Carthage, Smith County, a quarter of a mile below Caney Fork and 8 miles above Lock and Dam 7. Elevation of zero of gage is 435. 9 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—10,740 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year, 139,000 second-feet July 2 (gage height, 45.4 feet); minimum, 240 second-feet several days in October.

1922–1928: Maximum discharge, about 209,000 second-feet Dec. 30, 1926 (gage height, 59.8 feet); minimum, 200 second-feet Sept. 10 and 11, 1925 (regulated flow).

REMARKS.—Records good above 3,000 second-feet and fair below. Low-water flow regulated by operation of power plant on Caney Fork.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,950	420	6,000	58,600	16,300	13,100	45,600	54,000	29,700	132,000	6,940	15,600
2	2,950	510	6,000	73,400	14,900	12,700	39,600	47,900	25,900	138,000	7,260	17,000
3	2,830	1,020	6,000	67,300	13,400	12,000	35,000	38,800	20,700	130,000	7,260	17,400
4	2,710	942	5,400	53,600	12,700	12,700	29,300	30,800	43,000	120,000	7,260	22,600
5	2,240	695	4,820	35,800	12,000	9,250	24,400	24,400	57,000	109,000	6,310	21,800
6	1,480	638	6,620	22,600	11,300	9,250	19,300	20,700	77,200	76,000	6,000	18,900
7	1,590	510	11,700	16,300	12,400	9,250	16,300	15,600	79,800	35,000	5,700	16,700
8	1,700	885	10,600	13,400	15,900	8,910	14,900	14,100	74,900	31,200	7,260	13,800
9	1,700	980	8,570	15,200	21,500	15,600	15,600	11,300	56,300	31,600	7,260	10,600
10	1,080	1,590	7,260	17,800	26,300	21,100	14,500	11,000	36,500	32,300	6,940	7,910
11	790	1,590	6,620	17,000	27,800	21,500	14,900	9,590	35,800	31,200	6,310	6,620
12	2,240	1,910	6,940	16,300	25,900	32,000	17,800	9,250	41,100	24,400	5,400	6,620
13	2,360	3,080	8,240	15,600	23,000	31,200	23,000	8,570	38,000	23,000	4,260	6,000
14	885	2,590	15,600	14,100	19,600	28,500	29,700	6,940	60,100	23,300	3,720	5,400
15	790	1,800	21,800	12,700	17,000	28,200	45,600	6,000	65,000	31,200	4,540	4,820
16	1,080	3,200	32,000	11,300	16,300	32,000	51,700	6,620	52,100	32,700	5,110	4,260
17	695	14,900	36,500	10,600	16,300	50,200	47,200	6,000	36,500	27,000	4,820	3,990
18	638	23,000	38,000	12,400	16,300	62,400	41,100	6,620	30,400	20,400	4,820	2,710
19	638	41,800	39,600	20,000	15,600	61,200	32,000	8,240	25,200	15,900	6,620	3,330
20	638	55,900	34,600	40,700	13,400	54,800	32,000	13,400	20,400	15,900	6,940	3,330
21	564	53,600	27,800	44,100	13,400	46,400	38,400	20,000	19,600	12,400	7,260	3,080
22	456	30,100	19,600	47,200	13,400	38,000	54,800	27,000	20,400	12,000	8,570	2,710
23	276	14,900	14,900	41,800	13,800	33,500	82,500	35,800	17,800	18,500	8,240	2,710
24	276	10,600	11,300	34,200	15,600	29,700	99,600	34,200	20,700	17,800	6,940	2,020
25	330	7,910	9,930	31,200	14,100	27,400	98,800	29,700	27,000	13,400	8,570	1,380
26	384	6,620	7,910	34,200	14,500	26,700	85,200	25,600	35,800	12,700	9,930	1,800
27	276	6,620	6,620	35,000	13,400	27,400	70,000	22,600	28,900	12,700	7,260	1,910
28	330	6,000	6,620	34,200	13,800	31,200	59,300	32,700	28,900	9,590	5,400	2,130
29	276	5,700	8,240	30,400	13,800	28,200	53,600	34,200	92,000	7,910	5,400	2,240
30	276	6,000	9,930	23,300	-------	41,100	54,400	39,600	111,000	6,620	5,400	2,240
31	330	-------	40,300	18,500	-------	47,900	-------	37,700	-------	6,000	9,930	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,950	276	1,150	0.107	0.12
November	55,900	420	10,200	.950	1.06
December	40,300	4,820	15,400	1.45	1.65
January	73,400	10,600	29,600	2.76	3.18
February	27,800	11,300	16,300	1.52	1.64
March	62,400	8,910	29,100	2.71	3.12
April	99,600	14,500	42,900	3.99	4.45
May	54,000	6,000	22,200	2.07	2.39
June	111,000	17,800	43,600	4.06	4.53
July	138,000	6,000	39,000	3.63	4.18
August	9,930	3,720	6,570	.612	.71
September	22,600	1,380	7,720	.719	.80
The year	138,000	276	22,000	2.05	27.83

CUMBERLAND RIVER AT NASHVILLE, TENN

LOCATION.—Staff gage at municipal wharf at Broad and First Streets, Nashville, Davidson County, 2½ miles above Lock and Dam 1. Elevation of zero of gage is 366.17 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—12,860 square miles.

RECORDS AVAILABLE.—January, 1902, to December, 1904; October, 1918, to September, 1928.

EXTREMES.—Maximum discharge during year, 120,000 second-feet July 5 (gage height, 42.9 feet); minimum, 900 second-feet Oct. 3-7 and Oct. 26 to Nov. 5 (gage height, 6.6 feet).

1902–1904, 1918–1928: Maximum discharge, 203,000 second-feet Jan. 1, 1927 (gage height, 56.2 feet); minimum, 735 second-feet Oct. 27 to Nov. 3, 1904.

REMARKS.—Records good. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	900	6,580	58,700	22,300	14,800	54,600	59,700	39,200	116,000	10,700	17,900
2	1,680	900	6,900	60,400	18,700	13,900	52,000	61,400	40,400	114,000	11,100	24,600
3	900	900	6,580	68,400	16,100	13,100	44,600	55,300	35,400	116,000	7,880	21,600
4	900	900	6,580	70,200	14,800	12,300	38,600	46,100	35,700	118,000	7,880	18,200
5	900	900	6,270	63,400	14,400	11,900	26,300	34,800	64,800	120,000	7,880	21,600
6	900	1,030	5,650	46,400	13,500	11,100	26,100	30,100	68,400	118,000	6,900	21,800
7	900	1,030	5,650	27,400	13,500	9,980	22,100	22,600	75,600	111,000	6,900	19,600
8	1,490	1,170	10,400	19,400	21,400	9,620	18,900	17,600	79,900	95,900	5,960	17,600
9	1,890	1,320	11,100	18,900	20,400	11,900	16,500	15,700	79,200	42,800	5,650	14,400
10	1,890	1,490	9,260	20,900	22,800	26,300	17,900	12,700	70,600	34,600	5,050	13,500
11	1,490	1,890	7,880	20,400	26,300	25,300	15,700	11,500	49,500	32,800	4,760	12,700
12	1,890	1,890	7,550	19,600	27,600	23,300	15,200	10,400	37,500	33,400	4,190	6,900
13	3,910	1,890	8,220	18,200	27,100	30,900	19,100	9,620	42,200	23,800	4,470	6,900
14	3,640	2,600	11,100	17,600	24,000	33,100	22,800	9,260	54,000	23,800	3,910	6,580
15	2,600	3,110	18,900	16,100	21,400	31,400	36,900	8,220	72,700	23,000	3,910	5,960
16	2,120	3,110	22,600	15,200	18,900	32,000	44,600	6,580	71,600	29,200	4,470	5,350
17	1,680	13,100	35,100	13,900	17,600	44,900	52,400	4,760	64,800	32,300	5,050	5,050
18	1,490	28,400	38,900	14,800	17,200	52,400	51,100	6,900	46,400	28,700	5,350	4,760
19	1,320	25,800	38,900	25,600	17,200	62,800	45,200	8,220	34,800	21,800	5,350	3,640
20	1,170	38,900	41,000	30,600	16,900	65,900	37,800	18,400	27,600	17,200	8,220	3,370
21	1,170	52,000	36,300	42,800	15,700	63,100	38,600	17,900	22,800	16,500	11,500	3,110
22	1,170	54,600	29,200	47,600	14,800	55,300	54,000	21,100	20,900	13,900	7,880	3,370
23	1,170	38,600	21,800	49,800	18,400	44,300	70,600	26,300	20,700	17,600	7,880	3,370
24	1,030	19,800	16,900	47,600	18,200	36,900	78,500	34,600	19,600	23,000	7,550	3,370
25	1,030	11,100	13,100	45,200	17,900	32,000	86,400	34,600	21,400	19,600	8,560	3,110
26	900	9,260	10,400	38,900	16,900	30,300	91,800	30,600	40,100	16,900	9,980	3,110
27	900	7,220	8,910	38,000	16,500	29,000	91,800	26,900	38,600	14,400	9,980	2,360
28	900	6,900	7,220	37,200	15,700	30,900	88,600	24,600	32,800	13,100	8,220	2,120
29	900	6,580	7,550	36,000	14,800	31,700	77,000	30,100	75,600	11,900	5,650	2,120
30	900	5,960	9,980	33,100	-------	34,300	64,800	33,400	111,000	12,700	4,470	2,600
31	900	-------	24,000	26,600	-------	50,400	-------	36,300	-------	11,100	6,270	-------

Month	Discharge in second-feet				Run-off in inches
	Maximnm	Minimum	Mean	Per square mile	
October	3,910	900	1,460	0.114	0.13
November	54,600	900	11,400	.886	.99
December	41,000	5,650	15,800	1.23	1.42
January	70,200	13,900	35,100	2.73	3.15
February	27,600	13,500	18,700	1.45	1.56
March	65,900	9,620	31,500	2.45	2.82
April	91,800	15,200	46,700	3.63	4.05
May	61,400	4,760	24,700	1.92	2.21
June	111,000	19,600	49,700	3.86	4.31
July	120,000	11,100	45,900	3.57	4.12
August	11,500	3,910	6,890	.536	.62
September	24,600	2,120	9,360	.728	.81
The year	120,000	900	24,800	1.93	26.19

CUMBERLAND RIVER AT CLARKSVILLE, TENN.

LOCATION.—Staff gage at steamboat landing at Clarksville, Montgomery County, 1 mile above mouth of Red River. Elevation of zero of gage is 329.3 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—15,980 square miles, including Red River.

RECORDS AVAILABLE.—October, 1924, to September, 1928.

EXTREMES.—Maximum discharge during year, 136,000 second-feet July 1 (gage height, 48.0 feet); minimum, 1,560 second-feet Oct. 28 to Nov. 1 (gage height, 12.1 feet).

1922–1928: Maximum discharge, about 216,000 second-feet Jan. 2, 1927 (gage height, 60.0 feet); minimum, 780 second-feet Sept. 3, 1925 (gage height, 11.7 feet).

REMARKS.—Records fair. Records include flow of Red River. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,370	1,560	7,710	54,000	30,000	19,600	55,500	76,600	43,700	135.000	9,120	19,600
2	3,440	1,780	8,410	61,400	25,500	18,900	56,200	71,400	49,200	135,000	9,120	26,600
3	3,440	1,780	8,410	66,200	21,500	17,400	50,700	66,200	45,900	134,000	9,120	28,100
4	2,700	1,780	8,060	70,700	19,200	16,300	44,800	56,600	55,900	134,000	9,480	21,800
5	2,230	1,780	8,060	70,300	17,400	15,200	38,500	44,800	86,200	134,000	9,480	22,600
6	1,780	2,000	7,710	60,000	17,000	14,900	32,900	35,900	101,000	134,000	9,480	20,700
7	1,780	2,000	7,030	39,200	17,000	13,400	27,400	36,600	102,000	134,000	9,120	23,000
8	13,800	2,000	8,060	27,000	29,600	12,700	23,000	24,800	98,400	129,000	8,060	19,600
9	8,060	2,230	12,000	22,200	30,700	16,300	20,000	20,400	96,200	110,000	8,060	17,400
10	5,110	2,700	11,600	26,300	29,200	26,600	18,100	17,400	97,700	78,800	9,480	14,900
11	4,240	2,940	10,200	25,500	31,100	33,700	18,100	15,200	89,900	55,900	9,480	12,000
12	4,810	2,700	9,120	24,800	32,900	30,700	17,000	10,200	64,800	43,300	9,120	9,480
13	8,060	2,940	9,120	23,000	33,300	32,200	19,600	12,400	51,100	37,000	8,060	8,060
14	8,060	2,940	13,100	21,500	30,700	34,000	24,100	12,000	72,500	30,700	7,370	7,710
15	6,050	3,440	21,100	20,000	29,200	35,900	33,700	11,300	85,800	28,900	6,050	7,030
16	4,810	4,240	25,500	18,500	25,900	40,300	44,800	9,840	88,400	30,000	5,420	6,700
17	3,700	8,410	32,600	16,700	23,000	51,800	51,800	8,760	83,300	35,900	5,730	6,050
18	3,190	31,800	41,400	16,700	21,100	57,400	54,400	9,120	72,900	35,200	7,710	5,420
19	2,940	32,600	41,400	31,500	21,100	68,100	51,100	10,600	57,700	29,600	7,030	5,110
20	2,460	35,200	42,900	44,800	20,400	69,900	45,900	25,200	40,700	23,300	10,900	4,240
21	2,230	47,700	41,100	49,200	19,200	70,700	47,000	28,100	35,900	20,000	11,600	4,240
22	2,000	55,100	35,900	53,300	17,000	65,500	59,600	31,800	31,100	18,100	9,480	4,240
23	2,000	50,000	29,200	54,000	21,500	55,100	78,100	36,600	28,500	20,700	9,120	3,970
24	2,000	31,100	22,200	54.000	27,400	44,800	86,200	39,200	29,600	26,600	9,840	3,700
25	1,780	18,500	17,000	54,800	26,600	39,600	91,000	41,400	29,600	25,900	9,840	3,700
26	1,780	13,400	14,200	51,100	24,800	35,900	96,200	38,100	43,300	21,100	12,700	3,190
27	1,780	10,600	11,600	45,500	22,600	33,700	99,500	34,400	46,600	17,800	12,000	2,700
28	1,560	9,120	9,840	43,700	21,500	36,300	102,000	34,800	42,900	17,400	11,300	2,460
29	1,560	8,760	9,120	41,800	20,000	35,500	97,700	32,200	86,600	16,000	9,120	2,460
30	1,560	8,060	9,840	40,000	-------	36,300	88,400	37,800	124,000	13,100	7,370	2,700
31	1,560	-------	15,600	35,500	-------	47,000	-------	39,600	-------	10,900	10,900	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	13,800	1,560	3,770	0.236	0.27
November	55,100	1,560	13,300	.832	.93
December	42,900	7,030	17,700	1.11	1.28
January	70,700	16,700	40,700	2.55	2.94
February	33,300	17,000	24,400	1.53	1.65
March	70,700	12,700	36,300	2.27	2.62
April	102,000	17,000	52,400	3.28	3.66
May	76,600	8,760	31,300	1.96	2.26
June	124,000	28,500	66,000	4.13	4.61
July	135,000	10,900	58,600	3.67	4.23
August	12,700	5,420	9,050	.566	.65
September	28,100	2,460	10,600	.663	.74
The year	135,000	1,560	30,300	1.90	25.84

ROCKCASTLE RIVER AT ROCKCASTLE SPRINGS, KY.

LOCATION.—Staff gage at Rockcastle Springs, Laurel County, 2 miles below Cane Creek. Elevation of zero of gage is 687.2 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—746 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year, 22,000 second-feet June 29 (gage height, 22.2 feet); minimum, 12 second-feet Oct. 7 (gage height, 0.17 foot).

1922–1928: Maximum discharge, 31,600 second-feet Jan. 3, 1924 (gage height, 29.9 feet); minimum, 9 second-feet Oct. 5, 1922, and Sept. 12, 1925 (gage height, 0.10 foot).

REMARKS.—Records below 7,000 second-feet good; others fair to poor depending upon stage.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	24	202	4,950	720	810	2,220	1,800	675	4,020	292	1,290
2	17	23	230	2,010	675	675	1,660	1,350	630	2,080	328	765
3	17	24	345	1,530	545	585	1,290	1,060	545	1,410	485	485
4	18	25	465	1,110	545	505	1,010	860	2,770	960	365	385
5	16	28	445	910	585	485	810	720	6,080	2,080	275	275
6	14	34	385	765	810	445	720	630	3,450	3,720	310	202
7	13	39	365	585	1,230	385	675	545	2,770	1,730	215	165
8	17	51	345	545	1,660	365	765	485	1,800	1,110	445	145
9	23	1,470	328	765	1,940	765	630	445	7,640	910	275	125
10	28	720	310	1,010	1,590	1,010	545	405	16,200	1,290	310	105
11	26	385	275	910	1,290	960	585	365	5,060	960	190	93
12	31	245	260	860	1,060	860	960	385	2,690	1,410	149	84
13	54	168	385	810	910	765	1,060	385	2,010	1,350	125	75
14	54	141	1,870	765	860	860	1,530	310	1,800	7,520	104	64
15	60	111	2,850	675	1,290	1,110	4,320	260	1,470	2,610	119	56
16	52	102	2,290	585	1,410	2,150	2,530	245	1,060	1,410	149	52
17	44	7,040	3,010	545	1,290	7,160	1,730	215	860	960	113	48
18	42	15,700	2,080	585	1,170	3,720	1,290	202	765	720	155	42
19	38	2,610	1,410	2,220	1,060	2,530	1,060	720	720	585	185	37
20	34	1,350	1,010	9,950	910	2,220	1,230	3,540	545	505	157	34
21	31	765	720	5,170	860	2,450	1,410	2,690	505	405	202	32
22	29	585	630	1,940	810	2,610	1,870	1,410	1,290	345	157	30
23	27	485	505	1,410	1,010	2,150	3,180	1,470	1,170	485	113	30
24	26	385	385	1,170	1,660	1,660	3,180	1,730	1,230	2,150	105	29
25	28	365	365	3,540	1,590	1,470	2,290	860	2,770	810	260	28
26	24	328	328	3,090	1,350	1,870	1,800	1,170	5,170	505	310	26
27	23	310	310	1,940	1,110	1,660	1,730	1,870	3,090	385	365	24
28	21	260	260	1,470	960	1,110	6,200	2,530	1,590	1,350	230	23
29	21	230	405	1,010	860	1,170	4,420	1,660	9,580	585	165	24
30	20	215	810	860	-------	3,270	2,770	1,060	14,800	385	137	58
31	22	-------	3,090	810	-------	4,120	-------	810	--------	275	585	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	60	13	28.5	0.038	0.04
November	15,700	23	1,140	1.53	1.71
December	3,090	202	860	1.15	1.33
January	9,950	545	1,760	2.36	2.72
February	1,940	545	1,100	1.47	1.58
March	7,160	365	1,670	2.24	2.58
April	6,200	545	1,850	2.48	2.77
May	3,540	202	1,040	1.39	1.60
June	16,200	505	3,360	4.50	5.02
July	7,520	275	1,450	1.94	2.24
August	585	104	238	.319	.37
September	1,290	23	161	.216	.24
The year	16,200	13	1,220	1.64	22.20

NEW RIVER NEAR NEW RIVER, TENN.

LOCATION.—Chain gage on highway bridge 2½ miles above Cincinnati, New Orleans & Texas Pacific Railroad bridge at New River, Scott County, and 2 miles above mouth of Brimstone Creek. Elevation of zero of gage is 1,095.25 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—312 square miles.

RECORDS AVAILABLE.—November, 1922, to September, 1928.

EXTREMES.—Maximum stage during year, 34.9 feet June 29 and 30 (discharge not determined); minimum discharge, 2.0 second-feet Oct. 7 (gage height, 0.44 foot).

1922–1928: Maximum stage, that of June 29 and 30, 1928; minimum discharge, 0.2 second-foot Aug. 6 and 7, 1925 (gage height, 0.22 foot).

REMARKS.—Records good below 4,000 second-feet; fair to poor for higher stages.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	4.5	51	2,700	350	290	1,180	980	470	2,050	53	1,750
2	14	4.0	310	1,140	280	280	860	760	480	1,070	51	2,300
3	12	4.0	1,210	1,160	240	240	620	660	820	660	51	2,800
4	8.6	4.0	800	1,020	215	195	500	500	10,500	480	48	1,050
5	4.0	4.0	570	940	300	190	400	380	4,600	640	78	570
6	4.0	4.0	480	860	590	180	360	340	2,000	1,450	98	940
7	2.5	4.0	640	620	740	160	450	290	1,350	1,700	135	620
8	4.0	5.9	570	450	1,950	145	720	250	960	1,140	108	420
9	4.0	9.5	480	450	1,600	3,100	570	225	700	1,000	84	310
10	4.0	6.8	390	450	980	2,150	520	205	640	820	92	230
11	4.0	5.0	350	450	720	1,250	520	180	590	520	320	170
12	5.0	44	380	390	570	840	1,450	160	1,300	480	230	135
13	5.0	44	1,400	350	450	620	2,000	140	590	640	150	112
14	5.0	27	1,350	330	450	590	2,150	124	2,000	700	106	102
15	5.0	25	1,600	310	570	500	2,450	112	1,700	450	135	90
16	4.0	25	4,300	240	520	4,200	1,450	112	980	310	1,500	440
17	8.6	3,600	3,000	230	470	3,000	920	112	610	245	800	225
18	17	1,250	1,350	300	420	1,750	840	145	470	190	640	150
19	4.5	640	1,070	980	370	1,180	610	300	400	220	440	116
20	13	230	610	1,450	340	1,050	3,800	2,100	360	150	340	96
21	11	220	420	1,400	310	1,000	2,300	1,210	290	145	240	80
22	8.6	160	400	640	300	880	6,200	940	280	155	175	73
23	8.6	84	280	520	340	780	5,400	1,750	220	225	130	64
24	8.6	80	180	400	370	660	2,800	980	120	230	112	58
25	8.6	80	160	2,800	370	570	1,650	610	840	155	124	51
26	10	75	130	1,450	360	500	1,120	520	1,400	122	130	38
27	10	69	102	960	350	1,050	1,700	2,700	760	112	112	30
28	10	66	94	700	320	1,020	2,800	3,300	450	104	92	31
29	10	58	6,700	470	300	840	2,000	1,300	17,000	92	69	31
30	12	53	2,600	440	-------	2,450	1,400	860	15,000	80	100	33
31	12	-------	6,400	400	-------	1,700	-------	570	-------	66	620	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	17	2.5	8.12	0.026	0.03
November	3,600	4.0	230	.737	.82
December	6,700	51	1,240	3.97	4.58
January	2,800	230	806	2.58	2.97
February	1,950	215	522	1.67	1.80
March	4,200	145	1,080	3.46	3.99
April	6,200	360	1,660	5.32	5.94
May	3,300	112	736	2.36	2.72
June	17,000	120	2,260	7.24	8.08
July	2,050	66	529	1.70	1.96
August	1,500	48	238	.763	.88
September	2,800	30	437	1.40	1.56
The year	17,000	2.5	810	2.60	35.33

SOUTH FORK OF CUMBERLAND RIVER AT NEVELSVILLE, KY.

LOCATION.—Staff gage one-fourth mile below Turkey Creek Ferry on Greenwood, Monticello pike, 1 mile from Nevelsville, McCreary County, and 1¾ miles below mouth of Little South Fork. Elevation of zero of gage is 635.57 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—1,260 square miles.

RECORDS AVAILABLE.—March, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 88,700 second-feet June 30 (gage height, 53.6 feet); minimum, 51 second-feet Nov. 1 (gage height, 1.63 feet). 1915–1928: Maximum discharge, that of June 30, 1928; minimum, 13 second-feet Sept. 3, 1925 (gage height, 1.39 feet).

REMARKS.—Records good below 25,000 second-feet; fair for higher stages. Operation of small power plant a short distance above gage may affect flow at extremely low water.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	51	610	25,700	1,520	1,090	4,100	3,380	1,870	18,800	380	3,210
2	64	53	610	5,630	1,330	1,030	2,970	2,890	1,870	5,630	535	4,570
3	62	55	1,270	2,500	1,210	910	2,290	2,290	2,810	3,210	585	3,740
4	62	57	2,290	1,940	1,090	850	1,800	1,660	31,500	2,570	740	3,650
5	60	62	1,940	1,730	1,210	795	1,520	1,590	19,900	2,430	795	2,650
6	55	66	1,150	970	1,870	795	1,330	1,210	8,580	5,860	1,330	1,330
7	57	66	1,150	850	2,360	685	1,390	1,150	5,410	5,300	1,210	1,520
8	57	84	850	1,030	3,210	610	1,730	1,090	3,560	3,470	1,030	1,090
9	68	94	1,590	1,870	4,770	4,870	1,660	970	2,730	2,570	795	850
10	80	117	1,030	1,330	3,380	8,710	1,450	850	2,650	2,810	740	610
11	78	117	850	2,010	1,870	4,570	2,010	795	2,500	2,360	2,080	535
12	94	115	970	1,800	1,800	3,290	6,940	685	4,570	2,080	1,270	490
13	100	104	4,870	1,730	1,730	1,730	4,670	585	3,470	2,220	795	400
14	104	102	5,410	1,450	1,730	3,650	9,100	535	8,060	2,730	635	340
15	82	100	5,300	1,450	2,080	3,050	10,600	490	6,940	2,080	560	320
16	82	160	7,180	1,150	2,010	8,060	5,520	468	3,920	1,520	560	303
17	82	30,700	9,750	1,090	1,940	11,500	3,830	445	2,810	1,150	1,730	740
18	80	12,600	4,870	1,730	1,870	6,220	2,890	740	1,940	970	1,090	560
19	75	4,280	3,050	5,410	1,520	4,190	2,360	1,210	1,940	970	1,150	360
20	66	1,730	2,650	6,580	1,330	4,470	12,300	3,560	1,390	1,030	850	303
21	64	1,150	1,590	4,670	1,210	4,190	8,190	4,570	1,590	1,090	740	254
22	64	850	1,270	3,130	1,210	3,740	21,200	2,430	1,270	1,270	610	239
23	66	685	1,150	1,730	1,330	3,560	19,700	5,630	2,010	1,330	490	210
24	62	585	970	2,290	1,520	2,650	11,600	3,290	1,730	1,270	490	196
25	62	585	910	6,460	1,450	2,430	6,220	2,150	4,370	1,210	910	170
26	60	468	795	3,650	1,330	2,150	4,770	2,010	5,300	1,150	740	163
27	57	445	635	3,210	1,270	2,360	6,700	9,620	3,470	910	585	148
28	55	422	585	2,970	1,210	3,130	10,400	13,600	2,220	795	560	139
29	55	360	1,660	2,010	1,150	2,570	7,540	5,410	47,900	685	512	135
30	55	360	9,890	1,870	-------	4,100	5,860	3,380	82,700	535	400	137
31	53	--------	24,100	1,660	-------	6,340	--------	2,360	--------	445	535	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	104	53	68.6	0.054	0.06
November	30,700	51	1,890	1.50	1.67
December	24,100	585	3,260	2.59	2.99
January	25,700	850	3.280	2.60	3.00
February	4,770	1,090	1,780	1.41	1.52
March	11,500	610	3,490	2.77	3.19
April	21,200	1,330	6,090	4.83	5.39
May	13,600	445	2,610	2.07	2.39
June	82,700	1,270	9,030	7.17	8.00
July	18,800	445	2,600	2.06	2.38
August	2,080	380	820	.651	.75
September	4,570	135	979	.777	.87
The year	82,700	51	2,980	2.36	32.21

OBEY RIVER NEAR BYRDSTOWN, TENN.

LOCATION.—Chain gage on highway bridge 1½ miles below Franklin Creek and 3½ miles southwest of Byrdstown, Pickett County. Elevation of zero of gage is 575.23 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—452 square miles.

RECORDS AVAILABLE.—March, 1919, to September, 1928.

EXTREMES.—Maximum discharge during year, about 35,000 second-feet June 29 (gage height, 35.9 feet); minimum, 26 second-feet Oct. 7 (gage height, 1.31 feet).

1919–1928: Maximum discharge, that of June 29, 1928; minimum, 7 second-feet Nov. 3, 1920 (gage height, 0.90 foot).

REMARKS.—Records good below 15,000 second-feet and fair to poor for higher stages.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	34	221	5,300	525	370	1,550	1,550	570	7,190	194	525
2	37	34	176	1,910	458	330	1,200	1,200	670	2,630	720	1,200
3	32	43	270	1,200	390	330	870	925	980	1,550	602	1,140
4	31	38	390	820	350	290	770	770	6,830	1,040	290	770
5	30	37	330	595	330	270	620	670	5,570	870	350	548
6	30	36	290	602	458	252	548	570	2,980	1,370	252	390
7	26	34	252	458	595	228	548	602	1,790	2,300	720	310
8	43	43	200	435	1,090	224	720	435	1,260	1,200	435	252
9	55	70	204	770	1,200	1,670	670	390	925	1,310	310	214
10	40	60	161	870	980	2,300	620	350	870	1,910	645	182
11	34	56	155	770	770	1,430	645	330	670	1,090	290	158
12	66	52	170	670	670	1,090	645	310	1,200	1,260	235	143
13	62	49	670	595	570	820	870	270	870	2,100	207	130
14	60	46	870	525	525	1,910	2,170	235	6,560	1,670	140	120
15	56	43	1,260	458	620	1,430	6,290	214	4,000	1,090	164	115
16	56	46	1,260	412	570	2,300	2,500	200	1,910	770	176	100
17	46	1,910	1,790	370	525	4,880	1,550	194	1,260	620	176	95
18	43	3,540	1,260	602	602	2,770	1,200	350	925	480	214	95
19	37	820	820	1,610	435	1,910	980	390	1,140	525	182	86
20	36	548	720	2,630	390	1,670	3,050	820	770	548	270	82
21	34	412	480	1,670	390	1,370	2,500	980	1,040	548	370	74
22	34	290	390	1,090	370	1,310	6,650	670	770	525	235	74
23	36	235	330	870	390	1,140	7,100	570	620	1,610	176	70
24	36	185	270	720	458	980	4,240	458	570	980	146	62
25	34	179	252	2,300	435	820	2,430	370	770	620	370	58
26	32	164	224	1,850	412	820	1,670	330	1,850	458	207	56
27	32	152	204	1,310	370	1,200	1,910	4,240	1,260	390	176	55
28	31	135	185	980	370	1,090	4,960	3,050	870	390	146	49
29	31	122	350	770	370	1,040	3,680	1,490	20,700	270	130	46
30	31	118	1,670	645	-------	1,670	2,300	1,040	22,500	252	105	100
31	30	-------	7,370	570	-------	2,300	-------	720	-------	228	158	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	66	26	39.1	0.087	0.10
November	3,540	34	318	.703	.78
December	7,370	155	748	1.66	1.91
January	5,300	370	1,110	2.46	2.84
February	1,200	330	539	1.19	1.28
March	4,880	224	1,300	2.88	3.32
April	7,100	548	2,180	4.82	5.38
May	4,240	194	797	1.76	2.03
June	22,500	570	3,090	6.83	7.62
July	7,190	228	1,220	2.70	3.11
August	720	105	284	.628	.72
September	1,200	46	243	.538	.60
The year	22,500	26	986	2.18	29.69

CANEY FORK NEAR ROCK ISLAND, TENN.

LOCATION.—Water-stage recorder 200 feet below power house of Tennessee Electric Power Co., half a mile downstream from storage dam, and 1 mile northwest of Rock Island, Warren County. Elevation of zero of gage is 649.46 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—1,640 square miles.

RECORDS AVAILABLE.—November, 1911, to March, 1924; April, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 71,900 second-feet June 29 (gage height, 19.5 feet); minimum (estimated), 80 second-feet on several days in October and November.

1911–1928: Maximum discharge, 107,000 second-feet Apr. 2, 1912; minimum, 45 second-feet, represents leakage prior to raising of dam in 1925.

REMARKS.—Records good. Flow for most of year is almost completely regulated by power house immediately above gage.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	601	3,200	17,700	3,080	3,150	4,640	7,880	1,980	20,500	1,920	1,350
2	90	652	3,130	8,700	3,350	3,110	4,150	7,460	3,340	8,570	1,870	6,780
3	622	90	2,270	4,520	4,150	3,160	2,850	6,130	9,770	5,040	2,050	8,280
4	750	335	214	4,450	3,040	2,340	3,080	3,670	19,400	4,690	1,540	5,830
5	881	85	1,970	2,960	2,070	3,030	2,660	4,560	18,600	3,340	365	3,420
6	954	80	2,070	2,810	2,690	3,380	2,280	2,860	10,500	3,080	1,340	2,550
7	1,500	643	2,000	2,390	2,860	3,380	3,020	2,350	6,960	3,700	1,120	2,320
8	519	766	2,040	1,930	4,150	3,320	4,210	2,230	4,040	4,160	990	2,020
9	90	692	2,080	3,200	4,930	2,960	3,350	2,400	3,020	4,320	1,010	500
10	921	685	1,840	3,180	4,280	5,590	3,010	1,900	3,090	6,530	1,160	2,200
11	779	714	295	2,980	3,080	8,860	4,630	2,290	3,280	3,370	475	1,900
12	567	364	1,910	2,940	3,340	5,900	8,920	2,640	3,760	2,660	410	1,930
13	536	80	2,000	2,700	2,920	5,040	6,810	480	8,720	3,130	790	1,890
14	429	711	1,980	2,310	2,390	7,420	12,100	1,930	24,600	3,650	1,320	1,950
15	346	754	2,010	1,630	2,310	6,310	14,900	1,590	14,500	1,980	1,100	2,200
16	90	1,060	2,140	2,730	2,270	20,800	9,400	1,730	8,220	2,730	1,230	125
17	246	2,250	6,030	2,930	2,120	20,900	6,370	1,830	5,340	1,640	990	1,550
18	115	2,060	4,230	4,480	2,040	12,300	4,070	1,610	4,380	2,180	1,060	1,550
19	100	1,970	3,950	13,500	1,120	8,300	5,440	1,120	2,570	2,360	120	1,210
20	100	2,520	3,220	9,240	2,790	6,260	2,770	640	2,900	2,250	1,420	950
21	100	2,600	2,500	6,880	3,180	5,610	5,100	1,550	4,950	1,400	2,140	900
22	80	2,260	2,270	4,650	3,240	5,160	28,700	2,310	2,410	200	2,260	330
23	80	2,230	2,120	3,540	2,510	3,970	31,200	2,760	3,350	1,870	1,380	125
24	80	945	930	4,690	2,210	2,940	19,800	2,860	5,810	2,320	1,280	630
25	212	2,310	645	8,380	1,920	4,020	10,300	2,640	16,400	1,840	1,030	845
26	80	2,690	1,220	7,210	1,100	3,510	7,410	1,680	8,780	1,500	185	915
27	234	1,830	2,370	4,990	2,560	9,000	7,130	3,190	4,840	1,610	885	820
28	80	2,770	2,060	4,290	3,010	6,470	8,150	2,270	3,490	1,400	1,080	775
29	80	3,140	5,230	3,310	3,190	3,900	6,920	2,120	36,100	910	845	380
30	80	3,050	9,880	3,180	------	9,420	6,030	1,590	49,200	2,510	920	245
31	593	------	24,500	2,880	------	6,430	------	2,080	------	2,250	1,360	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,500	80	369	0.225	0.26
November	3,140	80	1,360	.830	.93
December	24,500	214	3,300	2.01	2.32
January	17,700	1,630	4,880	2.98	3.44
February	4,930	1,120	2,820	1.72	1.86
March	20,900	2,340	6,320	3.86	4.45
April	31,200	2,280	7,980	4.87	5.43
May	7,880	480	2,660	1.62	1.87
June	49,200	1,980	9,810	5.98	6.67
July	20,500	200	3,470	2.12	2.44
August	2,260	120	1,150	.702	.81
September	8,280	125	1,880	1.15	1.28
The year	49,200	80	3,820	2.33	31.76

CANEY FORK NEAR SILVER POINT, TENN.

LOCATION.—Water-stage recorder at Johnson's ferry, on Silver Point-Smithville road 4 miles south of Silver Point, Putnam County, and 4 miles below mouth of Falling Water River. Elevation of zero of gage is 497.60 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—2,100 square miles.

RECORDS AVAILABLE.—November, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year, about 94,500 second-feet June 30 (gage height, 39.1 feet); minimum, 150 second-feet Oct. 25 (gage height, 0.90 foot).

1922–1928: Maximum discharge, about 115,000 second-feet Dec. 26, 1926 (gage height, 44.5 feet); minimum, 25 second-feet on several days in November, 1924, and August, September, and October, 1925 (gage height, 0.00 foot).

REMARKS.—Records good except those for June 10–18 and July 4 and 5 and those above 30,000 second-feet, which are fair. Flow regulated to large extent by hydroelectric plants at Rock Island and on Falling Water River.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	364	485	3,260	35,300	3,260	3,260	5,850	7,720	3,020	75,000	2,500	3,500
2	252	622	3,140	15,500	3,620	3,260	5,850	9,270	3,260	29,400	1,970	3,380
3	184	646	2,900	7,420	3,740	3,260	3,870	6,830	8,020	9,760	2,560	10,100
4	538	286	1,820	3,260	3,380	2,840	4,000	5,570	17,900	5,040	2,180	7,720
5	870	249	475	3,740	2,900	2,620	3,500	4,780	29,600	5,430	2,070	4,780
6	948	256	2,070	3,260	2,500	3,260	2,900	3,500	16,500	3,620	1,300	3,620
7	1,020	193	2,230	2,960	3,260	3,380	3,260	3,870	9,110	5,040	1,620	2,840
8	1,260	480	2,120	2,620	3,620	3,380	4,520	2,720	5,990	3,260	1,440	2,780
9	582	807	2,120	3,740	5,430	4,520	4,650	2,780	4,650	5,170	1,400	2,230
10	242	730	2,120	3,740	4,910	3,500	3,620	2,670	4,000	7,270	1,400	1,100
11	700	718	1,870	3,620	4,520	9,910	4,130	2,340	3,380	5,570	1,400	2,280
12	1,010	758	555	3,500	3,380	7,270	8,470	3,140	3,870	3,740	905	2,280
13	835	475	2,070	3,260	3,620	5,850	8,630	2,500	6,690	3,740	670	2,280
14	646	226	2,230	3,020	2,780	5,990	9,750	940	24,100	4,780	1,180	2,180
15	555	544	2,230	2,450	2,720	9,270	20,000	2,340	26,700	2,620	1,770	2,280
16	368	930	2,620	2,230	2,670	11,600	12,500	2,020	12,000	3,020	1,580	2,280
17	229	3,380	3,380	3,020	2,560	33,500	8,470	2,120	8,170	2,670	1,580	555
18	208	3,020	9,910	3,620	2,450	19,400	5,990	2,180	5,170	2,280	1,440	1,920
19	223	2,620	4,780	9,910	2,120	11,400	4,780	2,070	4,650	2,620	1,400	1,920
20	178	2,840	3,870	12,100	1,580	8,320	5,570	2,180	3,500	3,260	640	1,530
21	162	2,720	2,900	8,790	3,140	6,410	4,780	1,970	5,170	2,840	1,720	1,220
22	158	2,560	2,670	5,570	3,380	5,990	19,600	2,450	4,260	1,920	2,900	1,140
23	155	2,500	2,340	5,040	3,260	4,780	53,600	3,140	4,130	1,620	2,280	582
24	152	2,230	2,120	4,000	2,450	4,780	39,000	3,870	4,390	3,020	1,870	400
25	150	1,260	1,180	7,870	2,500	4,130	18,600	3,020	17,700	2,670	1,870	700
26	152	2,500	793	9,270	2,070	4,520	10,200	2,450	15,900	2,450	1,530	1,140
27	162	2,560	1,480	6,830	1,580	7,570	8,320	2,560	8,020	2,400	582	1,100
28	205	1,920	2,230	5,170	3,140	8,470	9,910	3,380	5,170	2,120	1,140	1,060
29	214	3,260	2,500	4,000	3,260	5,990	9,430	2,450	21,800	1,920	1,440	1,020
30	165	3,260	8,790	3,620	-------	9,110	7,570	2,400	78,900	1,720	1,260	670
31	152	-------	19,200	3,380	-------	11,300	-------	1,970	-------	2,670	2,780	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,260	150	421	0.200	0.23
November	3,380	193	1,500	.714	.80
December	19,200	475	3,290	1.57	1.81
January	35,300	2,230	6,190	2.95	3.40
February	5,430	1,580	3,100	1.48	1.60
March	33,500	2,620	7,380	3.51	4.05
April	53,600	2,900	10,400	4.95	5.52
May	9,270	940	3,260	1.55	1.79
June	78,900	3,020	12,200	5.71	6.37
July	75,000	1,620	6,730	3.20	3.69
August	2,900	582	1,630	.776	.89
September	10,100	400	2,350	1.12	1.25
The year	78,900	150	4,860	2.31	31.40

COLLINS RIVER NEAR McMINNVILLE, TENN.

LOCATION.—Water-stage recorder at highway bridge on McMinnville-Rock Island highway half a mile below mouth of Barren Fork and 2½ miles northeast of McMinnville, Warren County. Elevation of zero of gage is 823.77 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—624 square miles.

RECORDS AVAILABLE.—April, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 58,000 second-feet June 29 (gage height, 32.4 feet); minimum, 40 second-feet Oct. 30 (gage height, 0.80 foot). 1925–1928: Maximum discharge, that of June 29, 1928; minimum, 37 second-feet Sept. 4 and 29, 1925 (gage height, 0.8 foot).

REMARKS.—Records good below and fair above 20,000 second-feet. Discharge estimated Jan. 1–13, Mar. 6, 7, May 25, June 1, 8, and June 30 to July 6. Considerable regulation caused by operation of power plant on Barren Fork at McMinnville.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	96	247	10,300	1,660	601	1,930	3,570	606	10,600	416	1,530
2	86	96	286	4,080	1,460	542	1,600	3,060	1,490	3,640	364	3,510
3	100	100	870	2,250	1,280	484	1,350	2,330	3,960	2,080	342	3,850
4	98	98	1,100	1,560	1,160	472	1,160	1,810	6,180	1,680	297	2,330
5	96	100	842	1,220	1,070	488	980	1,520	7,570	1,280	278	1,360
6	98	76	625	1,040	1,220	524	952	1,280	4,220	1,060	278	1,030
7	102	98	516	1,010	1,160	492	1,520	1,100	2,600	940	360	830
8	100	112	484	952	1,490	480	1,560	930	1,770	970	308	655
9	118	100	534	1,190	2,010	6,810	1,280	870	1,320	1,060	322	550
10	142	114	452	1,250	1,630	7,280	1,190	788	1,070	1,500	626	478
11	158	116	390	1,100	1,320	3,860	2,000	685	1,630	1,150	955	406
12	86	104	476	1,010	1,160	2,510	3,560	601	1,770	880	470	346
13	160	96	3,160	898	1,010	1,930	2,780	542	3,030	970	370	314
14	126	106	2,420	815	952	4,250	5,060	500	9,840	1,030	311	284
15	104	106	2,090	735	980	3,160	5,920	464	5,710	880	395	254
16	106	335	4,390	660	898	9,550	3,560	440	3,260	730	350	239
17	102	6,000	4,590	650	815	9,560	2,330	424	2,170	630	233	230
18	106	5,460	3,760	4,550	760	5,190	1,810	408	1,660	570	353	218
19	98	2,200	1,810	6,420	710	3,460	1,490	440	1,350	530	1,030	202
20	98	1,220	1,320	4,260	660	2,690	1,630	496	1,130	550	655	200
21	94	815	1,010	2,780	655	2,170	1,890	610	1,490	630	490	188
22	94	610	842	2,010	660	1,770	12,200	980	1,460	730	402	188
23	82	508	710	1,630	710	1,520	15,500	1,520	1,010	755	350	180
24	90	436	588	1,700	952	1,350	9,200	1,560	1,010	630	350	168
25	88	379	508	3,460	898	1,320	4,610	1,160	2,040	506	430	158
26	90	340	452	2,600	788	1,660	2,960	1,010	1,460	486	356	160
27	90	312	420	2,010	710	5,380	2,690	925	1,040	855	342	152
28	84	298	396	1,600	650	3,160	2,780	788	842	910	294	156
29	88	274	1,630	1,280	610	2,170	2,330	710	20,800	940	269	148
30	74	256	3,060	1,130	-------	4,910	2,010	615	33,000	630	248	123
31	100	-------	10,200	1,320	-------	2,780	--------	592	--------	510	941	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	160	74	102	0.163	0.19
November	6,000	76	699	1.12	1.25
December	10,200	247	1,620	2.60	3.00
January	10,300	650	2,180	3.49	4.02
February	2,010	610	1,040	1.67	1.80
March	9,560	472	2,980	4.78	5.51
April	15,500	952	3,330	5.34	5.96
May	3,570	408	1,060	1.70	1.96
June	33,000	606	4,220	6.76	7.54
July	10,600	486	1,300	2.08	2.40
August	1,030	233	425	.681	.79
September	3,850	123	681	1.09	1.22
The year	33,000	74	1,630	2.61	35.64

STONE RIVER NEAR SMYRNA, TENN.

LOCATION.—Water-stage recorder at highway bridge at Jefferson Springs, three-fourths mile below confluence of East and West Forks and 5 miles east of Smyrna, Rutherford County. Elevation of zero of gage is 457.78 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—552 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 29,800 second-feet June 29 (gage height, 29.8 feet); minimum mean daily discharge, 20 second-feet Oct. 2, 3, and Nov. 1 (gage height, 0.90 foot).

1925–1928: Maximum discharge, that of June 29, 1928; minimum, 0.8 second-foot Aug. 17 and 22, 1925 (gage height, 0.50 foot).

REMARKS.—Records good except those for extreme high and low stages, which are fair. Discharge based on staff gage readings Oct. 1–3, 6, 7, 20, 21, 24, 25, 27–30, Nov. 1, 2, 4, and July 25 and 26. Flow almost entirely regulated during low-water periods by power plants upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	15	126	3,600	690	243	1,650	5,470	1,700	2,830	205	2,120
2	15	35	97	1,780	597	230	1,190	2,170	3,160	1,880	185	1,350
3	15	60	115	1,270	531	221	913	1,470	2,020	1,390	157	652
4	58	27	106	935	471	189	745	1,150	7,010	1,110	143	460
5	60	55	91	752	426	193	645	1,070	3,160	906	126	288
6	35	48	112	615	471	185	579	920	2,120	759	106	238
7	48	50	85	531	525	178	864	745	1,390	724	143	197
8	50	42	88	1,430	555	164	815	645	1,030	710	274	143
9	62	85	88	3,270	519	5,140	627	573	850	567	410	143
10	60	72	65	1,830	448	2,940	561	519	684	928	310	115
11	65	65	65	1,350	405	1,600	1,110	426	678	567	146	115
12	213	65	80	1,070	365	1,150	1,560	380	801	519	143	97
13	477	45	185	864	346	878	980	410	1,230	652	115	91
14	270	45	243	717	342	1,430	4,590	375	13,600	483	103	70
15	157	55	443	609	351	1,030	2,940	266	3,710	421	97	70
16	100	143	2,620	525	324	4,150	1,560	302	2,070	302	106	58
17	62	4,920	1,920	645	302	3,270	1,110	266	1,430	292	88	50
18	97	2,320	1,070	5,360	297	2,420	899	266	1,190	248	106	65
19	78	1,070	724	4,590	279	1,880	738	432	950	248	132	68
20	35	690	531	3,270	248	1,520	1,390	988	794	279	80	42
21	40	525	410	1,880	292	1,230	3,050	664	1,350	320	75	50
22	72	416	356	1,350	274	1,030	9,320	489	892	380	78	52
23	55	279	302	1,110	324	864	5,800	416	684	2,830	94	33
24	31	164	270	1,110	380	738	3,160	375	1,830	1,150	103	33
25	25	197	234	2,270	390	724	1,970	279	13,600	513	221	50
26	68	185	213	1,470	351	878	1,430	315	3,490	745	171	31
27	21	160	197	1,150	324	2,940	1,970	221	1,740	652	174	42
28	19	150	185	906	310	1,430	1,880	310	1,230	448	122	31
29	19	150	878	745	270	1,030	1,350	225	16,500	328	100	33
30	17	109	1,430	658	-------	6,900	1,560	234	12,500	252	88	33
31	17	-------	11,700	658	-------	2,830	-------	230	--------	243	346	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	477	15	76.1	0.138	0.16
November	4,920	15	408	.739	.82
December	11,700	65	807	1.46	1.68
January	5,360	525	1,560	2.83	3.26
February	690	248	393	.712	.77
March	6,900	164	1,600	2.90	3.34
April	9,320	561	1,900	3.44	3.84
May	5,470	221	729	1.32	1.52
June	16,500	678	3,460	6.27	7.00
July	2,830	243	764	1.38	1.59
August	410	75	153	.277	.32
September	2,120	31	227	.411	.46
The year	16,500	15	1,000	1.81	24.76

HARPETH RIVER AT BELLEVIEW, TENN.

LOCATION.—Staff gage at highway bridge on Harding Pike a quarter of a mile south of Belleview, Davidson County.

DRAINAGE AREA.—410 square miles.

RECORDS AVAILABLE.—April, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, about 9,990 second-feet June 29 (gage height, 14.7 feet); minimum, 12 second-feet Oct. 27 and 28 (gage height, −0.54 foot).

1920–1928: Maximum discharge, 22,100 second-feet Mar. 13, 1927 (gage height, 21.7 feet); no flow on several days in October, 1922.

REMARKS.—Records fair. Discharge interpolated Nov. 16, Dec. 16, Jan. 24, Feb. 13, Mar. 5, May 8, June 12, July 12, 27, Aug. 31, Sept. 3 and 6.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	55	83	2,140	400	260	418	1,540	150	1,600	130	2,850
2	23	42	74	910	335	232	365	810	2,000	1,130	275	1,180
3	25	27	66	760	320	208	320	620	4,950	810	135	730
4	23	23	63	580	305	220	275	470	5,910	580	96	275
5	21	18	55	505	305	208	232	452	5,510	540	74	208
6	21	17	52	365	305	182	220	505	1,480	505	59	179
7	23	16	55	335	710	170	232	400	1,130	965	52	150
8	59	120	55	400	710	540	220	338	810	540	36	120
9	36	220	46	470	710	2,990	195	275	620	365	96	101
10	24	96	43	710	580	1,600	182	245	505	335	74	74
11	20	63	40	620	505	910	170	220	540	2,080	63	55
12	290	40	74	505	435	710	170	195	560	1,180	55	52
13	260	31	182	435	620	505	182	170	580	275	46	54
14	92	27	220	400	810	540	1,020	160	3,690	245	40	48
15	63	96	260	335	505	520	810	150	2,140	220	34	40
16	43	1,300	260	305	320	505	435	145	910	182	31	38
17	33	2,500	540	290	290	1,420	350	135	1,020	170	29	36
18	21	965	208	810	290	760	305	120	760	155	43	31
19	21	580	182	2,710	245	860	260	418	505	165	34	28
20	18	365	165	2,020	232	710	620	1,540	435	132	55	24
21	17	275	145	1,360	208	620	3,060	860	305	125	74	24
22	15	232	140	910	220	540	5,670	860	418	1,180	40	23
23	14	195	130	860	335	470	3,410	540	320	1,360	31	23
24	14	165	120	1,000	505	435	1,600	400	665	365	29	21
25	13	145	115	1,130	418	435	1,130	305	3,760	170	85	21
26	13	125	120	965	365	382	860	275	910	165	74	20
27	12	110	87	760	335	540	1,540	245	710	242	52	20
28	12	96	70	580	320	470	1,480	220	505	320	31	19
29	13	87	165	505	290	382	965	182	8,710	260	21	18
30	14	87	665	435	-------	580	710	170	7,750	170	29	18
31	13	-------	5,350	452	-------	470	-------	132	-------	160	575	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	290	12	41.4	0.101	0.12
November	2,500	16	271	.661	.74
December	5,350	40	317	.773	.89
January	2,710	290	792	1.93	2.22
February	810	208	411	1.00	1.08
March	2,990	170	625	1.52	1.75
April	5,670	170	914	2.23	2.49
May	1,540	120	422	1.03	1.19
June	8,710	150	1,940	4.73	5.28
July	2,080	125	538	1.31	1.51
August	575	21	80.6	.197	.23
September	2,850	18	216	.527	.59
The year	8,710	12	545	1.33	18.09

HARPETH RIVER NEAR KINGSTON SPRINGS, TENN.

LOCATION.—Staff gage at bridge on State Highway No. 1, 3 miles north of Kingston Springs, Cheatham County, and 3 miles below mouth of Turnbull Creek. Elevation of zero of gage is 445.81 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—687 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 12,900 second-feet June 29 (gage height, 13.9 feet); minimum, 51 second-feet Oct. 29 (gage height, 0.54 foot).

1925–1928: Maximum discharge, about 32,500 second-feet Mar. 13, 1927 (gage height, about 28.0 feet); minimum, 18 second-feet Sept. 9 and 10, 1925.

