

Water-Data Report 2008

**02104220 ROCKFISH CREEK AT RAEFORD, NC**

Cape Fear Basin  
Upper Cape Fear Subbasin

LOCATION.--Lat 34°59'59", long 79°12'53" referenced to North American Datum of 1983, Hoke County, NC, Hydrologic Unit 03030004, at upstream side of bridge on U.S. Highway 401, 1.0 mi downstream of Nicholsons Creek, and 1.0 mile north of Raeford.

DRAINAGE AREA.--93.1 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--July 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 178 ft above National Geodetic Vertical Datum of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Minimum discharge for period of record also occurred July 23, 2002. Minimum discharge for current water year also occurred July 4.

## 02104220 ROCKFISH CREEK AT RAEFORD, NC—Continued

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

| Day          | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1            | 34    | 81    | 65    | 203   | 84    | 79    | 127   | 97    | 54    | 29    | 52    | 93    |
| 2            | 34    | 73    | 64    | 183   | 120   | 75    | 133   | 81    | 68    | 28    | 49    | 74    |
| 3            | 36    | 67    | 65    | 118   | 109   | 71    | 105   | 72    | 58    | 28    | 38    | 64    |
| 4            | 40    | 63    | 65    | 92    | 87    | 72    | 96    | 67    | 51    | 27    | 35    | 56    |
| 5            | 42    | 62    | 64    | 84    | 80    | 123   | 152   | 65    | 46    | 29    | 33    | 50    |
| 6            | 46    | 61    | 64    | 82    | 76    | 142   | 235   | 68    | 43    | 36    | 31    | 579   |
| 7            | 47    | 59    | 62    | 80    | 74    | 134   | 233   | 73    | 40    | 78    | 29    | 1,270 |
| 8            | 45    | 59    | 62    | 77    | 70    | 171   | 199   | 64    | 37    | 79    | 31    | 493   |
| 9            | 42    | 60    | 63    | 76    | 67    | 181   | 133   | 63    | 36    | 83    | 34    | 303   |
| 10           | 41    | 61    | 63    | 76    | 65    | 173   | 108   | 63    | 35    | 93    | 31    | 235   |
| 11           | 43    | 60    | 63    | 89    | 63    | 128   | 98    | 71    | 35    | 126   | 39    | 228   |
| 12           | 40    | 60    | 63    | 93    | 62    | 100   | 92    | 96    | 65    | 125   | 51    | 269   |
| 13           | 39    | 61    | 62    | 83    | 88    | 90    | 112   | 76    | 59    | 75    | 50    | 260   |
| 14           | 39    | 61    | 62    | 76    | 132   | 82    | 118   | 64    | 45    | 55    | 114   | 199   |
| 15           | 39    | 64    | 62    | 72    | 127   | 82    | 105   | 60    | 78    | 53    | 98    | 131   |
| 16           | 37    | 69    | 147   | 69    | 97    | 147   | 90    | 70    | 98    | 46    | 65    | 111   |
| 17           | 38    | 65    | 193   | 80    | 82    | 161   | 84    | 71    | 66    | 40    | 58    | 138   |
| 18           | 39    | 63    | 206   | 115   | 103   | 145   | 80    | 61    | 50    | 38    | 84    | 146   |
| 19           | 44    | 63    | 166   | 111   | 120   | 106   | 76    | 62    | 41    | 53    | 63    | 127   |
| 20           | 47    | 62    | 99    | 143   | 94    | 116   | 77    | 61    | 38    | 69    | 49    | 104   |
| 21           | 45    | 62    | 92    | 132   | 80    | 117   | 79    | 119   | 44    | 56    | 43    | 95    |
| 22           | 42    | 62    | 97    | 102   | 118   | 96    | 85    | 95    | 47    | 44    | 41    | 93    |
| 23           | 42    | 62    | 89    | 92    | 146   | 85    | 87    | 69    | 45    | 48    | 38    | 88    |
| 24           | 49    | 64    | 105   | 87    | 118   | 78    | 82    | 59    | 43    | 51    | 37    | 84    |
| 25           | 120   | 63    | 94    | 81    | 95    | 75    | 75    | 58    | 41    | 48    | 37    | 81    |
| 26           | 182   | 66    | 114   | 76    | 90    | 73    | 70    | 53    | 36    | 43    | 79    | 138   |
| 27           | 436   | 80    | 157   | 75    | 116   | 71    | 90    | 49    | 34    | 41    | 130   | 192   |
| 28           | 424   | 77    | 130   | 73    | 101   | 69    | 106   | 53    | 33    | 40    | 187   | 198   |
| 29           | 300   | 70    | 105   | 71    | 85    | 68    | 151   | 99    | 32    | 37    | 311   | 171   |
| 30           | 201   | 67    | 126   | 77    | ---   | 68    | 136   | 76    | 31    | 35    | 261   | 117   |
| 31           | 99    | ---   | 189   | 79    | ---   | 78    | ---   | 60    | ---   | 36    | 146   | ---   |
| <b>Total</b> | 2,752 | 1,947 | 3,058 | 2,947 | 2,749 | 3,256 | 3,414 | 2,195 | 1,429 | 1,669 | 2,344 | 6,187 |
| <b>Mean</b>  | 88.8  | 64.9  | 98.6  | 95.1  | 94.8  | 105   | 114   | 70.8  | 47.6  | 53.8  | 75.6  | 206   |
| <b>Max</b>   | 436   | 81    | 206   | 203   | 146   | 181   | 235   | 119   | 98    | 126   | 311   | 1,270 |
| <b>Min</b>   | 34    | 59    | 62    | 69    | 62    | 68    | 70    | 49    | 31    | 27    | 29    | 50    |
| <b>Cfsm</b>  | 0.95  | 0.70  | 1.06  | 1.02  | 1.02  | 1.13  | 1.22  | 0.76  | 0.51  | 0.58  | 0.81  | 2.22  |
| <b>In.</b>   | 1.10  | 0.78  | 1.22  | 1.18  | 1.10  | 1.30  | 1.36  | 0.88  | 0.57  | 0.67  | 0.94  | 2.47  |

