

Figure 1.--Map of the conterminous United States showing areas covered by 18 of the 20 volumes on surface water supply. The area covered by this report is shaded.

Streamflow data for the years 1884-1901, in reports of the Geological Survey

(A = Annual Report; B = Bulletin)

| Report | Character of data | Year |
|----------------|---|-------------------------|
| 10th A, pt. 2 | Descriptive information only. | |
| 11th A, pt. 2 | Monthly discharge and descriptive information..... | 1884 to September 1890. |
| 12th A, pt. 2 |do..... | 1884 to June 30, 1891. |
| 13th A, pt. 3 | Monthly discharge..... | 1884-92. |
| 14th A, pt. 2 | Descriptions, measurements, gage heights, and ratings..... | 1888-93. |
| B 131..... | Descriptive information only. | 1893-94. |
| 16th A, pt. 2 | Descriptions, measurements, gage heights, ratings, and | |
| B 140..... | monthly discharge. | 1895. |
| WSP 11..... | Gage heights..... | 1896. |
| 18th A, pt. 4 | Descriptions, measurements, ratings, and monthly discharge.. | 1895-96. |
| WSP 15..... | Descriptions, measurements, and gage heights of streams east | 1897. |
| | of the Mississippi River, and Missouri River and tributaries above Kansas River. | |
| WSP 16..... | Descriptions, measurements, and gage heights of streams west | 1897. |
| | of the Mississippi River, except Missouri River and tributaries above Kansas River. | |
| 19th A, pt. 4 | Descriptions, measurements, ratings, and monthly discharge.. | 1897. |
| WSP 27..... | Measurements, ratings, and gage heights of streams east of | 1898. |
| | the Mississippi River, and Missouri River and tributaries. | |
| WSP 28..... | Measurements, ratings, and gage heights of streams west of | 1898. |
| | the Mississippi River, except Missouri River and tributaries. | |
| 20th A, pt. 4 | Monthly discharge..... | 1898. |
| WSP 35 to 39. | Descriptions, measurements, gage heights, and ratings..... | 1899. |
| 21st A, pt. 4 | Monthly discharge..... | 1899. |
| WSP 47 to 52. | Descriptions, measurements, gage heights, and ratings..... | 1900. |
| 22d A, pt. 4. | Monthly discharge..... | 1900. |
| WSP 65, 66.... | Descriptions, measurements, gage heights, and ratings..... | 1901. |
| WSP 75..... | Monthly discharge..... | 1901. |

Reports on surface-water supply containing records from 1899 to date for drainage basins in this report are listed below. The data for any particular gaging station will, in general, be found in the reports covering the years during which the station was maintained. Before 1951, records for the South Atlantic slope basins, James River to Savannah River, were included with those for the South Atlantic slope and eastern Gulf of Mexico basins.

Numbers of water-supply papers containing results of stream measurements in the South Atlantic slope basins, James River to Savannah River, 1899-1960

| Year | WSP | Year | WSP | Year | WSP | Year | WSP | Year | WSP |
|--------|-----------|---------|-----|------|-----|------|------|------|------|
| 1899 | a55, 36 | 1912 | 322 | 1925 | 602 | 1937 | 822 | 1949 | 1142 |
| 1900 | a55, 48 | 1913 | 352 | 1926 | 622 | 1938 | 852 | 1950 | 1172 |
| 1901 | 65, 75 | 1914 | 382 | 1927 | 642 | 1939 | 872 | 1951 | 1203 |
| 1902 | a82, 63 | 1915 | 402 | 1928 | 662 | 1940 | 892 | 1952 | 1233 |
| 1903 | a97, 98 | 1916 | 432 | 1929 | 682 | 1941 | 922 | 1953 | 1273 |
| 1904 | b126, 127 | 1917 | 452 | 1930 | 697 | 1942 | 952 | 1954 | 1333 |
| 1905 | b167, 168 | 1918 | 472 | 1931 | 712 | 1943 | 972 | 1955 | 1363 |
| 1906 | b205, 206 | 1919-20 | 502 | 1932 | 727 | 1944 | 1002 | 1956 | 1433 |
| 1907-8 | 242 | 1921 | 522 | 1933 | 742 | 1945 | 1032 | 1957 | 1503 |
| 1909 | 262 | 1922 | 542 | 1934 | 757 | 1946 | 1052 | 1958 | 1553 |
| 1910 | 282 | 1923 | 562 | 1935 | 782 | 1947 | 1082 | 1959 | 1623 |
| 1911 | 302 | 1924 | 582 | 1936 | 802 | 1948 | 1112 | 1960 | 1703 |

a James River to Yadkin River.

b Susquehanna River to Yadkin River.