REMARKS.—Records fair. Slight regulation during low water caused by operation of milldam at Newsom, 15 miles upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	62	201	3,200	655	630	735	1,490	3,400	3,300	245	7,240
2	60	64	189	1,280	605	580	680	1,280	2,470	1,800	210	2,830
3	132	118	171	965	530	530	605	1,150	2,380	1,340	186	1,480
4	142	78	148	965	485	508	555	1,020	8,200	995	170	1,200
5	90	64	140	1,880	530	508	485	965	7,960	930	155	800
6	58	66	135	1,150	508	485	462	845	6,280	770	140	740
7	110	66	132	530	2,040	440	485	680	2,200	650	132	300
8	418	168	132	555	2,470	418	462	580	1,560	800	150	238
9	335	355	118	1,220	1,560	1,220	395	555	1,220	740	148	195
10	162	315	105	1,150	1,150	3,010	355	530	1,020	592	135	172
11	142	192	100	905	905	1,350	335	462	965	538	124	155
12	605	140	156	735	790	1,020	335	418	790	832	114	140
13	1,220	115	298	655	708	845	315	375	1,420	680	102	126
14	375	100	418	605	790	790	735	335	5,440	538	126	114
15	224	92	508	530	790	708	1,560	335	3,500	435	140	110
16	145	395	508	485	735	2,470	905	315	1,800	342	126	104
17	112	3,400	655	485	680	2,470	655	298	1,420	280	140	96
18	96	2,290	508	2,830	630	1,960	555	462	1,350	231	168	88
19	82	965	395	4,650	605	1,640	508	2,830	1,020	435	228	82
20	74	680	355	3,700	630	1,350	1,220	6,280	735	435	192	80
21	70	530	298	1,960	508	1,150	1,960	1,960	1,080	342	175	80
22	64	440	245	1,350	555	965	7,480	2,040	790	280	170	74
23	60	355	214	1,080	1,490	845	5,560	1,560	655	710	195	70
24	57	262	198	1,720	1,080	680	2,470	965	905	680	178	69
25	60	245	177	2,200	965	555	1,800	845	4,210	485	160	72
26	62	234	159	1,420	845	680	1,350	655	1,880	388	145	78
27	64	217	132	1,220	735	1,020	2,040	580	1,150	510	130	68
28	56	201	138	965	735	845	2,120	508	1,080	538	120	64
29	52	186	262	845	655	708	1,220	440	10,500	388	110	63
30	60	171	530	735	------	965	1,640	395	8,080	342	94	62
31	56	------	4,430	680	------	905	------	375	------	300	1,640	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,220	52	172	0.250	0.29
November	3,400	62	419	.610	.68
December	4,430	100	392	.571	.66
January	4,650	485	1,380	2.01	2.32
February	2,470	485	875	1.27	1.37
March	3,010	418	1,040	1.51	1.74
April	7,480	315	1,330	1.94	2.16
May	6,280	298	1,020	1.48	1.71
June	10,500	655	2,850	4.15	4.63
July	3,300	231	698	1.02	1.18
August	1,640	94	202	.294	.34
September	7,240	62	566	.824	.92
The year	10,500	52	907	1.32	18.00

RED RIVER NEAR ADAMS, TENN.

LOCATION.—Water-stage recorder at highway bridge half a mile below mouth of Elk Creek and 1½ miles north of Adams, Robertson County. Elevation of zero of gage is 396.32 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—678 square miles.

RECORDS AVAILABLE.—June, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, about 16,800 second-feet June 30 (gage height, 25.74 feet); minimum, 106 second-feet Sept. 23 (gage height, 1.78 feet).

1920–1928: Maximum discharge, about 20,800 second-feet Dec. 22, 1926 (gage height, 31.0 feet); minimum, 23 second-feet Sept. 10, 1925 (gage height, 1.28 feet).

REMARKS.—Records good below 13,000 second-feet and fair to poor for higher stages. Discharge estimated Jan. 2–6, 18–20, Feb. 4–8, June 30 to July 6, and Sept. 15–22.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	452	248	373	500	762	910	535	910	820	12,200	550	575
2	265	198	373	457	686	820	510	820	1,040	8,790	500	381
3	220	171	329	408	610	730	485	730	1,470	5,530	485	313
4	212	162	289	377	565	680	457	669	8,280	2,850	462	273
5	156	159	265	349	545	636	240	647	12,600	1,760	470	240
6	141	130	248	301	560	575	234	600	11,200	2,990	430	223
7	735	130	244	297	540	530	444	560	5,240	4,080	439	206
8	2,920	156	237	325	1,400	510	434	510	3,640	3,790	439	183
9	1,040	285	223	462	1,650	762	403	480	4,590	2,630	495	183
10	585	277	209	495	1,250	1,110	377	462	6,040	2,120	416	174
11	444	206	202	439	975	762	373	434	3,210	1,830	412	171
12	790	189	223	421	910	680	365	416	2,630	2,480	373	165
13	1,320	165	394	416	820	615	361	394	3,860	1,720	353	162
14	652	156	1,110	421	820	555	585	377	7,340	1,830	345	174
15	475	159	1,620	394	1,110	510	850	369	4,080	1,320	329	177
16	385	237	1,040	365	910	1,360	575	357	2,920	1,110	313	174
17	337	1,110	820	357	790	2,200	485	353	2,410	1,010	301	165
18	293	1,760	647	850	762	1,690	444	510	4,220	910	341	162
19	265	975	540	4,010	680	1,400	434	850	3,940	850	416	159
20	240	718	466	2,920	610	1,180	1,220	2,120	2,480	790	1,040	159
21	226	575	416	2,270	575	1,040	2,050	1,140	2,630	735	439	168
22	220	490	381	1,580	565	910	3,360	1,760	2,410	735	353	223
23	206	434	357	1,290	1,400	820	3,210	1,580	1,900	2,920	321	115
24	189	385	325	1,250	2,050	762	2,050	1,080	1,900	1,470	305	120
25	180	357	301	2,200	1,800	730	1,580	820	2,270	910	495	135
26	171	325	277	1,430	1,470	724	1,320	790	2,200	762	490	144
27	159	297	269	1,430	1,220	975	1,320	2,630	1,760	1,040	337	141
28	150	277	265	1,220	1,110	20	1,510	2,700	2,340	975	293	135
29	150	265	285	1,010	975	708	1,180	1,510	12,900	790	258	125
30	141	265	325	910	------	664	1,040	1,110	15,900	625	258	122
31	144	------	475	820	------	595	------	910	------	560	575	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,920	141	447	0.659	0.76
November	1,760	130	375	.553	.62
December	1,620	202	436	.643	.74
January	4,010	297	967	1.43	1.65
February	2,050	540	970	1.43	1.54
March	2,200	510	869	1.28	1.48
April	3,360	234	948	1.40	1.56
May	2,700	353	923	1.36	1.57
June	15,900	820	4,610	6.80	7.59
July	12,200	560	2,330	3.44	3.97
August	1,040	258	420	.619	.71
September	575	115	195	.288	.32
The year	15,900	115	1,120	1.65	22.51

TENNESSEE RIVER BASIN

FRENCH BROAD RIVER AT CALVERT, N. C.

LOCATION.—Staff gage at highway bridge 1 mile below mouth of East Fork and 1 mile southeast of railroad station at Calvert, Transylvania County.

DRAINAGE AREA.—104 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 16,100 second-feet Aug. 15 (gage height, 13.0 feet); minimum, 86 second-feet Oct. 7 and 8 (gage height, 0.52 foot).

1924–1928: Maximum discharge, that of Aug. 15, 1928; minimum, 54 second-feet Sept. 17–23, 1925 (gage height, 0.28 foot).

Maximum stage known, 18.3 feet July, 1916.

REMARKS.—Records good below and fair above 3,000 second-feet.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97	115	153	459	265	265	404	516	353	353	269	424
2	97	115	634	404	240	257	378	459	604	323	244	634
3	108	170	910	404	233	248	328	431	725	305	319	802
4	95	124	664	404	225	282	328	404	910	296	282	634
5	90	115	487	404	233	257	305	404	664	353	378	1,590
6	90	115	404	431	240	248	314	404	516	328	404	1,380
7	88	115	378	291	253	233	1,100	1,100	516	291	487	920
8	124	115	786	274	431	233	545	786	459	404	291	802
9	164	119	574	378	310	848	459	634	431	353	353	662
10	111	115	516	296	291	378	664	574	431	404	378	607
11	93	115	459	274	274	404	848	516	487	353	378	580
12	1,330	115	459	269	257	353	664	487	431	404	353	554
13	353	111	353	265	274	314	574	459	459	378	323	501
14	229	108	328	257	353	353	545	431	694	353	278	501
15	200	128	664	248	314	314	545	431	487	310	5,980	501
16	170	287	848	248	310	353	431	404	459	282	6,140	475
17	159	2,110	604	253	300	378	404	404	431	274	1,590	450
18	150	459	487	233	296	431	404	404	404	274	1,110	450
19	148	323	431	253	269	353	378	404	378	269	860	424
20	135	261	404	248	257	328	404	404	353	265	745	398
21	128	233	353	248	253	328	404	459	328	300	634	373
22	128	218	328	248	328	319	756	574	328	296	580	373
23	124	196	314	225	516	305	848	634	353	261	580	373
24	124	190	296	274	404	291	604	634	328	253	554	348
25	124	183	291	310	353	404	516	516	431	314	527	348
26	124	177	274	282	328	305	487	516	353	291	501	323
27	124	164	265	265	310	378	910	459	314	328	607	314
28	115	162	253	248	296	500	604	459	296	296	527	310
29	115	159	487	248	274	296	545	431	431	261	580	305
30	115	156	305	248	-------	848	487	404	516	244	475	296
31	115	-------	786	265	-------	459	-------	378	-------	353	450	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,330	88	173	1.66	1.91
November	2,110	108	236	2.27	2.53
December	910	153	468	4.50	5.19
January	459	225	295	2.84	3.27
February	516	225	300	2.88	3.11
March	848	233	357	3.43	3.95
April	1,100	305	539	5.18	5.78
May	1,100	378	501	4.82	5.56
June	910	296	462	4.44	4.95
July	404	244	315	3.03	3.49
August	6,140	244	877	8.43	9.72
September	1,590	296	555	5.34	5.96
The year	6,140	88	423	4.07	55.42

FRENCH BROAD RIVER AT BLANTYRE, N. C.

LOCATION.—Chain gage at highway bridge 700 feet east of Blantyre railroad station, Transylvania County, and 3 miles below Little River.

DRAINAGE AREA.—296 square miles.

RECORDS AVAILABLE.—December, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 26,500 second-feet Aug. 16 (gage height, 22.90 feet); minimum, 232 second-feet Oct. 7 and 8 (gage height, 2.89 feet).

1920–1928: Maximum discharge, that of Aug. 16, 1928; minimum, 143 second-feet Sept. 21, 1925 (gage height, 1.83 feet).

REMARKS.—Records good below and fair above 6,000 second-feet. Slight diurnal fluctuation during low-water periods probably due to operation of small mills on tributaries.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	265	300	531	1,460	788	760	1,140	1,430	990	1,140	1,230	1,270
2	265	300	680	1,050	706	733	1,050	1,230	1,050	960	960	1,820
3	248	356	2,160	930	654	680	960	1,140	1,730	872	901	2,720
4	265	356	2,390	816	628	706	901	1,080	1,840	816	1,020	2,280
5	248	318	1,730	788	628	706	872	1,050	1,660	990	990	2,240
6	248	300	1,270	788	680	680	844	1,240	1,460	901	1,020	4,480
7	248	300	1,050	760	654	654	1,280	2,750	1,230	844	1,110	4,410
8	282	300	2,470	733	1,140	628	1,430	2,940	1,140	960	930	2,560
9	531	300	1,590	1,020	960	1,510	1,140	2,060	1,050	1,110	1,230	2,040
10	336	300	1,200	872	816	1,330	1,390	1,660	990	1,050	1,270	1,760
11	282	300	1,080	816	760	1,110	1,800	1,460	1,270	1,050	1,430	1,520
12	1,670	300	1,110	788	706	1,020	1,980	1,330	1,080	960	1,080	1,450
13	1,950	282	1,050	760	706	930	1,520	1,230	1,080	1,050	1,080	1,390
14	788	282	960	733	960	930	1,360	1,174	1,270	1,050	930	1,390
15	603	336	1,270	706	990	872	1,270	1,110	1,080	872	2,200	1,330
16	508	462	2,240	680	872	960	1,140	1,080	1,560	788	17,900	1,330
17	418	1,730	1,730	680	816	930	1,080	1,050	1,230	760	7,340	1,240
18	397	2,060	1,360	680	844	1,360	1,020	1,080	1,080	816	4,610	1,210
19	397	1,080	1,170	680	733	1,140	960	1,050	990	733	3,240	1,180
20	356	816	1,050	706	654	990	1,080	1,020	901	733	2,360	1,150
21	356	680	960	603	706	901	1,080	990	844	816	1,940	1,060
22	336	603	872	554	706	872	1,770	1,360	816	816	1,620	1,030
23	318	554	872	603	1,680	844	2,090	2,240	960	930	1,520	1,000
24	336	531	788	654	1,330	816	1,950	2,090	901	818	1,560	971
25	318	531	760	1,140	1,080	816	1,430	1,520	901	901	1,590	914
26	318	485	733	816	960	872	1,270	1,390	872	844	1,560	886
27	318	440	706	733	901	1,020	1,630	1,230	788	1,110	1,980	859
28	318	462	680	680	844	872	1,950	1,200	760	1,140	1,480	832
29	300	462	901	578	788	788	1,520	1,110	1,300	990	1,360	859
30	300	462	930	680	------	1,560	1,360	1,110	1,910	872	1,270	832
31	300	------	1,840	680	------	1,460	------	1,020	------	1,960	1,330	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,950	248	446	1.51	1.74
November	2,060	282	533	1.80	2.01
December	2,470	531	1,230	4.16	4.80
January	1,460	554	780	2.64	3.04
February	1,680	628	851	2.88	3.11
March	1,560	628	950	3.21	3.70
April	2,090	844	1,340	4.53	5.05
May	2,940	990	1,400	4.73	5.45
June	1,910	760	1,160	3.92	4.37
July	1,960	733	956	3.23	3.72
August	17,900	901	2,260	7.64	8.81
September	4,480	832	1,600	5.41	6.04
The year	17,900	248	1,130	3.82	51.84

FRENCH BROAD RIVER AT ASHEVILLE, N. C.

LOCATION.—Chain gage at Bingham School bridge, 2¼ miles downstream from Southern Railway station at Asheville, Buncombe County.

DRAINAGE AREA.—949 square miles.

RECORDS AVAILABLE.—September, 1895, to December, 1901; January, 1905, to September, 1928. Records January, 1905, to September, 1922, were obtained at Smiths Bridge, 1½ miles upstream.

EXTREMES.—Maximum discharge during year, 42,700 second-feet Aug. 16 (gage height, 13.27 feet); minimum, 480 second-feet Oct. 7 (gage height, 0.50 foot). 1895–1901, 1905–1928: Maximum discharge (estimated), 110,000 second-feet July 16, 1916 (gage height, 23.1 feet); minimum, 239 second-feet in August and September, 1925 (gage height, 0.16 foot).

REMARKS.—Records good. Slight diurnal fluctuation caused by operation of mills on tributaries. Small diversion from tributaries for water supply.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	587	650	918	3,580	1,540	1,610	2,510	3,210	2,040	3,030	3,390	3,580
2	578	650	1,900	2,680	1,480	1,540	2,190	3,030	2,040	2,190	2,510	4,570
3	587	650	6,320	2,350	1,410	1,410	2,040	2,510	2,350	1,900	2,040	10,300
4	569	805	6,780	2,040	1,340	1,410	1,900	2,350	3,030	1,750	2,040	7,250
5	552	750	4,990	1,750	1,340	1,410	1,680	2,350	3,210	2,350	2,510	6,780
6	560	700	3,210	1,680	1,340	1,410	1,610	2,190	2,680	2,040	2,680	10,300
7	504	650	2,680	1,610	1,280	1,340	2,510	6,440	2,350	1,750	2,510	9,240
8	614	700	3,210	1,610	1,680	1,340	3,210	7,730	2,190	2,040	2,190	7,010
9	1,220	700	3,210	2,040	1,750	2,190	2,350	4,370	2,040	2,350	2,190	4,990
10	1,680	700	2,510	1,900	1,750	3,030	2,680	4,170	1,900	2,350	2,680	5,200
11	750	700	2,190	1,750	1,610	1,900	4,370	2,680	2,190	2,510	3,210	3,580
12	1,900	700	2,190	1,750	1,480	2,040	4,990	3,210	2,350	2,040	2,850	3,390
13	3,390	650	2,040	1,680	1,480	1,900	3,580	2,850	2,350	2,040	2,510	3,210
14	1,900	650	1,900	1,680	1,750	1,750	3,030	2,680	2,680	2,190	2,350	3,030
15	1,340	700	2,350	1,610	2,040	1,900	2,850	2,510	2,510	1,750	9,640	2,850
16	1,100	750	5,640	1,540	1,900	1,900	2,510	2,350	2,510	1,750	34,600	3,210
17	1,040	3,770	3,770	1,480	1,750	2,190	2,350	2,350	2,510	1,610	28,100	2,850
18	918	4,570	3,030	1,480	1,750	2,850	2,190	2,190	2,040	1,540	15,900	2,850
19	860	2,680	2,510	1,540	1,540	2,510	2,040	2,510	1,900	1,540	9,770	2,850
20	805	1,750	2,190	1,480	1,540	2,190	2,190	2,350	1,750	1,540	6,780	2,850
21	805	1,540	2,190	1,480	1,480	2,040	2,350	2,350	1,680	1,540	4,570	2,510
22	750	1,340	1,900	1,340	1,480	1,900	3,390	2,190	1,750	1,750	3,970	1,610
23	700	1,220	1,750	1,340	2,510	1,750	4,170	3,030	1,900	1,750	3,210	2,190
24	700	1,160	1,680	1,480	2,850	1,750	3,770	4,170	1,900	1,900	3,210	1,750
25	700	1,100	1,610	1,900	3,210	1,680	3,030	3,210	1,900	2,350	4,170	2,040
26	700	1,040	1,540	1,750	1,900	1,750	2,680	2,850	1,750	1,750	3,580	2,040
27	700	975	1,540	1,540	1,750	1,900	3,580	2,680	1,610	2,350	3,580	2,040
28	700	975	1,540	1,410	1,750	1,900	4,570	2,680	1,540	2,350	3,390	2,040
29	700	975	1,680	1,280	1,610	1,750	3,770	2,350	1,610	2,680	2,850	1,900
30	650	918	2,190	1,480	-------	3,390	3,030	2,350	5,420	2,040	2,680	1,900
31	650	-------	3,210	1,480	-------	3,390	-------	2,190	-------	3,580	3,030	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	3,390	504	942	0.993	1.14
November	4,570	650	1,170	1.23	1.37
December	6,780	918	2,720	2.87	3.31
January	3,580	1,280	1,730	1.82	2.10
February	3,210	1,280	1,730	1.82	1.96
March	3,390	1,340	1,970	2.08	2.40
April	4,990	1,610	2,900	3.06	3.41
May	7,730	2,190	3,030	3.19	3.68
June	5,420	1,540	2,260	2.38	2.66
July	3,580	1,540	2,070	2.18	2.51
August	34,600	2,040	5,760	6.07	7.00
September	10,300	1,610	4,000	4.21	4.70
The year	34,600	504	2,530	2.67	36.24

FRENCH BROAD RIVER NEAR NEWPORT, TENN.

LOCATION.—Water-stage recorder at highway bridge at Oldtown, on Newport-Morristown road, 2½ miles northeast of Newport, Cocke County, and 4 miles above mouth of Pigeon River. Zero of gage is 1,012.89 feet above mean sea level.

DRAINAGE AREA.—1,860 square miles.

RECORDS AVAILABLE.—September, 1900, to November, 1901; November, 1902, to December, 1905; August to December, 1907; and November, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 44,400 second-feet Aug. 16 (gage height, 7.5 feet); minimum, 630 second-feet Oct. 3 (gage height, 1.47 feet). 1900–1905, 1907, 1920–1928: Maximum discharge, 62,200 second-feet Apr. 8, 1903 (gage height, 12.0 feet); minimum, 210 second-feet Sept. 9, 1925.

REMARKS.—Records good below and fair above 35,000 second-feet. Discharge partly estimated Dec. 21–29, Jan. 2–9, Apr. 21 to May 8, and Sept. 21–30.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	782	818	1,420	6,970	2,700	2,130	5,400	5,860	3,530	8,170	5,560	5,100
2	748	818	2,580	4,210	2,760	2,030	4,210	5,250	3,360	4,950	4,060	7,640
3	682	981	9,680	3,140	2,560	1,890	3,580	4,360	3,420	3,780	3,090	12,600
4	737	1,220	10,300	3,060	2,320	1,850	3,200	3,920	4,360	3,170	2,830	14,600
5	715	1,160	8,910	2,760	2,250	1,850	2,910	3,530	4,500	3,920	3,220	13,400
6	737	994	5,860	2,560	2,580	1,850	2,760	3,640	4,360	4,500	3,610	17,900
7	715	878	4,210	2,580	2,880	1,810	2,630	10,600	3,780	3,420	3,780	14,600
8	737	866	3,780	2,580	2,910	1,710	3,780	17,500	3,440	3,360	3,220	12,200
9	1,200	903	4,800	3,010	3,360	2,700	3,640	11,800	3,280	3,530	3,060	8,910
10	1,430	942	3,780	3,310	3,220	4,950	3,310	7,820	3,090	4,060	3,920	6,330
11	1,280	890	3,140	3,090	2,780	4,060	4,800	5,860	3,500	3,780	3,560	5,400
12	994	903	2,830	2,760	2,530	3,360	8,350	4,950	4,360	3,530	4,360	4,800
13	3,780	968	2,830	2,580	2,340	2,960	6,650	4,360	4,500	3,780	3,780	4,500
14	3,920	903	2,760	2,510	2,320	2,780	5,100	3,920	4,650	5,400	3,220	4,210
15	2,250	878	3,420	2,340	2,580	2,700	4,500	3,640	4,360	4,060	3,010	4,060
16	1,560	854	12,200	2,290	2,680	2,580	3,920	3,440	3,780	3,170	35,300	4,210
17	1,350	1,500	10,300	2,200	2,480	2,830	3,560	3,330	3,780	2,660	34,900	5,100
18	1,170	6,650	9,680	2,630	2,320	6,330	3,250	3,500	3,640	2,440	28,000	4,210
19	1,110	4,950	4,500	3,440	2,200	5,560	3,040	4,360	3,200	2,480	14,200	3,920
20	1,080	2,830	3,640	3,470	2,200	4,360	3,090	8,910	3,140	2,680	10,300	5,100
21	1,010	2,130	3,310	2,990	2,060	3,640	3,220	5,860	3,090	2,730	6,810	4,650
22	955	1,810	3,010	2,530	1,990	3,220	3,140	4,500	3,040	2,510	5,400	3,780
23	929	1,650	2,700	2,340	2,060	3,040	4,800	4,500	3,040	3,560	4,500	3,420
24	866	1,480	2,480	2,270	3,640	2,760	5,860	5,710	3,220	2,880	4,210	3,170
25	890	1,500	2,340	2,580	3,200	2,580	5,560	5,250	3,060	2,730	5,250	2,990
26	866	1,400	2,200	2,960	2,730	2,600	4,360	4,650	3,060	3,010	5,710	2,860
27	854	1,330	2,030	2,630	2,460	2,910	3,920	5,710	3,040	3,200	5,100	2,800
28	866	1,270	1,980	2,340	2,320	2,930	6,970	8,720	2,990	3,640	4,950	2,760
29	830	1,190	2,270	2,220	2,220	2,760	8,350	5,400	6,490	3,360	4,360	2,680
30	842	1,220	2,730	2,270	-------	4,500	6,650	4,650	20,300	3,250	3,920	2,830
31	842	-------	5,560	2,480	-------	7,300	-------	4,060	-------	3,920	3,920	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	3,920	682	1,810	0.634	0.73
November	6,650	818	1,530	.823	.92
December	12,200	1,420	4,560	2.45	2.82
January	6,970	2,220	2,870	1.54	1.78
February	3,640	1,990	2,570	1.38	1.49
March	7,330	1,710	3,180	1.71	1.97
April	8,350	2,630	4,480	2.41	2.69
May	17,500	3,330	5,790	3.11	3.58
June	20,300	2,990	4,250	2.28	2.54
July	8,170	2,440	3,600	1.94	2.24
August	35,300	2,830	7,460	4.01	4.62
September	17,990	2,680	6,360	3.42	3.82
The year	35,300	682	3,990	2.15	29.20

FRENCH BROAD RIVER AT DANDRIDGE, TENN.

LOCATION.—Staff gage at highway bridge at Dandridge, Jefferson County. Zero of gage is 902.89 feet above mean sea level.

DRAINAGE AREA.—4,450 square miles.

RECORDS AVAILABLE.—October, 1918, to September, 1928.

EXTREMES.—Maximum discharge during year, 69,400 second-feet Aug. 17 (gage height, 17.2 feet); minimum, 1,440 second-feet Oct. 4 (gage height, 0.1 foot).

1918–1928: Maximum gage height, 18.7 feet Apr. 2, 1920 (discharge not determined); minimum discharge, 360 second-feet Sept. 9 and 10, 1925 (gage height, −0.6 foot).

Maximum stage known, 28.0 feet May 21, 1901.

REMARKS.—Records good below and fair above 30,000 second-feet. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,800	1,620	2,620	14,500	6,790	4,980	15,900	14,800	10,700	35,600	9,010	10,300
2	1,800	1,620	3,600	14,100	7,410	4,690	11,300	13,800	9,340	20,000	8,050	15,900
3	1,620	1,990	12,700	9,010	6,790	4,410	9,340	11,700	9,010	14,500	6,480	20,800
4	1,440	2,190	21,200	6,480	6,170	4,410	8,370	10,000	11,000	9,340	5,570	27,700
5	1,620	2,620	17,800	5,270	5,870	3,860	7,730	9,010	13,100	8,690	6,170	18,900
6	1,620	2,400	15,900	5,270	5,870	4,410	6,790	8,050	11,700	15,200	7,100	33,800
7	1,620	2,190	11,300	5,570	10,000	4,130	6,480	9,010	10,700	11,000	7,730	31,600
8	1,620	1,990	9,340	5,870	10,300	3,860	8,370	33,400	9,010	8,690	5,270	22,400
9	1,800	2,190	9,670	5,570	9,340	5,570	7,100	29,400	8,370	9,670	6,790	16,600
10	2,850	2,400	9,670	8,050	9,010	12,000	8,690	20,000	8,050	12,000	7,100	12,700
11	2,850	2,400	7,410	7,730	7,410	12,000	9,670	14,800	8,370	11,700	7,410	11,000
12	2,400	2,190	6,480	7,100	6,480	8,370	18,500	12,400	10,300	9,340	7,410	9,670
13	2,620	1,990	6,790	6,480	5,870	7,410	19,300	10,700	11,000	8,370	7,730	8,690
14	6,480	1,990	6,480	5,570	6,170	7,100	13,800	9,340	11,000	9,340	7,730	8,050
15	5,870	1,620	6,790	5,570	5,870	8,050	13,800	8,690	12,400	10,700	6,790	7,730
16	3,860	1,990	12,700	5,270	6,170	7,410	11,700	7,410	10,300	8,370	20,800	8,050
17	2,850	2,620	26,900	5,270	6,170	7,100	9,670	7,410	9,340	7,100	69,000	8,370
18	2,850	9,340	18,500	5,570	5,870	16,300	8,690	7,730	8,690	6,480	42,000	9,010
19	2,620	14,100	12,400	6,790	5,570	15,900	8,050	8,050	7,730	5,870	24,000	8,050
20	2,190	8,050	9,670	9,010	5,270	13,400	7,730	20,000	6,790	5,570	19,300	8,370
21	2,190	5,570	7,730	5,570	5,270	9,340	8,370	22,000	6,170	6,170	15,200	12,000
22	2,190	4,980	7,100	5,270	4,980	8,370	8,370	14,500	9,340	6,170	11,700	10,000
23	2,190	4,410	6,480	5,270	4,980	7,730	8,050	13,100	9,670	5,570	10,300	7,730
24	2,190	3,860	6,170	5,270	5,570	7,100	12,700	14,500	7,100	9,010	9,010	6,790
25	1,990	3,090	5,570	6,170	6,790	6,790	12,400	13,400	7,730	5,870	8,370	6,790
26	1,990	3,600	4,980	7,410	6,170	6,480	10,700	11,300	7,100	5,870	10,300	6,170
27	1,990	3,340	4,980	6,790	5,570	8,690	9,010	11,300	6,790	6,170	9,670	5,870
28	1,990	2,850	4,690	6,170	5,270	8,690	14,100	30,300	6,170	6,790	9,010	5,570
29	1,990	3,090	4,980	5,570	4,980	7,730	20,000	23,200	8,690	8,050	8,370	5,570
30	1,990	2,850	6,170	5,270	-------	8,050	17,000	17,000	51,800	7,100	7,100	5,270
31	1,800	-------	8,690	5,870	-------	18,500	-------	12,700	-------	6,170	7,100	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	6,480	1,440	2,420	0.544	0.63
November	14,100	1,620	3,500	.787	.88
December	26,900	2,620	9,530	2.14	2.47
January	14,500	5,270	6,730	1.51	1.74
February	10,300	4,980	6,480	1.46	1.58
March	18,500	3,860	8,160	1.83	2.11
April	20,000	6,480	11,100	2.49	2.78
May	33,400	7,410	14,500	3.26	3.76
June	51,800	6,170	10,600	2.38	2.66
July	35,600	5,570	9,690	2.18	2.51
August	69,000	5,270	12,500	2.81	3.24
September	33,800	5,270	12,300	2.76	3.08
The year	69,000	1,440	8,960	2.01	27.44

TENNESSEE RIVER AT KNOXVILLE, TENN.

LOCATION.—Water-stage recorder at Knoxville Water Co.'s intake, half a mile above Gay Street Bridge in Knoxville, Knox County. Zero of gage is 797.45 feet above mean sea level.

DRAINAGE AREA.—8,990 square miles.

RECORDS AVAILABLE.—January, 1899, to December, 1912; October, 1918, to September, 1928.

EXTREMES.—Maximum discharge during year, 99,800 second-feet June 30 (gage height, 18.8 feet); minimum, 2,920 second-feet Nov. 2 (gage height, −0.30 foot).

1899–1928: Maximum discharge, 195,000 second-feet Mar. 1, 1902 (gage height, 36.4 feet); minimum, 1,390 second-feet Sept. 11, 1925 (gage height, −1.7 feet).

Maximum stage known, 44.4 feet Mar. 10, 1867.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,410	3,080	4,950	25,600	11,100	8,690	28,700	30,800	18,300	74,000	11,100	14,600
2	3,320	2,920	6,020	22,700	12,000	8,500	22,200	28,200	16,400	39,800	11,100	24,100
3	3,320	3,240	12,400	16,900	11,600	8,130	17,400	23,200	17,400	25,600	9,680	36,600
4	3,320	3,580	23,200	11,600	11,100	7,950	15,100	18,800	22,700	18,800	8,880	57,600
5	3,320	4,130	27,200	9,480	10,700	7,610	13,300	16,400	26,100	17,800	9,890	42,500
6	3,320	4,330	23,200	9,080	11,100	7,610	12,400	14,600	25,100	23,600	10,300	45,200
7	3,410	4,430	18,800	10,300	15,100	7,290	11,600	16,400	21,700	19,700	11,600	58,700
8	3,410	3,760	16,000	10,700	20,200	7,140	12,000	39,300	18,800	16,400	11,600	46,900
9	3,410	3,940	14,600	11,100	21,700	11,600	14,200	45,200	16,400	17,400	11,100	32,300
10	4,130	4,130	15,100	13,300	18,800	16,400	14,600	35,000	15,500	18,800	10,700	23,600
11	4,330	4,530	12,800	13,700	16,000	18,800	16,900	25,600	15,500	21,200	10,700	19,300
12	4,740	4,640	11,100	12,800	14,200	16,000	25,100	20,700	16,400	18,800	10,500	16,900
13	5,170	4,640	11,100	11,600	12,800	13,700	35,000	17,400	16,900	16,400	10,700	15,100
14	9,480	4,040	11,600	10,700	12,400	12,800	32,900	15,100	25,100	17,400	11,600	14,200
15	8,880	3,580	13,700	10,500	11,600	13,300	30,200	14,200	24,600	17,400	1,0700	13,300
16	7,290	3,580	24,100	9,890	11,600	14,200	25,100	12,800	18,800	15,500	19,700	13,700
17	5,520	4,640	43,000	9,680	11,600	14,200	19,700	12,400	16,000	14,200	71,600	12,800
18	4,640	8,690	43,600	9,680	11,100	22,200	16,400	12,400	15,100	12,400	69,800	13,300
19	4,740	17,800	27,200	11,600	10,500	30,800	15,100	12,800	14,200	11,600	41,400	12,000
20	4,230	16,000	18,800	13,700	9,890	26,600	14,600	19,300	12,400	11,100	29,700	11,600
21	3,940	11,100	14,600	14,600	9,680	19,700	18,800	32,900	11,600	11,600	26,600	16,900
22	3,850	9,080	12,800	15,100	9,280	16,900	22,700	28,700	11,100	12,000	19,700	23,600
23	3,850	7,610	11,600	12,800	8,880	15,500	20,700	25,100	11,600	10,700	16,400	17,800
24	3,670	6,700	10,700	11,600	9,280	14,600	23,200	23,200	12,400	11,100	15,100	14,200
25	3,500	6,280	9,890	12,000	10,500	14,200	22,200	21,700	16,000	10,100	13,700	12,000
26	3,760	5,760	8,880	12,400	10,300	14,200	19,300	19,300	14,200	10,100	13,700	11,100
27	3,500	5,640	8,500	12,800	9,890	15,500	17,800	22,200	12,400	11,600	13,700	10,500
28	3,580	5,280	8,130	11,600	9,480	16,000	22,200	42,000	11,100	11,600	13,300	9,890
29	3,580	5,060	8,310	10,700	9,080	14,600	32,900	41,400	32,900	12,400	12,800	9,480
30	3,580	4,950	9,280	9,480	-------	15,500	35,500	30,200	92,000	10,700	12,000	9,480
31	3,410	-------	17,800	9,890	-------	22,700	-------	22,700	-------	9,890	11,600	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	9,480	3,320	4,310	0.479	0.55
November	17,800	2,920	5,900	.656	.73
December	43,600	4,950	16,100	1.79	2.06
January	25,600	9,080	12,500	1.39	1.60
February	21,700	8,880	12,100	1.35	1.46
March	30,800	7,140	14,600	1.62	1.87
April	35,500	11,600	20,900	2.32	2.59
May	45,200	12,400	23,900	2.66	3.07
June	92,000	11,100	20,000	2.22	2.48
July	74,000	9,890	17,700	1.97	2.27
August	71,600	8,880	18,100	2.01	2.32
September	58,700	9,480	22,000	2.45	2.73
The year	92,000	2,920	15,700	1.75	23.73

TENNESSEE RIVER AT LOUDON, TENN.

LOCATION.—Staff gage at Huffs Ferry, half a mile northwest of Loudon, Loudon County. Zero of gage is 726.0 feet above mean sea level.

DRAINAGE AREA.—12,300 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year, 111,000 second-feet July 1 (gage height, 19.2 feet); minimum, 4,650 second-feet Oct. 7 (gage height, 1.66 feet).

1922–1928: Maximum discharge, 121,000 second-feet Dec. 26, 1926 (gage height, 20.7 feet); minimum, 2,190 second-feet Sept. 12, 1925 (gage height, 0.82 foot).

REMARKS.—Records fair. Low-water flow slightly affected by regulation on Little Tennessee and Cheoah Rivers.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,360	5,360	7,610	47,100	18,300	12,800	42,000	46,400	29,800	104,000	16,600	22,800
2	5,360	5,000	9,740	37,000	18,800	12,800	38,300	45,800	28,000	66,600	17,200	45,200
3	5,360	5,360	18,800	29,200	18,300	12,300	29,800	38,300	27,400	40,800	16,100	62,000
4	5,360	6,460	31,600	21,000	17,200	11,800	25,000	32,200	34,600	30,400	15,000	80,900
5	5,360	6,840	38,300	16,600	16,600	11,200	22,800	28,000	42,700	25,600	15,000	64,000
6	5,000	6,840	34,000	12,300	15,000	11,800	20,000	25,000	40,800	29,200	16,100	64,000
7	4,650	6,460	28,600	15,600	18,800	11,200	19,400	27,400	37,700	31,000	17,200	73,100
8	5,000	6,840	23,900	16,100	27,400	11,200	22,800	51,000	35,800	25,000	18,300	68,600
9	5,360	6,090	22,800	17,200	31,600	16,100	21,600	65,300	27,400	25,600	16,600	50,400
10	5,360	6,460	20,500	20,500	29,800	27,400	23,900	54,900	26,200	28,000	16,100	38,300
11	5,720	6,840	20,000	20,500	25,600	28,600	28,000	43,300	26,200	29,200	17,800	29,800
12	6,090	6,840	17,800	20,000	22,200	28,600	40,200	34,600	30,400	28,600	16,100	26,200
13	7,220	6,840	20,000	18,300	20,000	22,800	43,900	29,800	29,800	25,000	15,600	23,300
14	11,200	6,840	18,800	17,200	18,800	20,500	47,800	26,200	36,400	26,800	16,100	21,000
15	11,800	6,460	19,400	16,100	18,300	20,500	46,400	23,300	45,800	26,200	17,200	20,000
16	10,700	6,090	42,000	15,000	17,800	21,000	40,200	22,200	35,200	23,300	28,000	20,000
17	8,840	7,220	62,000	14,500	17,800	22,800	33,400	20,500	35,200	20,500	73,800	20,500
18	7,610	17,800	60,100	16,100	17,200	26,200	28,600	20,000	26,200	18,300	88,700	20,500
19	6,840	18,300	45,200	17,200	16,100	39,600	25,000	21,600	23,300	16,600	65,300	18,300
20	6,840	26,200	32,200	20,500	15,000	38,900	25,000	26,200	21,600	16,100	43,900	17,200
21	6,460	17,200	25,000	21,600	14,500	32,200	26,200	40,800	20,000	16,100	37,000	18,800
22	6,090	12,800	20,500	22,200	14,500	26,200	34,000	41,400	19,400	17,200	31,000	29,800
23	6,090	11,200	18,300	19,400	13,900	23,900	36,400	38,300	18,300	17,200	24,500	26,800
24	5,720	9,740	16,100	18,300	15,000	22,800	37,000	35,800	20,000	16,100	22,200	21,600
25	5,720	9,280	15,600	18,300	15,000	21,600	37,000	34,000	26,200	16,100	21,000	18,300
26	5,360	8,840	13,900	18,800	15,600	22,200	32,200	31,000	26,800	14,500	22,200	17,200
27	5,720	8,420	12,800	18,300	14,500	23,300	29,200	29,200	22,200	19,400	21,600	15,600
28	5,360	8,010	12,300	18,300	13,900	25,000	33,400	44,600	18,800	21,000	20,000	15,000
29	5,360	8,010	12,800	16,100	13,400	23,300	40,200	54,200	28,000	18,800	19,400	13,900
30	5,360	7,610	15,600	13,900	-------	23,900	47,100	45,800	85,400	16,600	18,300	13,900
31	5,360	-------	23,300	15,000	-------	44,600	-------	35,800	-------	15,600	17,800	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	11,800	4,650	6,380	0.519	0.60
November	26,200	5,000	9,080	.738	.82
December	62,000	7,610	24,500	1.99	2.29
January	47,100	12,300	19,600	1.59	1.83
February	31,600	13,400	18,300	1.49	1.61
March	44,600	11,200	22,500	1.83	2.11
April	47,800	19,400	32,600	2.65	2.96
May	65,300	20,000	35,900	2.92	3.37
June	85,400	18,300	30,900	2.51	2.80
July	104,000	14,500	26,600	2.16	2.49
August	88,700	15,000	25,900	2.11	2.43
September	80,900	13,900	32,600	2.65	2.96
The year	104,000	4,650	23,700	1.93	26.27

TENNESSEE RIVER AT CHATTANOOGA, TENN.

LOCATION.—Two water-stage recorders, one at Walnut Street Bridge in Chattanooga, Hamilton County, the other at Hales Bar, 33 miles downstream. Zero of Chattanooga gage is 620.85 feet and of Hales Bar gage is 626.06 feet above mean sea level.

DRAINAGE AREA.—21,400 square miles.

RECORDS AVAILABLE.—April, 1874, to October, 1913; March, 1915, to September, 1928.

EXTREMES.—Maximum discharge during year, 184,000 second-feet July 2 (gage height, 30.8 feet, on Chattanooga gage); minimum, 6,360 second-feet Oct. 8. 1874–1928: Maximum discharge, 361,000 second-feet Mar. 1, 1875 (gage height, 54.0 feet, on Chattanooga gage); minimum (estimated), 3,300 second-feet Sept. 13, 1925.

REMARKS.—Records good. Discharge estimated Oct. 17–30, Nov. 15 to Dec. 22, and Jan. 22–28. Flow during low stages regulated to large extent by operation of power plant at Hales Bar Dam.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,160	6,960	11,400	82,800	32,400	25,100	84,200	82,700	59,600	159,000	25,700	33,200
2	8,260	7,420	13,200	93,500	33,700	23,900	78,600	87,500	52,200	181,000	25,500	50,000
3	8,160	9,010	20,500	78,000	33,400	23,600	73,900	83,700	54,900	157,000	25,500	84,800
4	8,680	9,510	27,400	60,200	32,600	21,800	61,700	73,800	72,000	94,500	25,500	118,000
5	7,580	8,290	40,700	47,000	30,800	20,400	49,900	60,100	107,000	62,000	23,100	123,000
6	7,420	7,680	48,500	36,400	28,000	20,200	44,300	49,500	108,000	48,500	22,100	108,000
7	7,400	7,220	47,900	30,400	27,800	20,300	40,400	46,100	91,100	49,300	24,300	102,000
8	6,360	8,020	45,800	27,600	38,900	19,400	38,500	47,300	74,200	56,400	25,100	102,000
9	7,320	8,360	41,100	27,900	56,100	31,200	40,000	64,400	61,400	50,800	26,000	96,800
10	7,430	9,040	35,600	30,000	63,500	57,000	41,100	82,100	52,100	50,900	25,200	78,900
11	6,730	8,780	32,200	33,400	62,400	64,600	46,000	77,700	48,100	51,000	25,500	60,200
12	7,890	9,070	31,600	33,900	54,200	59,400	63,700	64,400	46,000	48,500	25,500	48,400
13	9,390	9,010	34,200	33,000	46,400	54,100	73,200	52,600	46,000	46,600	24,800	41,300
14	9,550	8,400	35,500	32,000	41,200	49,400	82,000	46,000	60,700	44,100	23,800	34,700
15	11,100	7,750	36,900	28,900	38,500	45,500	96,600	41,800	80,300	46,200	23,900	33,700
16	13,800	8,160	59,900	27,300	36,300	43,400	95,000	37,800	84,100	45,000	27,800	31,200
17	13,200	19,400	92,200	26,900	34,100	50,500	82,100	35,100	69,500	40,000	36,000	29,600
18	14,500	38,500	104,000	26,300	33,500	58,700	70,900	33,400	54,500	36,200	71,500	31,000
19	14,300	40,400	97,500	28,600	30,600	61,200	60,600	32,200	46,400	32,900	96,600	30,900
20	11,100	30,700	82,600	32,100	29,300	70,800	51,500	33,000	40,500	30,000	88,900	30,000
21	11,900	31,400	61,800	36,700	27,900	72,800	49,800	42,900	36,700	28,500	69,000	27,300
22	11,900	27,900	46,500	38,800	26,300	63,500	61,600	55,800	34,400	27,500	54,900	26,300
23	9,490	22,600	38,000	40,700	27,300	53,200	92,300	67,800	32,400	30,200	47,000	30,700
24	10,600	20,300	32,000	41,300	27,200	46,700	107,000	66,800	30,400	31,800	39,400	36,500
25	11,000	17,500	26,700	41,900	26,800	42,000	96,500	58,300	36,800	29,900	35,500	33,500
26	9,660	14,400	25,700	42,800	25,700	41,800	82,300	52,200	47,500	29,500	33,700	29,300
27	11,000	10,900	23,900	42,800	26,300	45,600	72,400	47,400	54,300	28,600	32,300	26,300
28	9,350	11,300	22,800	41,000	26,000	47,700	65,000	45,900	46,500	35,700	31,200	24,300
29	11,600	12,500	24,100	37,200	25,100	48,100	65,100	59,000	47,100	36,000	28,600	22,300
30	8,100	12,300	33,600	32,700	-------	48,600	70,200	75,600	97,500	31,700	27,100	20,800
31	6,610	-------	52,100	30,600	-------	67,100	-------	71,600	-------	28,800	26,300	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	14,500	6,360	9,660	0.452	0.52
November	40,400	6,960	14,800	.692	.77
December	104,000	11,400	42,800	2.00	2.31
January	93,500	26,300	40,100	1.87	2.16
February	63,500	25,100	35,300	1.65	1.78
March	72,800	19,400	45,100	2.11	2.43
April	107,000	38,500	67,900	3.17	3.54
May	87,500	32,200	57,200	2.67	3.08
June	108,000	30,400	59,100	2.76	3.08
July	181,000	27,500	53,800	2.51	2.89
August	96,600	22,100	36,000	1.68	1.94
September	123,000	20,800	51,500	2.41	2.69
The year	181,000	6,360	42,700	2.00	27.19

TENNESSEE RIVER AT DECATUR, ALA.

LOCATION.—Water-stage recorder at highway bridge at Decatur, Morgan County, 2,500 feet above Louisville & Nashville Railroad bridge. Zero of gage is 534.06 feet above mean sea level.

DRAINAGE AREA.—26,300 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1928.

EXTREMES.—Maximum discharge during year, 170,000 second-feet Apr. 25 (gage height, 18.1 feet); minimum mean daily discharge, 7,750 second-feet Nov. 2–4.

1924–1928: Maximum discharge, 283,000 second-feet Jan. 1, 1927 (gage height, 23.2 feet); minimum, 3,520 second-feet Aug. 19–24, Sept. 7–13 and 19, 1925 (gage height, −0.4 foot).

Maximum stage known, 29.5 feet Mar. 15, 1867.

REMARKS.—Records good. Discharge partly estimated Oct. 1–27, Nov. 27 to Jan. 6, and Mar. 24–27. Some diurnal fluctuation caused by operation of power plant at Hales Bar Dam, 100 miles upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,320	8,420	14,500	68,200	46,100	33,500	72,000	82,000	76,000	86,000	38,500	36,300
2	9,320	7,750	14,500	90,000	46,900	32,800	84,000	91,100	74,000	120,000	34,900	43,800
3	9,320	7,750	15,600	110,000	46,100	31,400	88,000	97,700	74,000	143,000	31,400	58,400
4	9,320	7,750	18,900	96,600	44,500	30,700	84,000	96,600	84,000	155,000	30,000	83,000
5	9,100	7,980	24,800	88,000	43,000	31,400	76,000	90,000	104,000	154,000	28,700	105,000
6	8,880	8,420	30,000	70,000	42,200	30,700	64,600	76,000	127,000	122,000	28,000	117,000
7	8,880	8,650	43,000	54,200	41,500	27,400	59,300	66,400	136,000	82,000	26,800	118,000
8	8,650	8,200	52,500	46,100	42,200	26,100	56,800	58,400	130,000	61,000	26,800	112,000
9	8,650	9,100	54,200	43,000	50,100	34,900	52,500	54,200	111,000	61,900	27,400	106,000
10	8,650	9,320	50,900	42,200	63,700	57,600	50,900	59,300	90,000	62,800	28,700	102,000
11	8,650	10,000	46,100	41,500	73,000	82,000	57,600	74,000	76,000	59,300	30,700	94,400
12	8,200	10,800	41,500	42,200	74,000	93,300	65,500	81,000	70,000	58,400	30,700	79,000
13	8,200	11,000	40,000	43,000	68,200	89,000	78,000	76,000	63,700	56,800	30,000	62,800
14	8,650	10,800	43,000	43,000	61,900	79,000	91,100	64,600	64,600	54,200	29,400	51,700
15	8,650	9,550	46,100	41,500	55,900	70,000	108,000	55,000	77,000	51,700	28,700	44,500
16	9,100	10,500	61,000	39,200	51,700	70,000	117,000	49,300	91,100	49,300	28,000	40,800
17	9,550	14,500	81,000	36,300	48,500	74,000	119,000	44,500	95,500	50,900	28,000	37,000
18	9,550	26,100	102,000	34,200	46,100	80,000	112,000	40,800	89,000	48,500	31,400	34,900
19	14,000	41,500	114,000	34,200	43,000	83,000	95,500	39,200	76,000	44,500	50,900	33,500
20	14,000	55,000	117,000	34,900	40,000	84,000	82,000	38,500	61,900	40,800	84,000	33,500
21	14,000	50,100	109,000	37,000	37,800	84,000	77,000	38,500	53,400	37,000	95,500	33,500
22	13,000	40,800	90,000	39,200	36,300	84,000	96,600	43,800	46,900	34,900	86,000	32,100
23	10,500	37,000	70,000	42,200	35,600	81,000	134,000	56,800	45,300	34,900	70,000	30,000
24	9,550	32,100	55,900	46,100	37,800	72,000	165,000	71,000	46,100	34,900	57,600	28,700
25	9,100	28,000	46,100	49,300	40,000	62,800	168,000	75,000	59,300	37,800	49,300	32,800
26	8,650	25,400	38,500	50,900	40,000	54,200	158,000	70,000	68,200	38,500	43,800	37,000
27	8,650	23,600	34,200	50,900	37,000	52,500	138,000	62,800	69,100	39,200	40,800	34,900
28	8,650	20,000	32,800	51,700	35,600	52,500	114,000	56,800	70,000	43,800	38,500	31,400
29	8,880	15,600	31,400	50,100	34,900	55,000	94,400	53,400	66,400	43,000	37,000	28,700
30	8,650	14,500	35,600	46,900	-------	62,800	82,000	55,000	65,500	43,000	35,600	26,800
31	8,420	-------	42,200	46,100	-------	71,000	-------	68,200	-------	41,500	34,200	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	14,000	8,200	9,570	0.364	0.42
November	55,000	7,750	19,000	.722	.81
December	117,000	14,500	51,500	1.96	2.26
January	110,000	34,200	51,900	1.97	2.27
February	74,000	34,900	47,000	1.79	1.93
March	93,300	26,100	60,400	2.30	2.65
April	168,000	50,900	94,700	3.60	4.02
May	97,700	38,500	64,100	2.44	2.81
June	136,000	45,300	78,700	2.99	3.34
July	155,000	34,900	64,200	2.44	2.81
August	95,500	26,800	40,700	1.55	1.79
September	118,000	26,800	57,000	2.17	2.42
The year	168,000	7,750	53,200	2.02	27.53

TENNESSEE RIVER AT FLORENCE, ALA.

LOCATION.—Water-stage recorder 700 feet above Southern Railway bridge at lower end of Pattons Island, 1 mile south of Florence, Lauderdale County, and 2½ miles below Wilson Dam. Zero of gage is 400.85 feet above mean sea level.

DRAINAGE AREA.—30,800 square miles.

RECORDS AVAILABLE.—November, 1871, to September, 1928.

EXTREMES.—Maximum discharge during year, 217,000 second-feet Apr. 24 (gage height, 18.4 feet); minimum, 8,280 second-feet, regulated flow, Nov. 6 (gage height, −0.71 foot).

1871–1928: Maximum discharge, about 444,000 second-feet Mar. 19, 1897 (gage height, 32.5 feet); minimum, 2,400 second-feet, caused by storing at Wilson Dam, Oct. 8, 1925 (gage height, −3.0 feet).

REMARKS.—Records good. Discharge estimated Mar. 10 and 11. Flow regulated to considerable extent by operation of gates at Wilson Dam and of power plant at Hales Bar Dam.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,100	9,670	17,600	108,000	51,400	34,600	79,100	101,000	79,100	83,600	40,400	36,200
2	9,880	9,670	16,400	120,000	52,300	33,800	87,000	108,000	85,900	121,000	37,000	49,400
3	10,100	9,670	14,200	122,000	50,400	32,200	96,500	113,000	88,200	145,000	33,000	60,100
4	10,300	9,460	18,200	121,000	49,400	32,200	90,500	108,000	108,000	163,000	29,900	82,400
5	10,300	9,670	25,500	100,000	46,700	32,200	84,800	96,500	132,000	164,000	31,400	109,000
6	10,100	9,050	30,600	76,900	45,800	43,100	73,600	83,600	146,000	145,000	32,200	123,000
7	10,100	10,100	42,200	61,100	45,800	28,400	58,100	74,700	153,000	98,900	30,600	129,000
8	10,300	10,500	53,200	53,200	45,800	30,600	57,100	64,100	150,000	71,400	30,600	121,000
9	9,260	11,200	54,200	49,400	52,300	66,200	56,100	58,100	130,000	67,200	28,400	112,000
10	9,880	12,000	52,300	49,400	65,200	101,000	55,200	59,100	109,000	69,400	26,900	104,000
11	10,300	12,200	49,400	46,700	76,900	116,000	66,200	74,700	105,000	61,100	27,600	98,900
12	10,800	11,700	45,800	44,900	79,100	112,000	78,000	92,900	96,500	61,100	28,400	84,800
13	10,500	11,400	45,800	47,600	76,900	105,000	85,900	88,200	80,200	58,100	28,400	66,200
14	11,200	12,200	47,600	46,700	66,200	90,500	106,000	71,400	97,700	56,100	26,900	54,200
15	11,400	10,100	54,200	44,000	61,100	80,200	126,000	60,100	106,000	49,400	26,900	46,700
16	11,000	13,700	75,800	42,200	54,200	88,200	134,000	53,200	112,000	45,800	28,400	45,800
17	11,200	16,400	95,300	37,900	50,400	100,000	135,000	46,600	109,000	46,700	26,900	41,300
18	11,400	29,900	114,000	37,900	46,700	100,000	129,000	43,100	105,000	49,400	31,400	37,900
19	13,700	42,200	127,000	36,200	44,900	100,000	112,000	44,900	83,600	46,700	46,700	33,000
20	14,200	58,100	130,000	36,200	42,200	98,900	94,100	42,200	72,500	41,300	82,400	32,200
21	14,800	58,100	121,000	39,600	38,800	92,900	95,300	39,600	60,100	37,900	105,000	33,000
22	13,700	44,900	98,900	40,400	38,800	92,900	145,000	44,000	52,300	39,600	95,300	33,000
23	10,800	39,600	76,900	43,100	37,000	89,400	190,000	63,100	52,300	40,400	74,700	26,200
24	10,500	34,600	59,100	47,600	38,800	80,200	212,000	78,000	60,100	39,600	66,200	24,100
25	10,500	30,600	49,400	51,400	43,100	69,400	211,000	80,200	75,800	38,800	51,400	26,200
26	11,000	27,600	41,300	55,200	42,200	61,100	198,000	80,200	84,800	38,800	42,200	35,400
27	10,500	25,500	35,400	55,200	38,800	57,100	170,000	74,700	76,900	41,300	37,000	35,400
28	9,670	20,800	36,200	55,200	37,000	56,100	139,000	62,100	76,900	44,900	34,600	33,000
29	9,460	18,800	39,600	54,200	36,200	59,100	118,000	56,100	73,600	40,400	37,000	29,900
30	9,460	17,000	48,500	50,400	-------	70,400	97,700	55,200	75,800	37,900	36,200	29,900
31	9,460	-------	92,900	48,500	-------	88,200	--------	67,200	--------	38,800	40,400	--------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	14,800	9,260	10,800	0.351	0.40
November	58,100	9,050	21,200	.688	.77
December	130,000	14,200	58,300	1.89	2.18
January	122,000	36,200	58,800	1.91	2.20
February	79,100	36,200	50,200	1.63	1.76
March	116,000	28,400	72,300	2.35	2.71
April	212,000	55,200	113,000	3.67	4.10
May	113,000	39,600	70,500	2.29	2.64
June	153,000	52,300	94,600	3.07	3.42
July	164,000	37,900	67,200	2.18	2.51
August	105,000	26,900	41,800	1.36	1.57
September	129,000	24,100	59,100	1.92	2.14
The year	212,000	9,050	59,700	1.94	26.40

TENNESSEE RIVER AT RIVERTON, ALA.

