

Water-Data Report 2008

**02143040 JACOB FORK AT RAMSEY, NC**

Santee Basin  
South Fork Catawba Subbasin

LOCATION.--Lat 35°35'26", long 81°34'01" referenced to North American Datum of 1983, Burke County, NC, Hydrologic Unit 03050102, on left bank 16 ft downstream of bridge on Secondary Road 1924, 0.6 mi downstream of Queens Creek, and 0.6 mi north of Ramsey.

DRAINAGE AREA.--25.7 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1961 to current year. Occasional low-flow measurements, water years 1960-61.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Tipping-bucket raingage and electronic datalogger. Datum of gage is 1,103.00 ft above National Geodetic Vertical Datum of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 3,400 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow. Minimum discharge for current water year also occurred August 13.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1940 reached a stage of about 39 ft, from information by local resident. Flood of July 1916 reached a stage of about 19 ft, from information by North Carolina State Highway Commission.

## 02143040 JACOB FORK AT RAMSEY, NC—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY MEAN VALUES**  
[e, estimated]

| Day          | Oct   | Nov   | Dec   | Jan  | Feb  | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   |
|--------------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 1            | 4.7   | 7.5   | 9.1   | 32   | 123  | 13    | 19    | 16    | 9.3   | 4.9   | 11    | 8.9   |
| 2            | 4.7   | 7.4   | 8.9   | 20   | 118  | 12    | 18    | 15    | 8.7   | 4.6   | 6.6   | 8.0   |
| 3            | 4.7   | 7.4   | 8.7   | 15   | 43   | 11    | 21    | 15    | 8.0   | 4.3   | 6.8   | 7.3   |
| 4            | 5.0   | 7.2   | 8.9   | 14   | 31   | 25    | 45    | 15    | 8.0   | 4.0   | 5.4   | 6.8   |
| 5            | 6.3   | 7.4   | 8.3   | 13   | 24   | 137   | 162   | 14    | 7.4   | 5.2   | 4.8   | 6.3   |
| 6            | 6.0   | 7.3   | 8.2   | 12   | 22   | 45    | 212   | 13    | 7.1   | 8.3   | 4.5   | 6.1   |
| 7            | 5.7   | 7.1   | 8.0   | 12   | 21   | 74    | 112   | 13    | 6.8   | 13    | 4.2   | 5.9   |
| 8            | 5.5   | 7.5   | 8.3   | 12   | 19   | 119   | 69    | 13    | 6.4   | 19    | 4.0   | 5.9   |
| 9            | 5.2   | 7.6   | 8.7   | 11   | 16   | 62    | 50    | 13    | 8.4   | 45    | 3.9   | 6.7   |
| 10           | 5.2   | 7.7   | 8.7   | 12   | 14   | 37    | 39    | 13    | 28    | 21    | 3.8   | 13    |
| 11           | 4.8   | 7.7   | 8.7   | 14   | 13   | 28    | 34    | 14    | 10    | 9.6   | 3.7   | 18    |
| 12           | 4.8   | 7.6   | 8.7   | 14   | 12   | 23    | 31    | 16    | 8.6   | 7.7   | 3.4   | 12    |
| 13           | 4.9   | 7.7   | 8.5   | 12   | 16   | 20    | 28    | 13    | 8.0   | 7.4   | 6.0   | 9.5   |
| 14           | 4.9   | 7.7   | 8.6   | 12   | 17   | 17    | 24    | 12    | 7.4   | 7.3   | 7.0   | 8.2   |
| 15           | 4.8   | 13    | 8.8   | 11   | 14   | 21    | 23    | 12    | 7.2   | 6.0   | 5.3   | 7.2   |
| 16           | 4.8   | 11    | 16    | 11   | 14   | 29    | 21    | 13    | 6.6   | 5.4   | 4.8   | 53    |
| 17           | 5.2   | 9.0   | 13    | 13   | 14   | 20    | 20    | 13    | 6.3   | 5.2   | 9.2   | 38    |
| 18           | 5.3   | 8.6   | 10    | 14   | 22   | 18    | 19    | 14    | 6.1   | 4.9   | 7.1   | 18    |
| 19           | 5.8   | 8.4   | 9.4   | 16   | 18   | 43    | 20    | 15    | 5.9   | 4.8   | 5.2   | 13    |
| 20           | 5.9   | 8.2   | 8.9   | 15   | 16   | 162   | 22    | 12    | 5.6   | 4.7   | 4.7   | 11    |
| 21           | 5.6   | 8.1   | 11    | 13   | 14   | 75    | 19    | 11    | 5.6   | 4.7   | 4.4   | 9.6   |
| 22           | 5.6   | 15    | 11    | 13   | 14   | 50    | 18    | 11    | 5.6   | 4.6   | 4.1   | 8.8   |
| 23           | 6.7   | 12    | 55    | 12   | 14   | 36    | 17    | 10    | 5.8   | 6.2   | 3.9   | 8.3   |
| 24           | 12    | 9.4   | 32    | 12   | 12   | 29    | 16    | 9.8   | 5.8   | 8.4   | 3.8   | 7.7   |
| 25           | 29    | 9.1   | 16    | e12  | 12   | 24    | 16    | 9.8   | 5.2   | 5.7   | 4.2   | 7.2   |
| 26           | 17    | 13    | 13    | 12   | 17   | 22    | 20    | 9.7   | 4.9   | 5.3   | 13    | 19    |
| 27           | 11    | 16    | 12    | 11   | 17   | 21    | 22    | 9.3   | 4.8   | 5.3   | 203   | 158   |
| 28           | 8.8   | 12    | 34    | 11   | 15   | 20    | 23    | 12    | 5.2   | 4.6   | 37    | 97    |
| 29           | 7.8   | 10    | 91    | 11   | 13   | 24    | 19    | 15    | 5.1   | 8.3   | 18    | 37    |
| 30           | 7.5   | 9.4   | 89    | 13   | ---  | 21    | 17    | 11    | 5.2   | 9.2   | 13    | 21    |
| 31           | 7.5   | ---   | 89    | 12   | ---  | 19    | ---   | 10    | ---   | 11    | 10    | ---   |
| <b>Total</b> | 222.7 | 277.0 | 639.4 | 417  | 715  | 1,257 | 1,176 | 392.6 | 223.0 | 265.6 | 425.8 | 636.4 |
| <b>Mean</b>  | 7.18  | 9.23  | 20.6  | 13.5 | 24.7 | 40.5  | 39.2  | 12.7  | 7.43  | 8.57  | 13.7  | 21.2  |
| <b>Max</b>   | 29    | 16    | 91    | 32   | 123  | 162   | 212   | 16    | 28    | 45    | 203   | 158   |
| <b>Min</b>   | 4.7   | 7.1   | 8.0   | 11   | 12   | 11    | 16    | 9.3   | 4.8   | 4.0   | 3.4   | 5.9   |
| <b>Cfsm</b>  | 0.28  | 0.36  | 0.80  | 0.52 | 0.96 | 1.58  | 1.53  | 0.49  | 0.29  | 0.33  | 0.53  | 0.83  |
| <b>In.</b>   | 0.32  | 0.40  | 0.93  | 0.60 | 1.03 | 1.82  | 1.70  | 0.57  | 0.32  | 0.38  | 0.62  | 0.92  |

