

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC

LOCATION.--Lat 35°12'39", long 81°41'51". Cleveland County, Hydrologic Unit 03050105, on right bank 0.5 mi upstream from Sandy Run Creek, 3 mi downstream of Second Broad River, and 3.5 mi southwest of Boiling Springs.

DRAINAGE AREA.--875 mi².

PERIOD OF RECORD.--June 1925 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area. WDR NC-88: 1986(m).

GAGE.--Water-stage recorder. Datum of gage is 639.92 ft above NGVD of 1929 (Duke Power Company bench mark). Prior to July 20, 1934, at site 500 ft upstream at 640.92 ft. Satellite and telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Considerable diurnal fluctuation and some regulation caused by power plants upstream from station. Maximum discharge and gage height for period of record from former site, present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges associated with the remnants of Hurricanes Frances and Ivan:

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|-------|------|--------------------------------|------------------|--------|------|--------------------------------|------------------|
| Sep 9 | 0800 | 37,000 | 17.48 | Sep 18 | 0330 | 11,700 | 8.62 |

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1 | 1,170 | 1,290 | 1,170 | 1,200 | 757 | 1,250 | 1,520 | 1,240 | 1,010 | 1,210 | 782 | 1,030 |
| 2 | 1,040 | 811 | 1,460 | 1,200 | 757 | 1,190 | 1,210 | 1,230 | 909 | 1,200 | 850 | 1,200 |
| 3 | 871 | 778 | 1,110 | 1,080 | 1,470 | 1,190 | 1,180 | 1,060 | 884 | 1,630 | 844 | 1,440 |
| 4 | 1,090 | 1,020 | 1,280 | 918 | 1,390 | 1,230 | 937 | 1,170 | 764 | 1,120 | 825 | 1,170 |
| 5 | 998 | 1,040 | 1,390 | 925 | 1,380 | 1,490 | 861 | 1,060 | 685 | 1,180 | 639 | 858 |
| 6 | 822 | 1,260 | 1,280 | 1,240 | 3,790 | 1,250 | 1,180 | 1,030 | 645 | 1,250 | 750 | 680 |
| 7 | 1,130 | 1,390 | 1,160 | 1,210 | 9,640 | 1,010 | 1,190 | 1,010 | 722 | 1,070 | 783 | 3,580 |
| 8 | 1,090 | 1,370 | 1,140 | 1,170 | 3,740 | 920 | 978 | 1,180 | 740 | 775 | 804 | 31,200 |
| 9 | 1,200 | 1,150 | 1,470 | 1,180 | 2,670 | 1,330 | 1,010 | 829 | 862 | 889 | 604 | 30,800 |
| 10 | 1,350 | 907 | 1,690 | 1,180 | 2,240 | 1,170 | 1,100 | 1,070 | 879 | 974 | 620 | 5,710 |
| 11 | 1,090 | 1,030 | 2,920 | 1,090 | 1,810 | 1,090 | 770 | 1,050 | 737 | 645 | 741 | 3,460 |
| 12 | 1,210 | 1,090 | 2,190 | 1,060 | 1,780 | 1,150 | 1,000 | 1,020 | 678 | 951 | 1,160 | 3,090 |
| 13 | 1,260 | 1,150 | 1,930 | 1,140 | 1,790 | 1,400 | 2,500 | 904 | 1,000 | 1,120 | 1,460 | 2,740 |
| 14 | 1,180 | 1,030 | 2,810 | 1,030 | 1,620 | 949 | 3,240 | 1,050 | 1,340 | 1,160 | 957 | 2,070 |
| 15 | 1,340 | 1,100 | 2,380 | 866 | 1,270 | 939 | 2,010 | 932 | 3,130 | 826 | 629 | 1,830 |
| 16 | 1,130 | 791 | 2,090 | 1,040 | 1,570 | 1,070 | 1,580 | 707 | 4,620 | 734 | 572 | 2,190 |
| 17 | 1,040 | 767 | 2,000 | 1,130 | 1,560 | 1,200 | 1,410 | 722 | 2,080 | 641 | 601 | 5,340 |
| 18 | 1,190 | 1,080 | 1,800 | 974 | 1,530 | 1,180 | 1,070 | 1,040 | 1,420 | 604 | 683 | 9,240 |
| 19 | 817 | 3,540 | 1,680 | 913 | 1,420 | 990 | 1,010 | 1,220 | 1,140 | 596 | 850 | 4,110 |
| 20 | 783 | 5,560 | 1,520 | 1,070 | 1,360 | 1,010 | 1,190 | 1,200 | 896 | 805 | 704 | 2,920 |
| 21 | 1,050 | 2,700 | 1,400 | 1,120 | 1,550 | 807 | 1,280 | 1,070 | 1,030 | 791 | 587 | 2,590 |
| 22 | 1,050 | 1,990 | 1,440 | 1,110 | 1,100 | 778 | 1,100 | 1,010 | 1,360 | 774 | 801 | 2,380 |
| 23 | 1,050 | 1,470 | 1,430 | 1,110 | 1,070 | 995 | 1,100 | 677 | 1,890 | 699 | 607 | 1,890 |
| 24 | 988 | 1,260 | 1,430 | 1,040 | 1,310 | 974 | 1,100 | 634 | 1,670 | 535 | 787 | 1,860 |
| 25 | 1,120 | 1,500 | 1,400 | 763 | 1,330 | 985 | 788 | 978 | 1,610 | 504 | 817 | 1,780 |
| 26 | 849 | 1,310 | 1,290 | 1,010 | 1,320 | 999 | 792 | 1,000 | 2,310 | 825 | 777 | 1,340 |
| 27 | 1,040 | 1,300 | 1,250 | 1,150 | 1,360 | 984 | 1,300 | 849 | 1,400 | 817 | 711 | 1,220 |
| 28 | 1,710 | 1,360 | 1,240 | 1,140 | 1,410 | 770 | 1,310 | 820 | 1,350 | 1,890 | 592 | 7,990 |
| 29 | 1,220 | 1,620 | 1,220 | 939 | 1,450 | 758 | 1,030 | 676 | 1,330 | 1,030 | 610 | 5,200 |
| 30 | 1,040 | 1,310 | 1,230 | 1,040 | --- | 979 | 888 | 588 | 1,060 | 928 | 584 | 3,270 |
| 31 | 1,050 | --- | 1,220 | 1,110 | --- | 1,350 | --- | 703 | --- | 1,090 | 1,280 | --- |
| TOTAL | 33,968 | 43,974 | 49,020 | 33,148 | 55,444 | 33,387 | 37,634 | 29,729 | 40,151 | 29,263 | 24,011 | 144,178 |
| MEAN | 1,096 | 1,466 | 1,581 | 1,069 | 1,912 | 1,077 | 1,254 | 959 | 1,338 | 944 | 775 | 4,806 |
| MAX | 1,710 | 5,560 | 2,920 | 1,240 | 9,640 | 1,490 | 3,240 | 1,240 | 4,620 | 1,890 | 1,460 | 31,200 |
| MIN | 783 | 767 | 1,110 | 763 | 757 | 758 | 770 | 588 | 645 | 504 | 572 | 680 |
| CFSM | 1.25 | 1.68 | 1.81 | 1.22 | 2.18 | 1.23 | 1.43 | 1.10 | 1.53 | 1.08 | 0.89 | 5.49 |
| IN. | 1.44 | 1.87 | 2.08 | 1.41 | 2.36 | 1.42 | 1.60 | 1.26 | 1.71 | 1.24 | 1.02 | 6.13 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2004, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 1,245 | 1,213 | 1,434 | 1,727 | 1,885 | 2,080 | 1,919 | 1,540 | 1,304 | 1,099 | 1,211 | 1,096 |
| MAX | 5,499 | 3,275 | 2,875 | 4,750 | 4,304 | 4,868 | 4,525 | 3,441 | 2,812 | 2,505 | 6,893 | 4,806 |
| (WY) | (1965) | (1993) | (1984) | (1937) | (1960) | (1975) | (1936) | (1973) | (1973) | (1949) | (1928) | (2004) |
| MIN | 237 | 407 | 449 | 422 | 641 | 783 | 821 | 505 | 420 | 305 | 175 | 288 |
| (WY) | (1955) | (1955) | (1956) | (1956) | (2001) | (1988) | (1986) | (2001) | (1988) | (2002) | (2002) | (1954) |