LOCATION.—Water-stage recorder at Government lock at foot of Colbert Shoals Canal, three-fourths mile northeast of Riverton, Colbert County, and 1¾ miles above mouth of Bear Creek. Zero of gage is 355.5 feet above mean sea level.

DRAINAGE AREA.—31,300 square miles.

RECORDS AVAILABLE.—October, 1926, to September, 1928.

EXTREMES.—Maximum stage during year, 37.7 feet Apr. 25; minimum, 7.5 feet Nov. 6 and 7.

1926–1928: Maximum stage, 50.1 feet Dec. 30, 1926; minimum, that of Nov. 6 and 7, 1927.

The United States Weather Bureau reports a maximum stage of 58.4 feet Mar. 20, 1897, and a minimum stage of 4.3 feet Oct. 12, 1925.

REMARKS.—Rating curve not developed because of lack of facilities for making discharge measurements. Gage-height record estimated or partly estimated Oct. 24 to Nov. 1, Nov. 8–12, 29, 30, Jan. 1–7, Mar. 9, 10, and June 30 to July 7. Considerable regulation during low water, caused by operations at Wilson Dam.

Daily gage height, in feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	7.6	9.8	24.4	16.0	13.4	20.5	23.9	19.3	20.2	14.1	14.2
2	7.8	7.7	9.8	25.4	16.1	13.2	20.5	24.2	21.1	23.3	13.8	14.8
3	7.9	7.7	9.0	25.7	16.0	13.0	21.9	24.7	21.9	27.7	13.0	16.6
4	7.9	7.7	9.3	25.9	15.7	13.0	21.7	24.3	23.9	29.2	12.3	19.2
5	7.9	7.6	10.8	23.9	15.5	12.8	21.0	23.1	26.7	30.3	12.4	22.5
6	7.8	7.6	12.1	20.6	15.1	14.5	19.7	21.5	28.5	29.6	12.6	24.7
7	7.9	7.6	13.6	18.5	15.2	12.4	17.9	19.9	29.7	25.4	12.7	25.7
8	8.0	8.2	15.8	17.0	15.2	11.9	16.9	18.4	29.6	20.2	12.2	25.5
9	7.8	8.4	16.4	16.4	15.9	17.2	16.8	17.4	28.0	18.2	12.2	24.4
10	7.7	8.4	16.1	16.3	17.5	23.8	16.7	16.9	25.4	18.6	11.8	23.4
11	7.8	8.6	15.7	15.7	19.2	25.2	17.6	18.4	24.4	17.7	11.7	22.7
12	8.1	8.4	15.4	15.4	20.0	25.2	19.4	20.8	23.8	17.3	12.0	21.3
13	8.1	8.4	14.9	15.3	19.9	24.4	20.7	21.5	21.6	17.0	12.0	19.0
14	8.0	8.3	15.5	15.4	18.7	22.8	22.9	19.5	22.5	16.8	11.8	16.8
15	8.4	8.5	16.2	15.2	17.7	20.9	25.6	17.7	24.0	15.9	11.6	15.4
16	8.1	9.1	18.0	14.6	16.7	21.2	27.2	16.5	24.4	15.2	11.9	15.0
17	8.1	10.1	21.2	14.3	16.2	23.1	27.5	15.5	24.2	15.1	11.8	14.5
18	8.2	11.3	23.6	13.9	15.4	23.4	27.1	14.8	24.0	15.5	12.1	13.8
19	8.5	14.0	25.3	13.7	15.1	23.3	25.3	15.0	21.9	15.3	13.9	13.1
20	9.0	16.2	26.2	13.4	14.6	22.9	23.0	15.1	19.6	14.7	18.8	12.6
21	9.1	17.1	25.7	14.0	14.0	22.2	23.0	14.7	17.8	13.9	22.5	12.8
22	9.0	15.6	23.7	14.1	13.9	21.9	28.4	14.8	16.5	13.9	22.8	12.8
23	8.4	14.2	20.9	14.3	13.6	21.7	33.9	17.1	16.3	14.1	20.0	12.0
24	7.8	13.5	17.9	14.7	13.8	20.6	36.7	19.2	17.0	14.3	18.6	11.3
25	7.8	12.7	16.2	15.5	14.4	19.2	37.6	20.2	19.4	13.8	16.5	11.1
26	8.0	12.0	14.9	16.1	14.6	18.0	37.0	20.3	21.0	14.0	14.9	12.9
27	8.0	11.6	13.6	16.3	14.3	17.2	35.1	19.8	20.7	14.2	13.8	13.4
28	7.9	10.8	13.3	16.4	13.8	17.0	32.1	18.4	19.8	14.6	13.2	12.9
29	7.7	10.2	14.5	16.4	13.7	17.0	28.2	17.0	19.6	14.4	13.4	12.4
30	7.7	9.7	15.5	15.9	-------	18.2	24.8	16.6	19.3	13.8	13.4	12.1
31	7.6	-------	21.2	15.7	-------	20.9	-------	17.5	-------	13.9	14.0	-------

TENNESSEE RIVER AT JOHNSONVILLE, TENN.

LOCATION.—Water-stage recorder at Nashville, Chattanooga & St. Louis Railway bridge at Johnsonville, Humphreys County. Zero of gage is 320.98 feet above mean sea level.

DRAINAGE AREA.—38,500 square miles.

RECORDS AVAILABLE.—October, 1875, to September, 1928.

EXTREMES.—Maximum discharge during year, 223,000 second-feet Apr. 27 (gage height, 28.1 feet); minimum, 11,000 second-feet Nov. 2 (gage height, 0.53 foot).

1889–1928: Maximum discharge, 410,000 second-feet Mar. 24, 1897 (gage height, 48.0 feet); minimum, 3,500 second-feet Sept. 11, 1925 (gage height, −2.0 feet).

REMARKS.—Records good. Low-water flow regulated to some extent by operations at Hales Bar Dam and Wilson Dam.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,500	11,300	23,100	98,000	61,900	45,700	92,400	169,000	67,700	111,000	43,700	50,500
2	12,100	11,000	21,900	127,000	61,900	44,300	98,800	149,000	80,000	113,000	43,700	56,100
3	12,500	11,300	21,400	139,000	61,900	42,300	96,400	141,000	94,000	127,000	44,300	55,400
4	12,100	11,300	20,200	138,000	61,100	41,000	100,000	137,000	111,000	144,000	41,000	61,900
5	12,100	11,300	18,600	134,000	59,700	41,000	100,000	133,000	134,000	158,000	37,000	73,700
6	12,100	11,300	20,800	123,000	58,300	40,300	97,200	125,000	157,000	167,000	34,400	94,800
7	12,500	11,300	27,900	105,000	59,700	44,300	90,000	114,000	165,000	169,000	35,000	112,000
8	15,600	11,300	35,700	86,900	70,000	45,000	86,900	99,600	167,000	153,000	35,700	121,000
9	16,000	13,300	45,700	76,000	70,000	49,100	70,700	86,100	167,000	125,000	35,000	122,000
10	14,600	15,600	54,000	71,500	69,200	122,000	67,700	76,000	161,000	102,000	33,700	118,000
11	13,800	15,600	56,100	69,200	73,000	131,000	66,300	70,000	150,000	91,600	31,800	112,000
12	13,300	15,600	56,100	64,800	81,400	146,000	69,200	73,700	139,000	83,000	30,500	105,000
13	15,100	15,600	56,800	61,100	87,700	144,000	78,300	87,700	133,000	74,500	31,100	96,400
14	16,000	15,100	54,700	58,300	89,300	133,000	92,400	93,200	131,000	68,500	31,100	82,200
15	15,600	14,600	56,100	57,500	84,500	120,000	112,000	86,900	135,000	64,800	31,100	70,000
16	14,600	17,000	60,400	55,400	76,800	114,000	131,000	75,300	144,000	60,400	29,800	57,500
17	14,200	21,900	70,700	54,000	70,000	118,000	143,000	66,300	147,000	55,400	29,800	51,200
18	13,800	26,700	91,600	59,000	65,500	127,000	147,000	59,000	143,000	52,600	30,500	47,700
19	13,300	33,700	111,000	64,800	59,700	131,000	145,000	60,400	136,000	53,300	32,400	43,700
20	13,300	45,000	125,000	67,700	56,100	128,000	138,000	65,500	121,000	52,600	40,000	39,700
21	14,200	55,400	133,000	64,800	53,300	122,000	133,000	67,000	104,000	49,800	63,300	36,400
22	15,600	61,900	133,000	61,100	49,800	115,000	144,000	64,000	89,300	46,400	90,800	35,000
23	16,500	57,500	123,000	57,500	49,800	112,000	175,000	64,800	77,500	44,300	98,800	35,000
24	16,000	50,500	107,000	56,100	49,800	107,000	197,000	71,500	76,000	45,000	90,800	33,100
25	14,200	45,000	87,700	58,300	49,800	99,600	213,000	81,400	81,400	46,400	79,100	29,200
26	12,900	40,000	72,200	61,100	51,200	90,800	221,000	90,800	94,000	45,000	66,300	26,700
27	12,100	35,700	60,400	65,500	51,900	81,400	223,000	94,000	103,000	45,000	54,700	29,800
28	12,100	32,400	50,500	67,000	50,500	73,700	222,000	90,000	100,000	46,400	46,400	32,400
29	12,100	29,200	46,400	66,300	47,700	70,000	212,000	81,400	108,000	49,100	41,000	36,400
30	11,700	25,500	49,100	64,800	-------	68,500	194,000	70,700	113,000	49,100	40,300	35,000
31	11,300	-------	61,100	62,600	-------	73,700	-------	65,500	-------	45,700	43,700	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	16,500	11,300	13,700	0.356	0.41
November	61,900	11,000	25,800	.670	.75
December	133,000	18,600	62,900	1.63	1.88
January	139,000	54,000	77,300	2.01	2.32
February	89,300	47,700	63,200	1.64	1.77
March	146,000	40,300	91,000	2.36	2.72
April	223,000	66,300	132,000	3.43	3.83
May	169,000	59,000	90,600	2.35	2.71
June	167,000	67,700	121,000	3.14	3.50
July	169,000	44,300	81,900	2.13	2.46
August	98,800	29,800	45,700	1.19	1.37
September	122,000	26,700	63,300	1.64	1.83
The year	223,000	11,000	72,300	1.88	25.55

DAVIDSON RIVER NEAR BREVARD, N. C.

LOCATION.—Staff gage at highway bridge 1½ miles above mouth and 5½ miles northeast of Brevard, Transylvania County.

DRAINAGE AREA.—41 square miles.

RECORDS AVAILABLE.—December, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 8,400 second-feet Aug. 15 (gage height, 11.8 feet); minimum, 37 second-feet Oct. 7 and 8 (gage height, 0.56 foot).

1920–1928: Maximum discharge, that of Aug. 15, 1928; minimum, 15 second-feet Sept. 19–21, 1925 (gage height, 0.34 foot).

REMARKS.—Records good below and fair above 1,500 second-feet.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	47	74	184	99	96	141	207	132	207	207	232
2	43	43	113	162	88	91	132	196	132	196	162	348
3	43	63	475	162	85	88	122	184	162	173	173	732
4	42	53	220	162	82	90	122	173	364	173	152	410
5	40	49	196	152	82	88	122	162	259	152	173	773
6	39	46	152	152	99	85	122	303	220	141	207	732
7	38	45	173	113	98	82	379	509	184	141	207	509
8	54	48	303	113	173	82	196	348	162	141	184	442
9	72	47	196	162	132	260	184	303	152	152	207	442
10	46	47	162	132	122	122	220	274	162	152	207	348
11	47	47	141	113	104	141	330	246	196	132	173	288
12	440	47	162	104	101	122	246	220	196	152	184	274
13	173	46	141	104	104	113	207	184	184	184	162	259
14	113	46	132	102	152	122	184	173	184	184	162	246
15	82	73	274	101	122	113	184	162	207	162	2,790	246
16	73	90	442	101	122	132	162	162	246	141	2,440	232
17	72	410	274	101	104	162	152	162	196	122	655	220
18	70	196	220	101	104	152	152	152	162	152	475	196
19	68	102	184	102	104	132	141	152	141	132	442	207
20	61	90	162	99	101	122	152	152	132	132	379	196
21	58	84	141	88	91	122	152	141	122	132	318	196
22	54	81	132	98	98	113	220	207	132	152	274	184
23	52	80	122	85	173	113	333	303	152	196	246	173
24	53	77	122	113	152	104	220	259	162	162	246	162
25	53	73	113	113	122	113	184	207	152	162	246	152
26	52	68	104	99	113	104	173	196	122	173	274	152
27	50	63	104	88	122	132	288	173	113	173	303	141
28	49	60	102	88	113	104	259	163	113	173	246	141
29	49	60	232	122	102	99	232	152	337	152	220	132
30	49	61	122	104	------	333	207	141	333	316	207	132
31	49	------	303	102	------	162	------	132	------	379	207	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	440	38	71.9	1.75	2.02
November	410	43	78.1	1.90	2.12
December	475	74	187	4.56	5.26
January	184	85	117	2.85	3.29
February	173	82	113	2.76	2.98
March	333	82	126	3.07	3.54
April	379	122	197	4.80	5.36
May	509	132	210	5.12	5.90
June	364	113	184	4.49	5.01
July	379	122	171	4.17	4.81
August	2,790	152	404	9.85	11.36
September	773	132	297	7.24	8.08
The year	2,790	38	180	4.39	59.73

SOUTH FORK OF MILLS RIVER AT THE PINK BEDS, N. C.

LOCATION.—Water-stage recorder at the Pink Beds, in Pisgah National Forest, 400 feet downstream from mouth of Thompson Creek and 9 miles north of Brevard, Transylvania County.

DRAINAGE AREA.—9.87 square miles.

RECORDS AVAILABLE.—February, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 2,220 second-feet Aug. 15 (gage height, 8.0 feet); minimum, 4.6 second-feet Oct. 1 and 7 (gage height, 2.08 feet).

1926–1928: Maximum discharge, that of Aug. 15, 1928; minimum discharge, 2.5 second-feet July 22, 1926 (gage height, 0.76 foot).

REMARKS.—Records excellent except those for discharge above 150 second-feet and for estimated period (July 29 to Aug. 1), which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.4	7.2	16.6	50	20	20	38	53	29	41	37	41
2	5.6	8.6	69	52	19.0	19.5	33	46	28	34	34	78
3	5.8	12.9	121	53	18.5	19.0	31	42	35	31	42	132
4	5.4	8.6	74	48	18.0	19.0	28	39	85	34	46	57
5	5.0	7.8	60	48	18.0	18.5	26	37	64	37	84	188
6	5.0	7.5	48	48	19.5	17.6	30	63	54	34	56	166
7	4.8	7.2	65	38	22	17.1	95	149	45	57	43	96
8	28	7.8	125	43	42	20	49	109	39	50	36	72
9	11.8	7.8	67	64	28	62	43	80	36	42	34	59
10	7.5	7.8	51	40	24	32	55	66	68	39	31	50
11	12.8	7.8	43	35	23	31	71	57	82	35	35	43
12	161	7.5	42	33	22	27	60	50	97	35	29	40
13	32	7.5	37	30	21	24	50	46	109	39	26	38
14	20	7.5	34	26	37	27	47	43	81	31	26	36
15	16.6	16.2	76	24	29	24	42	41	62	27	614	44
16	14.8	19.0	123	23	26	31	37	38	54	25	496	41
17	12.9	121	77	22	24	38	34	37	49	24	195	35
18	11.2	43	58	26	23	37	32	36	43	22	129	33
19	10.8	29	49	29	23	33	31	34	39	30	95	31
20	10.1	24	42	28	23	31	33	33	36	32	75	29
21	9.5	20	38	24	21	29	37	32	34	28	61	26
22	9.2	19.5	34	24	32	27	60	38	33	32	53	25
23	8.6	17.6	32	24	33	26	78	73	34	31	48	24
24	8.3	16.6	29	38	30	25	60	54	31	33	43	24
25	8.3	16.2	27	35	27	25	49	42	31	31	40	24
26	8.0	15.3	26	30	25	23	43	43	26	34	39	23
27	8.0	14.8	26	29	24	23	81	39	25	36	41	24
28	7.8	14.0	24	26	23	22	65	36	27	27	34	24
29	7.5	13.6	41	22	22	21	56	31	85	23	34	24
30	7.5	14.0	30	21	-------	89	52	32	69	42	31	25
31	7.2	-------	89	21	-------	46	-------	30	-------	45	30	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	161	4.8	15.4	1.56	1.80
November	121	7.2	17.6	1.78	1.99
December	125	16.6	54.0	5.47	6.31
January	64	21	34.0	3.44	3.97
February	42	18.0	24.7	2.50	2.70
March	89	17.1	29.2	2.96	3.41
April	95	26	48.2	4.88	5.44
May	149	30	50.0	5.07	5.84
June	109	25	51.0	5.17	5.77
July	57	22	34.2	3.47	4.00
August	614	26	84.4	8.55	9.86
September	188	23	51.7	5.24	5.85
The year	614	4.8	41.3	4.18	56.94

SWANNANOA RIVER AT SWANNANOA, N. C.

LOCATION.—Staff gage at Swannanoa, Buncombe County, 1½ miles below mouth of North Fork and 2⅛ miles above Beetree Creek.

DRAINAGE AREA.—60 square miles.

RECORDS AVAILABLE.—May, 1907, to June, 1909; January, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated) 10,400 second-feet Aug. 16 (gage height, 10.93 feet); minimum, 9.6 second-feet Oct. 1, 2, 4, and 5 (gage height, 0.18 foot).

1907–1909, 1926–1928: Maximum discharge, that of Aug. 16, 1928; minimum, 7.6 second-feet July 20–22, 1926 (gage height, 0.02 foot).

REMARKS.—Records good below and fair above 2,000 second-feet. The city of Asheville diverts from North Fork for water supply. Slight regulation caused by operation of a sand and gravel plant 2 miles upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	22	43	195	62	58	170	263	99	103	47	379
2	11	21	231	216	60	56	137	231	95	85	42	497
3	12	23	632	173	58	54	114	216	101	67	39	1,110
4	11	22	632	121	57	58	101	190	103	52	43	782
5	11	21	411	95	60	56	101	176	137	50	47	309
6	12	21	187	85	70	51	93	201	108	58	62	379
7	12	22	201	76	79	50	412	453	93	52	70	417
8	14	23	201	74	150	48	201	352	81	51	79	343
9	15	24	173	150	130	145	170	280	81	48	350	293
10	16	23	123	128	108	116	247	231	83	216	340	277
11	16	24	105	145	93	95	371	184	103	77	280	262
12	420	23	114	110	87	87	371	157	97	220	263	233
13	187	23	99	83	81	76	315	145	87	160	184	181
14	56	23	89	77	89	74	247	135	74	89	168	147
15	38	24	231	77	83	70	187	123	63	77	3,670	147
16	30	160	247	87	81	83	145	110	62	63	5,020	137
17	29	1,010	231	93	79	103	140	110	58	56	887	119
18	28	216	231	87	81	108	133	105	57	54	437	179
19	27	112	195	85	79	95	160	101	54	52	361	319
20	25	91	145	87	74	87	133	121	51	50	326	206
21	24	70	135	85	65	85	128	119	50	45	247	147
22	22	58	108	81	60	87	280	121	48	43	169	127
23	21	52	97	72	83	85	391	108	45	52	169	125
24	21	51	95	89	83	81	247	93	63	60	158	112
25	22	52	87	87	77	81	184	89	62	63	158	106
26	21	50	70	76	74	77	176	91	57	60	147	101
27	20	45	63	72	68	116	280	297	52	187	147	94
28	21	42	62	70	67	97	333	280	52	97	169	90
29	20	40	70	72	62	87	231	173	77	63	147	87
30	21	42	68	68	------	390	201	119	110	51	147	85
31	21	------	411	67	------	231	------	103	------	48	181	------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	420	11	39.2	May	453	89	177
November	1,010	21	81.0	June	137	45	76.8
December	632	43	187	July	220	43	79.0
January	216	67	99.5	August	5,020	39	469
February	150	57	79.3	September	1,110	85	260
March	390	48	96.4				
April	412	93	213	The year	5,020	11	155

NORTH FORK OF SWANNANOA RIVER NEAR BLACK MOUNTAIN, N. C.

LOCATION.—Water-stage recorder one-fourth mile below emergency pumping plant of Asheville Water Department, 3 miles below forks of river and 3 miles northwest of Black Mountain, Buncombe County.

DRAINAGE AREA.—23 square miles.

RECORDS AVAILABLE.—January, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 5,050 second-feet Aug. 15 (gage height, 7.04 feet); minimum, 2.00 second-feet Oct. 8 (gage height, 1.03 feet).

1926–1928: Maximum discharge, that of Aug. 15, 1928; minimum, 0.73 second-foot July 20 and 21, 1926 (gage height, 0.88 foot).

REMARKS.—Records good below and fair above 1,200 second-feet. The city of Asheville diverts an average of 3.48 million gallons daily (5.4 second-feet) 3 miles upstream, for water supply. No diversions at emergency plant during year.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.65	4.05	23	91	29	27	85	129	50	50	17.0	135
2	2.55	4.05	117	54	26	24	70	101	48	35	13.8	356
3	2.55	4.90	347	46	24	21	60	85	48	29	14.7	468
4	2.65	4.70	314	44	22	21	54	74	59	24	16.9	196
5	2.55	4.70	167	44	25	19.6	50	68	64	32	20	236
6	2.45	5.05	74	42	34	18.5	46	70	60	38	33	256
7	2.45	5.25	87	39	38	17.3	228	180	53	25	50	172
8	3.20	5.25	91	38	133	15.7	109	164	49	25	45	141
9	4.00	5.25	70	64	72	63	83	126	44	23	50	114
10	2.45	4.90	64	51	57	49	99	104	39	37	47	95
11	2.18	4.70	57	46	50	10	158	87	38	33	114	82
12	92	4.90	56	44	46	38	164	78	38	29	80	73
13	42	5.05	51	41	40	36	117	68	34	30	133	64
14	15.8	4.90	49	39	46	36	99	64	32	46	80	58
15	11.0	5.05	93	37	46	33	85	59	28	33	1,930	76
16	9.3	48	217	36	41	45	74	56	25	26	1,780	90
17	8.2	441	126	34	37	46	65	51	22	22	413	73
18	7.2	103	91	45	38	48	60	53	20	20	229	64
19	6.6	57	72	53	32	40	54	51	17.9	18.5	163	75
20	6.3	40	59	51	32	34	60	51	16.7	16.0	119	104
21	5.95	31	53	39	29	34	56	51	15.0	15.0	95	71
22	5.95	25	48	34	30	33	112	51	26	14.2	82	61
23	5.60	21	42	32	42	39	161	49	28	34	71	55
24	5.25	17.9	38	36	42	41	112	49	23	19.5	73	50
25	5.05	16.1	33	42	39	38	91	45	21	18.0	66	45
26	4.90	14.7	30	34	34	39	76	49	23	17.0	72	42
27	4.70	13.2	28	32	32	64	123	84	18.5	29	95	38
28	4.55	12.0	25	28	29	48	120	85	16.0	44	70	35
29	4.40	11.8	57	24	28	42	104	67	47	25	70	33
30	4.05	11.2	51	26	------	207	109	65	88	19.5	64	34
31	4.05	------	162	28	------	114	------	57	------	19.0	80	------

Month	Discharge in second-feet			Month	Discharge in second-feet		
	Maximum	Minimum	Mean		Maximum	Minimum	Mean
October	92	2.18	9.11	May	180	45	76.5
November	441	4.05	31.2	June	88	15.0	36.4
December	347	23	90.1	July	50	14.2	27.3
January	91	24	41.7	August	1,930	13.8	200
February	133	22	40.4	September	468	33	113
March	207	15.7	44.2				
April	228	46	96.1	The year	1,930	2.18	67.3

BEETREE CREEK NEAR SWANNANOA, N. C.

LOCATION.—Water-stage recorder 200 feet above intake to Asheville water supply, 1,000 feet upstream from Beetree Reservoir and 4 miles north of Swannanoa, Buncombe County.

DRAINAGE AREA.—5.7 square miles.

RECORDS AVAILABLE.—February, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 1,060 second-feet Aug. 15 (gage height, 5.40 feet); minimum, 0.76 second-foot Oct. 7 (gage height, 0.37 foot).

1926–1928: Maximum discharge, that of Aug. 15, 1928; minimum, 0.67 second-foot July 22, 1926 (gage height, 0.34 foot).

REMARKS.—Records good except those for estimated period (July 19–24), which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.85	1.26	5.8	20	8.5	7.5	26	32	10.9	6.6	4.05	22
2	.79	1.30	26	18.1	7.6	6.6	22	27	10.4	5.4	3.70	50
3	.88	2.65	75	14.7	7.2	6.3	19.5	24	11.5	4.90	3.45	79
4	.95	1.95	60	12.9	7.1	6.4	17.4	22	11.7	4.40	4.3	40
5	.82	1.56	52	12.4	7.9	6.3	15.6	19.8	12.0	5.4	5.9	47
6	.79	1.49	40	11.5	8.6	5.9	14.5	23	11.7	4.90	5.4	56
7	.76	1.49	30	10.8	8.8	5.7	24	40	10.4	4.05	4.95	38
8	1.23	1.64	22	10.9	16.8	5.7	21	38	9.8	3.95	7.2	29
9	1.64	1.76	17.6	17.2	14.1	14.6	19.2	31	9.0	4.70	9.7	23
10	1.26	1.72	15.8	13.5	13.0	11.8	23	26	8.6	5.1	9.3	19.5
11	1.05	1.68	14.5	13.0	12.0	10.9	40	23	9.4	4.70	13.5	17.2
12	8.80	1.56	13.9	12.4	11.3	10.1	41	21	8.9	4.70	11.8	15.4
13	4.65	1.56	12.8	11.7	10.8	9.6	30	19.2	10.1	6.1	16.7	13.7
14	2.45	1.56	12.0	11.1	11.8	9.6	26	17.4	10.3	6.3	13.5	12.4
15	1.90	1.64	21	10.6	11.1	9.0	23	16.0	8.6	5.0	318	15.7
16	1.76	5.3	45	10.1	10.4	10.6	20	14.7	7.7	4.00	286	14.9
17	1.60	71.2	31	10.0	9.8	11.4	17.9	14.1	7.1	3.60	88	13.5
18	1.45	22	25	10.6	9.4	13.7	16.4	13.9	6.7	3.35	49	13
19	1.49	14.5	18.4	10.9	8.5	12.0	15.2	13.5	6.2	3.25	35	15.2
20	1.45	10.8	14.9	10.1	8.3	11.5	18.4	12.8	5.5	3.15	26	17.9
21	1.41	8.9	17.4	8.4	7.5	10.9	16.4	13.2	5.2	3.25	22	13.3
22	1.41	7.4	13.9	8.5	8.2	11.1	24	13.3	4.9	3.60	18.4	11.3
23	1.41	6.2	11.8	8.6	10.3	12.2	29	12.2	5.4	17.0	15.8	10.0
24	1.37	5.7	10.6	9.3	9.8	11.1	26	10.9	5.3	8.4	15.4	9.3
25	1.37	5.2	9.4	9.0	9.3	11.5	23	10.0	5.6	6.1	14.7	8.4
26	1.37	4.65	9.0	8.0	8.5	11.1	21	11.1	5.3	5.2	16.1	7.5
27	1.34	4.35	8.3	7.7	8.3	15.4	28	14.0	4.2	7.4	21	6.8
28	1.34	4.30	7.5	6.1	7.9	13.5	29	14.3	4.05	7.6	14.7	6.4
29	1.34	4.00	12	7.0	7.8	13.2	28	13.3	9.5	5.4	13.0	6.1
30	1.34	4.20	11.3	7.2	------	47.2	28	13.2	11.7	4.90	11.5	6.6
31	1.30	------	27	8.5	------	35	------	11.8	------	4.60	13.4	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	8.8	0.76	1.66	0.291	0.34
November	71.2	1.26	6.78	1.19	1.33
December	75	5.8	22.3	3.91	4.51
January	20	6.1	11.0	1.93	2.22
February	16.8	7.1	9.68	1.70	1.83
March	47.2	5.7	12.2	2.14	2.47
April	41	14.5	23.4	4.11	4.59
May	40	10.0	18.9	3.32	3.83
June	12.0	4.05	8.26	1.45	1.62
July	17.0	3.15	5.39	.946	1.09
August	318	3.45	35.2	6.18	7.12
September	79	6.1	21.3	3.74	4.17
The year	318	.76	14.7	2.58	35.12

PIGEON RIVER NEAR CRABTREE, N. C.

LOCATION.—Chain gage at highway bridge 1½ miles above mouth of Crabtree Creek and 2 miles south of Crabtree, Haywood County.

DRAINAGE AREA.—244 square miles.

RECORDS AVAILABLE.—December, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 23,000 second-feet Aug. 16 (gage height, 18.0 feet); minimum, 110 second-feet several times in October and November (gage height, 1.47 feet).

1920–1928: Maximum discharge, that of Aug. 16, 1928; minimum, 46 second-feet Sept. 10, 1925 (gage height, 1.00 foot).

REMARKS.—Records good below and fair above 6,000 second-feet. During low stages there is considerable diurnal regulation from dams on Pigeon River and tributaries.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	125	141	175	898	442	360	775	898	658	940	475	735
2	131	138	815	815	378	353	735	735	735	695	510	1,120
3	121	159	1,120	510	360	306	582	695	815	545	360	2,550
4	131	179	898	347	378	318	545	658	775	582	378	985
5	125	125	815	442	341	306	582	620	855	695	582	2,330
6	121	144	735	442	391	312	582	1,050	735	582	775	2,220
7	113	134	582	378	378	306	1,030	2,580	658	898	582	582
8	209	134	1,500	378	940	341	898	1,900	620	620	456	1.080
9	341	159	775	815	545	1,080	695	1,500	582	775	404	898
10	175	148	695	510	442	620	898	1,210	658	620	442	735
11	128	159	620	397	462	545	1,120	1,030	735	545	475	658
12	1,800	148	775	335	410	510	898	940	582	475	341	620
13	777	138	620	318	442	442	898	855	582	510	360	658
14	312	118	510	378	456	410	898	775	620	442	430	545
15	187	151	1,410	410	462	436	735	695	582	410	5,440	545
16	209	163	2,540	385	378	475	695	658	695	397	9,380	620
17	205	2,390	1,300	378	397	442	735	695	545	366	2,330	695
18	167	1,620	985	430	442	1,030	815	735	510	312	1,500	620
19	171	582	318	410	366	475	695	775	475	347	1,300	582
20	163	353	735	442	360	442	658	695	442	378	1,120	582
21	141	330	985	330	301	436	620	582	416	378	940	475
22	167	258	582	353	475	475	658	735	385	404	855	545
23	131	258	582	318	582	475	898	1,300	449	372	775	449
24	151	183	449	456	378	468	775	1,300	442	366	695	442
25	128	214	510	582	442	360	658	855	510	442	620	510
26	121	209	475	397	397	378	658	940	510	442	695	366
27	128	214	442	378	366	404	1,030	815	410	658	735	360
28	134	214	366	258	366	347	898	940	475	423	620	353
29	144	183	475	237	378	546	815	898	1,120	391	545	378
30	138	155	545	347	-------	2,300	775	815	2,660	545	510	341
31	125	-------	1,300	391	-------	985	-------	695	-------	735	510	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,800	113	233	0.955	1.10
November	2,390	118	317	1.30	1.45
December	2,540	175	795	3.26	3.76
January	898	237	434	1.78	2.05
February	940	301	429	1.76	1.90
March	2,300	306	538	2.20	2.54
April	1,120	545	775	3.18	3.55
May	2,580	582	954	3.91	4.51
June	2,660	385	675	2.76	3.08
July	940	312	525	2.15	2.48
August	9,380	341	1,130	4.63	5.34
September	2,550	341	786	3.22	3.59
The year	9,380	113	634	2.60	35.35

PIGEON RIVER NEAR HEPCO, N. C.

LOCATION.—Water-stage recorder three-fourths mile downstream from Jonathan Creek and 2½ miles upstream from Hepco, Haywood County.

DRAINAGE AREA.—342 square miles.

RECORDS AVAILABLE.—July, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 30,300 second-feet Aug. 16 (gage height, 12.63 feet); minimum, 187 second-feet Oct. 7 (gage height, 1.21 feet).

1927–28: Maximum discharge, that of Aug. 16, 1928; minimum, 169 second-feet Sept. 26, 1927 (gage height, 1.12 feet).

REMARKS.—Records good below and fair above 5,000 second-feet. Diurnal fluctuation during low stages due to storage at Lake Junaluska and operation of mill at Canton.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	196	220	452	1,350	632	452	1,140	1,210	945	1,430	767	945
2	196	220	1,080	883	553	428	1,010	1,010	883	1,080	712	1,680
3	208	290	1,690	824	502	428	883	945	883	883	632	3,250
4	220	275	1,280	767	502	428	824	883	1,350	883	874	1,430
5	208	233	1,280	712	502	428	767	824	1,280	1,080	1,120	2,930
6	196	220	1,010	712	605	405	712	1,100	1,140	883	1,010	3,440
7	196	220	945	712	579	405	1,760	3,470	945	973	824	2,180
8	233	233	1,830	685	1,160	405	1,140	3,350	883	945	685	1,600
9	461	260	1,140	1,080	824	1,490	883	2,280	824	1,510	712	1,350
10	260	246	945	824	685	883	1,080	2,840	824	1,010	712	1,210
11	220	233	824	685	632	712	1,350	1,430	945	824	685	1,080
12	1,590	233	945	658	605	658	1,350	1,280	824	712	605	1,010
13	1,010	220	883	632	579	632	1,080	1,140	767	767	579	883
14	452	220	767	605	685	712	1,080	1,010	945	712	632	824
15	362	220	1,800	605	712	632	1,010	945	767	632	5,300	873
16	324	307	3,570	579	632	658	883	883	767	579	12,900	1,280
17	290	2,170	2,080	553	579	712	824	883	712	553	3,320	1,130
18	275	1,040	1,510	632	605	1,140	767	883	658	553	2,180	883
19	260	632	1,210	685	502	767	767	883	605	528	1,780	824
20	246	502	1,010	712	528	712	883	945	579	553	1,430	883
21	246	428	945	528	502	685	767	883	553	579	1,210	767
22	233	405	883	477	502	632	945	1,010	553	605	1,080	685
23	233	362	767	553	767	632	1,280	1,980	632	685	945	632
24	233	362	712	632	658	605	1,010	1,880	605	528	883	605
25	233	343	712	824	579	605	883	1,280	658	712	945	605
26	220	324	658	605	528	605	824	1,350	605	752	824	579
27	220	307	605	579	502	658	1,250	1,350	502	1,120	945	553
28	220	290	605	528	477	579	1,410	1,350	502	685	712	553
29	208	290	962	452	477	528	1,140	1,140	1,570	579	712	553
30	208	290	883	579	------	3,280	1,010	1,140	4,420	624	685	553
31	208	------	1,880	632	------	1,600	------	1,010	------	1,510	767	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,590	196	318	0.930	1.07
November	2,170	220	386	1.13	1.26
December	3,570	452	1,160	3.39	3.91
January	1,350	452	687	2.01	2.32
February	1,160	477	607	1.77	1.91
March	3,280	405	758	2.22	2.56
April	1,760	712	1,020	2.98	3.32
May	3,470	824	1,370	4.01	4.62
June	4,420	502	938	2.74	3.06
July	1,510	528	822	2.40	2.77
August	12,900	579	1,520	4.44	5.12
September	3,440	553	1,190	3.48	3.88
The year	12,900	196	900	2.63	35.80

PIGEON RIVER NEAR MOUNT STERLING, N. C.

LOCATION.—Water-stage recorder just upstream from Hurricane Creek and 5 miles southeast of Mount Sterling, Haywood County.

DRAINAGE AREA.—453 square miles.

RECORDS AVAILABLE.—September, 1924, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 39,600 second-feet Aug. 16 (gage height, 11.85 feet); minimum, 240 second-feet Oct. 2 and 6 (gage height, 1.43 feet).

1924–1928: Maximum discharge, that of Aug. 16, 1928; minimum, 41 second-feet Sept. 8, 1925 (gage height, 0.62 foot).

REMARKS.—Records good except those for discharges above 5,000 second-feet and for estimated period (May 6–17), which are fair. Slight diurnal fluctuation caused by operation of Hepco power plant and mills. Water is sometimes released from Lake Junaluska during low-water period.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	258	277	640	1,780	867	640	1,580	1,680	1,220	2,130	975	1,300
2	240	277	1,510	1,130	765	611	1,300	1.390	1,220	1,480	902	2,130
3	258	450	2,130	1,050	701	582	1,130	1,300	1,220	1,220	975	4,310
4	258	358	1,580	975	765	582	1,050	1,220	1,480	1,130	1,130	2,250
5	258	316	1,680	975	765	582	975	1,130	1,580	1,910	1,480	3,490
6	240	296	1,300	975	902	554	975	1,400	1,480	1,390	1,390	5,170
7	258	277	1,220	902	902	554	1,720	4,500	1,300	1,410	1,130	2,780
8	296	296	2,130	832	1,510	554	1,300	4,000	1,220	1,480	975	2,130
9	582	337	1,480	1,220	1,220	1,840	1,050	2,800	1,130	2,070	975	1,780
10	380	316	1,220	975	975	1,130	1,220	3,500	1,130	1,680	975	1,480
11	316	296	975	867	902	975	1,580	1,800	1,220	1,300	975	1,300
12	1,640	296	1,130	832	832	902	1,680	1,600	1,130	1,050	832	1,220
13	1,240	296	1,130	798	798	832	1,390	1,400	1,050	1,230	765	1,130
14	611	296	975	733	902	975	1,300	1,300	1,220	1,050	832	1,050
15	475	296	2,030	733	902	867	1,300	1,200	1,050	902	4,620	975
16	450	380	4,730	733	832	867	1,130	1,150	1,050	867	19,100	1,390
17	403	2,260	2,930	701	798	1,150	1,050	1,150	975	798	4,330	1,390
18	380	1,250	2,010	701	832	1,480	1,050	1,130	902	765	2,930	1,050
19	358	733	1,580	832	701	1,130	975	1,130	832	765	2,250	975
20	358	582	1,300	975	733	975	1,220	1,300	798	733	1,900	1,130
21	337	527	1,220	765	701	902	1,130	1,220	765	798	1,580	975
22	337	501	1,130	701	701	867	1,130	1,300	765	798	1,390	867
23	337	475	975	765	902	867	1,480	2,130	832	902	1,300	832
24	337	450	902	832	867	832	1,300	2,130	798	733	1,220	798
25	316	426	867	1,050	765	798	1,130	1,580	867	867	1,300	733
26	316	426	798	798	701	832	1,050	1,680	832	798	1,130	701
27	316	403	765	733	670	902	1,500	1,900	701	1,480	1,130	670
28	316	380	733	765	670	798	2,010	1,480	670	902	975	670
29	277	380	1,170	640	670	733	1,680	1,580	2,380	798	902	640
30	277	380	1,050	765	-------	3,660	1,480	1,480	6,160	885	902	670
31	277	-------	2,530	867	-------	2,130	-------	1,300	-------	1,780	902	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,640	240	410	0.905	1.04
November	2,260	277	474	1.05	1.17
December	4,730	640	1,480	3.27	3.77
January	1,780	640	884	1.95	2.25
February	1,510	670	836	1.85	2.00
March	3,660	554	1,000	2.21	2.55
April	2,010	975	1,300	2.87	3.20
May	-------	-------	1,740	3.84	4.43
June	6,160	670	1,270	2.80	3.12
July	2,130	733	1,160	2.56	2.95
August	19,100	765	2,010	4.44	5.12
September	4,310	640	1,530	3.38	3.77
The year	19,100	240	1,180	2.60	35.37

PIGEON RIVER AT HARTFORD, TENN.

LOCATION.—Water-stage recorder 600 feet below highway bridge at Hartford, Cocke County, subsequent to Aug. 17. Prior to that date a staff gage at highway bridge was used.

DRAINAGE AREA.—538 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 17,200 second-feet Aug. 16 (gage height, 10.2 feet); minimum, 278 second-feet Oct. 7 (gage height, 1.97 feet).

1925–1928: Maximum discharge, that of Aug. 16, 1928; minimum, 96 second-feet Aug. 30, 1925 (gage height, 1.32 feet).

REMARKS.—Records fair prior to July 17; records since that date good below and fair above 8,000 second-feet. Some regulation during low water caused by operation of power and mill dams above gage.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	312	312	550	2,350	1,020	725	2,480	2,350	1,520	3,030	1,240	1,910
2	286	312	1,420	1,420	980	650	1,520	1,860	1,520	2,100	1,050	3,070
3	290	462	2,750	1,310	892	615	1,360	1,630	1,420	1,630	1,020	5,430
4	312	462	1,860	1,210	850	615	1,210	1,420	1,860	1,420	1,080	2,680
5	312	385	2,100	1,070	892	685	1,120	1,310	1,980	3,330	1,570	3,660
6	290	335	1,630	1,070	1,310	615	1,020	1,520	1,980	2,610	1,780	4,970
7	282	335	1,420	1,020	1,210	615	2,220	5,420	1,630	1,740	1,580	2,910
8	312	335	2,480	1,070	2,220	582	1,630	6,110	1,420	2,100	1,200	2,390
9	685	385	1,520	1,420	1,520	1,740	1,210	4,000	1,310	3,490	1,140	1,980
10	462	385	1,310	1,120	1,210	1,740	1,360	2,750	1,520	2,220	1,160	1,710
11	360	360	1,210	1,020	1,070	1,210	1,860	2,350	1,740	1,740	1,080	1,500
12	550	360	1,210	935	980	1,120	1,980	1,980	1,860	1,420	1,060	1,370
13	1,520	360	1,310	935	980	980	1,520	1,740	1,520	1,520	911	1,270
14	725	335	1,120	892	980	1,070	1,520	1,520	1,740	1,740	974	1,190
15	550	335	1,860	892	1,120	1,020	1,520	1,420	1,420	1,260	3,150	1,140
16	490	410	5,880	850	935	1,020	1,310	1,310	1,520	1,070	11,800	1,620
17	462	1,980	3,330	850	892	1,070	1,210	1,310	1,310	980	5,910	1,490
18	410	1,420	2,350	1,120	935	2,100	1,160	1,310	1,120	965	3,150	1,160
19	410	1,360	1,740	1,120	765	1,520	1,120	1,740	1,020	984	2,540	1,110
20	385	685	1,520	935	808	1,310	1,310	2,100	935	1,110	2,180	1,270
21	385	615	1,310	1,070	765	1,160	1,160	1,630	892	1,040	1,840	1,060
22	360	582	1,210	892	725	1,020	1,310	1,630	892	1,040	1,620	984
23	360	520	1,070	935	1,020	1,020	1,740	2,890	935	1,080	1,440	947
24	335	520	980	935	980	980	1,630	2,750	935	893	1,350	902
25	335	520	935	1,520	850	935	1,420	1,980	1,070	1,020	1,540	850
26	335	490	892	1,020	765	980	1,310	2,220	980	911	1,390	798
27	335	462	808	980	685	1,020	2,100	3,180	850	1,710	1,380	774
28	335	462	808	892	725	980	2,480	2,890	765	1,120	1,150	758
29	312	435	1,160	765	725	892	2,220	2,220	1,520	947	1,080	750
30	312	385	1,310	808	------	3,330	1,980	1,980	8,560	938	1,100	774
31	312	------	3,650	1,020	------	2,750	------	1,630	------	2,110	1,270	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,520	282	423	0.786	0.91
November	1,980	312	543	1.01	1.13
December	5,880	550	1,700	3.16	3.64
January	2,350	765	1,080	2.01	2.32
February	2,222	685	993	1.85	2.00
March	3,330	582	1,160	2.16	2.49
April	2,480	1,020	1,570	2.92	3.26
May	6,110	1,310	2,260	4.20	4.84
June	8,560	765	1,590	2.96	3.30
July	3,490	893	1,590	2.96	3.41
August	11,800	911	1,960	3.64	4.20
September	5,430	750	1,750	3.25	3.63
The year	11,800	282	1,390	2.58	35.13

PIGEON RIVER AT NEWPORT, TENN.

LOCATION.—Chain gage at highway bridge 300 feet above Southern Railway bridge and 1 mile above Newport railroad station, Cocke County. Zero of gage is 1,040.03 feet above mean sea level.

DRAINAGE AREA.—655 square miles.

RECORDS AVAILABLE.—September, 1900, to October, 1901; January, 1903, to December, 1905; December, 1906, to December, 1909; and November, 1918, to September, 1928.

EXTREMES.—Maximum discharge during year, 17,500 second-feet Aug. 16 (gage height, 12.4 feet); minimum, 315 second-feet Oct. 2–8 (gage height, 1.0 foot).

1903–1905, 1906–1909, 1918–1928: Maximum stage, 17.0 feet Apr. 2, 1920 (discharge not determined); minimum, 102 second-feet Oct. 3, 1919 (gage height, 0.4 foot).

REMARKS.—Records fair. Slight regulation caused by operation of power plants upstream. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	365	365	615	2,440	1,530	840	2,160	2,440	1,770	3,980	1,530	1,530
2	315	365	685	2,030	1,530	840	1,900	2,160	1,900	2,440	1,210	3,980
3	315	420	3,980	1,900	1,310	760	1,530	1,900	1,530	1,900	1,020	6,930
4	315	545	4,950	1,770	1,210	760	1,310	1,650	1,900	1,650	1,020	3,820
5	315	420	2,730	1,650	1,530	760	1,310	1,530	3,030	1,650	1,650	3,180
6	315	365	2,160	1,530	1,900	685	1,210	1,900	2,300	3,820	2,300	7,760
7	315	365	1,020	1,420	1,650	685	1,110	3,660	1,900	2,160	2,580	4,140
8	315	365	2,030	1,310	1,900	685	1,900	8,250	1,650	2,300	1,530	3,180
9	685	420	1,530	2,160	1,530	760	1,530	5,120	1,530	2,160	1,310	2,160
10	615	420	1,420	1,530	1,210	2,300	1,900	3,500	2,030	3,660	1,210	1,900
11	545	420	1,020	1,310	1,210	1,900	2,160	2,730	1,770	2,440	1,210	1,650
12	365	420	1,020	1,020	1,210	1,310	2,730	2,300	2,440	1,770	1,110	1,530
13	2,160	365	1,650	1,020	1,110	1,210	2,160	2,030	1,900	2,160	1,020	1,420
14	1,110	365	1,900	1,020	1,110	1,210	1,900	1,770	1,770	2,440	1,310	1,310
15	615	365	3,030	925	1,020	1,770	1,770	1,530	1,900	1,650	1,420	1,210
16	545	365	6,600	925	1,210	1,530	1,530	1,420	1,530	1,420	17,200	2,030
17	480	420	6,440	925	1,110	1,530	1,420	1,420	1,530	1,210	5,940	2,160
18	480	2,440	5,280	1,020	1,310	2,160	1,310	1,530	1,420	1,210	3,660	2,030
19	480	1,900	4,620	1,420	1,020	2,880	1,210	1,770	1,420	1,110	3,180	1,900
20	420	925	2,880	1,650	925	1,770	1,210	2,580	1,110	1,110	2,440	2,300
21	420	760	1,900	1,310	925	1,020	1,530	2,030	1,020	1,210	1,900	1,650
22	420	685	1,020	1,210	840	1,310	1,650	1,650	1,020	1,110	1,530	1,020
23	365	545	1,020	1,210	840	1,210	1,900	2,440	1,020	1,110	1,310	1,020
24	365	545	1,020	1,110	925	1,020	2,160	3,180	1,110	1,020	1,310	840
25	365	615	1,020	1,900	1,020	1,110	2,160	2,300	1,110	1,020	1,530	840
26	365	545	925	1,420	1,020	1,110	1,530	2,160	1,020	1,020	1,900	840
27	365	545	925	1,210	925	1,310	1,420	2,880	1,020	1,310	1,420	760
28	365	545	925	1,210	925	1,530	3,340	4,950	925	1,420	1,110	760
29	365	545	1,020	1,210	925	1,110	2,580	2,880	1,110	1,110	1,020	760
30	365	545	1,210	1,210	------	1,210	2,440	2,440	12,900	1,020	1,020	840
31	365	------	4,780	1,310	------	3,500	------	2,030	------	925	1,210	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,160	315	490	0.748	0.86
November	2,440	365	597	.911	1.02
December	6,600	615	2,300	3.51	4.05
January	2,440	925	1,400	2.14	2.47
February	1,900	840	1,200	1.83	1.97
March	3,500	685	1,350	2.06	2.38
April	3,340	1,110	1,800	2.75	3.07
May	8,250	1,420	2,580	3.94	4.54
June	12,900	925	1,950	2.98	3.32
July	3,980	925	1,760	2.69	3.10
August	17,200	1,020	2,230	3.40	3.92
September	7,760	760	2,180	3.33	3.72
The year	17,200	315	1,660	2.53	34.42

NOLICHUCKY RIVER AT POPLAR, N. C.

LOCATION.—Staff gage at Poplar, Mitchell County, 200 feet from Carolina, Clinchfield & Ohio Railroad depot.

DRAINAGE AREA.—609 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 34,600 second-feet Aug. 16 (gage height, 14.7 feet); minimum, 258 second-feet Oct. 8 (gage height, 1.23 feet).

1925–1928: Maximum discharge, that of Aug. 16, 1928; minimum, 89 second-feet Sept. 7, 1925.

REMARKS.—Records good below 20,000 second-feet and fair for higher stages.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	313	365	504	2,050	1,000	790	1,230	1,820	1,540	1,900	742	1,750
2	313	365	1,000	1,170	945	742	1,480	1,350	1,540	1,420	695	3,100
3	276	605	2,910	1,110	840	695	1,290	1,480	1,480	1,170	695	3,490
4	339	588	3,690	1,000	840	695	1,230	1,420	1,610	1,000	695	2,380
5	352	488	3,290	1,230	890	695	1,110	1,290	1,480	1,170	790	2,910
6	306	418	2,550	1,480	1,060	695	1,110	1,420	1,420	1,000	1,110	6,150
7	264	388	1,900	1,480	1,110	650	3,900	4,110	1,350	890	1,170	3,290
8	313	410	2,380	1,170	1,230	790	2,050	4,540	1,350	790	890	2,380
9	945	496	1,750	1,610	1,350	1,680	1,680	2,910	1,230	1,060	1,230	1,900
10	562	605	1,540	1,420	1,110	1,610	1,900	2,380	1,230	1,060	1,110	1,680
11	425	488	1,350	1,110	1,000	1,230	3,100	1,900	1,420	945	1,230	1,480
12	571	472	1,350	1,060	945	1,170	3,900	1,680	1,540	890	1,750	1,350
13	2,550	488	1,350	1,000	890	1,000	3,100	1,480	1,540	1,540	1,230	1,290
14	1,290	425	1,290	1,000	945	1,060	2,050	1,350	1,420	1,680	1,110	1,170
15	605	448	2,380	945	1,060	1,000	1,820	1,230	1,290	1,060	1,900	1,480
16	520	562	4,320	890	945	945	1,540	1,170	1,110	890	25,600	2,050
17	472	6,640	3,290	945	890	1,110	1,420	1,110	1,060	790	6,150	1,680
18	472	3,290	1,900	1,110	890	1,350	1,290	1,420	1,000	742	3,690	1,420
19	488	1,750	1,820	1,350	790	1,230	1,230	2,380	945	840	2,910	1,750
20	456	1,290	1,540	1,420	945	1,170	1,350	3,690	840	840	2,380	3,290
21	425	1,000	1,480	1,170	790	1,110	1,290	2,380	790	742	2,050	1,610
22	480	890	1,610	1,060	790	1,110	1,480	2,210	890	840	1,820	1,820
23	388	790	1,540	1,060	945	1,230	1,900	2,210	890	890	1,480	1,480
24	380	742	1,420	1,060	1,060	1,170	2,050	1,820	890	695	1,420	1,350
25	380	742	1,290	1,420	1,000	1,110	1,610	1,540	945	650	1,480	1,170
26	395	650	1,230	1,060	890	1,170	1,420	1,750	890	472	1,750	1,110
27	380	650	1,170	945	790	1,350	1,480	3,290	790	1,350	1,750	1,060
28	365	650	1,110	945	790	1,230	3,100	3,490	742	1,170	1,350	1,000
29	365	605	1,110	790	790	1,170	2,730	2,380	3,490	890	1,230	2,210
30	365	588	1,480	1,000	------	3,290	2,380	2,380	4,540	742	1,230	1,610
31	352	------	2,380	1,060	------	1,900	------	1,610	------	790	1,230	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,550	264	520	0.854	0.98
November	6,640	365	930	1.53	1.71
December	4,320	504	1,870	3.07	3.54
January	2,050	790	1,170	1.92	2.21
February	1,350	790	949	1.56	1.68
March	3,290	650	1,170	1.92	2.21
April	3,900	1,110	1,910	3.14	3.50
May	4,540	1,110	2,100	3.45	3.98
June	4,540	742	1,380	2.27	2.53
July	1,900	472	997	1.64	1.89
August	25,600	695	2,380	3.91	4.51
September	6,150	1,000	2,010	3.30	3.68
The year	25,600	264	1,450	2.38	32.42

NOLICHUCKY RIVER AT EMBREEVILLE, TENN.

LOCATION.—Chain gage on county highway bridge at Embreeville, Washington County, 3½ miles northwest of Erwin. Zero of gage is 1,513.04 feet above mean sea level.

DRAINAGE AREA.—795 square miles.

RECORDS AVAILABLE.—July, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 35,300 second-feet Aug. 16 (gage height, 13.85 feet); minimum, 317 second-feet Oct. 7 (gage height, 2.14 feet).