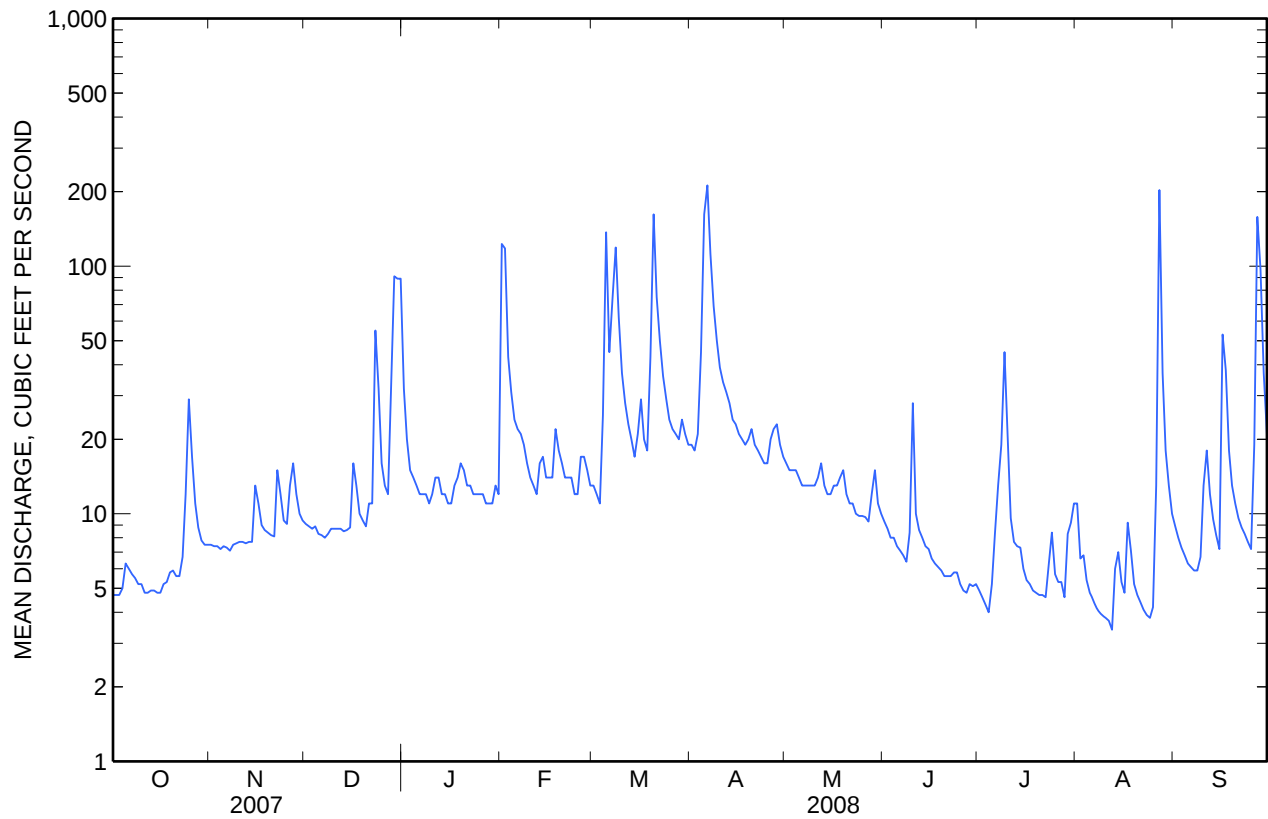
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2008, BY WATER YEAR (WY)