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2008, BY WATER YEAR (WY)

|             | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Mean</b> | 110    | 116    | 117    | 134    | 135    | 146    | 130    | 99.8   | 91.0   | 89.3   | 95.9   | 114    |
| <b>Max</b>  | 207    | 184    | 186    | 209    | 291    | 289    | 305    | 182    | 175    | 224    | 203    | 247    |
| <b>(WY)</b> | (2000) | (2007) | (1990) | (1998) | (1998) | (1998) | (1998) | (1989) | (1989) | (1989) | (2003) | (1996) |
| <b>Min</b>  | 60.0   | 62.4   | 68.0   | 90.4   | 84.7   | 78.4   | 72.0   | 51.9   | 31.2   | 28.8   | 36.2   | 43.6   |
| <b>(WY)</b> | (2002) | (2002) | (2002) | (2003) | (2002) | (2002) | (2002) | (2002) | (2002) | (2002) | (2007) | (2007) |

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## SUMMARY STATISTICS

|                                 | Calendar Year 2007 |        | Water Year 2008 |        | Water Years 1988 - 2008 |              |
|---------------------------------|--------------------|--------|-----------------|--------|-------------------------|--------------|
| <b>Annual total</b>             | 33,594             |        | 33,947          |        |                         |              |
| <b>Annual mean</b>              | 92.0               |        | 92.8            |        | 115                     |              |
| <b>Highest annual mean</b>      |                    |        |                 |        | 167                     |              |
| <b>Lowest annual mean</b>       |                    |        |                 |        | 60.8                    |              |
| <b>Highest daily mean</b>       | 436                | Oct 27 | 1,270           | Sep 7  | 1,270                   | Sep 7, 2008  |
| <b>Lowest daily mean</b>        | 30                 | Aug 17 | 27              | Jul 4  | 20                      | Jul 22, 2002 |
| <b>Annual seven-day minimum</b> | 31                 | Aug 16 | 29              | Jun 29 | 22                      | Aug 10, 2002 |
| <b>Maximum peak flow</b>        |                    |        | 1,750           | Sep 7  | 1,750                   | Sep 7, 2008  |
| <b>Maximum peak stage</b>       |                    |        | 9.30            | Sep 7  | 9.30                    | Sep 7, 2008  |
| <b>Instantaneous low flow</b>   |                    |        | <sup>a</sup> 27 | Jul 3  | <sup>a</sup> 19         | Jul 10, 2002 |
| <b>Annual runoff (cfs)</b>      | 0.989              |        | 0.996           |        | 1.23                    |              |
| <b>Annual runoff (inches)</b>   | 13.42              |        | 13.56           |        | 16.75                   |              |
| <b>10 percent exceeds</b>       | 173                |        | 148             |        | 192                     |              |
| <b>50 percent exceeds</b>       | 70                 |        | 74              |        | 97                      |              |
| <b>90 percent exceeds</b>       | 37                 |        | 39              |        | 55                      |              |

<sup>a</sup>See Remarks.