1920–1928: Maximum discharge, that of Aug. 16, 1928; minimum, 85 second-feet Sept. 8 and 9, 1925 (gage height, 1.60 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	410	700	3,170	1,360	930	2,350	3,000	2,060	3,170	930	2,200
2	350	410	1,420	1,660	1,300	880	2,060	2,350	1,920	2,200	832	4,540
3	350	582	5,740	1,420	1,190	880	1,660	2,060	1,790	1,660	742	6,260
4	356	785	4,110	1,300	1,140	832	1,540	1,790	2,200	1,420	880	3,910
5	380	660	4,540	1,240	1,140	832	1,420	1,540	2,060	1,480	980	3,530
6	350	545	3,000	1,240	1,420	832	1,190	1,790	1,920	1,360	1,240	9,840
7	317	475	2,200	1,240	1,540	785	3,000	4,110	1,660	1,140	1,420	4,320
8	339	442	2,830	1,190	1,660	785	2,670	6,260	1,540	1,030	1,080	3,170
9	545	620	2,200	1,660	1,790	2,060	1,790	3,910	1,540	1,140	1,300	2,830
10	660	620	1,660	1,790	1,540	2,670	1,920	3,000	1,920	1,660	1,300	2,200
11	510	582	1,540	1,480	1,360	1,790	2,830	2,350	1,790	1,300	1,300	1,790
12	442	582	1,540	1,360	1,240	1,540	5.240	2,060	2,060	1,140	2,200	1,660
13	2,830	620	1,540	1,240	1,190	1,420	3,350	1,790	2,200	1,420	1,360	1,540
14	980	545	1,480	1,190	1,140	1,480	2,510	1,660	2,350	2,670	1,240	1,420
15	700	545	1,660	1,190	1,300	1,420	2,350	1,480	1,920	1,660	1,140	1,300
16	620	545	6,000	1,140	1,190	1,360	2,060	1,420	1,660	1,240	27,100	2,510
17	545	2,060	4,110	1,140	1,080	1,540	1,790	1,420	1,480	1,030	7,650	1,920
18	545	4,770	2,830	1,360	1,080	2,350	1,540	1,790	1,300	980	4,540	1,660
19	582	2,060	2,060	1,790	1,030	1,920	1,480	4,540	1,190	1,030	3,720	1,660
20	510	1,360	1,540	1,920	1,030	1,660	1,540	6,530	1,080	1,300	2,830	4.540
21	475	1,190	1,540	1,540	1,030	1,660	1,540	3,910	1,030	980	2,350	3,170
22	475	1,030	1,480	1,240	930	1,480	1,660	2,830	1,240	1,080	2,350	2,200
23	475	930	1,300	1,300	980	1,660	2,060	3,000	1,190	1,140	1,920	1,790
24	442	880	1,190	1,300	1,240	1,660	2,510	2,510	1,140	980	1,660	1,660
25	442	832	1,140	1,660	1,190	1,540	2,200	2,060	1,240	785	1,920	1,480
26	442	785	1,080	1,420	1,080	1,540	1,790	2,670	1,190	785	1,920	1,360
27	410	742	980	1,300	1,030	1,920	1,790	4,540	1,080	1,920	1,920	1,240
28	410	700	980	1,190	980	1,790	1,240	6,800	930	1,540	1,660	1,190
29	410	700	1,190	930	980	1,480	3,720	3,720	5,740	1,080	1,480	1,190
30	410	700	1,540	1,080	-------	3,170	3,720	3,000	8,250	930	1,480	1,360
31	410	-------	2,350	1,360	-------	3,720	-------	2,350	-------	1,190	1,540	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,830	317	550	0.692	0.80
November	4,770	410	924	1.16	1.29
December	6,000	980	2,180	2.74	3.16
January	3,170	930	1,420	1.79	2.06
February	1,790	930	1,210	1.52	1.64
March	3,720	785	1,600	2.01	2.32
April	5,240	1,190	2,220	2.79	3.11
May	6,800	1,420	2,980	3.75	4.32
June	8,250	930	1,960	2.46	2.74
July	3,170	785	1,370	1.72	1.98
August	27,100	742	2,710	3.41	3.93
September	9,840	1,190	2,650	3.33	3.72
The year	27,100	317	1,820	2.29	31.07

NOLICHUCKY RIVER NEAR MORRISTOWN, TENN.

LOCATION.—Water-stage recorder at Jones Bridge, on Morristown-Newport highway 3 miles below mouth of Bent Creek and 9 miles southeast of Morristown, Hamblen County. Zero of gage is 1,004.40 feet above mean sea level.

DRAINAGE AREA.—1,690 square miles.

RECORDS AVAILABLE.—November, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, about 27,700 second-feet Aug. 16 (gage height, 18.9 feet); minimum mean daily discharge, 210 second-feet Oct. 31 (gage height, 1.62 feet).

1920–1928: Maximum discharge, that of Aug. 16, 1928; minimum, 22 second-feet Sept. 7 and 28, 1925 (gage height, 1.00 foot).

REMARKS.—Records good except for extremely high stages and for estimated periods, Oct. 3, 31, Nov. 14, Aug. 26 to Sept. 1, and Sept. 16–29. Considerable regulation at low water caused by operation of power plant 22 miles upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	512	578	1,150	5,290	2,360	1,350	5,150	5,290	3.940	12,900	1,720	3,200
2	338	597	1,190	4,200	2,250	1,310	3,940	4,330	3,550	7,810	1,530	5,850
3	294	731	4,330	2,360	1,920	1,270	3,190	3,680	3,940	4,460	1,440	8,290
4	526	1,040	6.450	1,770	1,770	1,110	2,710	3,190	5,290	3,190	1,350	7,650
5	420	1,070	5,570	1,620	1,620	1,310	2,420	2,770	4,460	4,730	1,230	6,750
6	532	766	4,870	1,620	3,310	1,270	2,300	2,590	3,940	3,680	1,620	11,100
7	532	545	3,680	1,670	3,940	1,190	2,080	4,070	3,430	2,770	2,140	9,410
8	597	892	3,010	1,670	3,940	1,110	3.190	8,770	2,950	2,470	2,030	6,150
9	745	1,190	3,430	2,360	3,310	3.310	3,430	8,610	2,830	3,070	1,820	4,200
10	532	1,110	2,770	2,950	2,830	4,730	3,310	6.000	2,950	4,070	1,720	3,680
11	780	1,190	2,140	2,890	2,360	3,810	5,430	4,200	3,430	3,940	2,080	3,070
12	1,040	766	2.250	2,360	2,030	2,950	8,130	3,430	3,430	2,650	1,920	2,710
13	1,070	623	2,080	1,980	2,140	2,470	7,050	3,010	3,430	2,420	2,830	3,070
14	1,530	230	2,140	1,980	1,920	3,430	5,570	2,950	4,870	3,190	2,030	2,300
15	1,350	759	3,430	1,620	1,870	3,310	5,150	2,590	4,330	3,680	1,820	2,250
16	857	836	5.570	1,820	1,920	2,950	4,200	2,360	3,310	2,890	10,900	4.500
17	960	998	8.290	1,670	1,770	3,430	3,310	2,250	2,710	2,300	17,000	3,500
18	1,070	3,940	5,290	1,820	1,720	6,750	3,010	2,420	2,830	2,030	7,500	3,000
19	815	4,330	3,810	2,710	1,480	6,150	2,770	3,680	2,360	1,920	5,430	3,000
20	780	2,360	2,770	3,190	1,620	4,330	2,710	11,800	2,080	1,920	5,010	8,200
21	752	1,980	2,200	2,830	1,530	3,190	2,830	8,770	2,200	2,250	3,680	5,700
22	752	1,580	2,030	2,080	1,480	2,830	2,530	5,570	2,300	1,820	3,070	3,600
23	642	1,350	1,920	1,920	1,440	3,810	3.310	5,150	2,200	2,140	2,830	3,200
24	578	1,150	1,670	1,920	1,530	2,590	3,810	4,730	2,360	1,980	2,420	3,000
25	738	1,190	1,530	2,200	1,670	2,420	3,810	3,940	3,010	1,720	2,250	2,700
26	801	1.150	1,620	2,360	1,480	3.010	3,190	3,810	2.470	1,530	2,400	2,400
27	843	960	1,530	1,980	1,620	4.070	3,550	7,650	2,030	1,620	2.400	2,100
28	829	1,070	1,440	1,770	1,440	3,550	6,150	12,900	1,820	2,650	2,200	1,800
29	787	1,110	1,530	1,480	1,400	2.950	6.900	9,580	17,100	2,590	1,900	1,600
30	623	1,070	1,920	1,480	-------	3,940	6,000	6,450	16,800	2,200	1,800	1,620
31	210	-------	5,010	1,720	-------	6,450	-------	4,730	--------	1,720	1,800	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,530	210	737	0.436	0.50
November	4,330	230	1,240	.734	.82
December	8,290	1,150	3,120	1.85	2.13
January	5,290	1,480	2,240	1.33	1.53
February	3,940	1,400	2,060	1.22	1.32
March	6,750	1,110	3,110	1.84	2.12
April	8,130	2,080	4,040	2.39	2.67
May	12,900	2,250	5,200	3.08	3.55
June	17,100	1,820	4,080	2.41	2.69
July	12,900	1,530	3,170	1.88	2.17
August	17,000	1,230	3,220	1.90	2.19
September	11,100	1,600	4,320	2.56	2.86
The year	17,100	210	3,040	1.80	24.55

LITTLE PIGEON RIVER AT SEVIERVILLE, TENN.

LOCATION.—Staff gage at Eckel's farmhouse, half a mile below Sevierville, Sevier County, and confluence of east and west forks of river. Zero of gage is 882.26 feet above mean sea level.

DRAINAGE AREA.—346 square miles.

RECORDS AVAILABLE.—November, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 28,300 second-feet June 29 (gage height, 15.4 feet); minimum, 42 second-feet Oct. 4 and 31 (gage height, 0.68 foot).

1920–1928: Maximum discharge, that of June 29, 1928; minimum, 5 second-feet Oct. 12 and Nov. 3, 1923.

REMARKS.—Records fair. Discharge estimated June 23–28 and July 21 to Aug. 1. Operation of power plant and several flour mills causes some regulation.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	74	351	1,470	945	225	858	1,520	790	2,040	525	5,320
2	58	86	873	881	775	195	659	1,240	738	1,200	318	7,120
3	76	190	1,570	775	606	195	554	921	1,030	881	296	5,700
4	64	235	945	619	503	181	491	760	1,080	701	1,010	2,320
5	76	593	897	626	473	210	443	652	996	1,240	873	2,440
6	62	89	666	606	1,100	185	407	701	921	1,340	715	3,150
7	60	124	541	431	828	177	687	3,290	687	996	1,670	1,720
8	76	86	945	373	1,420	177	593	3,360	600	1,290	760	1,160
9	235	124	593	945	881	1,520	479	1,520	515	1,570	567	897
10	181	110	425	586	687	1,030	820	1,420	1,240	1,870	921	738
11	340	92	395	491	619	760	1,820	1,070	979	1,160	586	626
12	92	101	419	443	509	606	1,470	820	1,420	865	534	560
13	479	124	491	425	449	515	996	722	1,040	760	425	497
14	215	138	455	419	479	659	1,240	593	1,870	768	897	455
15	120	104	1,020	362	485	580	1,080	528	1,980	619	528	996
16	98	86	2,690	334	431	606	820	479	1,290	528	2,200	1,240
17	117	1,160	1,470	329	395	782	673	455	1,060	467	1,380	673
18	98	828	996	782	419	1,520	606	479	775	407	1,070	554
19	101	503	768	1,030	318	1,120	528	567	626	390	929	503
20	104	340	574	996	318	798	1,030	1,200	541	413	835	606
21	95	235	455	606	302	730	790	687	503	500	645	509
22	92	205	384	497	280	554	850	1,240	541	450	554	443
23	57	225	346	479	324	528	1,470	1,520	600	450	467	395
24	98	169	296	461	329	522	1,520	1,380	1,250	425	431	356
25	98	195	302	730	302	497	1,120	881	950	425	449	324
26	95	177	255	567	260	509	850	1,290	650	425	528	290
27	78	138	245	515	245	782	1,120	3,800	450	575	390	275
28	98	138	215	479	255	593	1,470	2,620	400	675	334	255
29	80	128	509	373	240	515	1,380	1,470	7,620	675	312	275
30	60	131	467	443	------	1,470	1,240	1,240	10,700	650	307	285
31	76	------	4,110	1,120	------	1,200	------	929	------	575	962	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	479	57	118	0.341	0.39
November	1,160	74	231	.668	.75
December	4,110	215	796	2.30	2.65
January	1,470	329	619	1.79	2.06
February	1,420	240	523	1.51	1.63
March	1,520	177	643	1.86	2.14
April	1,820	407	935	2.70	3.01
May	3,800	455	1,270	3.67	4.23
June	10,700	400	1,460	4.22	4.71
July	2,040	390	817	2.36	2.72
August	2,200	296	723	2.09	2.41
September	5,700	255	1,360	3.93	4.38
The year	10,700	57	790	2.28	31.08

SOUTH FORK OF HOLSTON RIVER AT RIVERSIDE, NEAR CHILHOWIE, VA.

LOCATION.—Chain gage at Riverside Bridge, half a mile downstream from Bebord's flour mill and 5 miles southeast of Chilhowie, Smyth County.

DRAINAGE AREA.—94.5 square miles.

RECORDS AVAILABLE.—November, 1920, to September, 1928. June, 1907, to December, 1909, at site below mouth of Grose Creek, 4½ miles downstream.

EXTREMES.—Maximum discharge during year, 860 second-feet Sept. 2 (gage height, 3.55 feet); minimum, 11 second-feet Oct. 11 (gage height, 0.60 foot).

1920–1928: Maximum discharge, 4,450 second-feet June 12, 1923 (gage height, 7.7 feet); minimum (regulated), 3.4 second-feet Sept. 8, 1923 (gage height, 0.28 foot).

REMARKS.—Records good. Discharge estimated Jan. 2–6 because of ice. Several small mills above gage cause considerable diurnal fluctuation during low water.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	22	43	109	84	82	136	322	97	56	30	475
2	21	39	99		91	74	122	236	88	50	31	760
3	27	43	278		82	68	111	198	130	51	47	420
4	30	36	174	80	111	66	100	174	138	52	46	278
5	22	42	174		104	63	91	140	132	47	39	264
6	28	28	174		162	59	89	151	122	48	36	403
7	23	37	162	67	174	54	99	292	118	51	36	278
8	27	30	307	64	198	58	97	354	109	43	32	210
9	25	34	198	84	210	82	96	278	100	46	37	162
10	32	34	138	77	186	89	111	210	94	67	62	128
11	21	36	113	76	162	92	198	174	96	51	54	115
12	34	40	107	78	140	88	576	151	92	44	74	97
13	34	29	186	71	116	82	386	124	89	52	53	88
14	30	30	223	72	111	109	278	111	91	84	47	78
15	25	28	307	67	107	122	223	107	82	64	58	80
16	24	32	666	64	104	132	186	96	72	51	438	71
17	31	76	420	67	96	126	162	94	72	46	322	77
18	33	122	264	68	96	128	134	99	78	50	264	100
19	34	74	198	88	82	120	130	100	72	45	403	198
20	20	54	151	128	78	122	223	115	72	45	250	620
21	18	47	122	126	78	136	250	120	82	44	162	370
22	18	43	118	111	78	151	210	113	71	39	120	186
23	24	44	99	94	84	223	198	140	67	45	97	174
24	28	37	76	97	96	198	162	138	68	44	78	151
25	31	43	74	134	91	174	140	136	64	35	78	138
26	35	33	66	126	104	151	124	124	66	32	71	122
27	27	36	62	113	104	162	162	140	62	36	68	126
28	18	42	54	100	97	140	386	151	56	47	66	97
29	29	38	70	91	86	132	354	140	64	42	72	92
30	22	38	66	86	------	151	420	109	62	34	88	116
31	29	------	99	88	------	140	------	107	------	42	82	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	35	18	26.6	0.281	0.32
November	122	22	42.2	.447	.50
December	666	43	171	1.81	2.09
January	134	64	88.6	.938	1.08
February	210	78	114	1.21	1.30
March	223	54	115	1.22	1.41
April	576	89	198	2.10	2.34
May	354	94	159	1.68	1.94
June	138	56	86.9	.920	1.03
July	84	32	47.8	.506	.58
August	438	30	108	1.14	1.31
September	760	71	216	2.29	2.56
The year	760	18	114	1.21	16.46

SOUTH FORK OF HOLSTON RIVER AT BLUFF CITY, TENN.

LOCATION.—Water-stage recorder just above highway bridge at Bluff City, Sullivan County, 2,800 feet below Virginia & Southwestern Railroad bridge and 1 mile below mouth of Indian Creek subsequent to Aug. 19. Prior to that date a staff gage at highway bridge was used. Zero of both gages is 1,368.09 feet above mean sea level.

DRAINAGE AREA.—828 square miles.

RECORDS AVAILABLE.—July, 1900, to September, 1928.

EXTREMES.—Maximum discharge during year, 6,470 second-feet Dec. 16 (gage height, 5.9 feet); minimum, 204 second-feet Oct. 2 (gage height, 0.08 foot).

1900–1928: Maximum stage, 15.0 feet May 22, 1901 (discharge not determined); minimum discharge, 115 second-feet Sept. 9, 1925 (gage height, −0.18 foot).

REMARKS.—Records good. Operation of small mills upstream causes some diurnal fluctuation.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	210	240	315	2,010	1,120	712	1,710	3,320	1,200	1,200	382	1,230
2	204	240	405	1,360	1,200	680	1,440	2,450	1,120	960	382	4,820
3	275	275	2,810	885	1,200	620	1,280	1,910	1,710	850	405	5,310
4	315	480	2,340	1,040	1,040	590	1,120	1,620	2,120	745	430	3,340
5	360	405	2,230	922	960	590	960	1,440	2,450	745	430	3,140
6	338	338	1,810	885	1,280	590	922	1,280	2,230	680	505	4,660
7	455	275	1,440	815	1,620	532	885	2,340	1,910	620	505	3,140
8	360	275	1,360	780	1,710	532	885	3,590	1,710	590	480	2,160
9	338	360	1,360	780	1,710	815	815	3,190	1,440	532	405	1,660
10	315	455	1,120	1,280	1,710	1,440	885	2,340	1,360	1,440	405	1,310
11	275	405	960	1,120	1,440	1,280	1,360	1,810	1,440	1,280	455	1,100
12	258	338	850	960	1,280	1,120	4,740	1,530	1,440	850	405	968
13	382	315	1,710	885	1,120	960	4,010	1,360	1,440	680	532	874
14	360	295	2,450	850	1,040	1,200	2,570	1,200	1,360	745	480	807
15	295	275	2,570	815	1,120	1,620	2,340	1,120	1,200	1,200	430	751
16	258	315	5,990	780	1,040	1,620	1,810	960	1,120	815	680	711
17	258	315	6,150	745	960	1,530	1,530	960	1,200	712	2,810	671
18	240	1,440	3,450	745	960	4,010	1,360	885	1,010	620	2,570	695
19	240	1,120	2,450	815	922	2,810	1,200	1,040	960	560	3,610	775
20	258	650	1,620	1,440	815	2,230	4,290	1,710	885	505	2,700	3,890
21	275	505	1,280	1,530	815	2,010	3,590	2,570	885	1,040	1,660	3,400
22	258	455	1,120	1,200	780	1,810	2,690	2,120	960	590	1,410	2,220
23	240	405	850	1,120	815	1,810	2,120	2,570	850	505	1,170	1,560
24	240	360	560	960	850	2,010	2,010	2,120	1,040	455	874	1,240
25	240	382	505	1,200	885	1,810	1,710	1,620	885	480	767	1,060
26	225	430	620	1,200	815	1,620	1,440	1,440	885	430	743	908
27	225	382	480	960	780	1,440	1,360	1,360	815	382	719	867
28	240	338	455	922	745	1,530	4,010	2,810	745	430	743	743
29	207	338	590	680	745	1,360	4,150	2,010	1,360	430	610	687
30	225	315	745	712	------	1,440	3,730	1,710	1,910	430	618	934
31	225	------	1,530	960	------	1,910	------	1,440	------	405	655	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	455	204	277	0.335	0.39
November	1,440	240	424	.512	.57
December	6,150	315	1,680	2.03	2.34
January	2,010	680	1,010	1.22	1.41
February	1,710	745	1,090	1.32	1.42
March	4,010	532	1,430	1.73	1.99
April	4,740	815	2,100	2.54	2.83
May	3,590	885	1,870	2.26	2.61
June	2,450	745	1,320	1.59	1.77
July	1,440	382	707	.854	.98
August	3,610	382	935	1.13	1.30
September	5,310	671	1,850	2.23	2.49
The year	6,150	204	1,220	1.47	20.10

SOUTH FORK OF HOLSTON RIVER AT KINGSPORT, TENN.

LOCATION.—Water-stage recorder one-fourth mile downstream from Carolina, Clinchfield & Ohio Railroad bridge and half a mile upstream from Eastman Kodak plant at Kingsport, Claiborne County. Zero of gage is 1,188.79 feet above mean sea level.

DRAINAGE AREA.—1,960 square miles.

RECORDS AVAILABLE.—September, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, about 20,200 second-feet Sept. 6 (gage height, 8.2 feet); minimum, 598 second-feet Oct. 24 (gage height, 0.38 foot).

1925–1928: Maximum discharge, 43,200 second-feet Feb. 24, 1927 (gage height, 13.9 feet); minimum, 350 second-feet Oct. 7 and 12, 1925 (gage height, 0.15 foot).

REMARKS.—Records good except those for estimated periods (Oct. 4–9 and Sept. 16–22), which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	704	764	1,100	4,960	2,580	1,890	4,780	7,720	3,730	5,390	1,240	2,580
2	752	764	1,480	3,730	2,760	1,810	4,030	5,830	3,630	3,830	1,210	8,470
3	680	860	7,240	2,670	2,580	1,730	3,430	4,750	4,330	3,140	1,210	11,400
4	824	1,270	6,520	2,320	2,400	1,670	3,040	4,130	6,290	2,760	1,270	8,220
5	1,030	1,270	6,290	2,320	2,320	1,480	2,760	3,630	6,290	2,860	1,300	6,520
6	1,210	1,060	5,390	2,210	2,950	1,600	2,580	3,430	5,610	2,580	1,570	17,000
7	1,130	836	4,330	2,320	3,530	1,510	2,490	5,830	4,960	2,320	1,890	10,000
8	1,100	912	4,130	2,110	3,830	1,500	3,730	8,720	4,230	2,110	1,620	6,520
9	1,070	1,100	4,230	2,320	4,030	2,200	2,860	7,720	3,830	2,030	1,390	4,750
10	1,100	1,330	3,430	3,140	3,730	4,130	2,950	5,830	3,730	2,860	1,450	3,830
11	925	1,170	2,760	2,860	3,330	3,430	4,960	4,640	3,730	2,760	1,440	3,240
12	977	990	2,580	2,580	2,950	2,950	11,700	3,930	4,030	2,180	2,010	2,760
13	2,400	1,050	3,730	2,400	2,760	2,670	9,240	3,530	4,030	1,920	1,730	2,230
14	1,460	886	4,750	2,320	2,490	2,950	6,760	3,140	4,130	2,400	1,500	2,090
15	1,120	925	5,610	2,160	2,580	3,830	5,830	2,860	3,830	2,860	1,390	2,140
16	1,070	860	12,000	2,090	2,400	3,630	4,640	2,670	3,240	2,230	6,290	2,100
17	812	1,100	12,900	2,010	2,320	3,630	3,930	2,580	3,140	1,910	8,470	2,000
18	860	9,240	7,720	2,090	2,210	7,000	3,530	2,580	3,040	1,730	6,290	2,100
19	938	3,930	5,390	2,400	2,160	6,060	3,330	3,730	2,580	1,590	6,290	2,000
20	977	2,400	3,830	3,240	2,010	4,960	5,500	10,000	2,400	1,540	6,760	10,600
21	951	1,890	3,140	3,330	2,060	4,330	7,240	8,220	2,400	1,860	4,440	9,200
22	899	1,590	2,760	2,760	1,990	4,130	5,830	6,290	2,670	1,760	3,730	5,800
23	951	1,420	2,400	2,580	1,910	4,130	4,960	6,060	2,580	1,450	3,530	3,930
24	692	1,240	2,030	2,490	2,090	4,440	4,860	5,060	2,950	1,510	2,670	3,240
25	812	1,230	1,870	2,760	2,230	4,030	4,330	4,030	2,580	1,420	2,400	2,760
26	800	1,330	1,870	2,760	2,090	3,730	3,830	3,830	2,400	1,390	2,760	2,400
27	788	1,200	1,730	2,400	2,010	3,730	4,030	4,750	2,230	1,280	2,760	2,180
28	764	1,120	1,650	2,210	1,910	3,930	8,470	10,000	2,040	1,420	2,670	2,060
29	764	1,130	1,760	2,230	1,870	3,530	8,980	6,760	5,500	1,560	2,160	1,920
30	836	1,100	2,160	2,210	-------	4,130	8,720	5,390	8,720	1,270	2,060	2,090
31	728	-------	3,140	2,320	-------	5,500	--------	4,440	-------	1,340	2,060	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,400	680	972	0.496	0.57
November	9,240	764	1,530	.781	.87
December	12,900	1,100	4,190	2.14	2.47
January	4,960	2,010	2,590	1.32	1.52
February	4,030	1,870	2,550	1.30	1.40
March	7,000	1,480	3,430	1.75	2.02
April	11,700	2,490	5,110	2.61	2.91
May	10,000	2,580	5,330	2.67	3.08
June	8,720	2,040	3,830	1.95	2.18
July	5,390	1,270	2,170	1.11	1.28
August	8,470	1,210	2,820	1.44	1.66
September	17,000	1,920	4,870	2.48	2.77
The year	17,000	680	3,270	1.67	22.73

HOLSTON RIVER NEAR ROGERSVILLE, TENN.

LOCATION.—Water-stage recorder at highway bridge 1,600 feet below Austin mill and dam and 3 miles south of Rogersville, Hawkins County. Zero of gage is 1,057.04 feet above mean sea level.

DRAINAGE AREA.—3,060 square miles.

RECORDS AVAILABLE.—March, 1902, to September, 1928.

EXTREMES.—Maximum discharge during year, 25,200 second-feet Sept. 6 (gage height, 8.4 feet); minimum, 756 second-feet Nov. 1 (gage height, 0.13 foot).

1904–1928: Maximum discharge, 70,900 second-feet Jan. 29, 1918 (gage height, 20.0 feet, old gage); minimum, 438 second-feet Sept. 9, 1925.

Maximum stage known, 38.4 feet Mar. 10, 1867.

REMARKS.—Records good. Discharge estimated Dec. 16–18 and Jan. 3–7.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	912	756	1,340	7,160	3,710	2,520	9,440	13,000	5,340	10,000	1,670	3,500
2	816	792	1,760	5,970	3,930	2,350	7,160	10,400	4,970	6,760	1,600	7,710
3	864	840	6,100	3,930	3,820	2,350	5,970	7,990	6,890	5,220	1,540	20,200
4	804	996	9,440	2,800	3,600	2,190	4,970	6,620	9,740	4,260	1,540	14,900
5	1,030	1,430	7,430	3,400	3,500	2,040	4,380	5,720	11,000	4,380	1,690	11,000
6	1,240	1,340	7,160	3,400	4,150	2,040	3,930	5,090	9,440	4,380	1,750	19,800
7	1,010	1,210	5,840	3,400	5,720	1,960	3,600	5,970	8,270	3,710	2,190	17,100
8	1,140	1,060	4,970	3,290	8,270	1,890	4,150	10,700	6,890	3,290	2,270	10,400
9	1,140	1,200	5,340	3,600	7,990	3,190	4,260	12,000	5,970	4,150	1,960	7,430
10	1,210	1,330	4,500	4,260	6,760	5,970	3,820	9,440	5,590	6,890	1,820	5,840
11	1,220	1,670	3,600	4,380	5,840	5,840	5,720	7,430	5,220	5,720	1,960	4,850
12	1,130	1,400	3,400	3,820	5,090	4,610	13,400	6,100	5,340	4,150	2,040	4,150
13	1,280	1,260	4,610	3,400	4,380	4,040	14,900	5,340	5,590	3,400	2,700	3,710
14	2,270	1,240	6,360	3,190	3,930	3,820	12,300	4,610	5,970	3,190	2,120	3,290
15	1,620	1,090	7,710	3,090	3,820	5,340	11,300	4,150	5,840	3,710	1,960	3,190
16	1,350	1,080	14,100	2,890	3,710	5,340	8,270	3,930	4,850	3,400	3,820	2,990
17	1,290	1,280	20,200	2,800	3,500	5,460	6,760	3,600	4,610	2,990	13,400	2,800
18	1,030	6,100	13,400	2,890	3,190	10,400	5,840	3,400	4,500	2,520	10,700	2,700
19	1,040	6,360	8,560	3,290	3,190	11,300	5,340	3,710	3,930	2,350	8,560	2,700
20	1,060	3,930	6,100	5,340	2,990	8,850	9,440	8,850	3,500	2,350	10,400	6,890
21	1,080	2,700	4,500	7,430	2,890	7,430	13,400	11,300	3,500	2,190	7,160	13,400
22	1,060	2,190	3,930	5,590	2,800	6,890	10,000	9,740	3,930	2,520	5,720	9,440
23	1,010	1,860	3,500	4,260	2,700	6,490	8,560	8,560	3,820	2,350	5,340	6,620
24	1,040	1,640	2,890	3,930	2,610	6,760	8,270	7,710	4,500	2,120	4,150	5,090
25	852	1,460	2,520	4,260	2,890	6,760	7,430	6,230	4,150	1,960	3,400	4,150
26	936	1,510	2,350	4,610	2,890	5,970	6,360	5,460	3,930	1,880	3,290	3,600
27	876	1,510	2,270	4,040	2,800	5,840	6,100	7,160	3,290	1,860	3,600	3,190
28	840	1,370	2,120	3,600	2,610	5,840	11,300	12,700	2,890	1,890	3,500	2,890
29	840	1,350	2,190	3,090	2,610	5,340	15,600	10,400	15,200	1,960	3,400	2,610
30	840	1,310	2,610	3,090	-------	5,720	13,400	7,710	17,500	1,890	2,800	3,290
31	852	-------	4,380	2,890	-------	10,700	--------	6,490	--------	1,680	2,700	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,270	804	1,090	0.356	0.41
November	6,360	756	1,780	.582	.65
December	20,200	1,340	5,650	1.85	2.13
January	7,430	2,800	3,970	1.30	1.50
February	8,270	2,610	4,000	1.31	1.41
March	11,300	1,890	5,330	1.74	2.01
April	15,600	3,600	8,180	2.67	2.98
May	13,000	3,400	7,470	2.44	2.81
June	17,500	2,890	6,210	2.03	2.26
July	10,000	1,680	3,520	1.15	1.33
August	13,400	1,540	3,900	1.27	1.46
September	20,200	2,610	6,980	2.28	2.54
The year	20,200	756	4,830	1.58	21.49

MIDDLE FORK OF HOLSTON RIVER AT CHILHOWIE, VA.

LOCATION.—Chain gage on highway bridge at Chilhowie, Smyth County.

DRAINAGE AREA.—144 square miles.

RECORDS AVAILABLE.—June, 1907, to December, 1909; November, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 1,860 second-feet Dec. 16 (gage height, 4.57 feet); minimum, 32 second-feet Oct. 2.

1907–1909, 1920–1928: Maximum discharge, 7,710 second-feet June 12, 1923 (gage height, 11.4 feet); minimum, 13 second-feet July 28, 1926 (gage height, 0.70 foot).

REMARKS.—Records good. Discharge estimated Jan. 3–6 because of ice. Operation of small mills upstream causes some diurnal fluctuation.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	49	84	332	149	108	251	422	189	106	66	515
2	35	51	378	169	196	103	210	310	225	98	66	1,180
3	46	86	690		169	98	176	255	378	89	75	740
4	51	91	310		159	98	162	225	740	89	70	400
5	49	66	400	140	182	93	149	203	490	93	68	310
6	48	59	332		332	89	143	210	422	89	70	490
7	49	55	236	116	332	91	143	445	378	89	79	355
8	53	98	310	108	355	86	133	690	290	79	79	270
9	48	95	210	156	400	232	125	468	247	93	72	210
10	49	79	159	176	290	270	143	310	255	119	176	176
11	53	61	127	156	243	203	310	255	270	93	93	152
12	57	66	143	149	207	172	1,020	218	355	84	108	140
13	70	64	400	143	193	149	590	189	270	84	84	125
14	57	57	355	133	176	255	400	169	225	290	72	119
15	48	61	490	130	172	262	290	156	200	136	79	114
16	49	51	1,720	125	156	266	240	149	210	106	690	111
17	49	101	795	122	149	232	210	143	182	91	332	149
18	48	189	422	130	156	540	193	232	165	89	214	108
19	55	95	290	400	136	445	186	355	146	86	270	251
20	51	70	182	540	130	378	468	850	136	89	196	960
21	53	57	193	310	125	422	468	905	136	84	143	590
22	49	55	162	225	119	490	355	490	143	75	232	332
23	51	57	143	182	133	565	290	795	125	89	149	247
24	49	53	127	165	136	400	262	515	130	79	149	203
25	51	59	114	203	127	310	218	378	125	72	133	169
26	51	57	108	162	119	262	200	332	119	70	119	152
27	49	49	98	152	98	240	243	310	103	70	332	136
28	53	49	101	140	114	200	640	310	106	59	140	127
29	48	51	122	169	114	189	590	270	116	70	108	125
30	51	49	125	172	------	290	615	240	114	66	103	290
31	51	------	332	130	------	270	------	210	------	66	108	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	70	35	50.5	0.351	0.40
November	189	49	69.3	.481	.54
December	1,720	84	312	2.17	2.50
January	540	108	182	1.26	1.45
February	400	98	185	1.28	1.38
March	565	86	252	1.75	2.02
April	1,020	125	314	2.18	2.43
May	905	143	355	2.47	2.85
June	740	103	233	1.62	1.81
July	290	59	93.3	.648	.75
August	690	66	151	1.05	1.21
September	1,180	108	308	2.14	2.39
The year	1,720	35	209	1.45	19.73

WATAUGA RIVER AT STUMP KNOB, TENN.

LOCATION.—Staff gage 400 feet below J. E. Lineback's store (site of old Stump Knob post office), Johnson County, 4½ miles above Butler, and 2¼ miles above Elk Creek.

DRAINAGE AREA.—177 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 10,700 second-feet Nov. 17 (gage height, 9.2 feet); minimum, 89 second-feet Oct. 30 and 31 (gage height, 0.94 foot).

REMARKS.—Records good except those above 2,500 second-feet and for estimated periods (Jan. 22 and Jan. 25 to Feb. 8), which are fair.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	94	156	470	270	231	470	648	405	438	114	575
2	-------	94	540	301	260	200	381	505	375	323	107	972
3	-------	156	1,550	470	240	187	334	405	363	270	109	1,070
4	-------	168	1,070	438	220	183	285	375	685	222	107	800
5	-------	121	1,170	381	260	191	265	328	540	208	114	685
6	-------	112	882	255	340	200	250	318	470	204	147	2,670
7	-------	104	685	245	340	168	1,670	760	405	176	160	1,070
8	-------	112	1,280	226	400	168	760	882	340	204	109	800
9	-------	179	722	438	399	505	540	685	306	168	124	610
10	-------	150	505	369	345	405	685	540	405	179	119	505
11	-------	126	438	296	312	381	1,070	438	381	168	575	405
12	-------	126	405	280	270	340	1,670	381	575	144	340	357
13	-------	129	470	260	245	296	1,020	328	540	236	179	318
14	-------	114	470	250	270	328	722	301	648	345	147	280
15	-------	116	610	236	260	306	575	275	470	191	505	270
16	-------	126	1,670	222	245	296	470	265	375	168	6,600	280
17	-------	5,400	1,120	226	236	285	399	250	334	153	1,440	260
18	-------	1,550	685	255	255	375	405	345	296	138	800	250
19	-------	722	505	312	153	306	334	1,020	270	135	760	925
20	-------	540	648	312	218	296	505	1,790	222	135	685	1,550
21	-------	345	351	179	222	328	438	972	236	132	470	882
22	-------	290	334	198	213	318	438	722	255	150	685	610
23	-------	255	285	218	363	438	438	648	240	132	505	470
24	-------	213	280	222	393	438	505	540	265	121	405	369
25	-------	231	213	290	345	369	405	438	213	114	540	345
26	-------	191	213	260	301	363	363	438	226	109	840	306
27	-------	172	195	220	265	505	438	840	187	124	800	275
28	-------	164	240	210	260	438	800	1,120	187	135	505	250
29	-------	156	318	190	231	363	722	760	438	126	438	236
30	89	156	280	210	-------	575	800	610	760	107	351	290
31	89	-------	575	260	-------	575	-------	505	-------	114	318	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
November	5,400	94	414	2.34	2.61
December	1,670	156	609	3.44	3.97
January	470	179	281	1.59	1.83
February	400	153	280	1.58	1.70
March	575	168	334	1.89	2.18
April	1,670	250	605	3.42	3.82
May	1,790	250	595	3.36	3.87
June	760	187	380	2.15	2.40
July	438	107	180	1.02	1.18
August	6,600	107	616	3.48	4.01
September	2,670	236	623	3.52	3.93

WATAUGA RIVER AT BUTLER, TENN.

LOCATION.—Staff gage at highway bridge at Butler, Johnson County, just below Roane Creek. Zero of gage is 1,812.10 feet above mean sea level.

DRAINAGE AREA.—427 square miles.

RECORDS AVAILABLE.—August, 1900, to December, 1901; November, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 12,600 second-feet Nov. 17 (gage height, 8.6 feet); minimum, 140 second-feet Oct. 1 and 2 (gage height, 1.20 feet).

1900–1901, 1920–1928: Maximum gage height, 16.27 feet, old gage datum, May 21, 1901 (discharge not determined); minimum discharge, 85 second-feet Sept. 7, 1925.

REMARKS.—Records good below and fair above 4,000 second-feet.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	140	189	375	785	655	468	1,190	1,440	905	905	248	1,010
2	140	180	1,130	655	615	468	975	1,180	855	710	235	2,630
3	202	342	2,990	615	575	435	830	958	805	578	235	2,450
4	435	405	1,800	575	538	435	740	805	1,880	498	235	1,720
5	243	290	2,450	538	615	435	655	758	1,370	482	276	2,450
6	202	266	1,950	538	830	405	615	1,010	1,180	453	320	6,350
7	189	248	1,440	575	830	405	1,950	1,580	958	397	325	3,750
8	230	256	2,280	575	975	375	1,190	2,030	855	372	378	1,580
9	405	405	1,380	925	925	740	925	1,580	805	378	360	1,180
10	336	331	1,080	878	830	975	1,130	1,180	855	425	310	958
11	243	310	925	740	740	878	2,810	958	855	378	620	805
12	243	300	878	698	655	785	3,560	855	1,180	425	620	665
13	830	295	1,380	655	615	698	2,110	758	1,060	578	348	620
14	435	275	1,320	615	615	785	1,580	665	1,370	710	315	535
15	358	266	1,510	575	615	785	1,300	620	958	439	360	512
16	315	285	3,950	538	575	740	1,060	578	758	366	7,950	620
17	295	6,150	2,990	538	538	740	905	535	758	330	2,990	578
18	280	3,750	1,800	615	575	975	855	710	578	320	1,650	520
19	320	1,320	1,250	830	435	878	758	1,800	535	295	1,650	1,120
20	295	878	830	925	435	830	1,440	3,750	535	280	1,510	3,750
21	270	698	830	655	500	830	1,300	2,110	535	290	1,010	2,280
22	256	615	740	615	538	830	1,120	1,650	578	325	1,240	1,300
23	243	538	615	615	655	1,080	1,060	1,370	578	295	958	958
24	238	468	575	615	740	1,020	1,060	1,010	578	276	758	805
25	230	500	538	698	655	878	905	905	468	258	1,010	710
26	225	435	500	615	575	878	805	958	482	248	1,370	620
27	220	405	468	538	538	1,190	1,010	1,300	432	266	1,300	528
28	216	375	405	500	538	975	1,720	2,630	390	310	855	498
29	212	375	698	468	500	878	1,580	1,580	958	271	710	468
30	212	370	615	500	-------	1,380	1,880	1,300	1,950	253	665	578
31	202	-------	1,130	615	-------	1,380	-------	1,060	-------	253	665	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	830	140	279	0.653	0.75
November	6,150	180	717	1.68	1.87
December	3,950	375	1,320	3.09	3.56
January	925	468	639	1.50	1.73
February	975	435	635	1.49	1.61
March	1,380	375	792	1.85	2.13
April	3,560	615	1,300	3.04	3.39
May	3,750	535	1,280	3.00	3.46
June	1,950	390	867	2.03	2.26
July	905	248	399	.934	1.08
August	7,950	235	1,020	2.39	2.76
September	6,350	468	1,420	3.33	3.72
The year	7,950	140	888	2.08	28.32

WATAUGA RIVER AT ELIZABETHTON, TENN.

LOCATION.—Water-stage recorder at Virginia & Southwestern Railway bridge at Elizabethton, Carter County, half a mile below Doe River. Zero of gage is 1,486.03 feet above mean sea level.

DRAINAGE AREA.—703 square miles.

RECORDS AVAILABLE.—February, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 10,300 second-feet Aug. 16 (gage height, 9.70 feet); minimum, 105 second-feet Oct. 1 (gage height, 1.75 feet).

1926–1928: Maximum discharge, 13,400 second-feet Feb. 23, 1927 (gage height, 11.1 feet); minimum, 95 second-feet July 25, 1926 (gage height, 1.7 feet).

Maximum stage known, 22.0 feet Feb. 27 or 28, 1902.

REMARKS.—Records good except those for extreme high stages, which are fair. Considerable diurnal fluctuation caused by operation of Watauga Power Co.'s plant, 7 miles upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	305	328	574	1,970	1,090	842	2,170	3,000	1,640	2,340	544	1,640
2	244	350	1,210	1,290	1,130	794	1,870	2,280	1,590	1,640	534	4,030
3	332	506	4,350	1,250	1,050	728	1,590	1,920	1,590	1,370	495	4,190
4	702	735	2,870	1,050	975	550	1,410	1,640	3,140	1,130	512	2,940
5	368	528	3,500	1,010	1,050	821	1,290	1,500	2,440	1,250	539	3,500
6	359	382	2,870	1,090	1,500	676	1,210	1,540	2,120	1,050	856	8,160
7	323	420	2,170	1,050	1,500	658	1,640	2,680	1,820	975	975	4,190
8	425	455	2,560	975	1,590	652	2,220	3,950	1,590	696	683	2,740
9	517	592	2,120	1,330	1,590	1,330	1,540	3,210	1,410	926	683	2,070
10	568	610	1,680	1,410	1,410	1,870	1,820	2,390	1,540	975	728	1,680
11	435	405	1,410	1,250	1,290	1,410	3,070	1,970	1,540	794	722	1,410
12	425	506	1,370	1,250	1,170	1,370	5,730	1,720	1,970	735	1,330	1,250
13	1,540	420	2,020	1,130	1,090	1,170	3,640	1,460	1,820	891	856	1,090
14	761	470	2,070	1,090	1,090	1,410	2,740	1,330	2,070	1,330	610	1,090
15	586	445	2,390	1,050	1,090	1,500	2,280	1,170	1,680	1,010	835	940
16	395	445	5,730	1,050	1,010	1,370	1,870	1,210	1,410	940	7,020	1,010
17	410	2,220	4,850	1,050	891	1,370	1,680	1,130	1,330	722	4,190	1,050
18	455	4,680	2,940	1,050	926	2,020	1,590	1,330	1,250	742	2,800	940
19	480	1,970	2,070	1,410	807	1,770	1,460	2,500	1,050	640	2,800	1,540
20	485	1,330	1,460	1,590	975	1,590	2,390	5,910	1,050	610	2,680	5,370
21	430	1,130	1,410	1,330	919	1,500	2,440	3,720	1,090	658	1,870	3,280
22	445	975	1,250	1,130	877	1,410	2,070	2,680	1,210	604	1,970	2,070
23	265	800	1,130	1,210	842	1,680	1,970	2,220	1,090	722	1,590	1,680
24	405	622	975	1,170	1,050	1,720	2,070	1,920	1,050	610	1,330	1,410
25	368	683	940	1,290	1,050	1,540	1,820	1,640	1,130	574	1,460	1.250
26	359	676	884	1,090	940	1,500	1,640	1,640	1,010	517	1,770	1,130
27	359	586	870	975	940	1,770	1,820	2,280	919	610	1,720	1,050
28	377	683	754	940	898	1,720	3,350	4,190	870	634	1,370	898
29	405	562	975	676	849	1,540	3,280	3,070	1,970	580	1,170	863
30	277	539	1,090	940	-------	2,170	3,950	2,390	3,950	610	1,170	975
31	359	-------	1,640	1,050	-------	2,680	-------	1,920	-------	522	1,170	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,540	244	457	0.650	0.75
November	4,680	328	835	1.19	1.33
December	5,730	574	2,000	2.84	3.27
January	1,970	676	1,170	1.66	1.91
February	1,590	807	1,090	1.55	1.67
March	2,680	550	1,390	1.98	2.28
April	5,730	1,210	2,250	3.20	3.57
May	5,910	1,130	2,310	3.29	3.79
June	3,950	870	1,610	2.29	2.56
July	2,340	517	884	1.26	1.45
August	7,020	512	1,520	2.16	2.49
September	8,160	863	2,180	3.11	3.47
The year	8,160	244	1,470	2.09	28.54

DOE RIVER AT VALLEY FORGE, TENN.

LOCATION.—Chain gage on highway bridge 50 feet downstream from East Tennessee & Western North Carolina Railroad bridge and a quarter of a mile north of Valley Forge, Carter County.

DRAINAGE AREA.—132 square miles.

RECORDS AVAILABLE.—December, 1911, to October, 1916; November, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 1,980 second-feet Nov. 17 (gage height, 4.1 feet); minimum, 38 second-feet Oct. 2.

1911–1916, 1920–1928: Maximum discharge, about 5,040 second-feet June 13, 1924 (gage height, 6.7 feet); minimum, 17 second-feet Aug. 31 and Sept. 7, 1925 (gage height, 0.60 foot).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	51	133	375	250	158	455	575	328	144	122	350
2	40	49	428	288	215	135	375	428	307	170	117	705
3	40	90	738	250	215	128	288	375	400	288	110	705
4	45	130	672	192	215	133	250	307	608	307	138	545
5	55	100	575	218	232	152	232	268	455	328	170	835
6	58	86	515	208	288	125	218	350	375	288	225	1,340
7	45	93	400	205	307	130	288	705	328	215	176	705
8	70	90	545	205	328	122	268	835	288	215	133	515
9	155	133	455	328	307	835	222	575	268	201	268	350
10	130	112	900	250	268	375	350	428	375	205	268	288
11	107	107	268	232	218	307	672	375	400	179	250	268
12	79	130	268	225	218	268	802	307	375	173	205	250
13	112	130	268	208	208	232	545	268	307	173	158	225
14	110	112	250	208	205	232	400	250	400	455	161	208
15	81	107	455	192	201	250	400	232	328	232	225	198
16	79	102	1,180	182	198	250	307	229	288	208	1,040	232
17	73	835	738	186	179	268	288	218	268	176	835	198
18	75	328	485	232	201	307	288	350	229	161	575	192
19	79	288	328	328	138	328	250	770	218	152	802	307
20	86	222	218	328	170	288	288	1,180	198	152	640	705
21	84	189	268	307	147	268	268	640	218	150	428	485
22	84	167	232	229	150	268	250	455	307	152	375	350
23	73	150	225	229	158	288	307	350	250	173	307	288
24	66	147	205	222	192	288	400	307	232	150	268	250
25	70	152	208	288	186	268	350	268	225	130	350	232
26	66	141	138	222	152	268	307	350	215	122	328	208
27	64	133	150	222	130	428	485	900	201	158	288	198
28	58	130	161	167	135	328	672	970	182	170	229	189
29	58	120	428	205	155	307	705	640	970	152	215	179
30	55	115	232	205	-------	672	802	485	1,110	133	198	212
31	56	-------	375	250	-------	575	-------	375	-------	128	218	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	155	40	74	0.561	0.65
November	835	49	158	1.20	1.34
December	1,180	133	401	3.04	3.50
January	375	167	238	1.80	2.08
February	328	130	206	1.56	1.68
March	835	122	290	2.20	2.54
April	802	218	391	2.96	3.30
May	1,180	218	476	3.61	4.16
June	1,110	182	355	2.69	3.00
July	455	122	195	1.48	1.71
August	1,040	110	317	2.40	2.77
September	1,340	179	390	2.95	3.29
The year	1,340	40	291	2.20	30.02

NORTH FORK OF HOLSTON RIVER NEAR SALTVILLE, VA.

LOCATION.—Chain gage on Cedar Branch Bridge, 1½ miles northeast of Saltville, Smyth County, and 3 miles upstream from Sturgeon Creek.

DRAINAGE AREA.—228 square miles.

RECORDS AVAILABLE.—November, 1920, to September, 1928. June, 1907, to November, 1908, 1½ miles downstream.

EXTREMES.—Maximum discharge during year, 2,240 second-feet Dec. 16 (gage height, 6.50 feet); minimum, 24 second-feet Oct. 9 (gage height, 1.32 feet).

1907–8, 1920–1928: Maximum discharge, 8,220 second-feet Feb. 3, 1923 (gage height, 13.97 feet); minimum, 21 second-feet Sept. 13, 1925 (gage height, 1.24 feet).

REMARKS.—Records good. Discharge estimated Jan. 1–9 because of ice. Possibly some regulation from mills above station during extremely low water

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	35	78		220	164	740	1,000	290	233	56	374
2	33	36	260		246	145	526	694	340	185	48	1,360
3	36	33	1,000		260	136	410	506	608	164	50	1,240
4	32	47	608		246	128	357	410	1,240	145	55	945
5	29	65	608	320	260	136	306	340	838	154	62	526
6	31	68	446		466	128	274	506	694	128	70	608
7	36	54	357		608	120	290	890	566	128	82	486
8	31	89	323		608	104	233	1,120	446	145	70	374
9	24	246	340		526	136	208	838	410	154	63	290
10	29	164	260	274	446	357	208	566	374	136	196	233
11	29	112	220	196	357	290	323	446	374	128	233	185
12	58	88	233	174	306	290	1,360	357	526	112	185	164
13	67	74	357	164	260	260	1,120	306	410	104	128	154
14	56	68	428	154	260	233	838	290	374	136	112	136
15	49	61	566	154	290	290	608	233	323	145	112	120
16	40	54	2,170	164	260	323	446	208	290	112	1,120	120
17	39	196	1,360	164	233	374	392	208	274	96	1,000	220
18	35	650	740	196	220	788	340	306	260	85	650	174
19	37	306	446	1,240	208	650	306	428	233	78	466	260
20	32	208	306	1,420	196	608	428	890	208	71	340	1,480
21	40	154	274	694	185	694	526	1,000	306	94	233	890
22	36	120	246	466	164	788	486	838	306	88	208	608
23	40	112	208	392	164	1,000	410	694	274	73	174	446
24	36	96	185	374	196	838	392	526	246	65	145	306
25	40	95	145	466	185	323	357	446	208	63	145	246
26	39	85	120	392	196	428	323	392	185	69	233	208
27	38	86	94	323	185	428	566	392	154	67	506	174
28	35	74	92	233	185	357	1,610	410	145	54	233	154
29	32	64	136	164	185	323	1,300	392	174	59	164	185
30	35	69	164	220	-------	1,120	1,480	340	246	67	128	428
31	36	-------	274	233	-------	1,240	-------	306	-------	67	120	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	67	24	37.4	0.164	0.19
November	650	33	120	.526	.59
December	2,170	78	421	1.85	2.13
January	1,420	154	359	1.57	1.81
February	608	164	280	1.23	1.33
March	1,240	104	426	1.87	2.16
April	1,610	208	572	2.51	2.80
May	1,120	208	525	2.30	2.65
June	1,240	145	377	1.65	1.84
July	233	54	110	.482	.56
August	1,120	48	238	1.04	1.20
September	1,480	120	436	1.91	2.13
The year	2,170	24	325	1.43	19.39

NORTH FORK OF HOLSTON RIVER AT MENDOTA, VA.

LOCATION.—Chain gage on highway bridge one-fourth mile east of Mendota, Washington County.

DRAINAGE AREA.—500 square miles.

RECORDS AVAILABLE.—October, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,580 second-feet Dec. 16 (gage height, 6.87 feet); minimum, 38 second-feet Oct. 5 (gage height, 1.68 feet).

1920–1928: Maximum discharge, 19,600 second-feet Feb. 3, 1923 (gage height, 14.4 feet); minimum, that of Oct. 5, 1927.

REMARKS.—Records good. Discharge estimated Jan. 2–10, when affected by ice, and Dec. 26–28, Jan. 21, 26, 30, 31, Feb. 20, and Aug. 2, when gage readings were in error.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	65	200	1,160	516	359	1,750	2,340	604	760	105	545
2	54	59	359		545	317	1,240	1,570	665	574	138	4,160
3	54	90	1,400		488	281	929	1,160	929	434	132	3,260
4	59	102	1,080		461	273	760	929	2,560	359	181	1,940
5	45	142	860		488	273	665	793	1,940	383	170	1,400
6	54	128	826	520	860	239	545	760	1,750	383	227	2,340
7	68	109	665		1,240	231	545	1,660	1,400	308	188	1,480
8	71	112	604		1,480	207	545	2,450	1,160	264	185	1,000
9	80	192	604		1,400	728	461	1,940	894	231	188	760
10	77	335	488		1,080	1,000	516	1,400	793	604	203	604
11	71	231	383	461	860	760	894	1,000	760	461	359	488
12	102	185	383	408	696	665	2,670	860	826	359	408	408
13	105	152	894	383	604	545	2,140	728	860	335	304	383
14	142	125	894	383	545	760	1,840	634	728	299	359	335
15	115	112	1,240	359	604	634	1,570	604	634	277	294	383
16	102	102	4,030	359	545	696	1,160	545	545	290	1,480	308
17	90	177	3,640	326	516	760	894	545	634	227	2,780	359
18	71	1,080	1,660	335	488	2,040	793	634	574	211	1,750	359
19	77	665	1,080	760	461	1,660	696	826	488	203	2,140	335
20	90	383	634	3,020	408	1,480	2,140	1,660	434	203	1,160	1,660
21	86	277	574	1,660	383	1,400	1,840	2,140	516	203	894	2,040
22	90	227	461	1,000	359	1,320	1,400	1,660	665	227	894	1,240
23	86	192	383	760	359	1,570	1,160	1,480	545	211	665	793
24	80	166	383	634	434	1,660	1,080	1,240	516	188	488	604
25	71	170	312	860	434	1,320	929	1,000	488	166	408	488
26	71	177	280	793	434	1,000	760	929	434	160	434	434
27	71	142	240	696	383	929	1,000	1,240	383	160	461	359
28	59	138	200	574	359	793	3,900	1,160	326	160	574	330
29	59	128	247	545	359	696	2,670	1,000	696	185	408	299
30	62	122	359	580	------	2,900	3,140	860	929	142	359	461
31	83	------	665	600	------	3,380	------	728	------	142	335	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	142	45	77.5	0.155	0.18
November	1080	59	210	.420	.47
December	4030	----------	840	1.68	1.94
January	3020	326	688	1.38	1.59
February	1480	359	613	1.23	1.33
March	3380	207	996	1.99	2.29
April	3900	461	1350	2.70	3.01
May	2450	545	1180	2.36	2.72
June	2560	326	823	1.65	1.84
July	760	142	294	.588	.68
August	2780	105	602	1.20	1.38
September	4160	299	985	1.97	2.20
The year	4160	45	721	1.44	19.63

LITTLE RIVER AT WALLAND, TENN.