|             | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Mean</b> | 38.6   | 40.9   | 47.8   | 57.7   | 62.7   | 74.0   | 66.1   | 49.6   | 40.7   | 33.3   | 33.4   | 31.2   |
| <b>Max</b>  | 154    | 130    | 93.2   | 131    | 134    | 177    | 171    | 124    | 148    | 98.6   | 152    | 157    |
| <b>(WY)</b> | (1965) | (1978) | (2005) | (1993) | (1966) | (1975) | (2003) | (2003) | (2003) | (2003) | (1970) | (2004) |
| <b>Min</b>  | 7.18   | 8.49   | 14.5   | 13.5   | 19.3   | 25.5   | 19.4   | 9.93   | 4.98   | 2.87   | 4.48   | 6.91   |
| <b>(WY)</b> | (2008) | (2002) | (2002) | (2008) | (2001) | (2006) | (2002) | (2001) | (2002) | (2002) | (2002) | (2007) |

## 02143040 JACOB FORK AT RAMSEY, NC—Continued

## SUMMARY STATISTICS

|                                 | Calendar Year 2007 |        | Water Year 2008  |        | Water Years 1962 - 2008 |              |
|---------------------------------|--------------------|--------|------------------|--------|-------------------------|--------------|
| <b>Annual total</b>             | 11,547.4           |        | 6,647.5          |        |                         |              |
| <b>Annual mean</b>              | 31.6               |        | 18.2             |        | 47.9                    |              |
| <b>Highest annual mean</b>      |                    |        |                  |        | 90.9                    |              |
| <b>Lowest annual mean</b>       |                    |        |                  |        | 16.6                    |              |
| <b>Highest daily mean</b>       | 728                | Jan 1  | 212              | Apr 6  | 2,450                   | Sep 8, 2004  |
| <b>Lowest daily mean</b>        | 4.5                | Sep 12 | 3.4              | Aug 12 | 0.87                    | Aug 13, 2002 |
| <b>Annual seven-day minimum</b> | 4.8                | Sep 28 | 3.9              | Aug 6  | 0.90                    | Aug 7, 2002  |
| <b>Maximum peak flow</b>        |                    |        | 374              | Aug 27 | <sup>a</sup> 7,220      | Oct 17, 1975 |
| <b>Maximum peak stage</b>       |                    |        | 3.46             | Aug 27 | 19.74                   | Oct 17, 1975 |
| <b>Instantaneous low flow</b>   |                    |        | <sup>a</sup> 3.4 | Aug 12 | 0.79                    | Aug 14, 2002 |
| <b>Annual runoff (cfs)</b>      | 1.23               |        | 0.707            |        | 1.86                    |              |
| <b>Annual runoff (inches)</b>   | 16.71              |        | 9.62             |        | 25.34                   |              |
| <b>10 percent exceeds</b>       | 60                 |        | 32               |        | 84                      |              |
| <b>50 percent exceeds</b>       | 13                 |        | 11               |        | 31                      |              |
| <b>90 percent exceeds</b>       | 5.6                |        | 5.0              |        | 13                      |              |