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC—Continued

| SUMMARY STATISTICS | FOR 2003 CALENDAR YEAR | | FOR 2004 WATER YEAR | | WATER YEARS 1925 - 2004 | |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL | 755,620 | | 553,907 | | 1,480 | |
| ANNUAL MEAN | 2,070 | | 1,513 | | 2,328 | |
| HIGHEST ANNUAL MEAN | | | | | 578 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 202 | 2002 |
| HIGHEST DAILY MEAN | 25,800 | Mar 20 | 31,200 | Sep 8 | 63,900 | Aug 16, 1928 |
| LOWEST DAILY MEAN | 570 | Jan 26 | 504 | Jul 25 | 83 | Sep 13, 2002 |
| ANNUAL SEVEN-DAY MINIMUM | 759 | Jan 21 | 661 | Aug 15 | 102 | Sep 8, 2002 |
| MAXIMUM PEAK FLOW | | | 37,000 | Sep 9 | 73,300* | Aug 16, 1928 |
| MAXIMUM PEAK STAGE | | | 17.48 | Sep 9 | 24.30* | Aug 16, 1928 |
| INSTANTANEOUS LOW FLOW | | | 410 | Jul 24 | 40 | Oct 17, 1954 |
| ANNUAL RUNOFF (CFSM) | 2.37 | | 1.73 | | 1.69 | |
| ANNUAL RUNOFF (INCHES) | 32.12 | | 23.55 | | 22.98 | |
| 10 PERCENT EXCEEDS | 3,420 | | 2,070 | | 2,490 | |
| 50 PERCENT EXCEEDS | 1,510 | | 1,120 | | 1,160 | |
| 90 PERCENT EXCEEDS | 911 | | 741 | | 553 | |

* See REMARKS.