LOCATION.—Staff gage half a mile above Walland, Blount County, and three-fourths mile above dam of England, Walton & Co.'s tannery. Zero of gage is 912.00 feet above mean sea level.

DRAINAGE AREA.—235 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,050 second-feet Sept. 1 (gage height, 6.0 feet); minimum, 44 second-feet Oct. 14 (gage height, 0.89 foot).

1925–1928: Maximum discharge, 6,640 second-feet Feb. 23, 1927 (gage height, 7.6 feet); minimum, 15 second-feet Aug. 31, 1925 (gage height, 0.55 foot).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927–28.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	51	355	1,350	355	195	610	610	378	670	258	2,460
2	60	46	528	925	400	195	555	582	332	500	242	3,570
3	81	121	925	828	378	188	475	555	310	400	230	2,060
4	75	167	700	795	355	195	450	500	270	355	223	1,200
5	60	167	610	730	310	195	425	450	355	400	290	860
6	51	134	555	670	355	195	425	400	400	378	270	500
7	51	103	475	610	332	181	400	1,270	378	310	246	400
8	65	144	425	555	310	216	355	2,790	355	290	209	378
9	92	153	400	500	270	640	310	2,060	332	270	195	355
10	103	174	355	378	246	700	400	1,200	640	355	230	355
11	81	140	310	332	220	610	730	795	1,130	355	234	332
12	68	121	270	310	238	582	828	610	1,130	310	209	310
13	56	94	246	270	332	555	795	528	1,270	262	195	262
14	46	81	310	254	255	475	700	450	1,350	234	223	238
15	56	65	640	226	310	400	640	425	1,060	270	500	242
16	75	112	2,460	202	290	378	610	400	795	246	2,460	262
17	92	270	1,200	246	262	355	582	355	670	223	2,060	270
18	121	400	730	400	223	400	500	310	582	209	1,690	254
19	147	355	610	500	209	425	582	270	500	195	1,350	226
20	153	270	500	555	238	400	670	355	450	192	1,130	223
21	137	246	450	555	290	400	582	355	400	198	925	262
22	115	188	378	528	355	355	500	450	378	209	528	290
23	121	164	310	500	310	332	450	860	400	202	990	310
24	92	140	290	475	270	310	610	795	670	195	925	310
25	73	121	246	425	242	290	610	500	500	195	670	290
26	60	103	216	400	216	270	555	355	450	192	500	270
27	58	121	202	355	202	355	730	450	355	226	400	258
28	56	147	310	310	202	378	730	425	290	234	332	234
29	56	181	400	310	195	355	700	670	640	270	310	270
30	56	254	450	310	-------	500	670	610	990	258	400	262
31	56	-------	1,690	310	-------	860	-------	450	-------	262	582	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	153	46	79.5	0.338	0.39
November	400	46	161	.685	.76
December	2460	202	566	2.41	2.78
January	1350	202	488	2.08	2.40
February	400	195	285	1.21	1.30
March	860	181	383	1.63	1.88
April	828	310	574	2.44	2.72
May	2790	270	672	2.86	3.30
June	1350	270	592	2.52	2.81
July	670	192	286	1.22	1.41
August	2460	195	613	2.61	3.01
September	3570	223	584	2.49	2.78
The year	3570	46	441	1.88	25.54

LITTLE TENNESSEE RIVER AT ETNA, N. C.

LOCATION.—Staff gage at Etna, Macon County, just downstream from mouth of Lakey Creek and 7½ miles northwest of Franklin.

DRAINAGE AREA.—378 square miles.

RECORDS AVAILABLE.—January, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 9,760 second-feet Aug. 16 (gage height, 10.0 feet); minimum, 191 second-feet Oct. 2 (gage height, 1.00 foot). 1926–1928: Maximum discharge, that of Aug. 16, 1928; minimum discharge, that of Oct. 2, 1927.

REMARKS.—Records fair. Considerable diurnal fluctuation caused by operation of Franklin hydroelectric plant.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	203	271	524	1,650	890	678	1,650	1,240	890	1,160	825	1,020
2	191	286	1,320	890	735	650	1,240	1,160	890	890	765	1,560
3	256	455	3,820	1,100	705	598	1,160	1,100	1,020	890	624	2,660
4	228	373	2,440	765	705	624	1,100	1,020	1,320	735	890	1,650
5	271	302	1,400	735	624	650	1,020	1,020	1,480	955	765	3,220
6	242	242	1,240	705	624	650	1,020	1,480	1,560	765	1,320	4,080
7	256	319	1,020	765	650	624	1,650	3,340	1,160	705	890	2,660
8	302	319	1,930	765	1,020	573	1,650	3,100	1,100	890	705	1,840
9	573	319	1,240	1,160	955	2,880	1,320	2,220	1,100	1,320	890	1,560
10	354	336	1,020	825	765	1,650	1,650	1,650	1,020	1,320	1,480	1,320
11	286	354	890	890	765	1,240	2,880	1,480	1,020	1,100	955	955
12	1,710	286	1,320	765	705	1,100	2,020	1,650	890	955	825	825
13	1,490	271	1,320	765	765	1,020	1,560	1,160	955	705	765	1,100
14	524	302	1,020	735	735	1,100	1,020	1,160	2,020	1,020	1,240	1,020
15	434	302	2,880	705	890	1,020	1,020	1,240	1,240	1,020	3,080	1,100
16	373	319	4,080	705	735	890	1,320	1,100	1,160	890	8,680	955
17	373	3,100	2,770	678	735	1,020	1,100	1,100	1,160	765	4,080	955
18	373	1,480	1,840	735	650	1,560	1,100	1,160	1,020	735	1,840	1,020
19	319	825	1,560	765	705	1,240	1,100	1,240	955	825	1,480	955
20	286	678	1,160	678	735	1,020	1,320	1,400	1,020	735	1,560	890
21	319	524	1,160	650	624	1,020	1,160	1,240	890	825	1,400	825
22	319	455	890	548	650	955	1,160	1,240	765	735	1,240	890
23	302	478	955	650	1,100	825	1,240	1,320	890	825	1,160	825
24	271	500	955	705	955	890	1,400	1,480	890	735	1,020	825
25	319	434	890	705	825	825	1,240	1,160	1,020	573	1,480	735
26	302	393	705	825	735	1,160	1,240	1,100	955	825	1,240	705
27	271	393	678	705	705	1,320	1,160	1,160	735	1,480	1,160	735
28	286	413	735	678	705	1,160	1,480	1,100	735	765	1,100	678
29	302	393	1,020	598	735	825	1,100	1,020	1,320	678	890	650
30	271	373	955	624	-------	4,190	1,160	1,020	2,440	765	890	650
31	286	-------	1,650	735	-------	2,440	-------	955	-------	825	890	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,710	191	397	1.05	1.21
November	3,100	242	516	1.37	1.53
December	4,080	524	1,460	3.86	4.45
January	1,650	548	781	2.07	2.39
February	1,100	624	763	2.02	2.18
March	4,190	573	1,170	3.10	3.57
April	2,880	1,020	1,340	3.54	3.95
May	3,340	955	1,380	3.65	4.21
June	2,440	735	1,120	2.96	3.30
July	1,480	573	884	2.34	2.70
August	8,680	624	1,490	3.94	4.54
September	4,080	650	1,300	3.44	3.84
The year	8,680	191	1,050	2.78	37.87

LITTLE TENNESSEE RIVER AT JUDSON, N. C.

LOCATION.—Staff gage one-fourth mile downstream from concrete highway bridge at Judson, Swain County, and half a mile below mouth of Yalaka Creek.

DRAINAGE AREA.—668 square miles.

RECORDS AVAILABLE.—April, 1912, to September, 1928. June, 1896, to September, 1913, at Southern Railway bridge 1 mile downstream.

EXTREMES.—Maximum discharge during year, 12,800 second-feet Mar. 30 (gage height, 24.8 feet); minimum, 432 second-feet Oct. 3 (gage height, 17.15 feet).

1896–1928: Maximum discharge, 40,800 second-feet Feb. 28, 1902; minimum, 165 second-feet Oct. 10, 1925 (gage height, 16.70 feet).

REMARKS.—Records good. Slight diurnal fluctuation during low water due to operation of municipal plants at Franklin and Bryson.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	498	565	1,230	3,340	1,860	1,430	3,760	2,950	1,860	2,690	1,530	1,860
2	465	565	1,970	1,970	1,640	1,330	3,080	2,560	1,970	2,080	1,330	3,900
3	465	890	5,120	2,320	1,530	1,230	2,690	2,320	2,080	1,970	1,230	6,930
4	498	815	3,900	1,860	1,530	1,330	2,560	2,080	3,210	1,750	1,530	3,340
5	530	635	2,820	1,750	1,430	1,330	2,320	2,080	3,760	1,860	1,530	4,960
6	498	565	2,200	1,750	1,430	1,230	2,320	2,820	3,210	1,860	1,860	7,500
7	498	530	1,860	1,640	1,430	1,230	3,620	5,460	2,690	1,860	1,750	5,460
8	670	600	2,950	1,640	2,560	1,140	3,080	5,810	2,320	1,860	1,430	3,480
9	1,430	778	2,080	2,690	2,200	4,190	2,690	4,340	2,200	2,440	1,750	2,950
10	740	670	1,860	1,970	1,750	3,080	2,820	3,480	2,080	2,950	1,970	2,440
11	530	705	1,750	1,860	1,750	2,560	3,340	3,080	1,970	2,320	1,750	2,560
12	1,860	635	2,690	1,750	1,640	2,080	3,340	2,820	2,080	2,080	1,330	2,320
13	2,080	565	3,080	1,640	1,640	1,970	3,080	2,440	2,320	2,080	1,430	1,970
14	1,050	600	2,320	1,640	1,640	2,200	2,950	2,440	2,950	2,200	1,330	1,970
15	815	600	4,640	1,430	1,970	2,080	2,690	2,320	2,440	1,860	2,440	2,080
16	815	635	7,900	1,430	1,640	1,970	2,560	2,080	2,320	1,430	11,000	1,970
17	670	4,340	5,460	1,430	1,530	2,080	2,320	2,200	2,080	1,640	7,180	2,080
18	705	2,820	3,900	1,530	1,430	3,080	2,320	2,440	1,860	1,530	3,760	1,860
19	635	1,640	3,210	1,640	1,430	2,440	2,080	2,820	1,860	1,530	3,210	1,750
20	600	1,230	2,690	1,640	1,530	2,080	2,440	3,340	1,530	1,530	2,690	1,640
21	600	1,230	2,320	1,530	1,330	1,970	2,320	2,820	1,640	1,430	2,320	1,530
22	565	930	2,320	1,330	1,330	1,970	2,440	2,820	1,640	1,430	2,200	1,530
23	635	970	1,750	1,430	2,200	1,750	2,950	2,820	1,640	1,640	2,080	1,530
24	465	970	1,750	1,640	1,750	1,640	2,820	2,690	1,860	1,530	1,860	1,430
25	600	890	1,860	1,970	1,640	1,860	2,440	2,440	2,080	1,230	2,690	1,330
26	600	815	1,640	1,750	1,430	2,080	2,320	2,320	1,970	1,530	2,560	1,230
27	530	815	1,430	1,530	1,430	2,560	2,320	2,320	1,530	3,080	2,320	1,230
28	530	778	1,430	1,430	1,430	2,320	2,690	2,320	1,640	1,640	1,860	1,180
29	565	815	1,860	1,330	1,430	1,860	2,320	2,080	2,560	1,330	1,750	1,180
30	565	740	1,860	1,330	------	11,800	2,320	2,080	4,190	1,430	1,640	1,180
31	530	------	4,340	1,750	------	5,460	------	1,970	------	2,080	1,640	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,080	465	717	1.07	1.23
November	4,340	530	978	1.46	1.63
December	7,909	1,230	2,780	4.16	4.80
January	3,340	1,330	1,740	2.60	3.00
February	2,560	1,330	1,640	2.46	2.65
March	11,800	1,140	2,430	3.63	4.18
April	3,760	2,080	2,700	4.04	4.51
May	5,810	1,970	2,790	4.18	4.82
June	4,190	1,530	2,250	3.37	3.76
July	3,080	1,230	1,870	2.80	3.23
August	11,000	1,230	2,420	3.62	4.17
September	7,500	1,180	2,550	3.82	4.26
The year	11,800	465	2,070	3.10	42.24

LITTLE TENNESSEE RIVER AT CALDERWOOD, TENN.

LOCATION.—Water-stage recorder at pump house of Knoxville Power Co. at Calderwood, Blount County. Zero of gage is 861.78 feet above mean sea level.

DRAINAGE AREA.—1,870 square miles.

RECORDS AVAILABLE.—January, 1912, to December, 1918; January, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 35,100 second-feet Aug. 16 (gage height, 7.2 feet); minimum, 950 second-feet Oct. 11 (gage height, 0.65 foot). 1912–1918, 1921–1928: Maximum mean daily discharge, 70,000 second-feet Mar. 4, 1917; minimum discharge, 360 second-feet Oct. 2, 1925.

REMARKS.—Records good. Considerable regulation caused by operation of power house and dam 10 miles upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,820	1,430	2,950	8,580	4,240	3,410	9,030	9,030	5,110	9,260	4,240	6,060
2	1,730	1,390	4,580	4,930	3,880	3,210	7,480	7,910	6,060	6,650	4,040	11,700
3	1,840	1,980	11,400	4,580	3,600	2,840	6,650	6,860	6,250	6,060	3,720	25,700
4	1,860	2,370	9,500	3,750	3,380	2,680	5,670	6,250	9,260	5,480	3,530	11,700
5	1,620	1,950	6,860	3,750	2,820	3,320	5,300	5,860	10,900	5,110	4,750	13,000
6	1,120	1,580	5,300	4,100	3,720	3,090	5,110	6,250	9,260	6,650	4,400	19,400
7	1,100	1,710	4,400	4,200	4,040	2,980	5,860	11,400	8,350	5,300	5,300	13,500
8	1,170	1,410	5,300	3,940	3,970	3,180	7,700	15,500	6,860	6,060	3,750	11,700
9	1,270	1,390	4,750	4,930	5,110	3,750	5,670	11,900	6,450	6,450	3,690	9,500
10	1,170	1,790	4,040	4,750	5,110	6,650	6,250	9,260	6,650	6,450	4,580	7,480
11	1,080	1,730	3,810	4,240	4,580	5,480	8,130	8,350	6,250	6,250	4,330	6,450
12	1,190	1,680	5,110	4,330	4,170	4,750	10,900	7,480	7,480	6,060	4,010	6,450
13	5,110	1,580	6,450	4,370	4,330	4,580	7,480	6,450	6,450	5,670	3,750	5,670
14	2,740	1,790	5,670	4,400	4,330	4,580	7,480	6,250	8,580	6,250	3,750	5,300
15	2,140	1,770	8,130	3,880	4,400	4,580	8,130	5,860	8,800	5,300	4,300	5,300
16	2,000	1,750	20,100	3,910	4,300	4,580	6,060	5,670	6,860	4,930	26,400	5,670
17	1,790	4,010	14,100	3,560	4,300	4,400	6,450	5,670	6,650	4,400	16,800	5,670
18	1,730	8,350	9,260	3,940	3,970	6,650	6,250	5,670	5,670	4,170	10,500	5,110
19	1,710	3,750	6,860	4,300	3,500	5,860	5,110	6,860	5,300	3,970	7,910	4,580
20	1,620	3,120	6,060	4,750	3,530	4,930	5,860	8,350	4,930	4,750	7,060	4,330
21	1,470	2,550	5,110	4,580	3,810	4,750	6,250	7,270	5,300	4,400	5,860	4,240
22	1,540	2,290	4,750	3,150	3,500	4,580	6,060	6,860	4,580	4,580	5,670	3,970
23	1,510	2,420	4,070	3,910	3,660	4,580	7,270	7,480	5,110	4,580	4,930	3,810
24	1,490	2,240	4,300	3,690	4,400	4,400	8,130	7,700	4,930	4,070	4,750	3,810
25	1,250	2,550	3,660	3,750	3,970	4,580	7,270	6,650	5,670	3,910	6,060	3,720
26	1,470	2,140	3,470	3,880	3,380	4,580	6,250	6,650	5,670	3,850	6,650	3,690
27	1,470	2,020	3,300	3,600	3,630	4,400	6,650	6,450	4,750	6,250	5,670	3,440
28	1,430	1,980	3,120	3,750	3,410	5,110	7,700	7,480	4,240	5,110	5,300	3,470
29	1,410	1,950	4,170	2,600	3,300	4,580	6,860	6,250	8,350	3,910	4,750	3,470
30	1,410	1,950	4,580	3,600	-------	13,000	6,450	6,450	16,800	3,560	4,930	2,650
31	1,490	-------	9,730	4,200	-------	14,400	-------	5,670	-------	4,750	4,930	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	5,110	1,080	1,660	0.888	1.02
November	8,350	1,390	2,280	1.22	1.36
December	20,100	2,950	6,290	3.36	3.87
January	8,580	2,600	4,190	2.24	2.58
February	5,110	2,820	3,940	2.11	2.28
March	14,400	2,680	4,980	2.66	3.07
April	10,900	5,110	6,850	3.66	4.08
May	15,500	5,670	7,480	4.00	4.61
June	10,900	4,240	6,920	3.70	4.13
July	9,260	3,560	5,300	2.83	3.26
August	26,400	3,530	6,140	3.28	3.78
September	25,700	2,650	7,350	3.93	4.38
The year	26,400	1,080	5,280	2.82	38.42

LITTLE TENNESSEE RIVER AT McGHEE, TENN.

LOCATION.—Staff gage at junction of Little Tennessee and Tellico Rivers, 250 feet above Niles Ferry and half a mile south of McGhee, Monroe County. Zero of gage is 760.07 feet above mean sea level.

DRAINAGE AREA.—2,470 square miles, including Tellico River.

RECORDS AVAILABLE.—January, 1905, to December, 1913; and October, 1918, to September, 1928.

EXTREMES.—Maximum discharge during year, about 44,200 second-feet Sept. 3 (gage height, 17.9 feet); minimum, 1,070 second-feet Oct. 11 (gage height, 3.20 feet).

1905–1913, 1918–1928: Maximum gage height, 30.5 feet Apr. 2, 1920 (discharge not determined); minimum discharge, 480 second-feet Oct. 2, 1925.

United States Weather Bureau reports stage of 39.0 feet in March, 1867.

REMARKS.—Records good. Large power development 30 miles upstream causes some diurnal fluctuation at gage.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,830	1,490	2,750	15,300	6,120	3,760	10,600	13,300	6,860	11,200	4,680	9,360
2	1,490	1,490	4,450	7,860	5,640	3,760	9,360	11,400	7,610	7,860	4,220	20,800
3	1,740	1,830	14,200	5,880	4,680	3,760	7,360	8,860	9,110	7,110	4,220	38,900
4	1,830	3,300	11,400	5,400	4,220	3,080	6,860	7,860	11,200	6,360	3,990	23,700
5	1,740	1,740	8,360	4,920	3,990	3,530	6,120	7,360	15,000	5,640	4,680	12,200
6	1,340	2,220	6,360	4,920	4,220	3,760	5,880	7,110	10,900	7,610	5,160	26,600
7	1,140	1,570	5,640	5,160	4,920	3,530	6,860	13,900	10,100	6,360	5,880	16,700
8	1,270	1,830	5,640	4,450	5,880	3,530	8,610	21,200	8,860	7,110	4,450	14,200
9	1,570	1,490	6,610	6,120	6,360	7,860	6,860	15,600	7,610	7,610	4,220	11,200
10	1,570	2,020	4,450	7,360	6,360	9,610	7,610	11,700	8,110	8,110	4,920	8,110
11	1,200	1,490	4,220	5,640	5,640	7,360	11,200	9,870	7,360	7,610	5,160	7,610
12	1,340	1,740	5,160	5,400	5,400	6,610	15,600	9,110	12,500	6,610	3,760	7,360
13	5,400	1,830	9,110	5,400	5,160	5,880	9,610	8,110	8,360	6,610	3,990	6,610
14	5,640	1,650	6,860	5,400	5,400	5,880	11,200	7,360	12,000	7,860	4,920	6,120
15	4,450	1,920	8,610	5,160	5,400	5,880	11,700	7,110	12,000	6,360	4,920	6,120
16	2,120	1,740	29,600	4,680	5,400	5,880	7,860	7,110	8,610	5,640	30,900	6,360
17	2,020	2,220	22,100	3,760	5,160	6,120	8,610	6,610	8,110	5,400	21,200	6,610
18	1,830	11,700	13,300	4,920	5,160	8,860	7,860	6,610	7,610	4,680	12,000	5,880
19	1,740	4,920	8,610	6,360	4,680	7,860	6,120	6,360	6,360	5,160	9,110	5,400
20	1,650	4,220	7,360	6,610	3,760	6,610	8,110	9,870	7,110	5,400	5,400	4,920
21	1,490	2,860	6,360	5,880	4,220	6,360	8,110	9,610	6,120	4,920	6,360	4,600
22	1,570	1,490	5,880	4,680	3,990	5,640	9,110	8,110	5,880	5,400	6,120	4,450
23	1,570	2,430	5,400	4,220	3,990	5,640	10,400	8,360	5,880	5,400	5,400	4,450
24	1,490	2,430	4,680	4,450	5,400	5,400	10,100	9,360	5,640	4,450	5,160	4,220
25	1,490	2,430	3,760	4,680	4,920	5,640	9,110	8,110	6,610	3,990	6,360	4,220
26	1,490	2,430	4,450	5,160	4,450	5,880	7,860	8,110	8,110	4,220	7,610	4,220
27	1,490	2,120	3,760	3,530	3,760	7,110	8,110	7,110	6,120	7,860	6,360	3,760
28	1,490	2,120	3,530	4,680	3,760	7,110	10,400	9,610	4,920	5,880	5,880	3,990
29	1,490	2,020	4,920	3,530	4,220	6,120	9,110	7,610	7,360	4,680	5,160	3,990
30	1,490	2,020	6,360	3,760	-------	13,900	8,110	8,110	22,100	3,990	5,640	3,080
31	1,420	-------	14,200	5,640	-------	18,400	-------	7,360	-------	5,400	5,880	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	5,640	1,140	1,920	0.777	0.90
November	11,700	1,490	2,490	1.01	1.13
December	29,600	2,750	8,000	3.24	3.74
January	15,300	3,530	5,510	2.23	2.57
February	6,360	3,760	4,910	1.99	2.15
March	18,400	3,080	6,460	2.62	3.02
April	15,600	5,880	8,810	3.57	3.98
May	21,200	6,360	9,290	3.76	4.34
June	22,100	4,920	8,800	3.56	3.97
July	11,200	3,990	6,210	2.51	2.89
August	30,900	3,760	6,890	2.79	3.22
September	38,900	3,080	9,530	3.86	4.31
The year	38,900	1,140	6,570	2.66	36.22

CULLASAJA CREEK AT HIGHLANDS, N. C.

LOCATION.—Water-stage recorder at municipal dam a quarter of a mile below Big Creek and 2 miles northwest of Highlands, Macon County. Zero of gage is 3,603.85 feet above mean sea level.

DRAINAGE AREA.—13.3 square miles.

RECORDS AVAILABLE.—December, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 2,420 second-feet Aug. 15 (gage height, 5.13 feet); minimum, 28 second-feet Sept. 29 (gage height, 2.46 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--------	[a] 103	[a] 48	40	56	66	51	61	33	42
2	--------	[a] 60	[a] 42	40	51	58	56	56	32	75
3	--------	[a] 60	[a] 38	40	49	56	[a] 75	49	40	89
4	--------	[a] 55	[a] 36	37	44	53	[a] 90	44	37	53
5	--------	[a] 50	[a] 34	37	42	51	[a] 110	42	[a] 34	183
6	--------	[a] 55	[a] 34	37	44	[a] 60	[a] 70	42	[a] 34	165
7	--------	[a] 46	[a] 42	35	156	152	[a] 60	44	[a] 32	89
8	140	[a] 50	72	40	86	103	[a] 50	174	[a] 32	75
9	103	[a] 75	44	132	80	86	[a] 46	132	[a] 30	66
10	89	[a] 55	42	66	106	78	[a] 44	89	[a] 50	61
11	80	[a] 50	40	46	140	72	[a] 44	86	49	56
12	103	[a] 50	33	42	100	66	[a] 42	69	56	53
13	86	[a] 48	40	35	83	64	[a] 44	58	61	51
14	80	[a] 48	69	49	78	61	78	56	80	49
15	165	[a] 48	49	42	69	58	66	51	1,050	46
16	183	[a] 46	42	40	66	56	64	46	695	49
17	124	[a] 46	40	42	64	56	58	44	216	44
18	100	[a] 48	40	58	56	56	53	40	144	42
19	86	[a] 48	32	51	53	72	49	37	124	40
20	78	[a] 48	32	49	61	75	46	35	96	37
21	75	[a] 44	33	46	56	66	51	33	78	35
22	[a] 72	[a] 42	61	44	[a] 70	72	56	[a] 100	64	35
23	[a] 68	[a] 40	75	44	[a] 100	93	61	[a] 34	56	35
24	[a] 64	[a] 55	56	44	78	86	53	[a] 30	51	33
25	[a] 60	[a] 60	53	46	72	64	53	[a] 28	42	33
26	[a] 56	[a] 46	46	49	66	66	44	[a] 26	42	32
27	[a] 52	[a] 42	44	64	113	58	37	[a] 38	42	32
28	[a] 52	[a] 40	44	49	86	58	42	33	42	32
29	[a] 82	[a] 40	42	44	69	53	100	33	40	30
30	61	[a] 40	--------	86	64	56	106	33	40	[a] 30
31	144	[a] 42	--------	58	--------	53	--------	37	37	--------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
December 8-31	183	----------	91.8	6.90	6.16
January	----------	----------	51.0	3.83	4.42
February	75	----------	44.9	3.38	3.64
March	132	35	49.4	3.71	4.28
April	156	42	75.3	5.66	6.32
May	152	51	68.5	5.15	5.94
June	----------	37	60.0	4.51	5.03
July	174	----------	54.2	4.08	4.70
August	1,050	----------	112	8.42	9.71
September	183	30	56.4	4.24	4.73

[a] Estimated.

CULLASAJA CREEK AT CULLASAJA, N. C.

LOCATION.—Staff gage at Cullasaja, Macon County, 1 mile downstream from mouth of Ellijay Creek and 3½ miles upstream from mouth of creek.

DRAINAGE AREA.—87 square miles.

RECORDS AVAILABLE.—June, 1907, to December, 1909; February, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 9,080 second-feet Aug. 15 (gage height, 17.04 feet); minimum, 54 second-feet several times in October (gage height, 0.84 foot).

1907–1909, 1921–1928: Maximum discharge, that of Aug. 15, 1928; minimum, 19 second-feet Sept. 18-22, 1925 (gage height, 0.32 foot).

Maximum stage known, 17.2 feet July, 1916.

REMARKS.—Records good below and fair above 1,200 second-feet. Slight diurnal fluctuation due to milldams.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	72	209	432	240	209	380	380	272	283	152	283
2	54	72	514	355	219	199	355	330	272	250	144	665
3	136	161	1,020	355	209	189	330	306	283	230	136	602
4	62	119	602	306	199	199	330	283	432	209	161	432
5	58	92	432	283	189	189	306	283	432	189	161	2,020
6	56	81	380	306	189	189	602	355	406	189	261	1,100
7	54	77	543	250	189	179	602	871	330	179	209	633
8	199	89	486	272	272	170	432	698	306	459	209	414
9	136	89	406	355	240	677	406	543	283	380	209	432
10	85	85	355	306	230	330	459	459	272	306	250	380
11	74	81	330	306	219	330	853	406	283	230	219	355
12	705	78	486	283	199	272	698	380	272	209	240	330
13	283	76	355	261	209	330	572	355	261	272	240	306
14	170	75	355	240	432	272	459	330	543	283	406	283
15	144	90	1,030	230	261	250	432	306	330	230	5,860	272
16	127	330	1,020	219	230	272	380	306	283	209	3,310	330
17	111	1,400	633	209	219	306	355	306	272	209	1,020	306
18	104	543	514	199	230	355	330	306	250	199	731	272
19	104	330	486	219	230	306	306	432	240	189	572	250
20	95	250	432	219	209	283	380	380	230	179	486	230
21	93	219	380	209	199	272	330	406	219	261	432	219
22	90	209	330	209	406	261	406	380	209	486	380	209
23	88	189	306	199	355	240	486	459	209	189	355	209
24	85	179	283	283	283	240	380	432	230	152	459	189
25	82	170	272	230	250	272	355	380	306	127	380	189
26	81	161	261	219	240	283	355	380	250	119	330	179
27	80	152	250	209	230	355	432	330	199	199	355	170
28	78	152	230	199	219	306	380	330	209	152	306	170
29	77	144	380	199	230	272	330	330	306	127	272	161
30	75	136	355	199	------	992	330	283	486	111	261	161
31	75	------	665	250	------	459	------	272	------	170	250	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	706	54	120	1.38	1.59
November	1,400	72	197	2.26	2.52
December	1,030	209	461	5.30	6.11
January	432	199	258	2.97	3.42
February	432	189	242	2.78	3.00
March	992	170	305	3.51	4.05
April	853	306	425	4.89	5.46
May	871	272	387	4.45	5.13
June	543	199	296	3.40	3.79
July	486	111	225	2.59	2.99
August	5,860	136	605	6.95	8.01
September	2,020	161	395	4.54	5.06
The year	5,860	54	327	3.76	51.13

NANTAHALA RIVER AT ALMOND, N. C.

LOCATION.—Staff gage 500 feet below railroad station and highway bridge at Almond, Swain County, and one-fourth mile above mouth.

DRAINAGE AREA.—177 square miles.

RECORDS AVAILABLE.—April, 1912, to November, 1917; January, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 12,600 second-feet Mar. 30 (gage height, 6.80 feet); minimum, 170 second-feet Oct. 31 (gage height, 0.97 foot). 1912–1917, 1921–1928: Maximum discharge, 15,400 second-feet Jan. 21, 1922, and Mar. 4, 1917 (gage height, 7.75 feet Jan. 21, 1922); minimum, 79 second-feet Sept. 20–22, 1925 (gage height, 0.54 foot).

REMARKS.—Records good below and fair above 5,000 second-feet.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	198	173	603	1,020	640	430	1,540	1,080	640	1,020	530	603
2	189	173	795	837	565	430	1,240	880	715	837	495	1,480
3	189	403	1,660	755	530	403	1,080	795	755	755	462	2,220
4	194	234	1,080	755	530	430	928	715	1,360	678	565	1,180
5	180	202	837	715	530	430	880	678	1,300	678	530	1,540
6	180	198	715	678	530	403	795	975	1,300	678	565	2,070
7	180	184	640	565	495	403	1,480	1,920	1,020	603	530	1,420
8	270	212	795	530	1,180	375	1,020	1,920	880	715	495	1,180
9	342	320	603	880	837	1,670	928	1,480	837	880	678	975
10	207	234	565	640	715	975	975	1,180	795	837	530	837
11	194	216	530	603	678	795	1,130	1,020	795	837	495	755
12	530	216	1,300	565	603	678	1,080	928	795	795	430	715
13	462	207	1,130	565	603	640	975	837	715	795	430	678
14	300	198	975	530	640	755	975	795	1,180	880	430	640
15	261	207	2,710	530	565	640	880	755	837	678	795	640
16	243	248	3,260	495	565	640	837	715	837	640	2,540	603
17	234	1,510	2,070	495	530	678	755	755	715	603	1,360	640
18	230	715	1,420	603	565	975	755	837	678	678	1,080	565
19	216	495	1,130	640	495	795	715	880	640	565	928	530
20	207	430	975	640	495	715	837	1,180	603	565	795	495
21	207	375	837	565	462	678	715	1,080	603	530	715	462
22	202	342	755	495	495	603	837	975	565	530	640	462
23	198	331	715	530	640	603	975	975	565	603	603	430
24	198	315	640	603	530	565	880	880	678	603	640	430
25	189	310	603	640	495	678	795	795	795	530	715	403
26	189	290	565	530	495	715	715	880	678	530	715	403
27	184	280	530	530	462	880	880	795	603	928	603	403
28	180	270	530	495	462	715	837	755	565	678	530	375
29	176	275	755	462	430	678	795	715	1,180	565	495	375
30	173	266	565	495	-------	7,160	715	715	1,600	530	495	375
31	173	-------	1,660	715	-------	2,220	-------	678	-------	603	530	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	530	173	228	1.29	1.49
November	1,510	173	328	1.85	2.06
December	3,260	530	1,030	5.82	6.71
January	1,020	462	616	3.48	4.01
February	1,180	430	578	3.27	3.53
March	7,160	375	927	5.24	6.04
April	1,540	715	932	5.27	5.88
May	1,920	678	954	5.39	6.21
June	1,600	565	841	4.75	5.30
July	1,020	530	689	3.89	4.48
August	2,540	430	689	3.89	4.48
September	2,220	375	796	4.50	5.02
The year	7,160	173	718	4.06	55.21

TUCKASEGEE RIVER AT DILLSBORO, N. C.

LOCATION.—Staff gage 1,500 feet below highway bridge at Dillsboro, Jackson County, and 150 feet downstream from mouth of Scott Creek.

DRAINAGE AREA.—348 square miles.

RECORDS AVAILABLE.—June to September, 1928.

EXTREMES.—Maximum discharge during period, 14,000 second-feet Aug. 15 (gage height (estimated), 11.2 feet); minimum (estimated), 475 second-feet Aug. 4.

REMARKS.—Records fair. Discharge estimated June 28, July 22–24, Aug. 17 to Sept. 12, and Sept. 18–30. Slight diurnal fluctuation caused by operation of small power plant 1,300 feet upstream.

Daily and monthly discharge, in second-feet, 1928

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	--------	1,240	725	1,000	16	1,140	685	6,120	1,160
2	--------	900	575	1,800	17	900	648	2,500	1,260
3	--------	855	540	3,500	18	855	610	1,800	1,000
4	--------	855	508	2,100	19	810	610	1,500	850
5	--------	855	685	2,300	20	765	610	1,400	800
6	--------	855	765	2,900	21	765	648	1,200	750
7	--------	855	648	1,700	22	855	700	1,100	700
8	--------	945	648	1,500	23	945	650	1,000	700
9	--------	1,040	610	1,400	24	900	600	950	600
10	--------	1,190	900	1,300	25	1,090	540	1,000	550
11	--------	1,090	685	1,200	26	900	765	1,000	550
12	--------	855	540	1,100	27	810	855	900	550
13	--------	855	575	1,020	28	700	648	850	550
14	1,190	855	685	925	29	1,190	610	800	550
15	945	685	4,400	925	30	1,830	540	800	600
					31	--------	765	800	--------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
June 14–30	1,830	----------	976	2.80	1.77
July	1,240	540	788	2.26	2.61
August	6,120	508	1,200	3.45	3.98
September	----------	----------	1,190	3.42	3.82

TUCKASEGEE RIVER AT BRYSON, N. C.

LOCATION.—Water-stage recorder 400 feet below Main Street Bridge in Bryson, Swain County, half a mile below mouth of Deep Creek.

DRAINAGE AREA.—673 square miles.

RECORDS AVAILABLE.—November, 1897, to September, 1928.

EXTREMES.—Maximum discharge during year, 18,300 second-feet Aug. 16 (gage height, 9.15 feet); minimum, 426 second-feet Oct. 7 (gage height, 1.00 foot).

1897–1928: Maximum discharge, 38,600 second-feet Mar. 19, 1899 (gage height, 11.0 feet); minimum, 27 second-feet Sept. 10, 1925 (gage height, 0.48 foot).

REMARKS.—Records good. Discharge obtained from twice daily gage readings May 17–24, June 4–21, 24–30, and July 1 and 2. Diurnal fluctuation caused by operation of power plant on Oconalufty River.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	506	506	1,170	2,770	1,540	1,170	2,770	3,120	2,010	3,310	1,240	1,920
2	486	527	2,160	1,850	1,380	1,100	2,430	2,600	2,010	2,600	1,380	4,440
3	538	882	4,060	1,850	1,310	1,100	2,090	2,260	2,090	2,090	1,310	6,920
4	560	715	2,950	1,690	1,240	1,170	1,930	2,180	3,680	2,010	1,380	4,060
5	486	571	2,430	1,610	1,310	1,170	1,850	2,010	3,310	2,180	1,460	4,440
6	466	549	1,930	1,610	1,690	1,100	1,690	2,430	3,490	2,430	1,540	5,640
7	466	538	1,770	1,540	1,610	1,030	2,510	4,500	2,770	2,090	1,540	3,870
8	582	571	2,430	1,460	3,490	1,030	2,180	3,870	2,430	2,260	1,380	2,950
9	1,240	728	1,850	2,090	2,430	3,130	1,930	3,870	2,180	2,090	1,460	2,770
10	678	604	1,710	1,690	2,010	2,430	2,090	3,130	2,260	2,260	1,690	2,600
11	549	571	1,460	1,460	1,850	1,930	2,740	2,770	2,430	2,090	1,460	2,260
12	2,160	560	1,930	1,460	1,610	1,690	2,770	2,600	2,260	2,180	1,310	2,090
13	2,070	560	2,010	1,380	1,610	1,540	2,430	2,430	2,180	2,010	1,380	1,930
14	1,030	538	1,770	1,380	1,690	1,690	2,430	2,260	3,130	2,010	1,460	1,850
15	830	538	3,080	1,310	1,690	1,610	2,260	2,090	2,430	1,770	4,230	1,770
16	752	690	6,480	1,310	1,540	1,610	2,010	2,010	2,430	1,610	11,800	1,850
17	702	3,500	4,440	1,240	1,460	1,810	1,930	1,850	2,010	1,540	4,840	1,930
18	652	2,430	3,110	1,540	1,460	2,430	1,850	1,930	1,930	1,460	3,490	1,610
19	628	1,460	2,600	1,770	1,240	1,930	1,770	2,180	1,770	1,380	2,950	1,540
20	593	1,100	2,180	1,850	1,310	1,770	2,010	2,430	1,610	1,380	2,600	1,540
21	582	895	2,010	1,460	1,310	1,690	1,850	2,090	1,610	1,460	2,260	1,460
22	571	962	1,850	1,310	1,310	1,540	2,090	2,260	1,690	1,540	2,180	1,380
23	549	869	1,690	1,380	1,770	1,540	2,600	3,130	2,010	1,540	2,010	1,310
24	549	830	1,540	1,460	1,540	1,460	2,430	2,770	1,770	1,380	1,850	1,310
25	549	830	1,460	1,850	1,380	1,540	2,180	2,260	2,090	1,310	2,090	1,170
26	527	765	1,380	1,460	1,310	1,610	2,010	2,600	1,770	1,380	1,930	1,170
27	527	728	2,950	1,380	1,240	1,850	2,420	2,950	1,540	1,690	1,770	1,170
28	516	728	1,240	1,310	1,240	1,540	2,770	2,600	1,540	1,540	1,690	1,170
29	506	690	1,850	1,170	1,240	1,460	2,260	2,430	3,490	1,310	1,610	1,100
30	496	720	1,610	1,380	------	5,340	2,260	2,260	6,040	1,170	1,540	1,170
31	496	------	3,680	1,540	------	3,700	------	2,090	------	1,610	1,540	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,160	466	705	1.05	1.21
November	3,500	506	871	1.29	1.44
December	6,480	1,170	2,340	3.48	4.01
January	2,770	1,170	1,570	2.33	2.69
February	3,490	1,240	1,580	2.35	2.53
March	5,340	1,030	1,800	2.67	3.08
April	2,770	1,690	2,220	3.30	3.68
May	4,500	1,850	2,580	3.83	4.42
June	6,040	1,540	2,400	3.57	3.98
July	3,310	1,170	1,830	2.72	3.14
August	11,800	1,240	2,270	3.37	3.88
September	6,920	1,100	2,350	3.49	3.89
The year	11,800	466	1,880	2.79	37.95

SCOTT CREEK AT SYLVA, N. C.

LOCATION.—Water-stage recorder just below Gunter Creek at Sylva, Jackson County, since July 1; prior to July 1 and subsequent to June 14 staff gage at same site; and prior to June 14 staff gage above Gunter Creek.

DRAINAGE AREA.—56 square miles.

RECORDS AVAILABLE.—May to September, 1928.

EXTREMES.—Maximum discharge during period (estimated), 4,000 second-feet June 29 (gage height, 4.87 feet); minimum, 81 second-feet August 1.

REMARKS.—Records fair. The Sylva Paperboard Co. diverts 2,000,000 gallons daily past station.

Daily and monthly discharge, in second-feet, 1928

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	-------	164	338	86	194	16	154	144	142	1,250	196
2	-------	159	257	185	732	17	162	137	136	461	144
3	-------	181	221	117	786	18	166	133	129	296	134
4	-------	230	198	126	317	19	172	126	124	239	129
5	-------	230	195	158	835	20	172	122	119	198	126
6	-------	186	188	170	546	21	164	124	127	164	117
7	-------	166	185	176	409	22	256	169	174	150	109
8	-------	159	195	150	338	23	312	133	142	131	109
9	-------	154	251	147	296	24	198	146	121	173	105
10	-------	142	231	136	239	25	195	214	119	142	101
11	-------	162	201	124	195	26	198	144	169	126	99
12	-------	146	188	133	173	27	230	131	139	131	101
13	-------	149	164	116	158	28	184	133	142	117	96
14	-------	203	158	126	150	29	181	1,010	105	107	96
15	-------	149	144	938	202	30	172	726	121	105	101
						31	159	-------	103	144	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
May 16-31	312	154	192	3.43	2.04
June	1,010	122	206	3.68	4.11
July	338	103	169	3.02	3.48
August	1,250	86	220	3.93	4.53
September	835	96	244	4.36	4.86

OCONALUFTY RIVER AT CHEROKEE, N. C.

LOCATION.—Staff gage one-fourth mile above Cherokee Indian Reservation, three-fourths mile above Cherokee, Swain County, and 2 miles above mouth of Soco Creek.

DRAINAGE AREA.—133 square miles.

RECORDS AVAILABLE.—January, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 3,190 second-feet Sept. 3 (gage height, 6.85 feet); minimum, 133 second-feet Oct. 8 (gage height, 3.73 feet). 1921–1928: Maximum discharge (estimated), 8,990 second-feet Jan. 21, 1922 (gage height, 9.50 feet); minimum, 56 second-feet Sept. 9, 1925 (gage height, 3.49 feet).

REMARKS.—Records good. Slight diurnal fluctuation during low stages caused by operation of small power plant one-fourth mile upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	144	148	393	1,010	353	257	572	960	535	1,280	300	467
2	144	144	689	649	326	247	501	689	535	865	305	1,740
3	168	238	820	609	316	238	467	572	689	689	290	2,500
4	152	177	649	501	305	257	404	501	1,780	572	305	1,110
5	144	160	572	535	358	247	393	501	1,160	609	316	1,620
6	137	152	467	404	649	238	370	649	1,330	820	337	1,440
7	137	144	436	358	501	234	535	1,110	1,010	732	404	1,060
8	177	177	649	353	1,620	234	404	1,010	820	689	364	820
9	185	194	436	467	865	1,010	376	865	689	609	311	689
10	156	164	337	353	689	436	436	732	572	689	305	572
11	148	160	337	331	572	404	501	609	775	572	290	501
12	732	160	572	326	501	376	535	572	775	609	276	467
13	358	160	467	316	467	347	501	535	689	535	266	404
14	247	160	436	305	501	404	501	467	1,280	501	285	393
15	211	156	1,010	300	436	358	467	436	820	467	501	404
16	211	160	2,240	295	404	404	436	436	732	467	2,460	381
17	185	535	1,330	285	393	436	404	404	649	436	1,010	347
18	177	436	865	467	370	501	381	387	572	404	732	331
19	177	295	689	501	370	436	364	467	535	393	609	316
20	168	257	609	535	331	404	436	609	501	404	501	398
21	168	229	467	436	326	393	393	467	436	376	436	316
22	164	216	436	393	326	370	501	609	404	393	387	295
23	152	202	387	370	337	381	775	775	436	393	358	281
24	148	194	347	436	311	370	649	649	436	358	347	266
25	156	202	321	467	300	387	501	535	572	358	353	257
26	152	185	305	393	290	370	467	775	467	347	381	247
27	148	177	295	376	281	436	649	1,280	393	404	316	242
28	144	168	285	370	276	370	649	912	370	393	300	238
29	144	164	572	353	266	347	572	732	1,940	370	290	238
30	140	160	381	337	-------	1,280	609	649	2,100	331	281	238
31	144	-------	1,620	393	-------	689	-------	535	-------	326	276	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	732	137	188	1.41	1.63
November	535	144	202	1.52	1.70
December	2,240	285	626	4.71	5.43
January	1,010	285	427	3.21	3.70
February	1,620	266	450	3.38	3.64
March	1,280	234	415	3.12	3.60
April	775	364	492	3.70	4.13
May	1,280	387	659	4.95	5.71
June	2,100	370	800	6.02	6.72
July	1,280	326	529	3.98	4.59
August	2,460	266	448	3.37	3.88
September	2,500	238	619	4.65	5.19
The year	2,500	137	488	3.67	49.92

TELLICO RIVER NEAR TELLICO PLAINS, TENN.

LOCATION.—Staff gage 700 feet above Laurel Creek and 1½ miles southwest of Tellico Plains, Monroe County. Zero of gage is 855.13 feet above mean sea level.

DRAINAGE AREA.—113 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1928. At station half a mile downstream, from July, 1925, to September, 1927.

EXTREMES.—Maximum discharge during year, 4,000 second-feet Dec. 15 (gage height, 6.2 feet); minimum, 46 second-feet Oct. 3 (gage height, 0.98 foot).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927–1928

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	50	345	950	370	190	578	1,410	280	495	187	890
2	55	50	420	420	322	175	470	770	632	395	175	2,140
3	55	175	632	420	280	172	395	578	605	322	166	2,340
4	65	127	300	420	280	197	345	495	1,070	280	163	950
5	60	68	225	395	260	187	322	470	770	260	204	770
6	52	62	190	300	260	172	300	420	632	345	218	950
7	50	62	175	260	260	166	950	660	495	300	197	632
8	115	80	300	260	632	169	578	830	445	370	160	550
9	130	85	218	345	420	1,480	470	605	395	370	204	470
10	68	103	204	322	345	550	495	495	395	370	175	370
11	58	95	194	280	300	395	1,010	420	1,070	300	172	345
12	142	82	1,130	260	280	345	950	395	688	395	157	322
13	130	75	688	260	260	300	660	345	495	550	136	300
14	80	72	522	242	322	420	890	322	1,340	522	169	280
15	75	70	1,790	225	280	322	715	280	715	345	166	280
16	70	70	2,550	204	260	345	605	280	550	300	890	280
17	70	345	1,010	225	260	345	495	280	420	260	495	260
18	65	242	605	550	260	495	420	260	370	242	420	242
19	55	157	445	605	225	395	395	420	322	345	495	242
20	55	130	345	495	225	370	420	470	300	322	300	222
21	55	112	322	370	218	322	370	420	322	445	242	208
22	55	100	280	345	225	300	605	445	370	300	218	194
23	52	90	242	280	260	280	770	470	322	242	184	181
24	50	92	225	370	242	260	605	420	395	225	208	169
25	55	103	218	445	222	370	495	345	370	225	225	175
26	55	90	200	370	211	300	445	345	300	300	204	181
27	52	90	190	345	197	830	605	322	260	322	184	169
28	52	85	184	280	194	495	578	300	242	225	169	157
29	52	85	370	280	190	395	522	280	1,130	200	157	145
30	50	80	280	280	-------	1,630	445	300	950	187	187	169
31	50	-------	2,340	420	-------	770	-------	260	-------	214	300	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	142	50	67	0.593	0.68
November	345	50	104	.920	1.03
December	2,550	175	553	4.89	5.64
January	950	204	362	3.20	3.69
February	632	190	278	2.46	2.65
March	1,630	166	424	3.75	4.32
April	1,010	300	563	4.98	5.56
May	1,410	260	455	4.03	4.65
June	1,340	242	555	4.91	5.48
July	550	187	322	2.85	3.29
August	890	136	243	2.15	2.48
September	2,340	145	486	4.30	4.80
The year	2,550	50	368	3.26	44.27

CLINCH RIVER AT CLEVELAND, VA.

LOCATION.—Chain gage on highway bridge in Cleveland, Russell County.
DRAINAGE AREA.—536 square miles.
RECORDS AVAILABLE.—October, 1920, to September, 1928.
EXTREMES.—Maximum discharge during year, 5,200 second-feet Apr. 30 (gage height, 8.43 feet); minimum, 56 second-feet Oct. 30 (gage height, 1.84 feet).
1920–1928: Maximum stage, 21.1 feet Dec. 22, 1926 (discharge not determined); minimum discharge, 50 second-feet Sept. 28, 1927 (gage height, 1.80 feet).
REMARKS.—Records good. Discharge Jan. 1–10 estimated because of ice.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	64	144		600	420	1,200	3,080	648	920	100	1,440
2	60	60	266		830	396	1,070	1,930	520	648	95	2,290
3	67	82	890		741	329	950	1,370	548	470	95	1,840
4	69	122	1,130		684	308	520	1,040	602	370	105	1,300
5	65	130	1,010	780	684	308	770	920	520	395	174	1,370
6	71	92	890		1,070	266	444	920	520	420	174	1,750
7	69	74	830		1,340	250	420	1,440	575	575	188	1,300
8	74	250	684		1,410	238	656	1,670	470	243	139	980
9	69	830	573		1,340	469	546	1,440	395	170	148	740
10	74	573	444		1,130	546	600	1,040	520	860	630	575
11	71	770	444	520	950	494	770	860	495	470	920	470
12	73	520	494	444	890	469	2,540	740	445	1,040	602	395
13	115	171	684	373	770	420	1,800	630	395	648	348	348
14	99	150	628	350	684	444	1,560	520	325	420	445	304
15	105	150	830	350	684	444	1,560	445	325	304	304	304
16	103	130	2,840	350	656	628	1,200	420	304	220	1,230	251
17	86	174	3,440	329	546	1,130	1,010	370	304	151	2,380	243
18	88	2,150	1,640	373	520	1,560	830	1,510	283	145	1,590	263
19	99	1,010	1,130	1,410	520	1,480	712	4,260	325	115	1,590	740
20	101	444	770	2,840	469	1,410	1,070	3,820	283	174	1,160	1,930
21	105	373	684	2,060	420	1,800	600	3,080	1,160	161	800	1,930
22	86	350	546	1,010	420	2,060	573	1,840	860	174	685	1,100
23	94	226	494	890	494	2,740	1,270	1,440	648	102	548	800
24	76	258	420	712	469	2,150	1,270	1,040	1,230	115	420	630
25	78	226	396	1,070	469	1,880	890	800	1,300	131	395	495
26	86	187	308	1,010	469	1,410	830	1,040	630	123	420	445
27	78	204	420	741	444	1,200	1,560	1,300	470	102	920	370
28	90	164	546	684	420	1,130	4,540	1,510	395	154	980	325
29	71	144	373	546	420	1,070	4,320	1,300	445	194	685	325
30	58	128	444	494	------	1,800	5,090	980	1,100	126	395	920
31	62	------	656	573	------	2,340	------	800	------	115	395	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	115	58	80.7	0.151	0.17
November	2,150	60	340	.634	.71
December	3,440	144	808	1.51	1.74
January	2,840	----------	804	1.50	1.73
February	1,410	420	708	1.32	1.42
March	2,740	238	1,020	1.90	2.19
April	5,090	420	1,370	2.56	2.86
May	4,260	370	1,400	2.61	3.01
June	1,300	283	568	1.06	1.18
July	1,040	102	331	.618	.71
August	2,380	95	615	1.15	1.33
September	2,290	243	872	1.63	1.82
The year	5,090	58	743	1.39	18.87

CLINCH RIVER AT SPEER FERRY, VA.

LOCATION.—Chain gage on highway bridge three-fourths mile from Speer Ferry, Scott County, 1½ miles below Clinchport, and half a mile below Copper Creek.

DRAINAGE AREA.—1,140 square miles.

RECORDS AVAILABLE.—October, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 9,120 second-feet Apr. 30 (gage height, 10.22 feet); minimum, 135 second-feet Oct. 21 (gage height, 1.40 feet).

1920–1928: Maximum discharge, 37,200 second-feet Feb. 3, 1923 (gage height, 24.35 feet); minimum, 81 second-feet Sept. 10, 1925 (gage height, −0.32 foot).