A compilation of records for the area covered by this report through September 1950 has been published as Water-Supply Paper 1303. That report contains a summary of monthly and annual discharges for all previously published records as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical.

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier notable floods. The following list gives the numbers and titles of these reports:

Report

WSP 96: Destructive floods in the United States in 1903.

WSP 771: Floods in the United States, magnitude and frequency.

WSP 800: The floods of March 1936, Part 3, Potomac, James, and upper Ohio Rivers.

WSP 846: Maximum discharges at stream-measurement stations through September 1938.

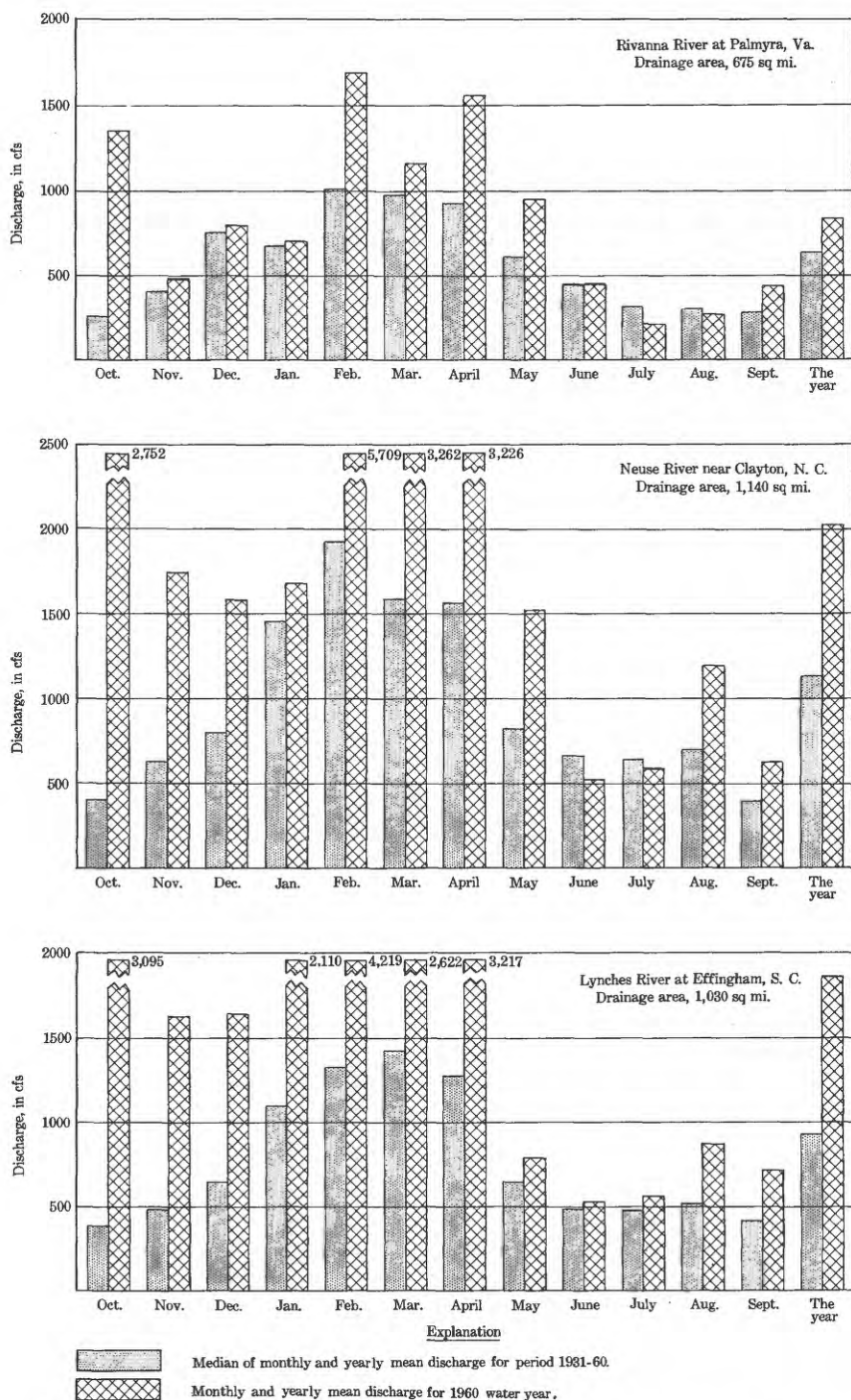


Figure 2. Comparison of discharge at three long-term representative gaging stations during 1960 water year with median discharge for period 1931-60.

JAMES RIVER BASIN

125. Jackson River at Falling Spring, Va.

Location--Lat 37°52'36", long 79°58'39", on right bank 20 ft upstream from Smith Bridge, 0.8 mile south of town of Falling Spring, Alleghany County, 1.6 miles downstream from Falling Springs Creek, and 5.5 miles north of Covington.