<sup>a</sup>See Remarks.

**02143040 JACOB FORK AT RAMSEY, NC—Continued****CLIMATOLOGICAL RECORDS**

PERIOD OF RECORD.--November 2000 to current year.

INSTRUMENTATION.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with North Carolina Department of Environment and Natural Resources. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

**PRECIPITATION, TOTAL, INCHES**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY SUM VALUES**

| Day          | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1            | 0.00 | 0.00 | 0.00 | 0.00 | 1.61 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.12 | 0.00 |
| 3            | 0.00 | 0.00 | 0.00 | 0.00 | 0.18 | 0.00 | 0.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4            | 0.23 | 0.00 | 0.00 | 0.00 | 0.09 | 1.05 | 1.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5            | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.69 | 0.00 | 0.00 | 0.87 | 0.00 | 0.00 |
| 6            | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.31 | 0.00 | 0.00 | 0.72 | 0.00 | 0.00 |
| 7            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.93 | 0.00 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 |
| 8            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 | 0.02 | 0.00 | 1.35 | 0.00 | 0.00 |
| 9            | 0.07 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.17 | 0.79 | 1.25 | 0.00 | 0.26 |
| 10           | 0.01 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | 0.00 | 0.96 |
| 11           | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.61 | 0.03 | 0.00 | 0.00 | 0.16 |
| 12           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 |
| 13           | 0.00 | 0.01 | 0.01 | 0.00 | 0.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.55 | 0.69 | 0.00 |
| 14           | 0.00 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.01 | 0.01 | 0.00 |
| 15           | 0.03 | 0.63 | 0.60 | 0.00 | 0.00 | 0.74 | 0.00 | 0.07 | 0.00 | 0.00 | 0.08 | 0.00 |
| 16           | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 | 0.00 | 0.00 | 2.11 |
| 17           | 0.00 | 0.00 | 0.00 | 0.06 | 0.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.65 | 0.01 |
| 18           | 0.00 | 0.00 | 0.00 | 0.70 | 0.00 | 0.00 | 0.00 | 0.72 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19           | 0.07 | 0.00 | 0.00 | 0.08 | 0.00 | 1.07 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20           | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21           | 0.00 | 0.00 | 0.34 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22           | 0.06 | 0.58 | 0.07 | 0.02 | 0.13 | 0.00 | 0.00 | 0.00 | 0.02 | 0.42 | 0.00 | 0.00 |
| 23           | 0.12 | 0.00 | 1.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.22 | 0.00 | 0.00 |
| 24           | 1.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 25           | 0.72 | 0.17 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.46 | 0.03 |
| 26           | 0.25 | 0.48 | 0.06 | 0.00 | 0.49 | 0.00 | 0.09 | 0.00 | 0.00 | 0.06 | 2.01 | 1.43 |
| 27           | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.32 | 0.00 | 1.68 | 0.45 |
| 28           | 0.00 | 0.00 | 1.15 | 0.00 | 0.00 | 0.00 | 0.32 | 0.70 | 0.00 | 0.29 | 0.03 | 0.01 |
| 29           | 0.00 | 0.00 | 0.10 | 0.05 | 0.00 | 0.52 | 0.00 | 0.00 | 0.11 | 0.53 | 0.00 | 0.00 |
| 30           | 0.00 | 0.00 | 1.15 | 0.08 | ---  | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 31           | 0.00 | ---  | 0.00 | 0.15 | ---  | 0.03 | ---  | 0.00 | ---  | 0.59 | 0.00 | ---  |
| <b>Total</b> | 2.87 | 1.90 | 4.62 | 1.47 | 3.71 | 4.52 | 3.79 | 2.47 | 1.45 | 7.20 | 5.73 | 5.45 |

**02143040 JACOB FORK AT RAMSEY, NC—Continued**