REMARKS.—Records good. Low-water flow is slightly regulated by Speer Ferry roller mill, just above station.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	187	160	420	3,130	1,190	772	4,810	8,130	1,570	3,490	352	1,190
2	175	181	950	2,000	1,190	675	3,250	4,930	1,570	2,240	330	4,810
3	160	190	2,490	1,570	1,110	675	2,360	3,370	1,570	1,570	310	5,890
4	205	205	2,620	1,030	1,280	645	1,890	2,490	2,120	1,470	310	4,570
5	181	220	2,240	950	1,280	588	1,570	2,120	1,780	1,670	352	3,730
6	163	220	2,120	950	1,570	588	1,370	1,670	1,570	2,000	465	6,370
7	178	235	1,890	922	3,130	535	1,370	2,120	1,570	1,470	560	4,210
8	190	290	1,570	990	6,250	510	1,470	2,620	1,370	1,110	535	2,750
9	184	708	1,370	1,030	5,410	1,470	1,370	2,750	1,190	1,570	465	2,000
10	187	875	1,110	1,110	3,730	2,000	1,370	2,120	1,190	2,360	510	1,570
11	178	740	922	1,030	2,490	1,570	2,000	1,780	1,190	2,000	1,030	1,190
12	205	675	875	990	2,000	1,370	5,410	1,570	1,030	1,470	1,370	990
13	220	615	2,120	922	1,670	1,190	4,930	1,370	950	2,000	560	840
14	235	510	2,240	805	1,470	1,190	4,810	1,190	922	1,570	645	740
15	220	442	2,880	772	1,370	1,110	6,130	1,030	875	1,280	675	708
16	220	310	4,570	772	1,280	1,780	3,970	950	805	922	2,880	740
17	205	675	6,610	740	1,110	3,850	3,130	922	772	772	4,690	645
18	205	1,670	5,050	740	1,030	4,930	2,240	1,370	805	675	3,970	535
19	184	2,360	3,010	1,780	990	4,330	2,240	3,850	740	560	3,370	560
20	152	1,110	2,880	5,290	950	3,730	4,330	5,890	708	560	3,010	1,370
21	138	708	2,490	4,210	875	3,610	4,690	6,130	708	708	1,890	3,730
22	205	560	2,240	2,620	840	3,850	3,490	4,090	1,670	950	1,570	2,750
23	220	510	1,890	1,890	805	4,450	2,120	3,250	1,470	805	1,190	1,780
24	220	510	1,570	1,570	805	4,450	4,210	2,360	2,240	675	990	1,280
25	205	465	990	2,360	805	3,370	3,370	1,780	2,750	588	805	990
26	205	442	675	2,490	875	2,750	2,490	2,120	1,890	510	805	772
27	187	420	615	2,240	840	2,620	2,620	3,370	1,470	465	840	708
28	178	398	805	1,890	772	2,490	6,010	4,210	1,110	488	990	675
29	169	375	1,110	1,570	772	2,240	9,010	3,370	5,410	465	1,110	560
30	160	352	1,470	990	------	5,530	9,120	2,490	6,010	442	772	875
31	155	------	1,890	1,280	------	7,800	------	2,000	------	398	740	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	235	138	190	0.167	0.19
November	2,360	160	571	.501	.56
December	6,610	420	2,050	1.80	2.08
January	5,290	740	1,630	1.43	1.65
February	6,250	772	1,650	1.45	1.56
March	7,800	510	2,470	2.17	2.50
April	9,120	1,370	3,570	3.13	3.49
May	8,130	922	2,820	2.47	2.85
June	6,010	708	1,630	1.43	1.60
July	3,490	398	1,200	1.05	1.21
August	4,690	310	1,230	1.08	1.24
September	6,370	535	1,980	1.74	1.94
The year	9,120	138	1,750	1.54	20.87

CLINCH RIVER NEAR TAZEWELL, TENN.

LOCATION.—Water-stage recorder at Evans Ferry, 600 feet below highway bridge on Tazewell-Morristown road, 2½ miles above mouth of Indian Creek, and 7½ miles southeast of Tazewell, Claiborne County. Zero of gage is 1,012.55 feet above mean sea level.

DRAINAGE AREA.—1,500 square miles.

RECORDS AVAILABLE.—August, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 16,200 second-feet June 30 (gage height, 9.0 feet); minimum mean daily discharge, 220 second-feet Oct. 31 to Nov. 3 (gage height, 1.26 feet).

1927–28: Maximum discharge, that of June 30, 1928; minimum, that of Oct. 31 to Nov. 3, 1927.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	246	220	476	4,520	1,610	1,660	6,380	10,300	2,320	7,310	565	1,520
2	251	220	605	3,600	1,610	1,590	5,040	7,790	2,240	4,520	535	3,900
3	246	220	1,780	2,320	1,620	1,130	3,600	5,150	3,220	2,940	505	7,790
4	240	235	2,940	1,520	1,690	855	2,850	3,800	6,380	2,240	483	6,840
5	251	251	2,760	1,070	1,660	796	2,320	3,030	4,200	2,580	469	5,150
6	251	251	1,960	1,450	2,240	758	2,020	2,580	3,320	3,030	550	8,030
7	235	268	1,720	1,370	3,030	713	1,860	2,320	2,850	2,760	662	7,070
8	230	290	1,540	1,320	6,610	670	1,680	2,580	2,400	2,100	768	4,520
9	235	319	1,340	1,280	7,790	1,920	1,650	3,120	2,040	2,010	825	3,120
10	246	355	1,180	1,360	5,150	3,700	1,610	2,940	1,860	2,490	825	2,400
11	246	825	1,040	1,240	3,900	2,940	2,400	2,490	1,700	3,220	845	1,880
12	251	865	1,020	1,210	3,120	2,240	6,150	2,100	1,610	2,320	1,240	1,550
13	319	637	2,070	1,130	2,580	1,810	6,380	1,870	1,470	2,150	1,510	1,300
14	319	528	2,760	1,060	2,150	1,750	6,380	1,630	2,580	2,490	1,130	1,150
15	301	448	3,410	1,040	1,960	1,750	8,270	1,470	2,240	1,920	905	1,070
16	301	400	6,840	1,050	1,810	2,940	7,790	1,330	1,590	1,580	2,320	1,080
17	301	462	8,030	1,040	1,680	5,150	4,520	1,220	1,320	1,220	5,260	969
18	278	958	6,840	1,120	1,560	5,370	3,410	1,190	1,240	1,040	5,370	845
19	262	2,320	6,380	2,050	1,480	4,520	2,850	1,660	1,180	925	4,620	758
20	262	2,150	2,760	5,040	1,360	5,260	6,150	5,480	1,050	845	4,200	1,340
21	251	1,320	1,960	6,380	1,250	4,410	7,790	6,610	1,160	855	3,120	3,120
22	251	958	1,560	4,300	1,160	4,520	5,700	5,920	1,580	1,100	2,240	3,700
23	246	758	1,330	2,850	1,140	4,620	5,590	4,200	2,240	1,370	1,900	2,580
24	256	645	1,180	2,240	1,140	5,040	5,700	3,410	3,030	1,070	1,510	1,930
25	262	605	1,050	2,760	1,150	4,520	5,040	2,580	4,520	925	1,340	1,520
26	256	558	925	3,320	1,160	3,900	3,800	2,150	3,800	806	1,130	1,260
27	246	520	816	3,030	1,810	3,700	3,800	3,600	2,580	730	1,050	1,240
28	230	490	787	2,320	1,760	3,600	6,150	5,700	1,990	740	1,140	991
29	225	469	1,060	1,930	1,700	3,220	8,770	4,940	11,300	730	1,320	905
30	225	441	1,240	1,510	------	4,300	10,000	3,700	14,300	670	1,340	1,100
31	220	------	2,940	1,370	------	9,520	------	2,850	------	613	1,120	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	319	220	256	0.171	0.20
November	2,320	220	633	.422	.47
December	8,030	476	2,330	1.55	1.79
January	6,380	1,040	2,190	1.46	1.68
February	7,790	1,140	2,310	1.54	1.66
March	9,520	670	3,190	2.13	2.46
April	10,000	1,610	4,860	3.24	3.62
May	10,300	1,190	3,540	2.36	2.72
June	14,300	1,050	3,110	2.07	2.31
July	7,310	613	1,910	1.27	1.46
August	5,370	469	1,640	1.09	1.26
September	8,030	758	2,690	1.79	2.00
The year	14,300	220	2,380	1.59	21.63

CLINCH RIVER NEAR COAL CREEK, TENN.

LOCATION.—Water-stage recorder near highway bridge at Massengill's store, 3½ miles east of town of Coal Creek, Anderson County. Coal Creek enters three-fourths mile downstream. Zero of gage is 808.95 feet above mean sea level.

DRAINAGE AREA.—2,960 square miles.

RECORDS AVAILABLE.—May, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 46,400 second-feet June 30 (gage height, 23.9 feet); minimum mean daily discharge, 500 second-feet Nov. 1 (gage height, 0.70 foot).

1927–28: Maximum discharge, that of June 30, 1928; minimum, that of Nov. 1, 1927.

REMARKS.—Records good except those for October, August, and September, which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	590	500	905	11,200	[a]3,410	2,210	19,300	17,300	5,170	36,400	1,660	[a]2,900
2	[a]599	536	1,120	10,300	[a]3,320	2,110	14,800	16,500	5,830	19,100	1,510	[a]3,500
3	[a]626	545	2,010	7,910	[a]3,240	2,060	9,410	10,800	5,040	10,700	1,560	[a]7,500
4	[a]617	545	2,940	5,170	[a]3,160	1,190	6,980	8,070	12,900	7,590	1,560	[a]12,000
5	599	[a]527	4,780	3,710	3,160	1,860	5,690	6,390	14,100	8,230	1,510	[a]11,000
6	581	[a]518	3,940	2,720	3,380	1,760	4,780	6,830	10,500	10,700	1,460	[a]10,000
7	572	536	3,050	2,830	4,780	1,660	4,540	4,780	8,900	9,070	1,460	[a]9,500
8	572	563	2,940	2,940	8,390	1,610	4,660	4,420	8,070	7,430	[a]1,500	[a]11,000
9	563	626	2,610	2,780	12,900	3,380	4,300	4,540	6,680	6,530	[a]1,550	6,390
10	554	635	2,310	2,610	13,300	6,980	4,180	4,780	5,560	6,110	[a]1,750	4,910
11	536	698	2,060	2,610	9,580	7,590	4,910	4,540	4,660	5,970	[a]2,000	3,940
12	617	932	2,010	2,460	7,280	6,110	8,230	3,940	4,420	6,110	1,860	3,380
13	752	1,460	2,360	2,360	5,830	4,780	11,000	3,490	3,940	5,300	[a]1,850	2,940
14	698	1,130	4,060	2,210	5,040	4,180	12,500	3,160	6,680	6,250	[a]2,500	2,560
15	707	959	6,110	2,060	4,540	3,940	13,700	2,940	8,560	5,560	[a]2,200	2,780
16	680	860	9,240	1,960	4,060	6,110	15,200	2,660	6,680	5,830	[a]2,500	2,780
17	635	1,560	13,900	1,910	3,820	10,700	12,500	2,510	5,170	4,300	[a]2,200	2,410
18	644	1,660	14,600	2,010	3,600	13,100	8,730	2,460	4,180	3,490	[a]5,000	2,160
19	635	1,610	11,000	3,050	3,270	15,400	6,830	2,510	3,600	3,050	8,560	1,910
20	608	3,160	6,680	[a]5,830	3,050	12,900	7,280	4,060	3,380	2,660	6,980	1,810
21	563	3,160	4,660	[a]9,070	2,830	10,100	14,600	8,230	3,050	2,510	6,390	[a]2,360
22	572	2,160	3,600	10,500	2,610	8,560	18,000	10,300	3,050	2,510	4,910	[a]4,420
23	572	1,660	2,940	6,980	2,560	8,230	18,000	8,560	3,270	2,610	3,710	[a]4,910
24	554	1,360	2,660	5,300	2,510	7,750	17,300	6,250	3,270	2,780	3,160	3,710
25	554	1,220	2,410	6,390	2,460	7,910	15,800	5,430	3,380	2,510	2,830	2,940
26	554	1,100	2,110	6,390	2,410	7,280	12,400	4,540	7,280	2,210	2,610	2,460
27	554	1,040	1,910	6,530	2,410	7,750	9,940	5,830	6,530	2,010	2,310	2,160
28	545	968	1,810	5,690	2,360	7,430	12,000	11,400	5,830	2,160	2,110	1,960
29	536	941	[a]3,940	4,780	2,260	7,130	14,600	11,000	23,100	1,960	[a]2,110	1,760
30	518	905	[a]4,660	4,060	-------	9,240	17,600	9,070	45,400	1,860	[a]2,110	1,710
31	509	-------	8,560	3,490	-------	13,300	-------	6,530	-------	1,760	[a]2,300	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	752	509	594	0.201	0.23
November	3,160	500	1,140	.385	.43
December	14,600	905	4,450	1.50	1.73
January	11,200	1,910	4,770	1.61	1.86
February	13,300	2,260	4,540	1.53	1.65
March	15,400	1,610	6,610	2.23	2.57
April	19,300	4,180	11,000	3.72	4.15
May	17,300	2,460	6,570	2.22	2.56
June	45,400	3,050	7,940	2.68	2.99
July	36,400	1,760	6,300	2.13	2.46
August	8,560	1,460	2,770	.935	1.08
September	12,000	1,710	4,460	1.51	1.68
The year	45,400	500	[illegible]	1.72	23.39

[a] Estimated.

POWELL RIVER NEAR PENNINGTON GAP, VA.

LOCATION.—Chain gage on highway bridge 1,000 feet below North Fork and 3 miles southeast of Pennington Gap, Lee County.

DRAINAGE AREA.—304 square miles.

RECORDS AVAILABLE.—October, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 15,200 second-feet June 29 (gage height, 17.38 feet); minimum, 28 second-feet Oct. 27 (gage height, 1.64 feet).

1920–1928: Maximum discharge, about 22,000 second-feet Dec. 21, 1926 (gage height, 22.60 feet); minimum, 14 second-feet Oct. 15 and 17, 1923, Sept. 5 and 6, 1925 (gage height, 1.51 feet).

REMARKS.—Records good. Two small gristmills above gage cause considerable diurnal fluctuation, and a large steam plant on North Fork uses practically the entire flow of that stream during low-water season for condenser and boiler feed water.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	39	99	1,780	350	229	1,270	1,700	470	1,410	94	408
2	38	42	312	820	331	214	880	1,000	408	820	82	1,060
3	36	47	1,130	492	312	186	658	710	408	608	74	4,180
4	38	64	710	331	294	181	537	608	658	764	88	1,550
5	38	52	388	294	470	181	428	492	710	1,270	88	1,000
6	35	58	331	294	560	168	388	408	1,780	1,200	150	1,340
7	36	56	244	276	880	155	449	388	1,000	764	312	940
8	38	96	294	260	1,700	123	449	350	658	492	229	658
9	38	214	260	276	1,410	880	408	312	560	492	176	470
10	39	153	229	244	940	880	428	276	514	584	492	312
11	36	92	229	214	710	608	820	244	428	388	350	276
12	46	76	294	214	584	537	1,700	229	350	514	186	244
13	76	66	1,480	200	492	408	1,130	200	331	764	200	214
14	76	58	1,060	200	449	428	2,260	183	1,000	2,180	146	183
15	58	54	2,180	200	408	369	2,260	170	710	880	408	173
16	47	54	2,710	200	369	1,000	1,270	160	492	537	3,580	160
17	41	244	1,860	200	350	2,180	880	163	449	388	2,020	146
18	42	658	940	276	331	1,940	764	168	388	294	1,130	132
19	44	369	608	2,020	294	1,200	584	514	331	244	1,130	127
20	41	214	428	2,350	276	880	2,350	1,480	260	214	820	229
21	44	160	331	1,000	260	880	1,860	1,200	369	214	537	312
22	42	136	276	608	260	764	1,550	764	369	244	584	229
23	41	125	244	492	276	880	2,710	764	294	229	408	170
24	39	112	183	470	294	764	2,350	584	710	178	294	143
25	36	105	176	1,000	294	880	1,130	470	1,200	138	276	123
26	36	99	158	710	276	764	880	940	1,200	127	260	110
27	29	90	132	584	276	880	1,550	1,620	764	150	178	112
28	35	86	134	428	260	820	2,620	1,620	608	170	181	101
29	38	82	514	312	244	710	2,350	940	10,000	136	165	90
30	41	86	764	369	------	5,390	2,800	658	3,580	114	150	449
31	36	------	1,700	369	------	2,440	------	514	------	101	200	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	76	29	41.8	0.138	0.16
November	658	39	126	.414	.46
December	2,710	99	658	2.16	2.49
January	2,350	200	564	1.86	2.14
February	1,700	244	481	1.58	1.70
March	5,390	123	901	2.96	3.41
April	2,800	388	1,320	4.34	4.84
May	1,700	160	640	2.11	2.43
June	10,000	260	1,030	3.39	3.78
July	2,180	101	536	1.76	2.03
August	3,580	74	483	1.59	1.83
September	4,180	90	521	1.71	1.91
The year	10,000	29	608	2.00	27.18

POWELL RIVER NEAR ARTHUR, TENN.

LOCATION.—Water-stage recorder at highway bridge at McHenry's ford, 3½ miles east of Arthur, Claiborne County. Zero of gage is 1,045.84 feet above mean sea level.

DRAINAGE AREA.—685 square miles.

RECORDS AVAILABLE.—October, 1919, to September, 1928.

EXTREMES.—Maximum discharge during year, 16,600 second-feet June 30 (gage height, 16.1 feet); minimum, 98 second-feet Oct. 31 and Nov. 1 (gage height, 0.19 foot).

1919–1928: Maximum discharge, 22,700 second-feet Dec. 23, 1926 (gage height, 20.4 feet); minimum, 82 second-feet Sept. 10 and 11, 1925 (gage height, 0.00 foot).

Maximum stage known, 27.2 feet Jan. 29, 1918.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	98	172	3,930	880	561	5,970	4,430	1,180	9,930	385	880
2	122	100	363	3,560	825	528	3,200	3,200	1,120	4,430	352	1,420
3	128	110	940	1,960	770	500	2,240	2,160	1,520	2,660	374	2,930
4	125	108	1,600	1,300	698	462	1,630	1,630	3,110	1,920	374	4,730
5	125	112	1,060	1,090	770	440	1,360	1,360	2,930	2,570	336	3,020
6	122	112	715	880	1,180	424	1,180	1,180	2,930	3,200	330	2,080
7	120	108	550	825	1,770	402	1,330	1,060	3,470	2,840	385	2,320
8	118	128	594	742	2,930	374	1,270	1,000	2,750	1,960	446	1,770
9	122	140	556	704	3,650	1,360	1,210	940	1,920	1,960	561	1,330
10	125	149	544	682	3,110	2,240	1,090	825	1,560	1,800	473	1,060
11	122	250	478	666	2,240	2,000	1,520	742	1,360	1,660	594	852
12	140	245	600	594	1,740	1,490	2,400	693	1,120	1,300	654	715
13	158	194	1,300	544	1,390	1,210	3,200	644	970	1,390	561	638
14	146	166	2,240	506	1,210	1,150	2,930	605	2,080	1,770	429	572
15	137	152	2,570	506	1,090	1,090	4,030	550	2,570	2,930	385	583
16	143	143	4,330	495	1,030	2,240	4,530	522	1,960	1,840	566	539
17	146	352	5,330	539	910	3,930	2,840	495	1,460	1,270	2,930	468
18	134	396	3,650	704	852	4,730	2,000	495	1,210	1,000	3,110	429
19	122	940	2,000	1,390	798	4,030	1,770	583	1,090	852	2,160	402
20	120	649	1,300	2,570	770	3,110	4,730	1,180	940	742	1,920	632
21	118	424	970	3,740	704	2,400	5,860	2,840	852	710	1,460	825
22	120	320	798	2,240	666	2,080	5,640	2,320	940	649	1,090	798
23	115	255	693	1,420	649	1,800	5,860	1,630	1,090	682	940	638
24	115	226	594	1,300	654	1,700	6,740	1,700	1,330	660	798	512
25	115	218	506	1,660	649	1,700	5,230	1,240	1,660	556	770	440
26	115	198	451	1,840	632	2,320	3,380	1,030	2,240	495	742	390
27	112	190	412	1,660	616	2,480	3,110	2,080	2,160	468	622	363
28	110	186	380	1,360	583	2,400	4,430	3,380	1,660	528	556	336
29	105	180	1,150	1,150	566	2,160	5,130	3,110	9,560	512	478	320
30	102	169	1,420	910	------	4,030	4,630	2,000	16,100	517	434	451
31	98	------	2,930	852	------	7,070	------	1,460	------	434	506	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	158	98	123	0.180	0.21
November	940	98	234	.342	.38
December	5,330	172	1,330	1.94	2.24
January	3,930	495	1,370	2.00	2.31
February	3,650	566	1,180	1.72	1.86
March	7,070	374	2,010	2.93	3.38
April	6,740	1,090	3,350	4.89	5.46
May	4,430	495	1,520	2.22	2.56
June	16,100	852	2,490	3.64	4.06
July	9,930	434	1,750	2.55	2.94
August	3,110	330	830	1.21	1.40
September	4,730	320	1,080	1.58	1.76
The year	16,100	98	1,440	2.10	28.56

EMERY RIVER AT HARRIMAN, TENN.

LOCATION.—Staff gage at Tennessee Central Railroad bridge in Harriman, Roane County, 1,000 feet above highway bridge. Zero of gage is 717.38 feet above mean sea level.

DRAINAGE AREA.—793 square miles.

RECORDS AVAILABLE.—June, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 55,500 second-feet June 29 (gage height, 40.1 feet); minimum, 6.0 second-feet Oct. 10 (gage height, 0.40 foot). 1927–28: Maximum discharge, that of June 29, 1928; minimum, that of Oct. 10, 1927.

REMARKS.—Records for low and medium stages good except those for estimated periods, which are fair; records for high stages fair to poor. Water for Harriman water supply is diverted 1,000 feet above gage; this has no appreciable effect except at extremely low stages.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	9.2	435	7,200	1,230	635	1,690	2,490	532	22,700	[a] 900	3,880
2	10	9.2	435	2,890	1,080	705	1,530	2,010	2,650	5,740	[a] 800	5,000
3	10	10	705	2,330	1,080	818	1,330	1,690	3,790	2,570	[a] 750	6,140
4	10	14	3,160	[a] 2,010	1,300	930	1,080	1,300	9,000	1,610	[a] 650	4,640
5	9.6	14	2,090	[a] 1,530	1,460	780	930	1,160	12,000	1,230	[a] 600	2,570
6	8.4	15	1,530	1,160	2,170	600	[a] 950	[a] 1,000	7,200	1,850	[a] 550	2,330
7	8.0	16	1,380	[a] 1,100	2,810	500	[a] 1,050	[a] 850	5,140	2,570	500	2,010
8	8.4	17	1,230	[a] 2,500	2,730	468	1,080	705	3,250	[a] 2,300	468	1,380
9	7.2	17	1,160	[a] 2,500	2,010	[a] 3,740	968	635	2,090	2,010	468	968
10	6.4	14	1,080	[a] 1,700	1,690	5,140	635	532	[a] 1,700	2,980	532	742
11	6.8	15	1,080	[a] 1,400	1,530	3,700	1,380	468	1,460	1,460	1,460	565
12	7.2	16	1,080	[a] 1,200	1,530	3,520	5,040	405	1,530	1,300	968	468
13	9.2	18	1,000	[a] 1,100	1,850	2,010	3,340	[a] 350	1,300	[a] 1,100	600	375
14	12	21	1,160	1,080	1,230	1,850	2,980	[a] 300	8,850	[a] 800	468	315
15	12	24	1,690	968	1,380	1,850	[a] 3,600	295	6,650	670	500	275
16	12	28	4,440	855	1,230	[a] 4,800	3,880	247	2,650	600	1,080	300
17	13	17,600	6,040	1,080	1,160	[a] 13,400	2,650	234	[a] 1,800	500	1,080	305
18	14	8,850	4,150	2,010	1,000	[a] 5,390	1,850	242	[a] 1,300	405	1,300	242
19	16	3,610	2,730	2,810	968	4,060	[a] 1,700	310	[a] 900	435	1,000	184
20	18	[a] 2,810	1,930	2,980	855	3,880	1,690	1,000	[a] 750	[a] 500	1,300	156
21	16	[a] 2,010	1,690	2,010	930	3,160	[a] 4,000	1,160	[a] 700	[a] 550	968	133
22	14	[a] 1,230	1,230	2,170	855	2,650	[a] 11,000	1,080	[a] 800	[a] 600	670	121
23	13	1,000	930	2,650	930	2,490	16,500	1,160	[a] 1,600	[a] 600	500	110
24	12	818	855	4,060	780	[a] 2,200	11,600	1,000	[a] 3,300	[a] 600	405	95
25	12	670	742	4,840	742	[a] 2,000	5,940	742	6,340	635	375	86
26	10	600	635	3,880	705	[a] 1,800	3,520	742	4,240	855	[a] 400	74
27	10	565	532	3,250	705	[a] 1,600	2,730	[a] 3,200	3,160	1,690	500	66
28	9.2	500	565	2,010	670	[a] 1,400	4,060	5,240	9,950	1,770	405	62
29	8.4	468	[a] 15,000	1,850	635	[a] 1,600	3,880	2,170	43,000	[a] 1,500	333	54
30	8.8	435	8,000	1,530	-------	[a] 2,000	2,980	1,690	29,100	[a] 1,200	300	54
31	9.2	--------	[a] 22,000	1,380	-------	[a] 2,000	--------	1,230	--------	[a] 1,000	321	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	18	6.4	10.7	0.013	0.01
November	17,600	9.2	1,380	1.74	1.94
December	22,000	435	2,930	3.69	4.25
January	7,200	855	2,260	2.85	3.29
February	2,810	635	1,280	1.61	1.74
March	13,400	468	2,630	3.32	3.83
April	16,500	635	3,520	4.44	4.95
May	5,240	234	1,150	1.45	1.67
June	43,000	532	5,890	7.43	8.29
July	22,700	405	2,080	2.62	3.02
August	1,460	300	682	.860	.99
September	6,140	54	1,120	1.41	1.57
The year	43,000	6.4	2,070	2.61	35.55

[a] Estimated.

DADDY CREEK NEAR GRASSY COVE, TENN.

LOCATION.—Staff gage at highway bridge on Crossville-Grassy Cove road 3 miles northwest of Grassy Cove, Cumberland County, and 5 miles above mouth of Bird Creek.

DRAINAGE AREA.—46.4 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 3,460 second-feet Nov. 17 (gage height, 16.1 feet); minimum, 0.3 second-foot Oct. 29 (gage height, 1.30 feet). 1925–1928: Maximum discharge, 3,760 second-feet Dec. 25, 1926 (gage height, 17.2 feet); no flow Sept. 6 and 15–28, 1925.

REMARKS.—Records good below and fair above 1,000 second-feet.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	2.4	49	629	108	35	140	175	95	417	7.0	291
2	2.8	2.8	217	321	95	32	128	154	175	276	6.2	401
3	2.4	3.3	321	276	88	29	108	102	203	189	8.6	246
4	2.4	4.1	217	231	82	24	75	81	1,390	102	6.5	154
5	4.1	3.9	147	161	68	28	54	70	866	88	21	82
6	3.5	3.0	108	76	95	29	64	56	401	246	32	121
7	3.3	2.4	154	52	81	27	102	48	246	306	33	77
8	2.8	2.4	175	175	401	22	154	41	140	203	27	37
9	2.3	3.3	121	175	276	797	140	33	95	175	26	33
10	2.6	5.6	95	154	217	519	134	29	70	276	18	28
11	2.6	3.5	88	128	147	276	246	27	161	114	15	22
12	4.6	3.3	102	108	102	189	502	21	154	80	19	17
13	4.6	3.3	175	82	88	168	337	18	217	95	14	15
14	3.7	3.9	147	72	88	161	502	20	774	60	12	14
15	3.0	4.6	203	65	102	1,140	502	13	369	39	17	17
16	2.4	62	629	56	88	820	306	10	175	33	44	17
17	2.1	2,830	434	49	76	502	161	13	108	32	49	17
18	3.9	1,010	337	88	68	353	128	14	82	22	33	12
19	2.1	555	168	337	58	291	108	62	63	14	22	10
20	3.3	337	121	231	47	261	95	161	39	11	28	8.3
21	4.4	114	108	175	49	246	175	189	43	12	16	6.5
22	3.7	95	81	121	66	231	1,390	175	37	175	12	5.4
23	2.8	82	63	102	60	217	1,300	161	95	88	10	4.4
24	2.8	70	51	385	59	189	866	154	231	43	8.3	3.7
25	2.4	55	39	434	54	168	573	231	573	24	31	3.9
26	2.1	46	38	306	46	154	337	54	401	14	35	4.4
27	1.8	57	35	231	41	147	261	71	189	11	21	3.7
28	.51	37	31	154	37	189	261	147	147	20	16	3.0
29	.37	33	1,060	121	35	217	246	134	3,070	16	12	3.5
30	.51	27	573	108	-------	175	189	128	1,510	12	8.6	3.5
31	2.0	-------	2,050	108	-------	154	-------	88	-------	8.3	18	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	4.6	0.37	2.74	0.059	0.07
November	2,830	2.4	182	3.92	4.37
December	2,050	31	262	5.65	6.51
January	629	49	184	3.97	4.58
February	401	35	97.3	2.10	2.26
March	1,140	22	251	5.41	6.24
April	1,390	54	319	6.88	7.68
May	231	10	86.5	1.86	2.14
June	3,070	37	404	8.71	9.72
July	417	8.3	103	2.22	2.56
August	49	6.2	20.2	.435	.50
September	401	3.0	55.4	1.19	1.33
The year	3,070	.37	164	3.53	47.96

PINEY RIVER AT SPRING CITY, TENN.

LOCATION.—Staff gage at highway bridge on Dayton-Harriman pike 175 feet below Southern Railway bridge and 1 mile north of Spring City, Rhea County. Zero of gage is 755.76 feet above mean sea level.

DRAINAGE AREA.—96.7 square miles.

RECORDS AVAILABLE.—June, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 6,050 second-feet June 4 (gage height, 5.6 feet); no flow Oct. 7 (gage height, 0.54 foot).

1927–28: Maximum discharge, that of June 4, 1928; minimum, that of Oct. 7, 1927.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0	13	1,060	206	96	256	384	100	430	25	1,240
2	1	.1	211	573	172	79	215	326	189	265	22	1,300
3	0	.2	384	365	156	68	181	280	1,000	176	20	1,120
4	0	.3	220	290	140	74	148	215	4,830	121	21	505
5	0	.2	144	233	152	79	125	176	1,640	93	21	338
6	0	.2	107	215	168	66	107	140	890	100	23	300
7	0	.2	90	136	198	60	280	118	556	90	23	224
8	0	.8	300	140	890	60	295	96	360	88	24	172
9	0	2.0	198	198	573	2,260	270	79	260	246	29	125
10	0	2.5	148	176	391	945	310	64	189	354	28	88
11	0	2.5	125	160	310	635	835	56	224	206	22	64
12	.3	2.0	181	148	242	490	1,000	45	185	144	17	52
13	.9	1.5	260	132	202	378	680	39	152	140	13	45
14	.9	1.4	238	118	270	417	1,180	33	522	121	12	38
15	.8	1.3	539	103	270	343	1,000	30	404	82	17	50
16	.8	1.4	1,240	90	242	1,500	635	29	280	60	54	50
17	.5	498	730	85	220	945	424	28	198	50	52	44
18	.4	172	430	185	206	680	321	58	156	45	44	42
19	.3	68	300	332	168	530	251	88	110	36	36	29
20	.2	42	215	378	152	430	365	220	79	36	36	24
21	.2	31	172	300	140	348	384	251	74	39	29	22
22	.2	24	140	233	148	275	1,860	548	58	58	23	19
23	.2	20	118	198	211	233	1,790	452	52	42	16	17
24	.2	18	90	260	198	189	945	290	68	33	14	15
25	.1	17	76	590	181	164	590	198	140	26	42	13
26	.1	14	68	445	156	202	410	172	110	33	74	12
27	.1	14	56	343	136	490	384	198	79	251	52	9.8
28	.1	13	52	260	125	332	391	198	60	168	36	9.2
29	.1	12	2,100	198	114	260	343	164	1,240	68	28	8.0
30	0	12	945	176	-------	316	290	164	890	45	60	9.2
31	0	-------	3,150	206	-------	290	-------	125	-------	33	780	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	0.9	0	0.21	0.0022	0.008
November	498	0	32.4	.335	.37
December	3,150	13	421	4.35	5.02
January	1,060	85	269	2.78	3.20
February	890	114	232	2.40	2.59
March	2,260	60	427	4.42	5.10
April	1,860	107	542	5.60	6.25
May	548	28	170	1.76	2.03
June	4,830	52	503	5.20	5.80
July	430	26	119	1.23	1.42
August	780	12	54.6	.565	.65
September	1,300	8.0	199	2.06	2.30
The year	4,830	0	247	2.55	34.73

RICHLAND CREEK AT DAYTON, TENN.

LOCATION.—Staff gage at highway bridge on Dayton-Chattanooga pike in Dayton, Rhea County, 1,000 feet below Southern Railway bridge. Zero of gage is 684.73 feet above mean sea level.

DRAINAGE AREA.—71.7 square miles.

RECORDS AVAILABLE.—June, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 3,940 second-feet June 4 (gage height, 6.00 feet); minimum, 0.1 second-foot Oct. 1–7 and 9–11.

1927–28: Maximum discharge, that of June 4, 1928; minimum, 0.1 second-foot Sept. 30 to Oct. 7 and Oct. 9–11, 1927.

REMARKS.—Records good prior to Aug. 1 for low and medium stages; others fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.3	42	530	137	70	125	182	57	152	4.8	146
2	.1	.3	199	290	121	53	112	179	190	119	3.8	166
3	.1	.7	270	199	109	48	92	147	855	88	2.8	225
4	.1	.3	173	202	92	50	79	118	3,150	56	1.8	215
5	.1	.3	145	173	100	55	71	102	1,110	42	7.6	180
6	.1	.4	98	128	100	48	68	83	520	72	10	126
7	.1	.4	92	85	135	43	190	79	365	58	8.0	97
8	.2	1.5	179	92	435	42	188	64	239	46	6.4	86
9	.1	1.1	133	128	•270	945	163	53	171	103	4.8	78
10	.1	.6	107	107	202	465	185	43	134	186	5.6	53
11	.1	.7	92	98	155	290	680	36	177	90	4.0	28
12	.7	1.1	176	92	133	218	498	29	132	56	3.0	24
13	.3	1.3	182	90	118	173	290	25	124	86	2.0	19
14	.2	.9	173	75	157	202	722	23	560	101	12	17
15	.4	1.3	196	68	147	163	530	19	320	64	38	14
16	.3	1.3	810	62	133	130	270	18	222	55	25	14
17	.3	855	380	60	121	380	218	17	157	44	18	26
18	.4	218	252	202	112	310	165	24	124	35	13	47
19	.4	114	173	290	96	234	137	25	97	27	31	42
20	.3	70	145	234	94	196	202	25	66	21	39	25
21	.3	57	114	179	83	168	290	35	68	17	39	20
22	.2	42	96	147	85	137	1,040	90	56	20	11	15
23	.2	36	81	128	123	121	1,090	102	49	21	6.8	13
24	.2	29	64	157	123	105	600	62	42	19	5.6	11
25	.2	27	57	218	114	57	290	142	90	17	5.6	9.5
26	.3	24	55	188	98	109	218	66	72	15	58	6.8
27	.3	22	46	157	85	179	202	71	53	13	64	4.4
28	.3	17	43	130	79	157	185	83	51	26	14	3.2
29	.2	16	855	109	81	142	160	79	225	15	9.0	2.2
30	.3	27	765	96	-------	163	130	64	225	17	5.6	1.4
31	.3	-------	1,580	145	-------	163	-------	57	-------	7.2	32	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	0.7	0.1	0.24	0.0033	0.004
November	855	.3	52.2	.728	.81
December	1,580	42	251	3.50	4.04
January	530	60	157	2.19	2.52
February	435	79	132	1.84	1.98
March	945	42	181	2.52	2.90
April	1,090	68	306	4.27	4.76
May	182	17	69.1	.964	1.11
June	3,150	42	324	4.52	5.04
July	186	7.2	54.5	.760	.88
August	64	1.8	15.8	.220	.25
September	225	1.4	57.2	.798	.89
The year	3,150	.1	133	1.85	25.18

HIWASSEE RIVER AT MURPHY, N. C.

LOCATION.—Water-stage recorder 500 feet below highway bridge in Murphy, Cherokee County, and half a mile upstream from mouth of Valley River.

DRAINAGE AREA.—410 square miles.

RECORDS AVAILABLE.—June, 1896, to June, 1917; October, 1918, to September, 1928.

EXTREMES.—Maximum discharge during year, 17,400 second-feet Mar. 30 (gage height, 11.72 feet); minimum, 198 second-feet Oct. 1 (gage height, 1.78 feet).

1896–1917, 1918–1928: Maximum discharge, 23,100 second-feet Mar. 19, 1899 (gage height, 18.4 feet, old gage); minimum gage height, 2.10 feet Dec. 6, 1924 (discharge not determined).

REMARKS.—Records good except those for Oct. 3–9, which were estimated. Considerable diurnal fluctuation caused by operation of Andrews municipal dam.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	216	274	933	1,690	971	690	2,300	1,420	1,010	1,420	833	1,140
2	269	249	1,310	1,140	906	671	1,820	1,190	1,150	1,180	761	2,890
3	260	584	3,030	1,000	854	641	1,560	1,150	1,150	1,020	710	4,020
4	250	312	1,890	886	802	690	1,360	1,060	1,730	982	949	1,940
5	250	331	1,300	939	751	730	1,250	1,090	1,890	1,070	771	3,630
6	240	294	1,020	844	771	661	1,200	1,980	1,760	1,190	963	4,590
7	240	294	896	730	761	671	2,110	3,560	1,500	949	730	2,590
8	580	312	1,040	720	1,510	681	1,820	3,710	1,260	1,080	792	2,020
9	420	612	822	1,250	1,220	2,230	1,500	2,590	1,190	1,600	1,070	1,560
10	284	393	781	1,020	993	2,110	1,600	1,960	1,050	1,520	939	1.350
11	264	378	710	971	993	1,360	1,890	1,690	1,140	1,460	771	1,220
12	837	337	1,860	864	864	1,040	1,820	1,500	993	1,220	710	1,150
13	674	324	1,860	864	792	949	1,570	1,350	1,050	1,710	641	1,060
14	370	343	1,400	812	917	1,520	1,690	1,250	1,820	2,000	982	993
15	349	294	4,440	792	713	1,230	1,440	1,200	1,310	1,310	2,470	1,050
16	318	370	5,870	741	792	1,150	1,350	1,140	1,190	1,090	4,050	1,100
17	312	1,600	3,030	741	854	1,390	1,300	1,230	1,000	1,010	2,100	1,050
18	269	1,190	1,960	886	792	1,960	1,140	1,170	982	1,610	1,520	949
19	289	710	1,500	844	751	1.520	1,150	1,540	928	1,020	1,500	864
20	274	574	1,150	864	681	1,310	1,430	2,250	917	1,510	1,200	833
21	274	527	1,040	761	661	1,180	1,310	1,960	896	1,100	1,070	802
22	284	448	971	730	690	1,100	1,760	1,790	928	1,080	971	741
23	269	448	854	700	986	1,020	1,690	1,600	1,070	971	896	761
24	279	440	802	781	875	960	1,600	1,410	1,140	896	1,020	730
25	259	423	761	896	792	1,250	1,430	1,300	1,510	1,060	1,310	690
26	259	401	720	741	700	1,360	1,300	1,310	1,200	1,160	1,020	661
27	269	393	651	710	710	2,100	1,500	1,230	1,020	2,640	917	651
28	284	378	661	761	671	1,480	1,410	1,140	1,000	1,220	854	651
29	249	363	906	651	690	1,330	1,430	1,140	1,920	1,050	761	641
30	254	393	781	690	-------	10,400	1,290	1,140	1,960	949	751	641
31	279	-------	2,210	939	-------	3,600	-------	1,020	-------	971	864	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	837	216	320	0.780	0.90
November	1,600	249	466	1.14	1.27
December	5,870	651	1,520	3.71	4.28
January	1,690	651	870	2.12	2.44
February	1,510	661	843	2.06	2.22
March	10,400	641	1,580	3.85	4.44
April	2,300	1,140	1,530	3.73	4.16
May	3,710	1,020	1,580	3.85	4.44
June	1,960	896	1,260	3.07	3.42
July	2,640	896	1,260	3.07	3.54
August	4,050	641	1,130	2.76	3.18
September	4,590	641	1,430	3.49	3.89
The year	10,400	216	1,150	2.80	38.18

HIWASSEE RIVER NEAR RELIANCE, TENN.

LOCATION.—Water-stage recorder just above notch between rock bluffs half a mile below mouth of Spring Creek and 3 miles below highway bridge at Reliance, Polk County. Zero of gage is 718.66 feet above mean sea level.

DRAINAGE AREA.—1,220 square miles.

RECORDS AVAILABLE.—October, 1926, to September, 1928. At station at Reliance, 3 miles upstream, from August, 1900, to December, 1913, and February, 1919, to September, 1926.

EXTREMES.—Maximum discharge during year, about 24,600 second-feet Sept. 3 (gage height, 16.0 feet); minimum, 622 second-feet Oct. 2 (gage height, 2.94 feet).

1926–1928: Maximum discharge, that of Sept. 3, 1928; minimum, 590 second-feet Oct. 10, 1926 (gage height, 2.88 feet).

REMARKS.—Records good. Discharge Jan. 1–6 and Apr. 5 to May 17 based on chain-gage readings at Reliance. Possibly slight diurnal fluctuation caused by operation of power plants upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	722	764	1,350	6,400	3,160	2,040	6,760	4,930	2,800	4,480	2,200	2,740
2	672	770	2,250	3,920	2,690	1,930	5,080	4,200	3,790	3,400	2,040	6,580
3	710	1,060	5,400	3,280	2,520	1,880	4,340	3,920	2,580	2,920	1,930	18,100
4	694	1,510	4,930	2,800	2,360	1,880	3,920	3,400	4,200	2,690	1,930	7,120
5	770	1,020	3,280	2,640	2,300	1,980	3,400	3,280	5,240	2,520	2,300	5,080
6	666	992	2,520	2,640	2,300	1,880	3,400	3,400	5,080	2,920	2,200	11,700
7	716	862	2,140	2,580	2,360	1,780	4,060	7,500	4,340	2,860	2,420	6,940
8	895	895	2,420	2,200	3,790	1,830	4,930	9,070	3,660	2,690	1,980	5,240
9	1,240	1,240	3,920	2,860	3,790	7,120	4,060	6,940	3,400	3,160	2,090	4,200
10	1,060	1,510	2,090	3,160	3,160	6,400	4,060	5,400	3,160	3,790	2,580	3,530
11	895	1,160	1,980	2,690	2,740	4,200	5,240	4,780	3,160	3,400	2,140	3,160
12	960	1,020	2,980	2,580	2,690	3,400	5,890	4,200	3,530	3,160	1,980	3,040
13	2,140	960	5,400	2,420	2,420	3,040	4,930	3,790	3,160	3,160	1,780	2,920
14	1,460	928	3,790	2,300	2,470	4,630	5,400	3,400	4,930	5,400	1,690	2,860
15	1,020	928	6,230	2,200	2,580	3,790	4,930	3,280	4,930	4,060	2,470	2,640
16	992	862	19,100	2,200	2,250	3,400	4,340	3,280	3,660	3,040	7,120	2,800
17	895	1,350	9,910	2,090	2,360	3,160	3,790	2,920	3,400	2,740	5,400	2,920
18	862	3,530	5,720	2,470	2,360	4,340	3,660	2,690	2,980	2,740	3,920	2,580
19	800	2,200	4,200	2,740	2,140	4,060	3,400	2,860	2,920	2,920	3,280	2,420
20	800	1,550	3,400	2,690	2,200	3,530	3,920	4,780	2,740	2,740	3,040	2,300
21	746	1,350	2,920	2,470	2,090	3,160	4,200	4,780	2,580	2,740	2,580	2,300
22	764	1,270	2,640	2,250	2,040	2,920	5,080	4,340	2,580	2,920	2,360	2,040
23	764	1,130	2,470	2,200	2,470	2,800	4,930	4,480	2,640	2,740	2,200	1,930
24	746	1,130	2,250	2,360	2,640	2,640	4,630	3,790	2,800	2,360	2,040	1,930
25	752	1,100	2,140	2,860	2,360	2,690	4,340	3,400	3,040	2,580	3,530	1,830
26	746	1,020	2,040	2,640	2,200	3,660	3,920	3,280	3,400	2,690	3,160	1,830
27	746	992	1,930	2,360	2,200	4,930	4,060	3,160	2,690	4,930	2,420	1,740
28	752	992	1,830	2,300	2,040	4,630	4,340	3,160	2,470	4,060	2,140	1,740
29	800	960	2,140	2,140	2,040	3,660	3,790	2,920	3,400	2,860	2,040	1,740
30	722	928	2,740	2,090	-------	13,100	3,660	3,040	6,230	2,470	1,880	1,740
31	752	-------	6,230	2,920	-------	14,300	-------	2,860	-------	2,420	1,980	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,140	666	879	0.720	0.83
November	3,530	764	1,200	.984	1.10
December	19,100	1,350	3,950	3.24	3.74
January	6,400	2,090	2,690	2.20	2.54
February	3,790	2,040	2,510	2.06	2.22
March	14,300	1,780	4,020	3.29	3.79
April	6,760	3,400	4,420	3.62	4.04
May	9,070	2,690	4,100	3.36	3.87
June	6,230	2,470	3,520	2.89	3.22
July	5,400	2,360	3,150	2.58	2.97
August	7,120	1,690	2,610	2.14	2.47
September	18,100	1,740	3,920	3.21	3.58
The year	19,100	666	3,080	2.52	34.37

HIWASSEE RIVER AT CHARLESTON, TENN.

LOCATION.—Water-stage recorder 250 feet above Southern Railway bridge at Charleston, Bradley County. Zero of gage is 665.53 feet above mean sea level.

DRAINAGE AREA.—2,300 square miles.

RECORDS AVAILABLE.—January, 1899, to December, 1902; October, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 35,600 second-feet Sept. 3 (gage height, 22.0 feet); minimum, 810 second-feet Oct. 3 (gage height. 1.20 feet).

1920–1928: Maximum discharge, 49,500 second-feet Jan. 22, 1922 (gage height, 28.2 feet, present datum); minimum, 260 second-feet Sept. 14, 1925 (gage height, 0.22 foot, present datum).

Maximum known stage, 34.0 feet (present datum) Mar. 31, 1886.

REMARKS.—Records fair. Discharge interpolated Jan. 3. Hydroelectric plants on Ocoee River cause considerable regulation of flow during low water.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,620	1,540	1,510	14,700	5,800	3,840	13,700	10,200	4,790	11,800	4,100	5,510
2	1,020	1,400	1,940	8,120	5,510	3,840	7,830	10,000	7,250	10,400	4,650	10,000
3	840	2,030	5,940	6,600	5,360	3,470	7,250	7,680	7,980	6,820	3,840	32,200
4	930	1,820	6,820	5,080	4,930	2,600	6,820	6,240	9,860	4,100	4,510	26,400
5	930	1,470	4,930	4,790	3,590	3,240	7,250	5,080	11,200	3,840	2,910	11,800
6	930	1,180	4,650	4,650	3,590	3,840	6,380	5,800	9,420	4,650	3,240	8,120
7	900	1,060	4,240	4,370	4,790	3,590	5,800	9,140	7,980	5,940	4,930	8,260
8	1,060	1,360	4,510	3,120	6,820	3,470	6,670	11,600	6,520	4,930	4,790	10,000
9	1,360	2,120	4,650	3,840	7,980	9,420	7,250	10,400	5,940	5,510	4,100	7,830
10	1,620	3,350	3,590	5,510	6,670	13,300	6,380	8,410	5,510	7,980	4,370	6,820
11	1,180	2,700	2,600	4,930	5,360	7,250	9,140	7,830	5,510	6,670	3,720	6,520
12	1,260	2,500	3,720	4,650	3,720	6,090	11,000	6,960	6,520	5,940	2,600	6,090
13	1,940	1,820	8,410	4,240	3,970	5,080	9,420	5,660	5,510	5,220	2,800	5,940
14	2,300	1,470	6,820	3,840	4,650	7,250	9,420	6,240	9,140	9,140	3,240	5,660
15	1,470	1,580	7,980	3,120	4,790	7,400	11,000	5,510	11,200	8,700	3,970	5,360
16	1,180	1,620	22,900	3,720	4,510	6,520	8,410	5,660	6,960	5,800	7,980	3,720
17	1,660	4,100	18,200	4,370	4,240	5,660	6,960	6,670	5,360	4,930	10,600	4,510
18	1,740	6,380	9,420	4,650	3,590	5,660	6,670	5,220	5,940	4,650	7,400	6,090
19	1,780	4,370	7,250	5,220	2,910	6,820	6,090	5,080	4,790	5,220	5,940	5,510
20	1,860	2,400	6,240	5,080	3,120	6,090	6,240	6,520	4,370	4,510	5,660	4,930
21	1,940	2,260	5,360	4,510	3,720	5,510	7,100	8,700	4,650	5,360	5,800	4,510
22	1,510	2,700	4,790	3,240	3,720	4,930	11,200	7,250	4,370	4,510	4,100	4,100
23	1,120	2,800	4,100	3,590	3,840	4,790	10,300	10,000	4,100	6,240	5,220	2,800
24	1,400	2,030	3,240	4,650	3,970	4,100	9,420	7,100	4,790	4,650	4,930	3,120
25	2,210	1,860	2,800	5,510	3,350	3,470	8,410	6,240	5,800	4,370	5,660	3,470
26	1,860	2,450	3,120	5,510	2,800	4,650	7,250	5,510	5,360	5,660	5,360	3,470
27	1,510	1,400	3,840	5,360	3,120	7,680	7,100	5,510	4,930	8,120	4,100	3,350
28	1,620	1,700	4,510	4,650	3,840	8,120	7,980	5,800	4,370	9,570	4,510	3,350
29	1,510	1,900	4,240	3,470	3,840	6,520	7,100	4,930	6,090	5,080	3,590	3,240
30	1,020	1,320	4,510	3,590	-------	14,500	7,100	5,080	12,500	4,650	3,240	2,500
31	990	-------	11,200	5,360	-------	29,600	--------	5,080	--------	4,240	4,370	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,300	840	1,430	0.622	0.72
November	6,380	1,060	2,220	.965	1.08
December	22,900	1,510	6,070	2.64	3.04
January	14,700	3,120	4,970	2.16	2.49
February	7,980	2,800	4,420	1.92	2.07
March	29,600	2,600	6,720	2.92	3.37
April	13,700	5,800	8,090	3.52	3.93
May	11,600	4,930	7,000	3.04	3.50
June	12,500	4,100	6,620	2.88	3.21
July	11,800	3,840	6,100	2.65	3.06
August	10,600	2,600	4,720	2.05	2.36
September	32,200	2,500	7,170	3.12	3.48
The year	32,200	840	5,460	2.37	32.31

VALLEY RIVER AT TOMOTLA, N. C.

LOCATION.—Chain gage on highway bridge at Tomotla, Cherokee County, half a mile upstream from Rodgers Creek.

DRAINAGE AREA.—106 square miles.

RECORDS AVAILABLE.—June, 1904, to December, 1909; January, 1914, to April, 1917; October, 1918, to September, 1928.

EXTREMES.—Maximum discharge during year, 5,050 second-feet Mar. 30 (gage height, 12.74 feet); minimum, 54 second-feet Nov. 1 and 2 (gage height, 0.88 foot).

1904–1909, 1914–1917, 1918–1928: Maximum discharge (estimated), 7,780 second-feet Nov. 19, 1906 (gage height, 17.3 feet); minimum, 12 second-feet several times in August and September, 1925 (gage height, 0.52 foot).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	56	218	624	336	196	732	488	294	590	218	308
2	63	57	456	456	294	185	590	394	364	456	207	1,540
3	70	164	876	364	294	185	522	364	364	350	196	2,160
4	68	114	522	322	280	207	456	322	624	322	196	984
5	65	91	394	294	267	196	394	308	732	336	196	876
6	63	81	294	254	254	185	364	424	804	488	218	876
7	62	74	254	230	267	185	732	696	590	456	218	590
8	154	104	242	242	732	185	522	840	456	456	185	488
9	114	144	230	394	522	1,170	424	590	364	522	218	424
10	78	107	230	336	424	590	456	556	336	456	218	350
11	71	94	267	294	364	456	556	456	280	394	174	322
12	242	89	984	280	336	394	522	364	364	379	196	294
13	134	84	732	267	322	350	456	322	336	488	174	280
14	105	81	522	242	322	424	556	280	804	488	164	267
15	89	79	1,540	242	294	322	424	254	522	379	254	267
16	82	91	2,390	230	267	322	394	242	424	336	522	254
17	78	522	1,170	242	267	379	364	242	364	308	294	254
18	74	294	696	379	267	456	336	336	322	322	280	242
19	73	164	556	379	242	424	308	556	308	280	336	242
20	71	134	488	350	242	364	379	768	267	350	267	230
21	71	125	394	308	254	336	308	624	254	379	242	218
22	70	116	294	280	242	322	379	522	242	379	218	207
23	70	111	267	267	218	280	488	394	242	280	196	196
24	68	105	254	364	218	267	424	364	364	322	267	196
25	68	98	242	364	218	350	379	336	379	294	456	185
26	66	94	218	185	218	350	336	336	280	294	379	174
27	66	87	207	267	207	456	394	322	242	294	242	154
28	65	86	196	242	207	424	364	294	254	294	207	154
29	62	89	379	230	207	364	336	294	840	267	185	154
30	60	91	254	230	------	4,300	322	267	1,330	230	185	144
31	59	------	1,060	394	------	1,250	------	242	------	267	185	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	242	59	82.1	0.775	0.89
November	522	56	121	1.14	1.27
December	2,390	196	543	5.12	5.90
January	624	185	308	2.91	3.36
February	732	207	296	2.79	3.01
March	4,300	185	512	4.83	5.57
April	732	308	441	4.16	4.64
May	840	242	413	3.90	4.50
June	1,330	242	445	4.20	4.69
July	590	230	370	3.49	4.02
August	522	164	242	2.28	2.63
September	2,160	144	434	4.09	4.56
The year	4,300	56	352	3.32	45.04

NOTTELY RIVER NEAR RANGER, N. C.

LOCATION.—Staff gage 200 feet upstream from steel highway bridge, half a mile downstream from Ranger, Cherokee County, and 7½ miles southwest of Murphy. Chain gage at highway bridge used prior to Mar. 15.

DRAINAGE AREA.—272 square miles.

RECORDS AVAILABLE.—February, 1901, to December, 1905; January, 1914, to April, 1917; October, 1918, to September, 1928.

EXTREMES.—Maximum discharge during year, 5,630 second-feet Mar. 30 (gage height, 13.50 feet); minimum, 147 second-feet Oct. 1 and 2 (gage height, 2.61 feet).