Drainage area--409 sq mi.

Records available--April 1925 to September 1960. Prior to October 1934, published as "at Barber."

Gage--Water-stage recorder. Datum of gage is 1,333.49 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 26, 1934, chain gage at same site and datum.

Average discharge--35 years, 482 cfs.

Extremes--Maximum discharge during year, 12,100 cfs Mar. 30 (gage height, 11.63 ft); minimum, 93 cfs Sept. 10 (gage height, 3.14 ft).

1925-60: Maximum discharge, 24,700 cfs Mar. 17, 1936 (gage height, 14.74 ft), from rating curve extended above 13,000 cfs on basis of records for other stations in James River basin; minimum, 36 cfs Oct. 12, 1946; minimum daily, 58 cfs Sept. 28-30, Oct. 1, 3, 5, 1936.

Remarks--Records good.

Revisions (water years)--WSP 952: 1927, 1928(M), 1929-30, 1932-40. WSP 1303: 1926(M), 1930-34(M).

Rating tables, water year 1959-60 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 25

Nov. 26 to Sept. 30

| | | | | | |
|-----|-------|-----|-----|------|--------|
| 3.3 | 145 | 3.1 | 85 | 7.0 | 2,170 |
| 4.0 | 355 | 3.5 | 185 | 8.0 | 3,120 |
| 5.0 | 755 | 4.0 | 345 | 9.0 | 5,000 |
| 6.0 | 1,350 | 4.5 | 520 | 11.0 | 10,000 |
| 7.0 | 2,160 | 5.0 | 770 | | |