1901–1905, 1914–1917, 1918–1928: Maximum gage height, 21.0 feet Feb. 28, 1902 (discharge not determined); minimum discharge, 41 second-feet Sept. 6, 7, 23, and 24, 1925 (gage height, 1.80 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	147	164	346	905	444	324	935	623	560	690	469	690
2	147	164	496	670	418	324	795	529	623	591	469	1,600
3	172	324	1,460	496	394	280	656	529	591	529	560	2,140
4	190	258	940	444	370	302	591	529	900	469	591	1,320
5	156	208	552	418	370	346	560	499	1,040	469	560	2,100
6	156	199	444	394	370	327	499	690	970	560	591	2,460
7	156	190	444	370	370	302	1,080	1,440	830	499	560	1,360
8	228	228	610	394	444	280	795	1,600	690	560	560	970
9	218	444	496	800	444	1,540	690	1,280	623	591	623	830
10	199	269	418	580	418	1,420	760	970	591	830	830	760
11	190	238	346	496	370	800	1,120	830	560	725	499	725
12	346	238	800	470	346	552	830	760	529	560	591	623
13	444	228	610	444	394	418	690	623	591	910	499	591
14	302	208	496	418	418	670	830	591	1,320	1,400	469	560
15	218	248	1,180	394	394	560	795	591	830	725	1,650	560
16	208	258	1,180	394	394	529	690	560	656	623	2,620	690
17	199	940	766	370	370	499	623	591	690	560	1,440	690
18	199	580	610	302	346	1,040	591	560	560	623	760	623
19	190	370	580	394	394	830	560	591	560	560	760	560
20	190	324	524	394	370	623	830	1,040	529	623	623	560
21	190	280	444	370	324	591	725	830	499	560	560	529
22	181	248	394	346	418	529	970	1,360	499	1,230	499	499
23	181	248	394	346	734	469	900	970	469	865	469	469
24	181	238	370	346	552	440	830	795	499	560	440	499
25	181	228	346	496	418	623	725	690	656	411	900	499
26	172	218	324	552	394	656	656	591	591	1,020	591	469
27	172	208	324	418	370	1,360	690	591	560	2,520	560	440
28	172	190	370	394	346	900	656	591	560	970	499	440
29	172	199	444	394	346	623	623	560	1,120	760	469	411
30	172	199	394	370	-------	3,890	623	656	970	591	469	383
31	172	-------	1,220	470	-------	1,360	-------	560	-------	499	623	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	444	147	200	0.735	0.85
November	940	164	278	1.02	1.14
December	1,460	324	591	2.17	2.50
January	905	302	453	1.67	1.92
February	734	324	405	1.49	1.61
March	3,890	280	755	2.78	3.20
April	1,120	499	744	2.74	3.06
May	1,600	499	762	2.80	3.23
June	1,320	469	689	2.53	2.82
July	2,520	411	745	2.74	3.16
August	2,620	440	703	2.58	2.97
September	2,460	383	835	3.07	3.42
The year	3,890	147	597	2.19	29.88

TOCCOA RIVER NEAR DIAL, GA.

LOCATION.—Staff gage half a mile above Shallow Ford, 1 mile above Stanley Creek, and 4 miles northwest of Dial, Fannin County. Zero of gage is 1,781.13 feet above mean sea level.

DRAINAGE AREA.—175 square miles.

RECORDS AVAILABLE.—January, 1913, to September, 1928. May, 1907, to June, 1908, at Butts Bridge, 2 miles above Dial.

EXTREMES.—Maximum discharge during year, 1,980 second-feet Mar. 30 (gage height, 4.05 feet); minimum, 157 second-feet Oct. 20–24 (gage height, 0.80 foot).

1913–1928: Maximum discharge, 9,200 second-feet July 9, 1916 (gage height, 10.0 feet); minimum, 60 second-feet Sept. 6, 1925 (gage height, 0.40 foot).

REMARKS.—Records good. Slight diurnal fluctuations owing to operation of small mills upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	181	181	306	560	484	398	800	800	625	680	570	484
2	181	193	475	422	439	372	740	770	680	625	520	652
3	186	325	962	430	398	355	680	740	652	598	520	930
4	193	234	636	410	390	398	680	669	740	570	530	625
5	193	205	475	406	430	398	680	614	898	570	520	1,170
6	205	193	410	390	430	355	680	788	813	740	475	1,470
7	205	181	398	372	410	325	1,360	1,060	680	603	520	962
8	224	169	728	422	636	340	770	1,320	636	752	475	852
9	253	325	452	710	545	1,280	680	995	680	1,240	475	740
10	205	253	362	520	452	614	770	832	625	962	520	652
11	193	241	452	498	390	614	930	800	598	800	475	625
12	320	229	680	466	398	545	865	770	598	788	410	680
13	511	224	636	430	390	520	770	652	614	930	410	680
14	272	205	625	410	430	560	832	625	1,390	1,140	466	680
15	239	205	788	430	439	520	680	625	770	865	930	603
16	181	241	1,240	383	390	520	625	625	710	800	1,550	598
17	181	930	930	390	422	545	636	652	710	770	898	581
18	169	466	740	383	422	625	669	652	669	740	710	570
19	169	320	636	390	340	520	728	669	652	728	652	498
20	157	301	625	390	355	498	1,140	865	625	692	598	498
21	157	301	625	320	349	452	865	800	598	620	545	498
22	157	296	511	340	355	452	962	1,030	598	770	545	493
23	157	277	484	372	752	452	962	995	545	680	520	410
24	157	277	390	398	570	452	770	930	652	1,240	520	410
25	169	265	390	520	466	530	740	800	710	710	581	410
26	169	241	372	422	390	710	680	800	598	669	520	410
27	169	253	355	390	390	788	865	680	520	930	680	410
28	169	253	355	331	372	560	800	692	511	669	520	430
29	169	253	452	362	390	581	740	636	898	625	498	410
30	169	253	498	390	-------	1,800	770	710	865	570	475	422
31	169	-------	1,060	475	-------	962	-------	625	-------	570	475	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	511	157	201	1.15	1.33
November	930	169	276	1.58	1.76
December	1,240	306	582	3.33	3.84
January	710	320	424	2.42	2.79
February	752	340	435	2.49	2.69
March	1,800	325	582	3.33	3.84
April	1,360	625	796	4.55	5.08
May	1,320	614	781	4.46	5.14
June	1,390	511	695	3.97	4.43
July	1,240	570	763	4.36	5.03
August	1,550	410	584	3.34	3.85
September	1,470	410	628	3.59	4.00
The year	1,800	157	563	3.22	43.78

TOCCOA RIVER NEAR MORGANTON, GA.

LOCATION.—Water-stage recorder 1⅓ miles below highway bridge on Blueridge-Morganton road, 1¾ miles below mouth of Star Creek, and 2 miles west of Morganton, Fannin County. Zero of gage is 1,539.34 feet above mean sea level.

DRAINAGE AREA.—232 square miles.

RECORDS AVAILABLE.—November, 1898, to March, 1903; April, 1913, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,870 second-feet Mar. 30 (gage height, 8.70 feet); minimum, 174 second-feet Oct. 7 (gage height, 1.52 feet).

1913–1928: Maximum discharge, about 13,900 second-feet July 9, 1916 (gage height, 13.0 feet); minimum, 73 second-feet Sept. 10, 24, and 25, 1925.

REMARKS.—Records good. Slight diurnal fluctuations caused by operation of small mills upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	190	190	318	950	538	428	950	850	800	850	700	678
2	188	195	581	655	472	408	850	800	825	750	678	1,170
3	195	393	1,220	632	444	400	775	750	850	700	655	1,500
4	205	270	750	547	428	420	725	725	1,280	678	725	925
5	188	220	516	538	420	440	678	700	1,220	725	678	1,710
6	180	215	440	552	408	400	850	983	1,120	950	678	2,200
7	176	210	432	504	408	390	1,090	1,520	950	859	678	1,280
8	208	252	775	480	632	393	825	1,780	875	1,190	588	1,060
9	288	436	547	775	520	1,280	775	1,320	825	1,350	610	950
10	220	288	468	610	476	825	900	1,120	775	1,340	655	875
11	202	252	428	542	456	678	1,060	1,000	750	1,120	588	825
12	563	238	588	516	440	588	950	950	725	1,090	556	800
13	564	228	588	496	436	552	850	900	775	1,360	560	750
14	276	222	542	480	484	610	900	850	1,720	1,730	610	775
15	235	215	1,460	456	460	588	850	825	978	1,120	1,200	725
16	222	246	1,920	440	460	565	775	800	850	978	2,130	775
17	218	972	1,200	440	440	610	725	825	825	900	1,140	750
18	212	655	875	456	456	900	700	800	750	925	900	678
19	212	408	725	464	412	700	678	1,030	725	825	850	655
20	210	337	632	476	416	632	1,090	1,200	700	800	775	632
21	210	306	588	424	400	610	900	978	678	903	700	610
22	205	300	542	400	448	565	1,120	1,220	655	1,140	678	588
23	202	291	512	416	750	538	1,120	1,170	655	900	632	565
24	202	282	484	468	565	516	1,000	1,090	775	1,060	725	565
25	200	276	468	610	504	588	925	950	900	950	850	552
26	198	267	444	480	472	850	850	925	775	1,210	700	538
27	198	264	436	452	452	1,090	1,030	850	700	1,340	775	524
28	195	258	424	436	444	775	978	850	700	950	655	516
29	195	249	565	404	436	700	875	850	1,380	850	610	512
30	192	252	508	428	------	2,800	825	900	1,140	775	678	516
31	190	------	1,440	504	------	1,280	------	800	------	750	750	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	564	176	230	0.992	1.14
November	972	190	306	1.32	1.47
December	1,920	318	691	2.98	3.44
January	950	400	517	2.23	2.57
February	750	400	472	2.03	2.19
March	2,800	390	714	3.08	3.55
April	1,120	678	887	3.82	4.26
May	1,780	700	978	4.21	4.85
June	1,720	655	889	3.83	4.27
July	1,730	678	1,000	4.31	4.97
August	2,130	556	765	3.30	3.80
September	2,200	512	840	3.62	4.04
The year	2,800	176	692	2.98	40.55

OCOEE RIVER AT McHARGE, TENN.

LOCATION.—Staff gage at highway bridge half a mile downstream from McHarge railroad siding, Polk County, half a mile below mouth of Potato Creek, and 2½ miles downstream from Copperhill. Zero of gage is 1,430.46 feet above mean sea level.

DRAINAGE AREA.—451 square miles.

RECORDS AVAILABLE.—May, 1917, to September, 1928.

EXTREMES.—Maximum discharge during year, 12,600 second-feet Mar. 30 (gage height, 11.0 feet); minimum, 297 second-feet Nov. 1 (gage height, 0.74 foot).

1917–1928: Maximum discharge, 13,100 second-feet Jan. 21, 1922 (gage height, 11.4 feet); minimum, 118 second-feet Sept. 22 and 23, 1925 (gage height, 0.07 foot).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	372	297	832	1,640	910	758	2,140	1,550	2,040	1,550	1,280	1,640
2	342	302	1,110	1,110	795	720	1,840	1,370	1,640	1,370	1,190	4,500
3	378	650	2,040	1,110	758	720	1,640	1,370	1,740	1,370	1,030	3,500
4	390	515	1,370	1,030	720	758	1,550	1,280	2,790	1,280	1,460	1,940
5	372	390	990	910	758	795	1,370	1,280	2,240	1,740	1,840	2,570
6	342	378	758	870	720	720	1,370	1,370	2,240	1,740	1,190	3,740
7	330	366	910	832	720	720	1,740	2,460	1,840	1,460	1,370	2,350
8	615	482	1,190	832	1,110	720	1,550	2,790	1,640	1,940	1,190	1,940
9	580	870	870	1,280	910	2,350	1,460	2,140	1,550	2,040	1,190	1,740
10	450	580	758	990	832	1,640	1,640	1,840	1,460	2,240	1,280	1,640
11	420	482	685	870	795	1,460	2,680	1,640	1,460	1,840	1,110	1,460
12	950	450	1,110	832	758	1,190	1,940	1,550	1,460	1,640	1,030	1,460
13	1,030	420	1,110	795	758	1,110	1,740	1,460	1,550	1,840	1,030	1,370
14	615	420	990	758	870	1,190	2,240	1,370	3,740	2,790	1,110	1,370
15	515	420	3,140	720	795	1,190	1,740	1,370	1,740	1,840	1,640	1,370
16	450	450	3,860	720	795	1,190	1,640	1,280	1,640	1,550	3,500	1,460
17	420	1,370	2,140	685	795	1,190	1,550	1,370	1,550	1,460	1,940	1,550
18	420	1,110	1,460	720	832	1,640	1,460	1,280	1,460	1,370	1,550	1,370
19	390	832	1,190	720	758	1,280	1,370	1,640	1,370	1,370	1,550	1,280
20	384	580	1,030	758	758	1,190	1,640	2,040	1,280	1,280	1,370	1,190
21	372	515	910	650	758	1,110	1,640	1,740	1,280	1,640	1,280	1,190
22	366	515	832	615	832	1,110	2,040	2,680	1,280	2,680	1,280	1,110
23	348	450	758	650	1,190	1,030	2,040	2,350	1,280	1,640	1,110	1,110
24	348	450	720	795	990	1,030	1,840	1,940	1,460	1,550	1,740	1,110
25	348	450	685	1,030	910	1,370	1,640	1,740	1,640	1,740	1,370	1,030
26	336	420	615	795	832	2,040	1,550	1,640	1,460	1,740	1,280	1,030
27	324	420	580	758	832	2,680	1,840	1,550	1,280	2,790	1,190	990
28	319	420	580	720	795	2,680	1,740	1,550	1,280	1,940	1,110	990
29	308	390	870	615	795	1,460	1,550	1,460	3,260	1,640	1,110	950
30	314	378	758	720	------	7,040	1,460	1,550	2,240	1,460	1,110	950
31	308	------	3,140	910	------	3,020	------	1,370	------	1,370	1,640	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,030	308	434	0.962	1.11
November	1,370	297	526	1.17	1.30
December	3,860	580	1,230	2.73	3.15
January	1,640	615	853	1.89	2.18
February	1,190	720	830	1.84	1.98
March	7,040	720	1,520	3.36	3.87
April	2,680	1,370	1,720	3.81	4.25
May	2,790	1,280	1,680	3.73	4.30
June	3,740	1,280	1,760	3.90	4.35
July	2,790	1,280	1,740	3.86	4.45
August	3,500	1,030	1,390	3.08	3.55
September	4,500	950	1,660	3.68	4.11
The year	7,040	297	1,280	2.84	38.60

OCOEE RIVER AT EMF, TENN.

LOCATION.—Water-stage recorder 700 feet below Tennessee Electric Power Co.'s plant No. 2, known as "Caney Creek plant," half a mile upstream from Emf, Polk County, and 1½ miles downstream from mouth of Goforth Creek. Zero of gage is 830.00 feet above mean sea level.

DRAINAGE AREA.—530 square miles.

RECORDS AVAILABLE.—January, 1913, to September, 1928.

EXTREMES.—Maximum discharge during year, 11,300 second-feet Mar. 30 (gage height, 10.3 feet); minimum mean daily discharge, 370 second-feet Oct. 1 and 21 (gage height, 3.29 feet).

1913–1928: Maximum discharge, 21,400 second-feet July 10, 1916 (gage height, 13.7 feet); minimum, 50 second-feet Sept. 17 and 21, 1927 (gage height, 2.52 feet).

REMARKS.—Records good except those for extremely high and low stages, which are fair. Diurnal fluctuation caused by operation of power plant.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	370	380	940	2,200	1,250	871	2,400	2,030	1,680	1,730	1,400	1,850
2	380	392	1,170	1,400	1,090	842	2,030	1,680	2,090	1,510	1,340	4,920
3	386	625	2,150	1,270	1,000	814	1,790	1,560	1,790	1,380	1,380	5,060
4	414	611	1,680	1,190	950	890	1,680	1,510	2,540	1,310	1,460	2,400
5	402	460	1,380	1,150	950	920	1,620	1,460	2,470	1,340	1,510	2,600
6	375	442	1,010	1,110	940	842	1,560	1,510	2,400	1,850	1,370	3,960
7	375	430	930	1,080	940	795	1,970	2,400	1,910	1,680	1,680	2,540
8	677	591	1,280	960	1,290	833	1,850	2,740	1,730	1,910	1,100	2,090
9	625	960	1,090	1,220	1,230	2,760	1,620	2,210	1,620	2,550	1,240	1,850
10	510	657	910	1,270	1,060	1,990	1,730	1,970	1,510	2,540	1,380	1,680
11	419	536	910	1,090	990	1,320	2,700	1,510	1,510	1,910	1,220	1,620
12	759	490	1,200	1,010	940	1,320	2,280	1,680	1,510	1,730	1,180	1,560
13	1,220	454	1,370	950	940	1,210	1,970	1,620	1,560	2,090	1,160	1,460
14	723	460	1,170	920	1,040	1,460	2,280	1,560	2,990	2,950	1,190	1,510
15	466	442	3,830	937	1,040	1,290	2,090	1,560	2,030	1,970	1,720	1,510
16	430	460	4,460	890	990	1,200	1,850	1,460	1,680	1,680	3,170	1,560
17	424	833	2,540	852	970	1,180	1,730	1,510	1,620	1,560	2,090	1,790
18	397	1,290	1,790	920	980	1,510	1,680	1,460	1,510	1,560	1,790	1,460
19	386	795	1,460	920	920	1,360	1,560	1,620	1,400	1,460	1,910	1,360
20	375	649	1,240	930	880	1,240	2,030	2,370	1,360	1,460	1,620	1,290
21	370	562	1,130	890	862	1,170	1,910	2,350	1,330	1,510	1,400	1,240
22	386	529	1,070	842	960	1,100	2,340	2,340	1,290	2,640	1,310	1,210
23	386	510	990	842	1,460	1,050	2,340	2,880	1,260	1,910	1,250	1,210
24	386	490	930	940	1,270	1,020	2,090	2,150	1,460	1,680	1,310	1,190
25	380	478	880	1,220	1,110	1,160	1,730	1,850	1,620	1,970	1,620	1,040
26	380	472	862	1,030	1,030	1,730	1,680	1,730	1,680	2,230	1,510	1,130
27	380	472	833	920	980	2,600	1,790	1,730	1,400	3,650	1,320	1,110
28	375	472	814	862	950	1,850	1,970	1,680	1,370	2,030	1,380	1,090
29	375	472	1,090	795	930	1,510	1,790	1,620	2,280	1,730	1,210	1,070
30	375	484	1,080	910	-------	7,320	1,730	1,730	2,340	1,560	1,170	1,090
31	375	-------	3,360	1,240	-------	3,420	-------	1,560	-------	1,510	1,740	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,220	370	461	0.870	1.00
November	1,290	380	563	1.06	1.18
December	4,460	814	1,470	2.77	3.19
January	2,200	795	1,060	2.00	2.31
February	1,460	862	1,030	1.94	2.09
March	7,320	795	1,570	2.96	3.41
April	2,700	1,560	1,930	3.64	4.06
May	2,880	1,460	1,840	3.47	4.00
June	2,990	1,260	1,760	3.32	3.70
July	3,650	1,310	1,890	3.57	4.12
August	3,170	1,100	1,490	2.81	3.24
September	5,060	1,040	1,850	3.49	3.89
The year	7,320	370	1,410	2.66	36.19

EVAPORATION AT PARKSVILLE, TENN.

LOCATION.—Floating evaporation pan, 3 feet deep and 3 feet square, on Ocoee Lake 20 feet from right shore and 500 feet above Dam 1 of Tennessee Electric Power Co. at Parksville, Polk County. Altitude, 825 feet.

RECORDS AVAILABLE.—November, 1924, to March, 1928 (discontinued).

REMARKS.—Evaporation is measured with metal cups of such volume that 1 cupful is equivalent to 0.01 inch depth of pan. The rainfall is measured by a standard United States Weather Bureau gage on top of dam. Records furnished by Tennessee Electric Power Co.

Monthly rainfall, temperature, and evaporation at Parksville, Tenn., 1927–28

Month	Rainfall	Mean temperature	Evaporation	Month	Rainfall	Mean temperature	Evaporation
	Inches	*° F.*	*Inches*		*Inches*	*° F.*	*Inches*
October	2.09	61.7	5.48	January	2.10	38.2	1.69
November	3.99	52.9	3.01	February	1.07	42.2	1.42
December	6.41	40.4	----------	March	4.08	48.6	2.25

OCOEE RIVER AT PARKSVILLE, TENN.

LOCATION.—Water-stage recorder 1,500 feet downstream from dam and power plant No. 1 of Tennessee Electric Power Co. at Parksville, Polk County. Zero of gage in 717.58 feet above mean sea level.

DRAINAGE AREA.—600 square miles.

RECORDS AVAILABLE.—January, 1911, to September, 1916; March, 1921, to September, 1928.

EXTREMES.—Maximum discharge during year, 15,000 second-feet Mar. 30 and Sept. 3 (gage height, 15.1 feet); minimum, 17 second-feet Oct. 2, 3, and 4 (gage height, 2.58 feet).

1911–1916, 1921–1928: Maximum discharge, 17,000 second-feet July 10, 1916 (gage height, 15.75 feet); minimum mean daily discharge, 6 second-feet Oct. 28, 1925 (gage height, 2.40 feet).

REMARKS.—Records good. Large diurnal fluctuation caused by operation of power plant.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	267	521	457	2,300	1,690	1,400	1,780	2,310	1,750	1,230	2,210	512
2	33	1,070	470	1,880	1,830	1,520	1,580	2,210	2,200	1,630	1,990	4,340
3	54	502	547	1,770	2,150	810	1,630	2,060	1,790	1,580	2,080	10,100
4	102	136	50	1,890	1,070	138	2,300	1,190	4,150	139	1,350	3,880
5	99	105	1,500	1,620	146	1,560	2,450	723	2,830	1,400	209	1,920
6	116	86	1,740	1,730	1,770	1,390	1,860	2,680	1,800	1,890	2,100	4,130
7	126	127	1,660	751	1,830	1,410	1,260	3,530	1,550	2,110	2,250	2,950
8	87	719	1,730	172	1,790	1,310	1,140	2,540	1,570	1,800	1,960	2,260
9	227	1,630	1,500	1,250	1,780	1,460	1,980	1,430	1,660	2,860	1,830	1,970
10	104	1,560	688	1,440	1,780	403	1,420	1,770	1,160	2,770	1,270	2,140
11	181	1,450	50	1,370	745	95	3,750	2,230	1,760	2,110	507	2,430
12	250	1,250	1,380	1,440	70	1,540	2,150	1,390	1,610	1,960	155	2,440
13	249	121	1,450	1,420	1,670	1,040	2,110	1,480	1,630	1,870	1,240	2,150
14	190	582	1,440	649	1,580	997	2,650	1,730	4,150	3,970	1,310	2,490
15	122	723	1,660	603	1,600	1,720	2,720	1,650	1,940	1,790	2,210	1,530
16	364	535	1,580	1,680	1,550	1,620	1,560	1,630	1,550	2,170	2,710	542
17	830	946	771	1,970	1,170	473	1,540	1,730	1,410	1,450	2,670	2,310
18	908	897	120	1,850	345	55	1,720	1,640	1,810	1,710	2,130	2,810
19	980	604	1,720	1,520	62	1,040	1,630	1,240	1,410	1,530	800	2,550
20	1,110	50	1,730	1,520	1,150	891	1,960	1,770	1,460	1,660	2,600	2,210
21	1,070	1,370	1,620	788	1,310	876	3,250	2,110	1,400	2,030	1,950	1,950
22	323	1,460	1,520	364	1,330	842	3,470	2,470	1,390	1,400	1,890	1,210
23	160	1,590	790	1,590	1,040	1,120	1,690	3,630	980	2,500	2,630	411
24	1,260	50	185	1,910	812	326	2,120	1,740	2,290	1,630	2,160	1,290
25	1,240	1,320	210	1,700	264	119	2,140	1,830	1,360	2,240	1,500	1,410
26	916	642	930	2,090	163	726	1,670	1,550	1,270	2,700	260	1,380
27	688	51	2,400	2,050	1,170	1,570	1,840	1,690	1,510	4,660	1,530	1,460
28	1,040	1,390	1,890	1,280	1,650	1,450	2,240	1,960	1,580	1,450	1,290	1,390
29	240	265	1,010	330	1,510	1,480	1,610	1,420	3,660	1,520	1,230	911
30	40	143	933	2,060	-------	10,500	2,200	1,790	3,090	1,750	1,280	67
31	681	-------	3,970	1,680	-------	7,180	-------	1,560	-------	1,590	1,270	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,260	33	453	0.755	0.87
November	1,630	50	730	1.22	1.36
December	3,970	50	1,220	2.03	2.34
January	2,300	172	1,440	2.40	2.77
February	2,150	62	1,210	2.02	2.18
March	10,500	55	1,520	2.53	2.92
April	3,750	1,140	2,050	3.42	3.82
May	3,630	723	1,890	3.15	3.63
June	4,150	980	1,920	3.20	3.57
July	4,660	139	1,970	3.28	3.78
August	2,710	155	1,630	2.72	3.14
September	10,100	67	2,240	3.73	4.16
The year	10,500	33	1,520	2.53	34.54

SEQUATCHIE RIVER NEAR WHITWELL, TENN.

LOCATION.—Staff gage at highway bridge 2 miles east of Whitwell, Marion County, and 12 miles above mouth of Little Sequatchie River. Zero of gage is 632.30 feet above mean sea level.

DRAINAGE AREA.—389 square miles.

RECORDS AVAILABLE.—December, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 10,000 second-feet June 30 (gage height, 14.8 feet); minimum, 46 second-feet Oct. 6–8, 26–31 and Nov. 1–8 (gage height, 1.06 feet).

1920–1928: Maximum discharge, 11,800 second-feet Mar. 2, 1922 (gage height, 15.5 feet); minimum, 19 second-feet on numerous days in September, 1925 (gage height, 0.73 foot).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	46	115	3,980	900	495	940	1,980	390	4,050	275	635
2	48	46	135	3,460	860	460	820	2,060	1,180	2,780	245	3,180
3	48	46	600	2,100	780	425	740	1,540	4,260	1,780	218	4,340
4	48	46	820	1,460	705	390	670	1,220	6,540	1,420	218	2,300
5	48	46	600	980	670	390	600	1,020	9,050	1,140	205	1,260
6	46	46	408	780	670	355	565	860	5,740	635	230	980
7	46	46	320	705	670	355	635	705	3,420	820	230	780
8	46	46	408	635	1,580	320	900	705	2,220	900	320	670
9	48	50	425	600	2,020	2,340	820	600	1,700	780	290	565
10	48	59	425	670	1,700	4,260	940	530	1,220	1,300	780	495
11	50	53	338	635	1,300	3,180	1,300	495	1,500	940	460	425
12	50	50	390	600	1,020	1,980	3,220	442	1,260	705	390	408
13	50	50	1,900	530	860	1,060	2,580	390	1,060	600	290	372
14	50	50	1,020	495	780	2,140	2,300	372	3,920	565	230	338
15	50	50	860	460	780	1,820	3,860	338	3,500	495	338	290
16	50	50	2,700	425	740	2,300	2,980	320	2,060	460	565	425
17	50	290	3,340	390	705	4,810	1,980	290	1,420	425	460	320
18	50	2,220	2,220	390	670	3,980	1,500	290	1,220	390	408	260
19	48	2,060	1,500	2,460	600	2,740	1,260	320	940	372	460	245
20	48	670	1,020	2,060	565	1,940	1,020	355	780	355	355	218
21	48	320	780	1,580	530	1,580	1,220	705	705	355	305	205
22	48	275	670	1,140	495	1,260	3,260	940	635	600	260	205
23	48	218	565	940	780	1,060	7,410	1,580	635	495	230	205
24	48	205	495	820	860	940	5,740	1,140	780	425	230	192
25	48	155	460	1,300	780	820	3,500	780	940	390	230	180
26	46	139	425	1,580	705	740	2,260	670	820	355	495	175
27	46	135	355	1,340	635	1,660	1,620	600	780	600	390	170
28	46	123	320	1,060	565	1,460	1,540	565	705	530	275	165
29	46	115	530	860	530	1,140	1,460	495	2,060	495	245	165
30	46	115	1,780	740	------	1,060	1,220	495	10,000	425	218	147
31	46	------	2,660	780	------	1,020	------	442	------	338	205	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	50	46	48	0.123	0.14
November	2,220	46	261	.671	.75
December	3,340	115	922	2.37	2.73
January	3,980	390	1,160	2.98	3.44
February	2,020	495	843	2.17	2.34
March	4,260	320	1,560	4.01	4.62
April	7,410	565	1,960	5.04	5.62
May	2,060	290	750	1.93	2.22
June	10,000	390	2,380	6.12	6.83
July	4,050	338	836	2.15	2.48
August	780	205	324	.833	.96
September	4,340	147	677	1.74	1.94
The year	10,000	46	974	2.50	34.07

ELK RIVER AT ESTILL SPRINGS, TENN.

LOCATION.—Water-stage recorder at highway bridge 400 feet below Nashville, Chattanooga & St. Louis Railway bridge and three-fourths mile southeast of Estill Springs, Franklin County. Zero of gage is 850.25 feet above mean sea level.

DRAINAGE AREA.—263 square miles.

RECORDS AVAILABLE.—December, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 8,060 second-feet Apr. 23 (gage height, 11.2 feet); minimum, 17 second-feet Oct. 18.

1920–1928: Maximum discharge, 14,000 second-feet Dec. 26, 1926 (gage height, 16.4 feet); minimum, 10 second-feet Oct. 9 and 10, 1925.

REMARKS.—Records good. Discharge estimated Nov. 17–21, Apr. 1–6, and Sept. 22. Large diurnal fluctuation during low water caused by operation of power plant 800 feet above gage.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	45	118	2,670	770	245	530	2,220	304	1,090	140	745
2	46	45	138	1,520	670	231	490	1,430	795	620	125	1,790
3	46	45	284	898	566	189	440	1,010	1,240	480	162	1,720
4	46	45	360	720	521	159	420	820	1,860	336	73	980
5	142	45	270	598	490	165	380	695	2,440	262	112	620
6	75	43	548	508	526	165	430	598	1,790	210	110	436
7	60	43	174	472	534	138	770	530	1,010	192	118	336
8	105	48	145	476	870	108	720	485	720	210	100	276
9	80	47	177	695	898	1,720	598	462	562	259	110	195
10	67	47	174	670	720	2,590	575	400	476	508	228	180
11	64	47	312	575	620	1,560	898	392	795	472	168	150
12	80	45	308	521	548	925	1,360	356	598	332	100	150
13	100	46	1,330	467	494	720	1,060	300	898	376	76	138
14	75	47	1,430	467	467	845	1,490	288	2,990	539	84	145
15	69	47	1,270	344	480	770	2,070	242	2,000	368	90	171
16	66	90	2,290	376	458	3,160	1,400	262	1,180	224	88	130
17	62	976	2,520	328	396	4,030	898	234	820	195	105	100
18	37	1,150	1,590	695	388	2,440	720	248	670	177	138	120
19	25	878	925	1,240	276	1,360	598	242	552	165	47	102
20	32	536	720	1,060	262	1,040	575	224	503	150	140	100
21	40	295	598	795	238	898	898	280	508	159	150	80
22	42	252	539	598	242	770	5,290	238	485	174	90	70
23	42	195	467	512	296	670	7,440	400	404	195	120	59
24	42	171	380	598	368	598	4,390	436	400	142	100	100
25	42	130	280	1,210	324	575	2,220	320	521	125	150	100
26	42	189	312	925	276	534	1,360	262	476	128	112	90
27	50	135	256	720	270	539	1,150	245	316	122	105	88
28	45	120	192	552	224	521	1,040	171	276	273	108	88
29	45	130	870	530	224	476	845	195	408	320	98	96
30	47	118	1,360	494	------	485	845	150	1,300	259	118	58
31	45	------	2,990	598	------	575	------	180	------	150	112	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	142	25	58.2	0.221	0.25
November	1,150	43	202	.768	.86
December	2,990	118	752	2.86	3.30
January	2,670	328	737	2.80	3.23
February	898	224	463	1.76	1.90
March	4,030	108	942	3.58	4.13
April	7,440	380	1,400	5.32	5.94
May	2,220	150	462	1.76	2.03
June	2,990	276	910	3.46	3.86
July	1,090	122	297	1.13	1.30
August	228	47	115	.437	.50
September	1,790	58	314	1.19	1.33
The year	7,440	25	553	2.10	28.63

ELK RIVER NEAR FAYETTEVILLE, TENN.

LOCATION.—Water-stage recorder at dam and power house of Southern Cities Power Co. 2 miles southwest of Fayetteville, Lincoln County. Zero of gage is 637.67 feet above mean sea level.

DRAINAGE AREA.—857 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 18,400 second-feet Apr. 24 (gage height, 20.35 feet); minimum, 90 second-feet Nov. 12 and 15 (gage height, 1.10 feet).

1925–1928: Maximum discharge, about 34,900 second-feet Dec. 28 (gage height, about 25.8 feet); minimum, that of Nov. 12 and 15, 1927.

REMARKS.—Records fair. Considerable diurnal fluctuation caused by operation of power plant just above gage.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	190	247	375	6,670	2,080	790	1,450	5,390	815	1,720	615	1,140
2	185	208	393	4,750	2,020	740	1,330	5,230	1,780	1,780	485	1,720
3	185	220	442	3,000	1,780	715	1,220	3,420	4,600	1,200	465	2,720
4	190	211	480	1,960	1,540	690	1,140	2,600	7,330	1,030	565	2,400
5	200	202	600	1,600	1,420	690	1,030	2,200	6,510	892	485	1,600
6	188	192	585	1,360	1,390	665	1,170	1,900	4,910	815	442	1,110
7	272	192	490	1,220	1,420	615	1,660	1,720	3,630	790	429	892
8	226	247	447	1,250	1,960	892	1,780	1,540	2,460	920	525	765
9	205	335	416	1,540	2,270	10,900	1,660	1,420	1,900	715	550	665
10	272	282	371	1,660	2,080	8,410	1,600	1,330	1,600	948	505	550
11	226	211	398	1,540	1,780	5,230	3,210	1,220	2,400	948	765	530
12	300	202	1,600	1,300	1,540	3,350	3,280	1,140	2,400	975	615	460
13	328	192	1,280	1,200	1,420	2,340	3,140	1,080	2,140	1,000	515	475
14	282	178	2,340	1,110	1,300	1,900	4,080	1,000	9,310	1,080	416	402
15	259	180	3,560	1,030	1,250	1,900	4,680	920	6,750	1,060	384	375
16	232	530	4,680	920	1,200	6,190	4,150	892	4,600	892	416	384
17	220	3,140	4,750	920	1,110	8,050	3,000	920	2,930	790	359	363
18	205	3,560	3,920	920	1,060	7,780	2,270	1,140	2,140	815	406	265
19	205	2,790	2,660	1,250	975	4,910	1,960	1,360	1,780	690	424	318
20	202	1,780	1,780	1,960	865	3,210	1,720	1,080	1,540	635	416	304
21	182	975	1,390	1,780	865	2,600	2,860	1,000	1,480	690	384	300
22	168	815	1,200	1,450	815	2,200	12,800	1,540	1,360	1,060	475	293
23	175	620	1,030	1,220	1,030	1,960	17,200	2,270	1,250	892	420	286
24	190	575	975	1,510	1,080	1,780	17,200	1,360	1,540	790	375	259
25	182	505	865	2,080	1,110	1,600	12,600	1,200	1,450	765	375	214
26	180	460	790	2,460	1,000	1,600	5,870	1,080	1,390	920	398	304
27	182	420	690	2,020	920	1,600	3,420	948	1,200	740	452	279
28	190	411	740	1,660	892	1,450	2,930	865	1,080	665	355	262
29	208	420	2,340	1,360	815	1,330	2,600	865	975	665	318	272
30	192	363	4,750	1,220	-------	2,340	3,000	790	1,300	715	321	262
31	170	-------	9,880	1,900	-------	1,510	-------	765	-------	620	347	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	328	168	213	0.249	0.29
November	3,560	178	689	.804	.90
December	9,880	371	1,810	2.11	2.43
January	6,670	920	1,800	2.10	2.42
February	2,270	815	1,340	1.56	1.68
March	10,900	615	2,900	3.38	3.90
April	17,200	1,030	4,200	4.90	5.47
May	5,390	765	1,620	1.89	2.18
June	9,310	815	2,820	3.29	3.67
July	1,780	635	910	1.06	1.22
August	765	318	452	.527	.61
September	2,720	214	672	.784	.87
The year	17,200	168	1,620	1.89	25.64

ELK RIVER NEAR ELKMONT, ALA.

LOCATION.—Chain gage on highway bridge 3 miles below Louisville & Nashville Railroad bridge and 5 miles northwest of Elkmont, Limestone County. Zero of gage is 549.45 feet above mean sea level.

DRAINAGE AREA.—1,700 square miles.

RECORDS AVAILABLE.—July, 1904, to February, 1908; January, 1919, to September, 1928.

EXTREMES.—Maximum discharge during year, 26,100 second-feet Apr. 23 and 24 (gage height, 21.0 feet); minimum, 205 second-feet Oct. 5 and 6 (gage height, 1.30 feet).

1904–1908, 1919–1928: Maximum discharge, about 42,000 second-feet Dec. 28, 1926 (gage height, 28.2 feet); minimum, 85 second-feet Sept. 18–20, 1925 (gage height, 1.05 feet).

REMARKS.—Records good. Discharge estimated July 8.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	228	445	725	23,900	4,150	1,440	3,880	10,200	1,280	3,460	1,500	1,550
2	250	508	685	11,000	3,740	1,380	3,050	8,260	3,740	3,460	940	1,890
3	228	540	685	6,480	3,330	1,280	2,650	5,790	12,200	2,520	725	3,050
4	228	415	685	4,150	3,050	1,230	2,260	4,560	18,000	2,010	725	2,780
5	205	385	725	3,330	2,780	1,280	2,010	3,880	13,100	1,660	725	2,260
6	205	355	808	2,650	2,520	1,230	2,260	3,330	8,940	1,500	765	1,500
7	275	328	808	2,390	2,520	1,180	3,050	2,780	6,620	1,330	1,180	1,180
8	415	540	725	2,650	2,920	1,280	2,650	2,520	4,420	1,900	1,080	1,040
9	415	808	685	5,110	3,460	19,200	2,650	2,260	3,330	1,500	988	895
10	355	610	648	3,880	3,330	25,100	2,780	2,130	2,780	1,280	850	765
11	275	508	725	3,460	2,920	13,100	6,620	1,890	5,520	1,330	850	648
12	1,380	508	2,260	3,050	2,650	7,440	5,520	1,770	8,530	1,380	988	610
13	895	415	3,880	2,520	2,390	5,110	4,970	1,660	4,150	1,890	808	575
14	540	385	3,190	2,260	2,260	4,150	8,530	1,550	21,400	1,500	648	540
15	415	355	6,480	2,130	2,130	3,330	7,710	1,500	19,200	1,380	540	508
16	355	2,130	11,100	2,010	2,010	11,700	6,890	1,440	9,360	1,280	508	475
17	300	7,990	12,600	1,770	1,890	12,900	4,970	1,330	6,200	1,080	508	508
18	275	5,790	7,030	2,010	1,770	12,400	4,010	1,380	4,560	1,080	475	508
19	250	4,010	4,840	2,260	1,770	9,360	3,330	4,010	3,330	1,130	765	475
20	275	3,190	3,190	3,330	1,500	6,890	2,920	1,660	2,780	940	725	445
21	300	2,130	2,520	3,190	1,330	4,970	7,850	2,650	2,650	1,130	808	445
22	300	1,380	2,130	2,780	1,550	4,010	20,000	3,600	2,260	1,770	895	445
23	275	1,040	1,770	2,260	1,770	3,460	25,000	6,340	2,390	1,440	685	445
24	275	895	1,550	3,050	2,010	3,050	24,800	3,460	6,750	1,280	610	445
25	300	895	1,500	4,700	1,890	3,050	21,400	2,260	3,190	1,080	575	385
26	300	765	1,380	4,150	1,770	2,780	14,700	2,260	2,780	1,180	685	445
27	300	725	1,230	3,740	1,770	2,920	6,890	1,890	2,130	2,010	575	415
28	300	725	1,280	3,050	1,660	2,520	5,380	1,660	1,890	4,150	648	415
29	300	685	5,660	2,390	1,550	2,260	4,700	1,660	1,770	1,180	508	385
30	300	685	5,110	2,260	------	10,900	4,560	1,380	9,490	1,040	508	385
31	300	------	22,400	4,840	------	7,160	------	1,330	------	1,230	575	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,380	205	355	0.209	0.24
November	7,990	328	1,340	.788	.88
December	22,400	648	3,520	2.07	2.39
January	23,900	1,770	4,090	2.41	2.78
February	4,150	1,330	2,360	1.39	1.50
March	25,100	1,180	6,070	3.57	4.12
April	25,000	2,010	7,270	4.28	4.78
May	10,200	1,330	2,980	1.75	2.02
June	21,400	1,280	6,490	3.82	4.26
July	4,150	940	1,650	.971	1.12
August	1,500	475	754	.444	.51
September	3,050	385	880	.518	.58
The year	25,100	205	3,140	1.85	25.18

ELK RIVER NEAR ROGERSVILLE, ALA.

LOCATION.—Staff gage at highway bridge on Huntsville-Florence road 4 miles east of Rogersville, Lauderdale County. Zero of gage is 518.02 feet above mean sea level.

DRAINAGE AREA.—2,100 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 30,000 second-feet Apr. 24 (gage height, 13.6 feet); minimum, 200 second-feet Oct. 8 and 27–31 (gage height, 0.8 foot).

REMARKS.—Records good below 7,000 second-feet and fair above. Gage-height record furnished by United States Army Engineer Corps.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	200	615	710	26,500	4,900	1,640	5,620	9,070	2,320	6,520	1,880	1,880
2	260	910	660	18,400	4,540	1,570	4,360	10,100	3,990	4,720	1,430	960
3	260	660	660	9,070	4,180	1,500	3,800	8,860	9,490	5,080	1,070	960
4	260	615	660	5,980	3,800	1,430	3,030	6,700	19,600	5,260	860	3,420
5	260	480	660	4,360	3,420	1,500	3,030	5,440	17,300	4,360	710	3,420
6	260	440	660	3,420	3,230	1,570	2,620	4,720	12,900	3,030	1,070	2,830
7	305	440	760	3,030	3,030	1,570	3,030	3,610	9,490	1,880	1,360	2,140
8	330	570	860	3,420	3,420	1,640	3,420	3,230	7,460	2,420	1,570	1,640
9	440	1,720	860	5,260	3,800	15,200	3,030	3,030	5,260	1,720	1,360	1,180
10	525	1,180	760	5,080	3,990	27,600	3,030	2,620	3,610	1,720	1,180	1,020
11	480	1,180	660	4,540	3,800	22,600	5,620	2,420	10,600	1,570	1,120	910
12	810	860	1,300	3,800	3,420	10,800	7,460	2,230	11,700	1,430	1,070	760
13	1,720	660	4,900	3,420	3,030	7,270	5,980	2,230	8,860	2,140	1,020	660
14	960	525	3,420	3,030	2,830	5,980	9,280	2,050	23,000	2,050	860	615
15	660	400	4,900	3,030	2,620	4,720	10,400	2,050	21,400	1,640	710	615
16	1,300	910	10,400	2,620	2,420	10,800	9,070	1,880	15,200	1,570	615	710
17	1,180	5,980	10,600	2,140	2,320	14,200	7,850	1,720	8,650	1,570	615	570
18	330	7,650	8,450	2,050	2,230	13,200	6,160	1,570	7,080	1,360	860	570
19	365	5,440	6,700	2,140	2,140	11,700	4,900	4,900	5,080	1,300	1,300	570
20	365	4,180	5,080	3,030	2,050	8,250	4,900	5,800	3,990	1,180	960	480
21	330	3,030	3,420	3,800	1,880	6,520	5,980	5,620	3,420	1,240	1,800	570
22	305	1,720	2,620	3,420	1,800	5,440	22,000	3,420	3,230	1,640	1,300	480
23	260	1,430	2,140	3,030	1,960	4,900	28,600	6,700	3,420	2,420	1,020	480
24	260	1,300	1,880	3,030	2,620	4,180	29,300	5,620	4,900	1,720	810	400
25	260	1,180	1,720	4,900	2,420	3,800	24,600	3,420	5,980	1,500	660	400
26	260	1,120	1,570	4,900	2,140	4,180	20,800	3,030	4,180	1,300	860	400
27	230	960	1,430	4,900	1,960	3,610	11,700	2,620	3,800	3,030	810	400
28	200	860	1,300	3,800	1,880	3,030	7,850	2,050	3,030	2,050	660	440
29	200	760	4,900	3,420	1,720	3,420	5,980	1,880	3,030	1,430	570	480
30	200	710	7,080	3,030	-------	7,460	5,080	1,570	13,600	1,300	1,020	400
31	200	-------	24,600	3,610	-------	11,500	--------	1,570	--------	1,570	910	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,720	200	451	0.215	0.25
November	7,650	400	1,620	.771	.86
December	24,600	660	3,750	1.79	2.06
January	26,500	2,050	5,040	2.40	2.77
February	4,900	1,720	2,880	1.37	1.48
March	27,600	1,430	7,190	3.42	3.94
April	29,300	2,620	8,950	4.26	4.75
May	10,100	1,570	3,930	1.87	2.16
June	23,000	2,320	8,520	4.06	4.53
July	6,520	1,180	2,310	1.10	1.27
August	1,880	570	1,030	.490	.56
September	3,420	400	1,010	.481	.54
The year	29,300	200	3,880	1.85	25.17

SHOAL CREEK AT IRON CITY, TENN.

LOCATION.—Staff gage at Louisville & Nashville Railroad bridge a quarter of a mile east of Iron City, Lawrence County, and half a mile below Holly Creek. Zero of gage is 532.74 feet above mean sea level.

DRAINAGE AREA.—355 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 13,000 second-feet Mar. 9 (gage height, 15.1 feet); minimum, 87 second-feet Oct. 23.

1925–1928: Maximum discharge, about 21,800 second-feet Mar. 13, 1927 (gage height, 23.1 feet); minimum, 39 second-feet Sept. 22, 1925 (gage height, 0.60 foot).

REMARKS.—Records fair. Some regulation caused by operation of power plant at Lawrenceburg.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	154	425	3,680	470	300	710	970	300	1,640	145	538
2	129	172	760	3,080	448	300	635	1,560	1,490	760	137	402
3	114	204	710	2,320	425	340	515	1,090	1,560	660	122	162
4	129	204	122	2,050	515	360	425	810	3,680	538	264	162
5	107	137	122	1,960	538	360	470	860	2,500	470	204	162
6	114	145	107	1,090	538	425	425	660	1,350	425	448	154
7	137	107	129	538	760	402	492	538	760	402	264	145
8	154	192	114	1,490	660	585	492	515	635	320	232	137
9	122	264	129	1,090	660	11,400	448	470	538	320	218	154
10	100	218	122	610	610	4,980	492	425	560	264	204	181
11	107	154	145	760	660	2,980	470	425	3,880	248	172	154
12	470	172	282	760	610	1,640	470	380	2,500	232	162	137
13	360	137	320	660	710	970	448	340	1,210	204	154	129
14	248	162	282	560	810	760	710	264	1,960	218	137	145
15	172	137	492	560	760	710	710	218	1,210	300	129	122
16	145	470	402	585	710	760	660	172	1,030	300	154	122
17	145	860	360	860	515	660	660	360	860	204	154	129
18	107	538	264	1,030	425	585	560	320	810	181	204	129
19	107	340	232	1,350	402	538	538	380	760	232	300	122
20	114	248	232	1,280	360	515	585	860	760	340	320	122
21	114	218	154	1,090	360	448	860	760	710	300	282	114
22	107	172	162	910	425	448	9,050	610	660	300	264	114
23	87	162	114	760	425	425	4,870	560	860	282	218	122
24	100	154	122	660	448	470	2,590	538	1,350	515	218	122
25	114	137	107	538	425	492	2,680	585	4,870	492	192	114
26	129	122	114	560	402	515	2,320	492	4,980	448	192	114
27	137	122	129	515	340	515	2,230	492	4,650	470	192	114
28	129	107	162	515	340	448	1,960	340	4,100	232	181	114
29	129	122	204	492	340	402	1,720	320	2,880	192	162	129
30	122	204	232	492	-------	1,420	760	340	2,880	162	172	114
31	129	-------	4,650	538	-------	970	-------	320	-------	162	204	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	470	87	144	0.406	0.47
November	860	107	218	.614	.68
December	4,650	107	384	1.08	1.24
January	3,680	492	1,080	3.04	3.50
February	810	340	520	1.46	1.58
March	11,400	300	1,170	3.30	3.80
April	9,050	425	1,330	3.75	4.18
May	1,560	172	548	1.54	1.78
June	4,980	300	1,880	5.30	5.91
July	1,640	162	381	1.07	1.23
August	448	122	206	.580	.67
September	538	114	156	.439	.49
The year	11,400	87	666	1.88	25.53

BEAR CREEK AT BISHOP, ALA.

LOCATION.—Staff gage at highway bridge half a mile below Little Bear Creek and three-fourths mile southwest of Bishop, Colbert County. Zero of gage is 414.85 feet above mean sea level.

DRAINAGE AREA.—621 square miles.

RECORDS AVAILABLE.—August, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, about 13,400 second-feet Apr. 24 (gage height, 22.0 feet); minimum, 46 second-feet Oct. 1 (gage height, 5.40 feet).

1926–1928: Maximum discharge, about 21,400 second-feet Apr. 24, 1927 (gage height, 27.0 feet); minimum, 28 second-feet Sept. 21, 1927 (gage height, 5.20 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1	46	92	230	[a] 6,000	1,040	615	[a] 2,460	3,140	685
2	[a] 133	99	230	4,180	920	550	1,420	2,180	1,880
3	220	120	280	2,520	840	520	1,330	1,690	[a] 3,760
4	550	150	[a] 280	1,830	760	[a] 880	1,080	1,420	5,650
5	120	142	280	1,330	[a] 740	1,240	840	1,560	5,450
6	99	[a] 138	268	1,080	720	1,330	685	[a] 1,340	4,690
7	128	135	268	1,000	800	1,160	1,420	1,120	3,000
8	550	268	280	[a] 1,490	1,160	1,420	[a] 1,290	960	1,980
9	[a] 421	1,120	280	1,980	1,880	7,100	1,160	840	1,420
10	292	1,040	255	1,420	1,600	6,510	2,180	760	[a] 2,420
11	200	615	[a] 372	1,330	1,160	[a] 4,760	3,000	685	3,420
12	292	685	490	1,200	[a] 1,020	3,000	4,020	650	3,280
13	380	[a] 532	490	1,080	880	2,280	3,560	[a] 585	1,780
14	255	380	490	960	840	1,830	4,870	520	2,880
15	280	220	840	[a] 960	840	1,420	[a] 5,110	490	2,880
16	[a] 204	1,640	2,700	960	685	2,080	5,350	490	2,130
17	128	3,280	2,760	1,040	615	4,180	4,340	430	[a] 1,800
18	113	2,820	[a] 1,960	1,040	650	[a] 3,760	2,400	430	1,460
19	106	2,080	1,160	1,120	[a] 615	3,350	1,780	685	1,080
20	86	[a] 1,380	960	1,080	580	2,130	3,000	[a] 1,430	920
21	80	685	760	1,000	550	1,690	6,510	2,180	760
22	80	550	615	[a] 1,040	550	1,420	[a] 9,360	1,690	685
23	[a] 74	430	550	1,080	685	1,280	12,200	1,980	840
24	68	380	490	1,120	685	1,160	12,600	1,930	--------
25	68	380	[a] 460	685	615	[a] 1,540	8,740	1,420	--------
26	68	330	430	685	[a] 650	1,930	5,150	1,200	--------
27	68	[a] 305	380	650	685	3,140	3,420	[a] 1,020	--------
28	74	280	430	580	650	2,080	2,520	840	--------
29	68	255	3,140	[a] 565	615	1,510	[a] 2,300	840	--------
30	[a] 68	255	2,880	550	--------	2,640	2,080	720	--------
31	68	--------	7,830	1,330	--------	3,490	--------	685	--------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	550	46	174	0.280	0.32
November	3,280	92	693	1.12	1.25
December	7,830	230	1,060	1.71	1.97
January	6,000	550	1,380	2.22	2.56
February	1,880	550	829	1.33	1.43
March	7,100	520	2,320	3.74	4.31
April	12,600	685	3,870	6.23	6.95
May	3,140	430	1,160	1.87	2.16
June 1–23	5,650	685	2,380	3.83	3.27

[a] Estimated.

DUCK RIVER AT NORMANDY, TENN.

LOCATION.—Staff gage at highway bridge half a mile north of Normandy, Bedford County. Zero of gage is 785.47 feet above mean sea level.

DRAINAGE AREA.—214 square miles.

RECORDS AVAILABLE.—December, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 9,100 second-feet during night of June 29–30 (gage height, 13.0 feet); minimum, 62 second-feet on several days in October (gage height, 0.88 foot).

1920–1928: Maximum discharge, 10,100 second-feet Dec. 25, 1926 (gage height, 14.0 feet); minimum, 45 second-feet July 30 to Oct. 3 and Oct. 5–7, 1925 (gage height, 0.6 foot).

REMARKS.—Records good below and fair above 5,000 second-feet. Operation of Manchester hydroelectric plant, 15 miles upstream, causes some diurnal fluctation during low water.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	65	65	[a] 2,190	540	162	[a] 875	830	135	830	117	105
2	[a] 73	65	65	610	405	152	470	830	175	405	117	125
3	65	75	89	435	330	148	360	540	200	345	113	150
4	65	69	[a] 85	330	285	152	285	435	1,720	285	113	145
5	62	65	81	270	[a] 308	162	285	360	1,340	240	109	125
6	62	[a] 65	75	225	330	175	255	315	680	200	105	105
7	62	65	81	212	330	162	680	255	505	175	105	101
8	65	93	81	[a] 256	330	150	750	255	345	175	125	97
9	[a] 64	115	65	300	360	3,500	470	225	285	170	105	95
10	62	85	65	360	285	3,050	375	212	225	505	105	95
11	62	75	[a] 205	300	255	990	540	175	285	345	212	93
12	115	65	345	255	[a] 240	680	1,030	188	435	212	150	93
13	105	[a] 65	85	225	225	540	645	175	575	175	121	95
14	69	65	225	200	225	1,180	910	165	4,800	175	115	89
15	62	65	240	188	255	870	1,790	160	2,230	155	109	89
16	[a] 62	101	830	175	225	2,710	830	160	750	145	105	81
17	62	540	645	188	212	2,550	575	155	610	140	105	77
18	62	225	[a] 458	910	200	1,130	435	160	435	135	105	75
19	62	175	270	1,930	188	830	375	155	360	130	105	75
20	62	[a] 145	212	1,080	175	645	360	175	345	135	240	75
21	62	115	175	680	175	540	435	175	345	125	175	73
22	62	105	162	[a] 528	170	470	4,600	200	270	175	165	73
23	[a] 62	101	155	375	200	405	3,950	375	255	165	125	69
24	62	95	150	1,790	225	360	2,000	315	255	150	105	65
25	62	89	[a] 138	1,080	200	405	990	200	255	135	125	65
26	62	89	125	750	175	405	830	170	200	125	105	65
27	62	[a] 82	115	540	175	505	575	165	175	130	105	65
28	62	75	105	405	170	575	990	162	175	150	105	65
29	62	75	240	[a] 345	162	405	575	155	255	175	101	65
30	[a] 62	65	435	285	-------	950	435	150	6,300	125	97	62
31	62	-------	3,770	360	-------	1,280	-------	140	-------	117	95	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	115	62	66.6	0.311	0.36
November	540	65	106	.495	.55
December	3,770	65	317	1.48	1.71
January	2,190	175	573	2.68	3.09
February	540	162	254	1.19	1.28
March	3,500	148	846	3.95	4.55
April	4,600	255	922	4.31	4.81
May	830	140	262	1.22	1.41
June	6,300	135	831	3.88	4.33
July	830	117	214	1.00	1.15
August	240	95	122	.570	.66
September	150	62	88.4	.413	.46
The year	6,300	62	383	1.79	24.36

[a] Interpolated.

DUCK RIVER AT COLUMBIA, TENN.

LOCATION.—Water-stage recorder at highway bridge two blocks north of the public square at Columbia, Maury County. Zero of gage is 537.78 feet above mean sea level.

DRAINAGE AREA.—1,210 square miles.

RECORDS AVAILABLE.—October, 1904, to December, 1908; April, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 19,600 second-feet Mar. 10 (gage height, 22.75 feet); minimum, 8 second-feet Oct. 8 and 9 (gage height, −0.90 foot).

1904–1908, 1920–1928: Maximum discharge, about 35,900 second-feet Dec. 26, 1926 (gage height, 35.4 feet); no flow Oct. 22, 1922.

Maximum stage known, 45.6 feet Mar. 30, 1902.

REMARKS.—Records above 250 second-feet good; others fair. Low-water flow is completely regulated by power plants upstream.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	56	[a] 250	16,400	1,560	590	4,910	4,660	446	9,340	[a] 750	934
2	14	85	[a] 250	8,080	1,600	404	2,880	4,230	338	5,080	[a] 1,600	869
3	94	102	232	3,380	1,410	567	1,960	2,960	575	2,040	[a] 1,000	652
4	93	82	96	2,080	1,220	479	1,520	2,240	[a] 3,380	1,480	665	546
5	64	116	247	1,520	1,180	499	1,260	1,720	[a] 5,760	1,180	420	495
6	13	56	260	1,260	1,180	495	1,120	1,370	[a] 3,550	848	401	432
7	131	131	188	1,150	1,260	467	1,040	1,150	[a] 2,080	1,010	493	433
8	11	105	213	1,640	1,440	574	1,440	1,010	[a] 1,440	912	510	436
9	185	188	25	3,550	1,370	9,340	1,640	848	1,220	880	575	357
10	20	184	243	3,380	1,260	17,800	1,370	695	1,080	659	467	191
11	10	149	58	2,560	1,150	[a] 12,000	1,220	945	912	[a] 500	521	178
12	447	235	364	2,000	1,040	[a] 7,500	3,380	880	1,410	[a] 600	508	206
13	260	166	832	1,600	978	[a] 5,500	2,640	520	2,800	[a] 800	258	200
14	182	212	1,800	1,370	912	[a] 4,000	5,080	633	13,300	[a] 1,100	419	176
15	73	132	1,720	1,120	912	[a] 3,500	7,900	468	15,800	848	237	119
16	286	413	4,230	1,150	880	[a] 6,000	5,000	542	9,610	612	206	106
17	56	3,040	6,100	1,220	785	12,200	3,210	430	4,320	530	218	64
18	170	5,420	3,460	6,730	844	9,520	2,160	476	[a] 3,210	511	304	45
19	129	2,480	2,080	10,800	702	6,020	1,760	646	[a] 2,640	491	890	25
20	83	1,410	1,480	8,620	617	3,980	1,760	707	[a] 2,160	480	1,600	88
21	112	1,080	1,120	4,910	541	2,560	5,420	822	[a] 1,840	539	1,440	46
22	128	760	945	3,380	571	2,400	[a] 18,000	825	[a] 1,600	[a] 500	846	17
23	16	498	880	2,400	682	1,960	[a] 16,000	1,120	1,410	470	426	17
24	128	429	719	2,160	892	1,640	[a] 11,000	1,180	[a] 1,720	[a] 500	462	17
25	92	613	609	2,880	912	1,410	7,450	912	4,060	[a] 900	622	16
26	71	[a] 400	557	3,380	711	1,370	4,570	830	3,300	[a] 1,500	610	16
27	91	[a] 400	337	2,880	946	1,480	3,550	605	[a] 1,720	[a] 4,000	419	16
28	65	[a] 350	531	2,160	639	1,440	3,380	328	[a] 1,370	2,240	546	16
29	99	[a] 300	887	1,600	640	1,370	2,560	490	[a] 1,220	[a] 1,300	263	15
30	109	[a] 300	3,380	1,370	------	5,590	2,320	440	6,550	[a] 900	211	[a] 53
31	47	------	12,100	1,300	------	12,600	------	422	------	[a] 750	435	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	447	10	106	0.0876	0.10
November	5,420	56	663	.548	.61
December	12,100	25	1,490	1.23	1.42
January	16,400	1,120	3,480	2.88	3.32
February	1,600	541	994	.821	.89
March	17,800	404	4,360	3.60	4.15
April	18,000	1,040	4,250	3.51	3.92
May	4,660	328	1,130	.934	1.08
June	15,800	338	3,360	2.78	3.10
July	9,340	470	1,400	1.16	1.34
August	1,600	206	591	.488	.56
September	934	15	226	.187	.21
The year	18,000	10	1,840	1.52	20.70

[a] Estimated.

DUCK RIVER AT CENTERVILLE, TENN.

LOCATION.—Staff gage at old county highway bridge half a mile from courthouse at Centerville, Hickman County. Zero of gage is 451.33 feet above mean sea level.

DRAINAGE AREA.—2,070 square miles.

RECORDS AVAILABLE.—March, 1919, to September, 1928.

EXTREMES.—Maximum discharge during year, 23,800 second-feet Apr. 23 (gage height, 16.8 feet); minimum, 130 second-feet Sept. 29 (gage height, 0.90 foot). 1919–1928: Maximum discharge, about 44,700 second-feet Apr. 2, 1920 (gage height, 28.0 feet); minimum, 68 second-feet Aug. 30, 1925.

REMARKS.—Records good. Some regulation at low water caused by operation of power plant at Columbia.

Daily and monthly discharge, in second-feet, 1927–1928

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	235	419	545	15,600	2,280	1,380	7,390	5,340	1,200	12,200	955	3,610
2	250	393	478	16,000	2,500	1,300	4,740	5,640	1,870	10,800	2,280	2,620
3	235	356	545	8,070	2,390	1,200	3,220	4,890	2,500	4,030	1,380	1,770
4	215	320	478	4,590	2,070	1,480	2,500	3,890	5,640	2,500	688	1,300
5	206	304	545	2,970	1,970	1,200	2,070	4,890	9,270	2,070	688	915
6	206	309	344	2,070	1,970	1,120	1,870	2,730	7,900	1,670	545	1,040
7	235	309	510	1,970	2,180	1,120	1,670	2,280	5,340	1,770	1,120	580
8	270	344	478	1,870	3,350	1,040	1,480	2,070	3,480	1,480	1,300	545
9	432	320	615	4,310	3,350	6,590	2,070	1,770	2,500	1,480	915	510
10	309	580	356	5,340	2,970	19,700	2,180	1,580	2,070	1,380	955	478
11	445	545	255	4,310	2,620	23,500	1,770	1,580	1,870	915	688	432
12	374	510	615	3,480	2,280	12,400	1,670	1,380	1,870	915	688	419
13	2,280	510	580	2,850	2,070	7,730	4,030	1,380	2,850	1,120	762	380
14	838	478	1,300	2,500	1,970	5,640	4,740	1,120	8,410	1,580	432	412
15	580	438	2,500	1,870	1,970	4,890	10,500	1,120	17,700	955	545	393
16	478	580	2,500	1,870	1,770	5,950	8,410	955	18,400	725	412	380
17	406	2,500	6,430	1,970	1,670	11,300	5,190	995	7,390	838	393	326
18	445	5,790	5,640	6,910	1,580	12,700	3,480	955	5,040	688	432	432
19	298	5,950	3,610	13,700	1,300	9,270	2,730	1,870	3,480	725	510	338
20	419	2,620	2,500	15,300	1,300	6,270	2,850	2,500	2,730	580	1,380	287
21	338	1,870	1,870	10,100	1,200	4,890	4,450	1,870	3,750	762	2,070	282
22	350	1,480	1,480	7,230	1,300	4,030	15,800	3,090	2,850	1,120	1,770	276
23	309	1,300	1,300	4,740	1,580	3,480	23,100	2,180	2,500	725	1,200	215
24	276	915	1,200	3,890	1,870	2,970	21,400	1,970	2,280	2,390	838	202
25	245	875	955	4,030	1,870	2,620	15,400	1,870	4,030	1,300	762	265
26	255	688	838	4,740	1,770	2,500	8,070	1,670	5,490	1,080	725	210
27	265	688	800	4,590	1,480	2,500	5,790	1,040	3,480	5,790	800	179
28	255	580	650	3,890	1,670	2,180	5,340	1,080	2,390	3,890	545	166
29	250	580	875	2,970	1,480	2,180	4,450	800	5,490	1,970	838	134
30	260	545	1,120	2,620	------	2,390	3,750	725	11,800	1,480	419	146
31	245	------	12,500	2,280	------	12,500	--------	838	--------	1,120	580	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,280	206	394	0.190	0.22
November	5,950	304	1,100	.531	.59
December	12,500	255	1,760	.850	.98
January	16,000	1,870	5,440	2.63	3.03
February	3,350	1,200	1,990	.961	1.04
March	23,500	1,040	5,740	2.77	3.19
April	23,100	1,480	6,070	2.93	3.27
May	5,640	725	2,130	1.03	1.19
June	18,400	1,200	5,190	2.51	2.80
July	12,200	580	2,260	1.09	1.26
August	2,280	393	891	.430	.50
September	3,610	134	641	.310	.35
The year	23,500	134	2,800	1.35	18.42

DUCK RIVER NEAR HURRICANE MILLS, TENN.

LOCATION.—Staff gage at county highway bridge on road between Waverly and Buffalo, 4 miles south of Hurricane Mills, Humphreys County. Zero of gage is 362.30 feet above mean sea level.

DRAINAGE AREA.—2,610 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 26,100 second-feet Apr. 24 (gage height, 15.58 feet); minimum, 260 second-feet Sept. 30 (gage height, 0.72 foot).

1925–1928: Maximum discharge, 50,500 second-feet Mar. 14, 1927 (gage height, 24.95 feet); minimum, 185 second-feet Sept. 11 and 12, 1925 (gage height, 0.44 foot).

REMARKS.—Records good. Discharge interpolated Mar. 29. Probably slight regulation during low water caused by operations of small power plants above gage.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	482	465	830	15,800	3,110	2,020	16,100	5,270	1,630	12,800	1,280	4,460
2	465	610	765	19,400	3,000	1,920	6,780	7,610	4,070	13,200	1,450	4,460
3	465	580	765	12,200	3,110	1,920	4,460	6,620	2,780	7,440	1,920	2,890
4	580	482	732	7,950	2,780	1,630	3,470	5,270	8,460	5,850	1,450	2,020
5	465	465	700	4,070	2,560	1,540	2,780	4,720	12,800	3,710	1,040	1,630
6	410	465	670	3,350	2,560	1,630	2,560	4,200	15,600	2,890	1,040	1,360
7	640	438	670	2,780	3,000	1,720	2,340	3,470	7,780	2,230	1,820	1,280
8	1,200	610	670	2,560	4,330	1,540	2,230	3,000	6,150	2,450	1,920	1,040
9	900	970	580	3,710	5,130	2,450	2,020	2,560	4,590	2,230	1,360	970
10	765	900	830	4,720	4,460	18,200	2,670	2,340	3,710	1,920	1,120	970
11	580	830	580	5,410	4,070	24,500	2,450	1,920	3,470	1,920	1,040	765
12	970	732	580	4,330	3,710	21,600	2,120	1,920	3,000	1,630	970	670
13	580	700	700	3,710	3,230	8,630	4,330	1,920	3,590	1,540	900	580
14	1,820	640	1,280	3,230	3,110	6,300	4,200	1,630	10,400	1,540	900	580
15	1,120	640	2,780	2,890	2,890	5,410	7,780	1,540	17,500	1,820	670	550
16	830	900	2,890	2,450	2,670	7,100	13,000	1,450	21,900	1,360	865	550
17	830	1,360	4,460	2,670	2,450	11,400	6,940	1,360	14,000	1,360	700	520
18	732	5,700	7,440	7,100	2,230	15,800	4,990	1,540	8,290	1,120	865	520
19	700	7,610	5,130	16,100	2,230	12,400	3,830	2,340	4,460	1,200	798	482
20	580	4,720	3,470	18,900	2,020	9,160	3,830	6,150	4,200	1,120	970	465
21	610	2,890	2,450	15,400	1,920	8,630	4,990	4,460	4,590	1,040	2,230	438
22	580	2,340	2,020	9,520	1,920	5,700	13,400	3,830	4,070	1,200	2,340	410
23	520	1,540	1,820	6,780	1,920	4,990	23,200	3,830	3,350	1,450	1,820	382
24	520	1,280	1,630	5,550	2,560	4,330	26,100	3,350	3,590	3,000	1,360	355
25	482	1,200	1,540	5,270	2,670	3,590	22,900	3,110	4,990	1,540	1,040	338
26	465	1,200	1,360	5,550	2,780	3,470	12,000	2,890	7,270	1,280	1,120	410
27	482	1,120	1,360	5,850	2,560	3,230	7,950	2,230	5,550	1,200	1,120	328
28	465	1,040	1,200	5,270	2,560	2,230	7,100	2,020	3,710	4,590	1,120	300
29	465	830	1,040	4,200	2,020	2,620	6,300	1,720	7,100	3,470	865	290
30	465	865	1,630	3,590	-------	3,000	5,270	1,630	13,400	2,230	1,040	260
31	465	-------	5,130	3,350	-------	6,460	--------	1,540	--------	1,630	2,670	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,820	410	666	0.255	0.29
November	7,610	438	1,470	.563	.63
December	7,440	580	1,860	.713	.82
January	19,400	2,450	6,890	2.64	3.04
February	5,130	1,920	2,880	1.10	1.19
March	24,500	1,540	6,620	2.54	2.93
April	26,100	2,020	7,600	2.91	3.25
May	7,610	1,360	3,140	1.20	1.38
June	21,900	1,630	7,200	2.76	3.08
July	13,200	1,040	2,970	1.14	1.31
August	2,670	670	1,280	.490	.56
September	4,460	260	1,010	.387	.43
The year	26,100	260	3,630	1.39	18.91

PINEY RIVER AT VERNON, TENN.

LOCATION.—Chain gage on highway bridge half a mile west of Vernon, Hickman County, and 600 feet above Pretty Creek. Zero of gage is 470.67 feet above mean sea level.

DRAINAGE AREA.—209 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 3,480 second-feet June 5 (gage height, 6.5 feet); minimum, 45 second-feet Sept. 30 (gage height, 1.98 feet).

1925–1928: Maximum discharge, 14,200 second-feet Dec. 21, 1926 (gage height, 16.5 feet); minimum, that of Sept. 30, 1928.

REMARKS.—Records good below and fair above 700 second-feet. Possibly slight regulation due to operation of small milldam at Pinewood.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	80	101	315	225	266	198	340	955	628	95	505
2	71	77	95	274	198	225	180	310	660	505	86	306
3	340	77	92	225	189	207	173	288	1,120	392	80	216
4	173	71	89	198	176	207	166	270	2,080	315	110	152
5	77	77	83	170	176	184	159	306	1,800	288	92	124
6	71	80	83	156	166	176	176	261	1,720	256	104	107
7	243	71	101	142	535	166	176	238	955	288	95	98
8	297	159	92	176	800	166	152	220	695	365	95	89
9	131	98	80	173	628	230	145	207	565	261	80	80
10	107	86	83	170	475	212	138	194	448	207	74	74
11	101	89	98	166	420	207	134	176	392	176	114	74
12	875	86	107	159	365	198	138	166	340	248	80	68
13	225	74	107	159	365	198	131	156	1,280	198	71	68
14	152	77	110	159	365	198	274	152	1,980	173	65	65
15	117	77	117	152	310	198	266	142	875	159	59	62
16	107	170	131	145	292	535	248	138	595	145	59	62
17	98	340	124	198	288	660	234	131	505	131	59	59
18	95	252	124	1,040	270	565	225	138	448	124	77	59
19	89	198	110	955	234	505	216	1,120	340	162	117	56
20	83	170	104	730	220	475	392	955	365	128	74	56
21	83	152	101	535	198	420	475	595	365	120	207	53
22	80	138	98	475	238	365	1,120	695	266	117	89	53
23	77	124	92	365	340	340	955	595	310	128	74	50
24	77	117	89	628	365	306	660	448	838	107	65	50
25	74	107	86	448	340	288	535	392	565	98	83	50
26	71	101	80	392	315	274	448	340	365	107	68	48
27	71	101	80	365	302	252	505	288	310	98	59	50
28	77	95	101	315	288	220	420	243	292	166	56	48
29	77	95	104	302	279	207	392	212	2,080	104	53	48
30	74	104	104	284	-------	274	392	194	995	92	59	45
31	77	-------	310	256	-------	216	-------	173	-------	86	1,720	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	875	71	141	0.675	0.78
November	340	71	118	.565	.63
December	310	80	106	.507	.58
January	1,040	142	330	1.58	1.82
February	800	166	323	1.55	1.67
March	660	166	288	1.38	1.59
April	1,120	131	327	1.56	1.74
May	1,120	131	325	1.56	1.80
June	2,080	266	817	3.91	4.36
July	628	86	206	.986	1.14
August	1,720	53	136	.651	.75
September	505	45	95.8	.458	.51
The year	2,080	45	266	1.27	17.37

BUFFALO RIVER NEAR FLATWOODS, TENN.

LOCATION.—Staff gage a quarter of a mile above bridge on Flatwoods-Linden road, half a mile below mouth of Little Opossum Creek, and 1½ miles northwest of Flatwoods, Wayne County. Zero of gage is 513.47 feet above mean sea level.

DRAINAGE AREA.—439 square miles.

RECORDS AVAILABLE.—May, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 8,920 second-feet Apr. 22 (gage height, 11.8 feet); minimum, 130 second-feet Sept. 19–21 and 23–26 (gage height, 1.20 feet).

1920–1928: Maximum discharge, 34,800 second-feet Mar. 13, 1927 (gage height, 29.3 feet); minimum, 65 second-feet Sept. 9, 1925.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	210	210	3,870	620	430	375	1,130	288	860	210	810
2	145	210	240	1,800	575	410	358	1,360	340	575	210	860
3	140	189	240	1,130	552	392	340	1,130	450	470	204	450
4	180	180	210	860	530	392	322	910	1,730	410	210	305
5	172	172	201	710	575	375	305	810	3,020	358	210	240
6	152	178	186	620	620	375	305	710	1,920	305	207	225
7	210	178	204	510	910	358	340	620	1,240	305	192	210
8	288	225	204	552	1,240	340	340	530	910	305	198	198
9	240	358	207	1,080	1,240	4,230	305	490	710	288	204	180
10	201	340	189	1,180	1,020	5,900	270	450	575	305	183	180
11	175	255	189	1,020	910	2,400	288	430	620	270	180	172
12	255	210	322	860	810	1,600	288	392	760	255	175	160
13	470	210	760	760	710	1,240	270	340	665	240	162	155
14	375	198	710	665	665	1,080	490	340	1,600	240	155	150
15	240	186	710	575	620	910	760	305	1,860	225	150	145
16	204	340	710	530	552	1,020	620	305	1,240	210	145	142
17	180	760	620	510	510	1,420	552	305	965	225	140	145
18	175	760	575	620	490	1,360	490	270	860	210	150	138
19	168	710	510	760	450	1,130	470	322	710	240	201	130
20	155	392	450	910	410	1,020	510	965	575	240	210	130
21	160	340	392	910	375	910	810	710	552	207	210	130
22	165	288	375	810	410	810	5,680	620	490	225	305	132
23	155	255	322	710	490	710	6,840	665	450	225	270	130
24	152	240	305	665	530	620	2,860	510	490	710	210	130
25	152	240	270	760	530	620	1,800	430	665	450	210	130
26	158	225	270	710	510	552	1,360	410	665	305	186	130
27	172	225	240	665	490	530	1,130	375	530	305	175	132
28	168	210	255	620	490	450	1,080	340	450	358	160	132
29	158	204	358	575	450	430	910	322	450	270	155	132
30	152	210	620	530	-------	410	810	322	710	240	155	132
31	152	-------	3,960	575	-------	410	-------	305	-------	225	204	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	470	140	194	0.442	0.51
November	760	172	290	.661	.74
December	2,960	186	484	1.10	1.27
January	3,870	510	873	1.99	2.29
February	1,240	375	630	1.44	1.55
March	5,900	340	1,060	2.42	2.79
April	6,840	270	1,040	2.37	2.64
May	1,360	270	552	1.26	1.45
June	3,020	288	883	2.01	2.24
July	860	207	324	.738	.85
August	305	140	191	.435	.50
September	860	130	214	.487	.54
The year	6,840	130	561	1.28	17.37

BUFFALO RIVER NEAR LOBELVILLE, TENN.

LOCATION.—Staff gage at Standing Rock bridge, 4 miles north of Lobelville, Perry County. Zero of gage is 403.54 feet above mean sea level.

DRAINAGE AREA.—723 square miles.

RECORDS AVAILABLE.—November, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 8,820 second-feet Apr. 23 (gage height, 12.6 feet); minimum, 158 second-feet Sept. 29 and 30 (gage height, 0.61 foot).

REMARKS.—Records good below 7,000 second-feet and fair above. Slight regulation caused by operation of mill and power plant at Lobelville.

Daily and monthly discharge, in second-feet, 1927–28

Day	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	225	345	4,620	890	760	680	1,420	720	2,080	408	935
2	240	345	3,900	890	720	640	1,420	1,070	1,420	460	1,220
3	300	345	1,780	845	720	600	1,480	1,320	1,170	442	1,320
4	300	345	1,540	845	680	565	1,540	1,540	1,020	390	980
5	285	345	1,480	800	680	565	1,480	2,940	845	360	640
6	270	345	1,320	1,020	680	530	1,270	4,140	760	330	565
7	285	345	600	1,170	640	530	1,120	3,080	720	315	425
8	345	345	600	2,730	640	530	980	2,080	600	315	408
9	425	345	720	2,590	2,800	530	890	1,480	565	315	375
10	600	345	1,020	2,020	5,680	495	845	1,220	530	315	360
11	460	345	1,270	1,600	5,950	495	760	1,120	495	315	315
12	425	360	1,270	1,540	3,360	495	720	1,070	460	300	300
13	390	565	1,170	1,370	2,380	460	640	1,540	442	285	300
14	360	845	1,070	1,270	1,780	980	600	1,900	408	270	285
15	408	935	935	1,120	1,540	1,320	565	2,520	360	255	255
16	495	890	1,020	980	1,900	1,320	530	2,380	360	210	240
17	720	845	1,070	890	2,380	1,170	530	1,960	345	300	225
18	640	845	1,320	845	2,450	1,020	495	1,660	330	408	210
19	565	800	1,540	845	2,260	980	890	1,370	330	460	207
20	460	680	1,540	760	1,960	1,020	1,020	1,220	330	460	198
21	600	600	1,540	720	1,600	1,420	1,070	1,120	330	442	186
22	495	495	1,320	680	1,420	2,940	1,120	1,020	330	408	175
23	495	408	1,270	800	1,320	8,820	1,170	890	360	360	170
24	460	390	1,220	845	1,170	6,880	1,120	845	360	345	165
25	442	390	1,220	890	1,070	3,980	980	760	390	330	160
26	425	460	1,120	890	1,020	2,520	845	1,070	495	300	162
27	390	565	1,120	845	890	2,020	760	1,020	760	285	160
28	360	530	1,070	845	845	1,780	680	980	600	270	160
29	345	760	980	800	800	1,480	640	935	460	255	158
30	345	845	935	------	760	1,370	600	2,080	390	240	158
31	------	935	890	------	720	------	530	------	375	270	------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
November	720	270	418	0.578	0.64
December	935	345	546	.755	.87
January	4,620	600	1,370	1.89	2.18
February	2,590	680	1,120	1.55	1.67
March	5,950	640	1,660	2.30	2.65
April	8,820	460	1,600	2.21	2.47
May	1,540	495	926	1.28	1.48
June	4,140	720	1,570	2.17	2.42
July	2,080	330	594	.822	.95
August	460	210	336	.465	.54
September	1,320	158	381	.526	.59

CACHE RIVER BASIN

CACHE RIVER AT FORMAN, ILL.

LOCATION.—Chain gage in NE. ¼ sec. 31, T. 13 S., R. 3 E., at Chicago, Burlington & Quincy Railroad bridge at Forman, Johnson County, 1 mile below Dutchman Creek.

DRAINAGE AREA.—240 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,040 second-feet Dec. 15 (gage height, 14.8 feet); minimum, 0.1 second-foot Sept. 21–30.

1922–1928: Maximum discharge, 5,020 second-feet Mar. 19, 1927 (gage height 15.8 feet); no flow July 31 and Aug. 1, 1923.

REMARKS.—Records good except those for extreme low and high stages, which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	860	38	405	405	95	405	54	345	23	3,020	5.8	8.5
2	950	29	675	317	78	390	50	254	20	2,390	5.8	4.7
3	860	29	304	291	68	331	42	199	18	2,010	7.0	2.9
4	725	26	317	209	68	291	35	152	136	1,260	7.0	2.9
5	625	23	254	121	68	242	32	121	455	980	5.8	2.2
6	360	26	199	78	83	189	89	101	375	575	5.8	2.2
7	231	26	170	78	161	152	650	89	304	390	4.7	1.6
8	625	435	199	89	375	136	750	78	266	278	4.7	.7
9	725	1,010	254	107	375	128	650	68	515	209	10	.7
10	535	1,320	179	121	331	136	495	54	830	152	23	.7
11	317	950	136	114	278	136	360	50	1,040	128	12	.7
12	420	1,130	390	101	199	161	266	42	920	95	7.0	.4
13	980	1,040	700	101	161	291	199	35	890	78	4.7	.4
14	1,290	920	2,330	101	144	242	179	32	1,190	101	3.7	.4
15	1,220	830	4,040	114	331	189	266	29	1,880	78	2.9	.4
16	980	1,010	3,590	114	345	317	189	23	1,700	20	2.2	.4
17	800	1,260	2,720	114	291	535	128	20	1,500	42	12	.4
18	600	1,830	2,160	101	254	555	89	18	1,500	35	20	.4
19	455	1,740	1,960	345	254	515	78	29	2,330	29	7.0	.2
20	360	1,460	1,460	650	161	435	68	46	2,330	23	4.7	.2
21	266	1,290	980	750	121	360	495	266	2,860	20	5.8	.1
22	199	950	650	575	101	266	2,280	266	3,680	18	2.9	.1
23	152	950	455	435	161	199	2,580	231	3,340	14	2.9	.1
24	121	830	360	345	600	170	2,330	231	2,650	12	4.7	.1
25	101	600	291	390	860	136	2,060	161	2,220	12	3.7	.1
26	83	515	242	420	750	114	1,780	101	2,060	12	4.7	.1
27	68	475	199	345	455	101	1,360	68	1,620	10	5.8	.1
28	58	304	179	242	515	89	980	54	1,400	10	4.7	.1
29	50	390	345	170	435	73	650	42	2,580	10	4.7	.1
30	42	390	475	136	-------	63	455	32	3,420	10	3.7	.1
31	42	-------	455	114	-------	54	-------	26	-------	8.5	32	-------

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,290	42	487	2.03	2.34
November	1,830	23	728	3.03	3.38
December	4,040	136	873	3.64	4.20
January	750	78	245	1.02	1.18
February	860	68	280	1.17	1.26
March	555	54	239	.996	1.15
April	2,580	32	655	2.73	3.05
May	345	18	105	.438	.50
June	3,680	18.0	1,470	6.12	6.83
July	3,020	8.5	388	1.62	1.97
August	32	2.2	7.46	.031	.04
September	8.5	.1	1.07	.005	.004
The year	4,040	.1	455	1.90	25.80

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 a number of other points, as shown by the following table:

Miscellaneous discharge measurements in the Ohio River drainage basin during the year ending September 30, 1928

Date	Stream	Tributary to or diverting from—	Locality	Gage height	Discharge
				Feet	*Sec.-ft.*
Nov. 8	Ohio Canal	Tuscarawas River	Clinton, Ohio		14.0
Apr. 24	do	do	do		14.8
May 29	do	do	do		4.3
Aug. 2	do	do	do		12.9
Sept. 9	do	do	do		7.4
Nov. 7	do	do	Crystal Spring, Ohio		13.1
Apr. 24	do	do	do		31.3
May 29	do	do	do		11.9
Aug. 2	do	do	do		15.4
Sept. 10	do	do	do		6.2
May 23	do	do	Dover, Ohio		.2
Aug. 15	Elk Eye mill race	Muskingum River	McConnelsville, Ohio		40.3
July 10	Miami & Erie Canal	Miami River	Lindenwald, 2 miles south of Hamilton, Ohio.		33.9
Aug. 30	do	do	do		32.9
16	Swannanoa River	French Broad River	At Biltmore, N. C.	10.58	4,840
Oct. 6	Allen Creek	Pigeon River	In wood flume of waterworks at Waynesville, N. C., 100 feet below Rocky Branch.		10.3
Aug. 9	Hungers Mother Creek	Middle Fork of Holston River.	One-quarter mile above mouth, near Marion, Va.		4.0
9	Umbarger Spring	Umbarger Creek	Marion, Va		1.5
Aug. 10	Town Spring overflow	Staley Creek	do		[a] 1.6
10	Killinger Spring	do	do		2.2
Aug. 22	Cave Spring	North Chickamauga Creek.	Near Daisy, Tenn		15.2
Sept. 14	Blowing Spring	Little Sequatchie River.	Sequatchie, Tenn		2.50
14	do	do	do		2.34
14	Tanyard Spring	do	do		.21
14	Ellis Spring	do	do		5.16
14	Francis Spring	do	do		.76
June 4	Lick Creek	Tennessee River	Highway No. 17, near Shiloh, Tenn.		78
4	do	do	At mouth, near Hamburg, Tenn.		313
4	Snake Creek	do	At mouth, Pittsburg Landing, Tenn.		157
June 6	Horse Creek	do	Near Savannah, Tenn		542
Aug. 29	do	do	do		48.6
June 8	do	do	Polks Mill, near Savannah, Tenn.		407
Aug. 29	Turkey Creek	Horse Creek	Near Savannah, Tenn		14.2
June 7	Indian Creek	Tennessee River	Olive Hill, Tenn	2.42	686
Aug. 29	do	do	do	—.43	36.7
June 8	do	do	McCaslin's Ford, near Clifton, Tenn.		698
7	Hardin Creek	do	Highway No. 15, near Clifton, Tenn.		131
Aug. 29	do	do	do		10.8
June 8	do	do	Clifton-Savannah road, Tenn.		138
7	Big Spring	Hardin Creek	10 miles west of Waynesboro, Tenn.		27

[a] Does not include flow in 12-inch pipe line.

INDEX

A	Page
Accuracy of data and computed results	4–5
Acre-foot, definition of	2
Adams, Tenn., Red River near	153
Adamsville, Ohio, Raccoon Creek at	64
Alderson, W. Va., Greenbrier River at	62
Allegheny River at Red House, N. Y	11
Allen Creek, N. C., discharge measurement of	240
Almond, N. C., Nantahala River at	198
Alum Creek at Columbus, Ohio	75
Appropriations, record of	1
Arthur, Tenn., Powell River near	209
Asheville, N. C., French Broad River at	156
Athens, Ohio, Hocking River at	50
B	
Barbourville, Ky., Cumberland River at	136
Barren River at Lock 1, at Greencastle, Ky	118
Bear Creek at Bishop, Ala	231
Beaver River Basin, Ohio, gaging-station records in	22–27
Beetree Creek near Swannanoa, N. C	170
Belington, W. Va., Tygart River at	13
Belleview, Tenn., Harpeth River at	151
Big Sandy Creek at Rockville, W. Va	21
Big Sandy River Basin, Va., gaging-station records in	65–66
Big Spring, Tenn., discharge measurement of	240
Big Walnut Creek at Rees, Ohio	74
Birds Run, Ohio, Wills Creek at	47
Bishop, Ala., Bear Creek at	231
Black Mountain, N. C., North Fork of Swannanoa River near	169
Blackwater River at Davis, W. Va	20
Blantyre, N. C., French Broad River at	155
Blowing Spring, Tenn., discharge measurements of	240
Bluff City, Tenn., South Fork of Holston River at	181
Booneville, Ky., South Fork of Kentucky River at	112
Bourneville, Ohio, Paint Creek near	78
Brevard, N. C., Davidson River near	166
Brookville, Ind., Whitewater River at	102
Brownsville, Ky., Green River at	116
Bryson, N. C., Tuckasegee River at	200
Buck Creek at Springfield, Ohio	100
Buckhannon River at Hall, W. Va	16
Buffalo River near Flatwoods, Tenn	237
near Lobelville, Tenn	238
Burkes Garden, Va., Wolf Creek near	61
Burnside, Ky., Cumberland River at	138
Butcherville, W. Va., West Fork River at	17
Butler, Tenn., Watauga River at	186
Byrdstown, Tenn., Obey River near	146

C	Page
Cache River at Forman, Ill	239
Calderwood, Tenn., Little Tennessee River at	194
Calvert, N. C., French Broad River at	154
Cambridge, Ohio, Wills Creek at	46
Caney Fork near Rock Island, Tenn	147
near Silver Point, Tenn	148
Canmer, Ky., Green River near	114
Carthage, Tenn., Cumberland River at	140
Catawba, Ky., Licking River at	87
Cave Spring, Tenn., discharge measurement of	240
Celina, Tenn., Cumberland River at	139
Centerville, Tenn., Duck River at	234
Charleston, Tenn., Hiwassee River at	216
Chattanooga, Tenn., Tennessee River at	161
Cheat River near Parsons, W. Va	19
Cherokee, N. C., Oconalufty River at	202
Chilhowie, Va., Middle Fork of Holston River at	184
South Fork of Holston River near	180
Chillicothe, Ohio, Scioto River at	71
Clarksburg, W. Va., West Fork River at	18
Clarksville, Tenn., Cumberland River at	142
Cleveland, Va., Clinch River at	204
Clinch River at Cleveland, Va	204
at Speer Ferry, Va	205
near Coal Creek, Tenn	207
near Tazewell, Tenn	206
Clinton, Ohio, Tuscarawas River at	31
Coal Creek, Tenn., Clinch River near	207
Collins River near McMinnville, Tenn	149
Columbia, Tenn., Duck River at	233
Columbus, Ohio, Alum Creek at	75
Scioto River at	70
Computations, results of, accuracy of	4–5
Control, definition of	2
Cooperation, record of	9
Cortland, Ohio, Mosquito Creek near	26
Crabtree, N. C., Pigeon River near	171
Crumpler, N. C., North Fork of New River at	58
Crystal Spring, Ohio, Tuscarawas River at	32
Cullasaja Creek at Cullasaja, N. C	197
at Highlands, N. C	196
Cumberland Falls, Ky., Cumberland River at	137
Cumberland River at Barbourville, Ky	136
at Burnside, Ky	138
at Carthage, Tenn	140
at Celina, Tenn	139
at Clarksville, Tenn	142
at Cumberland Falls, Ky	137
at Nashville, Tenn	141
South Fork of, at Nevelsville, Ky	145

Page

Cumberland River Basin, Ky.-Tenn., gaging-station records in 136-153

D

Daddy Creek near Grassy Cove, Tenn 211
Dailey, W. Va., Tygart River near 12
Dalton, Ky., Tradewater River near 135
Dandridge, Tenn., French Broad River at 158
Danville, Ill., Vermilion River near 126
Darby Creek at Darbyville, Ohio 76
Darbyville, Ohio, Darby Creek at 76
Data, accuracy of 4
explanation of 2-4
Davidson River near Brevard, N. C 166
Davis, W. Va., Blackwater River at 20
Dayton, Ohio, Mad River near 99
Miami River at 91
Dayton, Tenn., Richland Creek at 213
Decatur, Ala., Tennessee River at 162
Deerfield, Ohio, Mahoning River near 22
Delaware, Ohio, Olentangy River near 73
Dial, Ga., Toccoa River near 219
Dillsboro, N. C., Tuckasegee River at 199
Doe River at Valley Forge, Tenn 188
Dover, Ohio, Tuscarawas River near 33
Dresden, Ohio, Muskingum River at 35
Dublin, Ohio, Scioto River near 69
Duck River at Centerville, Tenn 234
at Columbia, Tenn 233
at Normandy, Tenn 232
near Hurricane Mills, Tenn 235

E

Eagle Creek at Glencoe, Ky 113
at Phalanx Station, Ohio 25
East Liverpool, Ohio, Little Beaver Creek near 28
Eggleston, Va., New River at 52
Elizabethton, Tenn., Watauga River at 187
Elk Eye mill race, Ohio, discharge measurement of 240
Elk River at Estill Springs, Tenn 226
near Elkmont, Ala 228
near Fayetteville, Tenn 227
near Rogersville, Ala 229
Elkmont, Ala., Elk River near 228
Ellis Spring, Tenn., discharge measurement of 240
Embarrass River at Ste. Marie, Ill 127
Embreeville, Tenn., Nolichucky River at 177
Emery River at Harriman, Tenn 210
Emf, Tenn., Ocoee River at 222
Englewood, Ohio, Stillwater River at 95
Estill Springs, Tenn., Elk River at 226
Etna, N. C., Little Tennessee River at 192
Evaporation at Parksville, Tenn 223

F

Farmers, Ky., Licking River at 86
Fay, Ohio, Little Muskingum River at 30
Fayetteville, Tenn., Elk River near 227
Fetterman, W. Va., Tygart River at 14
Flatwoods, Tenn., Buffalo River near 237
Florence, Ala., Tennessee River at 163
Forman, Ill., Cache River at 239

Page

Francis Spring, Tenn., discharge measurement of 240
Frankfort, Ky., Kentucky River at 109
French Broad River at Asheville, N. C 156
at Blantyre, N. C 155
at Calvert, N. C 154
at Dandridge, Tenn 158
near Newport, Tenn 157

G

Gauley River near Leander, W. Va 63
Georgetown, Ohio, Whiteoak Creek near 82
Germantown, Ohio, Twin Creek near 101
Glencoe, Ky., Eagle Creek at 113
Glenlyn, Va., New River at 53-54
Grahams Forge, Va., Reed Creek at 59
Grassy Cove, Tenn., Daddy Creek near 211
Green River at Lock 1, at Spottsville, Ky 117
at Lock 6, at Brownsville, Ky 116
at Mumfordville, Ky 115
near Canmer, Ky 114
Green River Basin, Ky., gaging-station records in 114-119
Greenbrier River at Alderson, W. Va 62
Greencastle, Ky., Barren River at 118
Greenfield, Ohio, Paint Creek near 77
Greenville Creek near Greenville, Ohio 96
Greer, Ohio, Mohican River at 40

H

Hall, W. Va., Buckhannon River at 16
Hamilton, Ohio, Miami River at 93
Hammondsville, Ohio, Yellow Creek at 29
Hardin Creek, Tenn., discharge measurements of 240
Harpeth River at Belleview, Tenn 151
near Kingston Springs, Tenn 152
Harriman, Tenn., Emery River at 210
Harrisburg, Ill., Middle Fork of Saline River near 134
Hartford, Tenn., Pigeon River at 174
Hayes, Ky., South Fork of Licking River at 88
Haysi, Va., Pound River near 66
Russell Fork at 65
Heidelberg, Ky., Kentucky River at 104
Hepco, N. C., Pigeon River near 172
Highlands, N. C., Cullasaja Creek at 196
Hinton, W. Va., New River near 55
Hiwassee River at Charleston, Tenn 216
at Murphy, N. C 214
near Reliance, Tenn 215
Hocking River at Athens, Ohio 50
near Lancaster, Ohio 49
Hocking River Basin, Ohio, gaging-station records in 49-50
Holston River, Middle Fork of, at Chilhowie, Va 184
near Rogersville, Tenn 183
North Fork of, at Mendota, Va 190
near Saltville, Va 189
South Fork of, at Bluff City, Tenn 181
at Kingsport, Tenn 182
at Riverside, near Chilhowie, Va 180
Horse Creek, Tenn., discharge measurements of 240

Page

Hungers Mother Creek, Va., discharge measurement of 240
Hurricane Mills, Tenn., Duck River near 235

I

Indian Creek, Tenn., discharge measurements of 240
Iron City, Tenn., Shoal Creek at 230

J

Jackson, Ky., North Fork of Kentucky River at 103
Jackson, Ohio, Little Salt Creek near 79
Jefferson, N. C., South Fork of New River near 51
Jerome Fork at Jeromeville, Ohio 43
Jeromeville, Ohio, Jerome Fork at 43
Johnsonville, Tenn., Tennessee River at 165
Judson, N. C., Little Tennessee River at 193

K

Kanawha River at Lock 2, at Montgomery, W. Va 56–57
Kanawha River Basin, Va.-W. Va., gaging-station records in 51–63
Kentucky River at Lock 2, at Lockport, Ky 110–111
at Lock 4, at Frankfort, Ky 109
at Lock 6, at Warwick, Ky 106–108
at Lock 10, near Winchester, Ky 105
at Lock 14, at Heidelberg, Ky 104
North Fork of, at Jackson, Ky 103
South Fork of, at Booneville, Ky 112
Kentucky River Basin, Ky., gaging-station records in 103–113
Killbuck Creek at Layland, Ohio 45
Killinger Spring, Va., discharge measurement of 240
Kingsport, Tenn., South Fork of Holston River at 182
Kingston Springs, Tenn., Harpeth River near 152
Knoxville, Tenn., Tennessee River at 159
Kokosing River near Millwood, Ohio 44

L

Lafayette, Ind., Wabash River at 121
Lancaster, Ohio, Hocking River near 49
Larue, Ohio, Scioto River at 67
Layland, Ohio, Killbuck Creek at 45
Leander, W. Va., Gauley River near 63
Lick Creek, Tenn., discharge measurements of 240
Licking River at Catawba, Ky 87
at Farmers, Ky 86
at Toboso, Ohio 48
South Fork of, at Hayes, Ky 88
Licking River Basin, Ky., gaging-station records in 86–88
Little Beaver Creek near East Liverpool, Ohio 28
Little Miami River at Milford, Ohio 84
at Spring Valley, Ohio 83
East Fork of, at Perintown, Ohio 85
Little Miami River Basin, Ohio, gaging-station records in 83–85

Page

Little Muskingum River at Fay, Ohio 30
Little Pigeon River at Sevierville, Tenn 179
Little River at Walland, Tenn 191
Little Salt Creek near Jackson, Ohio 79
Little Scioto River near Marion, Ohio 72
Little Tennessee River at Calderwood, Tenn 194
at Etna, N. C 192
at Judson, N. C 193
at McGhee, Tenn 195
Little Wabash River at Wilcox, Ill 132
Lobelville, Tenn., Buffalo River near 238
Lockington, Ohio, Loramie Creek at 94
Lockport, Ky., Kentucky River at 110–111
Logansport, Ind., Wabash River at 120
Loramie Creek at Lockington, Ohio 94
Loudon, Tenn., Tennessee River at 160

M

McConnelsville, Ohio, Muskingum River at 36
McGhee, Tenn., Little Tennessee River at 195
McHarge, Tenn. Ocoee River at 221
McMinnville, Tenn., Collins River near 149
Mad River near Dayton, Ohio 99
near Springfield, Ohio 98
near Urbana, Ohio 97
Mahoning River at Warren, Ohio 23
at Youngstown, Ohio 24
near Deerfield, Ohio 22
Mansfield, Ohio, Rocky Fork near 42
Marion, Ohio, Little Scioto River near 72
Meander Creek at Ohlstown, Ohio 27
Mendota, Va., North Fork of Holston River at 190
Miami & Erie Canal, Ohio, discharge measurements of 240
Miami River at Dayton, Ohio 91
at Hamilton, Ohio 93
at Sidney, Ohio 89
at Taylorsville, Ohio 90
near Miamisburg, Ohio 92
Miami River Basin, Ohio, gaging-station records in 89–102
Miamisburg, Ohio, Miami River near 92
Middle Fork at Midvale, W. Va 15
Midvale, W. Va., Middle Fork at 15
Milford, Ohio, Little Miami River at 84
Mills River, South Fork of, at The Pink Beds, N. C 167
Millwood, Ohio, Kokosing River near 44
Mohican River at Greer, Ohio 40
Monongahela River Basin, W. Va., gaging-station records in 12–21
Montezuma, Ind., Wabash River at 122
Montgomery, W. Va., Kanawha River at 56–57
Morganton, Ga., Toccoa River near 220
Morristown, Tenn., Nolichucky River near 178
Mosquito Creek near Cortland, Ohio 26
Mount Carmel, Ill., Wabash River at 124
Mount Sterling, N. C.. Pigeon River near 173
Mumfordville, Ky., Green River at 115
Murphy, N. C., Hiwassee River at 214
Muskingum River at Dresden, Ohio 35
at McConnelsville, Ohio 36
Muskingum River Basin, Ohio, gaging-station records in 31–48

N — Page

Nantahala River at Almond, N. C. 198
Nashville, Tenn., Cumberland River at 141
Nevelsville, Ky., South Fork of Cumberland River at 145
New River at Eggleston, Va. 52
at Glenlyn, Va. 53-54
near Hinton, W. Va. 55
near New River, Tenn. 144
North Fork of, at Crumpler, N. C. 58
South Fork of, near Jefferson, N. C. 51
Newcomerstown, Ohio, Tuscarawas River at 34
Newport, Tenn., French Broad River near 157
Pigeon River at 175
Nimishillen Creek at North Industry, Ohio 38
Noblesville, Ind., West Fork of White River near 128
Nolichucky River at Embreeville, Tenn. 177
at Poplar, N. C. 176
near Morristown, Tenn. 178
Normandy, Tenn., Duck River at 232
North Industry, Ohio, Nimishillen Creek at 38
Nottely River near Ranger, N. C. 218

O

Obey River near Byrdstown, Tenn. 146
Ocoee River at Emf, Tenn. 222
at McHarge, Tenn. 221
at Parksville, Tenn. 224
Oconalufty River at Cherokee, N. C. 202
Ohio Brush Creek near West Union, Ohio 80-81
Ohio Canal, Ohio, discharge measurements of 240
Ohlstown, Ohio, Meander Creek at 27
Olentangy River near Delaware, Ohio 73

P

Paint Creek near Bourneville, Ohio 78
near Greenfield, Ohio 77
Parksville, Tenn., evaporation at 223
Ocoee River at 224
Parsons, W. Va., Cheat River near 19
Peak Creek at Pulaski, Va. 60
Pennington Gap, Va., Powell River near 208
Perintown, Ohio, East Fork of Little Miami River at 85
Phalanx Station, Ohio, Eagle Creek at 25
Pigeon River at Hartford, Tenn. 174
at Newport, Tenn. 175
near Crabtree, N. C. 171
near Hepco, N. C. 172
near Mount Sterling, N. C. 173
Piney River at Spring City, Tenn. 212
at Vernon, Tenn. 236
Pomerene, Ohio, Walhonding River at 41
Pond River near White Plains, Ky. 119
Poplar, N. C., Nolichucky River at 176
Pound River near Haysi, Va. 66
Powell River near Arthur, Tenn. 209
near Pennington Gap, Va. 208
Prospect, Ohio, Scioto River at 68
Publications, information concerning 5-8
obtaining or consulting 5-6
on stream flow, lists of 6-7, 8

Page

Pulaski, Ind., Tippecanoe River at 125
Pulaski, Va., Peak Creek at 60

R

Raccoon Creek at Adamsville, Ohio 64
Ranger, N. C., Nottely River near 218
Red House, N. Y., Allegheny River at 11
Red River near Adams, Tenn. 153
Reed Creek at Grahams Forge, Va. 59
Rees, Ohio, Big Walnut Creek at 74
Reliance, Tenn., Hiwassee River near 215
Richland Creek at Dayton, Tenn. 213
Riverton, Ala., Tennessee River at 164
Rock Island, Tenn., Caney Fork near 147
Rockcastle River at Rockcastle Springs, Ky. 143
Rockville, W. Va., Big Sandy Creek at 21
Rocky Fork near Mansfield, Ohio 42
Rogersville, Ala., Elk River near 229
Rogersville, Tenn., Holston River near 183
Run-off in inches, definition of 2
Russell Fork at Haysi, Va. 65

S

Ste. Marie, Ill., Embarrass River at 127
Saline River, Middle Fork of, near Harrisburg, Ill. 134
Saltville, Va., North Fork of Holston River near 189
Sandy Creek at Sandyville, Ohio 37
Sandyville, Ohio, Sandy Creek at 37
Scioto River at Chillicothe, Ohio 71
at Columbus, Ohio 70
at Larue, Ohio 67
at Prospect, Ohio 68
near Dublin, Ohio 69
Scioto River Basin, Ohio, gaging-station records in 67-79
Scott Creek at Sylva, N. C. 201
Second-feet per square mile, definition of 2
Second-foot, definition of 2
Sequatchie River near Whitwell, Tenn. 225
Sevierville, Tenn., Little Pigeon River at 179
Seymour, Ind., East Fork of White River at 130
Shoal Creek at Iron City, Tenn. 230
Shoals, Ind., East Fork of White River at 131
Sidney, Ohio, Miami River at 89
Silver Point, Tenn., Caney Fork near 148
Skillet Fork at Wayne City, Ill. 133
Smyrna, Tenn., Stone River near 150
Snake Creek, Tenn., discharge measurement of 240
Speer Ferry, Va., Clinch River at 205
Spencer, Ind., West Fork of White River at 129
Spottsville, Ky., Green River at 117
Spring City, Tenn., Piney River at 212
Spring Valley, Ohio, Little Miami River at 83
Springfield, Ohio, Buck Creek at 100
Mad River near 98
Stage-discharge relation, definition of 2
Stillwater Creek at Uhrichsville, Ohio 39
Stillwater River at Englewood, Ohio 95
Stone River near Smyrna, Tenn. 150

Page
Stump Knob, Tenn., Watauga River at 185
Swannanoa, N. C., Beetree Creek near 170
Swannanoa River at Swannanoa, N. C 168
North Fork of, near Black Mountain, N. C 169
discharge measurement of 240
Sylva, N. C., Scott Creek at 201

T

Tanyard Spring, Tenn., discharge measurement of 240
Taylorsville, Ohio, Miami River at 90
Tazewell, Tenn., Clinch River near 206
Tellico Plains, Tenn., Tellico River near 203
Tellico River near Tellico Plains, Tenn 203
Tennessee River at Chattanooga, Tenn 161
at Decatur, Ala 162
at Florence, Ala 163
at Johnsonville, Tenn 165
at Knoxville, Tenn 159
at Loudon, Tenn 160
at Riverton, Ala 164
Tennessee River Basin, N. C.-Tenn.-Ala.-Va.-Ga., gaging-station records in 154–238
Terms, definition of 2
Terre Haute, Ind., Wabash River at 123
The Pink Beds, N. C., South Fork of Mills River at 167
Tippecanoe River at Pulaski, Ind 125
Toboso, Ohio, Licking River at 48
Toccoa River near Dial, Ga 219
near Morganton, Ga 220
Tomotla, N. C., Valley River at 217
Town Spring overflow, Va., discharge measurement of 240
Tradewater River near Dalton, Ky 135
Tuckasegee River at Bryson, N. C 200
at Dillsboro, N. C 199
Turkey Creek, Tenn., discharge measurement of 240
Tuscarawas River at Clinton, Ohio 31
at Crystal Spring, Ohio 32
at Newcomerstown, Ohio 34
near Dover, Ohio 33
Twin Creek near Germantown, Ohio 101
Tygart River at Belington, W. Va 13
at Fetterman, W. Va 14
near Dailey, W. Va 12

U

Page
Uhrichsville, Ohio, Stillwater Creek at 39
Umbarger Spring, Va., discharge measurement of 240
Urbana, Ohio, Mad River near 97

V

Valley Forge, Tenn., Doe River at 188
Valley River at Tomotla, N. C 217
Vermilion River near Danville, Ill 126
Vernon, Tenn., Piney River at 236

W

Wabash River at Lafayette, Ind 121
at Logansport, Ind 120
at Montezuma, Ind 122
at Mount Carmel, Ill 124
at Terre Haute, Ind 123
Wabash River Basin, Ind.-Ill., gaging-station records in 120–133
Walhonding River at Pomerene, Ohio 41
Walland, Tenn., Little River at 191
Warren, Ohio, Mahoning River at 23
Warwick, Ky., Kentucky River at 106–108
Watauga River at Butler, Tenn 186
at Elizabethton, Tenn 187
at Stump Knob, Tenn 185
Wayne City, Ill., Skillet Fork at 133
West Fork River at Butcherville, W. Va 17
at Clarksburg, W. Va 18
White Plains, Ky., Pond River near 119
White River, East Fork of, at Seymour, Ind 130
at Shoals, Ind 131
West Fork of, at Spencer, Ind 129
near Noblesville, Ind 128
Whiteoak Creek near Georgetown, Ohio 82
Whitewater River at Brookville, Ind 102
Whitwell, Tenn., Sequatchie River near 225
Wilcox, Ill., Little Wabash River at 132
Wills Creek at Birds Run, Ohio 47
at Cambridge, Ohio 46
Winchester, Ky., Kentucky River near 105
Wolf Creek near Burkes Garden, Va 61
Work, authorization of 1
division of 9–10
scope of 1

Y

Yellow Creek at Hammondsville, Ohio 29
Youngstown, Ohio, Mahoning River at 24

O