Discharge, in cubic feet per second, water year October 1959 to September 1960

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| 1 | *1,670 | 299 | 640 | 560 | 362 | 394 | 3,920 | 266 | 928 | 203 | 122 | 152 |
| 2 | 637 | 273 | 524 | 485 | 348 | 362 | 2,620 | 266 | 800 | 236 | 128 | 135 |
| 3 | 397 | *252 | 460 | 918 | 324 | 376 | 2,130 | 254 | 895 | 215 | 108 | 125 |
| 4 | 292 | 243 | 404 | 1,560 | *296 | 373 | 6,200 | 242 | 710 | 176 | 101 | 120 |
| 5 | 234 | 237 | 356 | 1,120 | 506 | 338 | 5,360 | 236 | 596 | 155 | 103 | 110 |
| 6 | 195 | 270 | 328 | 830 | 1,750 | 320 | 2,970 | 233 | 650 | *140 | 110 | 105 |
| 7 | 175 | 334 | 334 | 688 | 1,380 | 275 | 2,090 | 233 | *528 | 130 | 110 | 103 |
| 8 | 165 | 338 | 300 | 582 | 1,020 | 260 | 1,560 | 2,760 | 454 | 122 | 122 | *99 |
| 9 | 240 | 327 | 266 | 498 | 850 | 248 | 1,220 | 3,220 | 401 | 118 | 125 | 97 |
| 10 | 243 | 296 | 248 | 440 | 770 | 275 | 992 | 1,640 | 352 | 118 | 110 | 110 |
| 11 | 201 | 273 | 236 | 412 | 3,100 | 260 | 800 | 1,160 | 317 | 128 | 118 | 587 |
| 12 | 172 | 249 | 1,100 | 380 | 2,170 | 269 | 682 | 895 | 300 | 122 | 105 | 485 |
| 13 | 155 | 231 | 2,000 | 366 | 1,460 | 230 | 592 | 928 | 300 | 118 | 328 | 300 |
| 14 | 298 | 216 | 1,400 | 426 | 1,190 | 239 | 528 | 830 | 292 | 112 | 306 | 218 |
| 15 | 461 | 207 | *1,000 | 764 | 862 | 269 | 486 | 710 | 351 | 108 | 289 | 167 |
| 16 | 390 | 195 | 740 | 1,460 | 677 | 331 | 460 | 610 | 282 | 103 | *233 | 142 |
| 17 | 310 | 192 | 592 | 1,060 | 630 | 352 | 436 | 544 | 245 | 99 | 179 | 130 |
| 18 | 261 | 188 | 625 | 830 | 850 | 502 | 408 | 496 | 224 | 101 | 150 | 251 |
| 19 | 225 | 175 | 1,090 | 770 | 1,190 | 520 | 380 | 443 | 203 | 125 | 138 | 440 |
| 20 | 198 | 168 | 960 | 620 | 740 | 520 | 346 | 404 | 191 | 140 | 130 | 338 |
| 21 | 180 | 162 | 740 | 532 | 645 | 474 | 331 | 387 | 182 | 135 | 122 | 289 |
| 22 | 168 | 160 | 610 | 471 | 587 | 440 | 328 | 352 | 182 | 115 | 132 | 236 |
| 23 | 162 | 180 | 506 | 426 | 520 | 412 | 310 | 331 | 185 | 105 | 132 | 206 |
| 24 | 385 | 1,370 | 450 | 394 | 496 | *408 | 289 | 320 | 182 | 99 | 122 | 176 |
| 25 | 925 | 2,070 | 415 | 356 | 496 | 520 | *275 | 292 | 185 | 99 | 118 | 155 |
| 26 | 642 | 1,220 | 390 | 342 | 478 | 532 | 269 | 314 | 173 | 97 | 110 | 140 |
| 27 | 507 | 800 | 380 | 328 | 436 | 800 | 317 | 1,980 | 152 | 118 | 110 | 132 |
| 28 | 456 | 800 | 370 | 331 | 412 | 2,020 | 314 | 4,660 | 142 | 138 | 110 | 125 |
| 29 | 400 | 1,090 | 720 | 334 | 418 | 5,000 | 282 | 2,430 | 152 | 118 | 108 | 122 |
| 30 | 352 | 862 | 895 | 348 | ----- | 9,480 | 263 | 2,130 | 164 | 108 | 110 | 128 |
| 31 | 320 | ----- | 694 | 362 | ----- | 8,440 | ----- | 1,250 | ----- | 103 | 140 | ----- |
| Total | 11,446 | 13,677 | 19,773 | 18,994 | 24,943 | 35,239 | 37,162 | 30,816 | 10,698 | 4,004 | 4,429 | 5,923 |
| Mean | 369 | 456 | 638 | 613 | 860 | 1,137 | 1,239 | 994 | 357 | 129 | 143 | 197 |
| Cfs/m | 0.902 | 1.11 | 1.56 | 1.50 | 2.10 | 2.78 | 3.03 | 2.43 | 0.873 | 0.315 | 0.350 | 0.482 |
| In. | 1.04 | 1.24 | 1.80 | 1.73 | 2.27 | 3.20 | 3.36 | 2.80 | 0.97 | 0.36 | 0.40 | 0.54 |

Calendar year 1959: Max 4,330 Min 85 Mean 453 Cfs/m 1.06 In. 14.38
Water year 1959-60: Max 9,480 Min 97 Mean 593 Cfs/m 1.45 In. 19.73

Peak discharge (base, 4,000 cfs)--Feb. 11 (1:30 p.m.) 4,340 cfs (8.70 ft); Mar. 30 (6 p.m.) 12,100 cfs (11.63 ft); Apr. 4 (10 a.m.) 7,400 cfs (10.04 ft); May 8 (10:30 a.m.) 5,720 cfs (9.32 ft); May 28 (10:30 a.m.) 6,680 cfs (9.74 ft).

* Discharge measurement made on this day.

