

Water-Data Report 2008

**02094770 SOUTH BUFFALO CREEK AT U.S. HIGHWAY 220 AT GREENSBORO, NC**

Cape Fear Basin  
Haw Subbasin

LOCATION.--Lat 36°02'17", long 79°47'59" referenced to North American Datum of 1983, Guilford County, NC, Hydrologic Unit 03030002, on left bank at downstream side of bridge on U.S. Highway 220, and 0.8 mi upstream from Ryan Creek at Greensboro.

DRAINAGE AREA.--15.4 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--August 1998 to current year.

REVISED RECORDS.--WDR-NC-04-1: 2003 (maximum discharge).

GAGE.--Water-stage recorder. Datum of gage is 727.27 ft above North American Vertical Datum of 1988. Satellite telemetry at station.

REMARKS.--Records poor.

## 02094770 SOUTH BUFFALO CREEK AT U.S. HIGHWAY 220 AT GREENSBORO, 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            | 0.61   | 3.6    | 2.8   | 16    | 137   | 3.3   | 58      | 13    | 23     | 8.5    | 17       | 2.1    |
| 2            | 0.66   | e4.2   | 2.4   | 10    | 19    | 3.0   | 12      | 4.8   | 2.3    | 2.9    | 3.2      | 1.7    |
| 3            | 0.78   | e4.8   | 2.6   | 9.8   | 31    | 2.8   | 54      | 3.9   | 1.2    | 2.0    | 3.0      | 1.5    |
| 4            | 0.75   | e5.9   | 2.6   | 7.6   | 13    | 90    | 87      | 5.1   | 1.0    | 3.7    | 4.4      | 1.6    |
| 5            | 0.64   | e6.2   | 3.1   | 7.4   | 10    | 75    | 185     | 4.8   | 1.00   | 89     | 1.6      | 1.3    |
| 6            | 0.77   | e6.8   | 2.8   | 7.1   | 29    | 11    | 117     | 2.8   | 0.82   | 97     | 0.90     | 151    |
| 7            | 0.91   | e6.2   | 2.5   | 6.9   | 11    | 60    | 24      | 9.5   | 0.86   | 6.5    | 0.82     | 3.5    |
| 8            | 0.88   | e6.2   | 2.4   | 6.6   | 4.6   | 87    | 14      | 2.8   | 0.56   | 17     | 0.80     | 1.5    |
| 9            | 0.90   | e6.0   | 2.4   | 6.4   | 3.9   | 18    | 9.5     | e5.3  | 0.48   | 25     | 0.71     | 0.95   |
| 10           | 0.85   | e5.4   | 2.3   | 7.5   | 3.2   | 11    | 7.3     | 2.4   | 0.89   | 33     | 1.6      | 14     |
| 11           | 0.88   | e4.9   | 2.4   | 26    | 2.7   | 7.8   | 5.5     | 10    | e0.70  | 9.2    | 5.6      | 40     |
| 12           | e0.88  | e4.7   | 2.7   | 9.0   | 2.9   | 6.1   | 5.8     | 5.1   | e0.48  | 1.9    | 1.5      | 6.7    |
| 13           | e0.78  | e5.3   | 2.3   | 6.5   | 37    | 5.2   | 4.9     | 21    | e0.70  | 61     | 5.2      | 2.5    |
| 14           | e0.82  | e6.0   | 2.3   | 6.9   | 35    | 4.5   | 9.3     | 7.1   | e1.0   | 27     | 6.8      | 1.2    |
| 15           | e0.72  | 76     | 12    | 5.5   | 42    | 71    | 7.8     | 2.9   | e1.8   | 3.2    | 3.5      | 0.91   |
| 16           | e0.92  | 5.9    | 94    | 4.0   | 7.3   | 26    | 3.6     | e15   | 1.2    | 1.6    | 2.9      | 258    |
| 17           | e0.82  | 3.0    | 13    | 50    | 5.3   | 8.8   | 3.1     | 3.5   | 2.1    | 1.1    | 2.4      | 14     |
| 18           | e0.90  | 2.6    | 9.4   | 37    | 9.4   | 6.4   | 3.1     | 20    | 0.28   | 1.8    | 2.1      | 3.1    |
| 19           | e40    | e2.4   | 8.4   | 11    | 4.9   | 21    | 3.3     | 4.2   | 0.26   | 2.2    | 2.2      | 2.2    |
| 20           | 6.3    | e2.5   | 7.9   | 11    | 3.9   | 43    | 78      | 21    | 0.23   | 1.2    | 2.3      | 2.2    |
| 21           | 23     | e3.5   | e20   | 5.2   | 3.6   | 7.8   | 41      | e2.8  | 40     | 2.9    | 6.9      | 2.4    |
| 22           | 2.0    | e6.1   | 7.0   | 7.5   | 6.1   | 5.8   | 10      | e3.0  | 37     | 0.70   | 5.2      | 2.3    |
| 23           | 1.7    | e3.2   | 26    | 8.0   | 4.9   | 4.8   | 5.8     | 3.4   | 61     | 115    | 16       | e2.2   |
| 24           | 14     | e14    | 16    | 4.4   | 5.5   | 9.2   | 4.4     | 1.4   | 28     | 56     | 0.78     | e2.0   |
| 25           | 153    | 2.8    | 42    | 3.3   | 9.0   | 5.0   | 3.9     | 1.3   | 4.0    | 11     | 0.71     | e2.2   |
| 26           | 433    | e4.0   | 64    | 3.1   | 50    | 4.0   | 3.6     | 1.3   | e2.6   | 3.1    | 44       | 148    |
| 27           | 55     | 1.6    | 14    | 3.0   | 11    | 3.8   | 21      | 1.4   | e2.4   | 2.7    | 1,010    | 50     |
| 28           | 5.9    | 7.3    | 46    | 3.3   | 4.7   | 3.8   | 192     | 4.6   | e2.8   | 2.2    | 74       | 23     |
| 29           | 19     | 0.95   | 37    | e3.8  | 3.5   | 23    | 43      | 3.3   | 2.5    | 1.8    | 12       | 6.9    |
| 30           | 4.6    | 1.3    | 169   | e7.0  | ---   | 10    | 3.8     | 9.8   | 149    | 1.5    | 6.1      | 4.2    |
| 31           | 3.9    | ---    | 59    | 9.8   | ---   | 47    | ---     | 24    | ---    | 6.2    | 3.4      | ---    |
| <b>Total</b> | 775.87 | 213.35 | 680.3 | 310.6 | 510.4 | 685.1 | 1,020.7 | 220.5 | 370.16 | 597.90 | 1,247.62 | 753.16 |
| <b>Mean</b>  | 25.0   | 7.11   | 21.9  | 10.0  | 17.6  | 22.1  | 34.0    | 7.11  | 12.3   | 19.3   | 40.2     | 25.1   |
| <b>Max</b>   | 433    | 76     | 169   | 50    | 137   | 90    | 192     | 24    | 149    | 115    | 1,010    | 258    |
| <b>Min</b>   | 0.61   | 0.95   | 2.3   | 3.0   | 2.7   | 2.8   | 3.1     | 1.3   | 0.23   | 0.70   | 0.71     | 0.91   |
| <b>Cfs/m</b> | 1.63   | 0.46   | 1.43  | 0.65  | 1.14  | 1.44  | 2.21    | 0.46  | 0.80   | 1.25   | 2.61     | 1.63   |
| <b>In.</b>   | 1.87   | 0.52   | 1.64  | 0.75  | 1.23  | 1.65  | 2.47    | 0.53  | 0.89   | 1.44   | 3.01     | 1.82   |

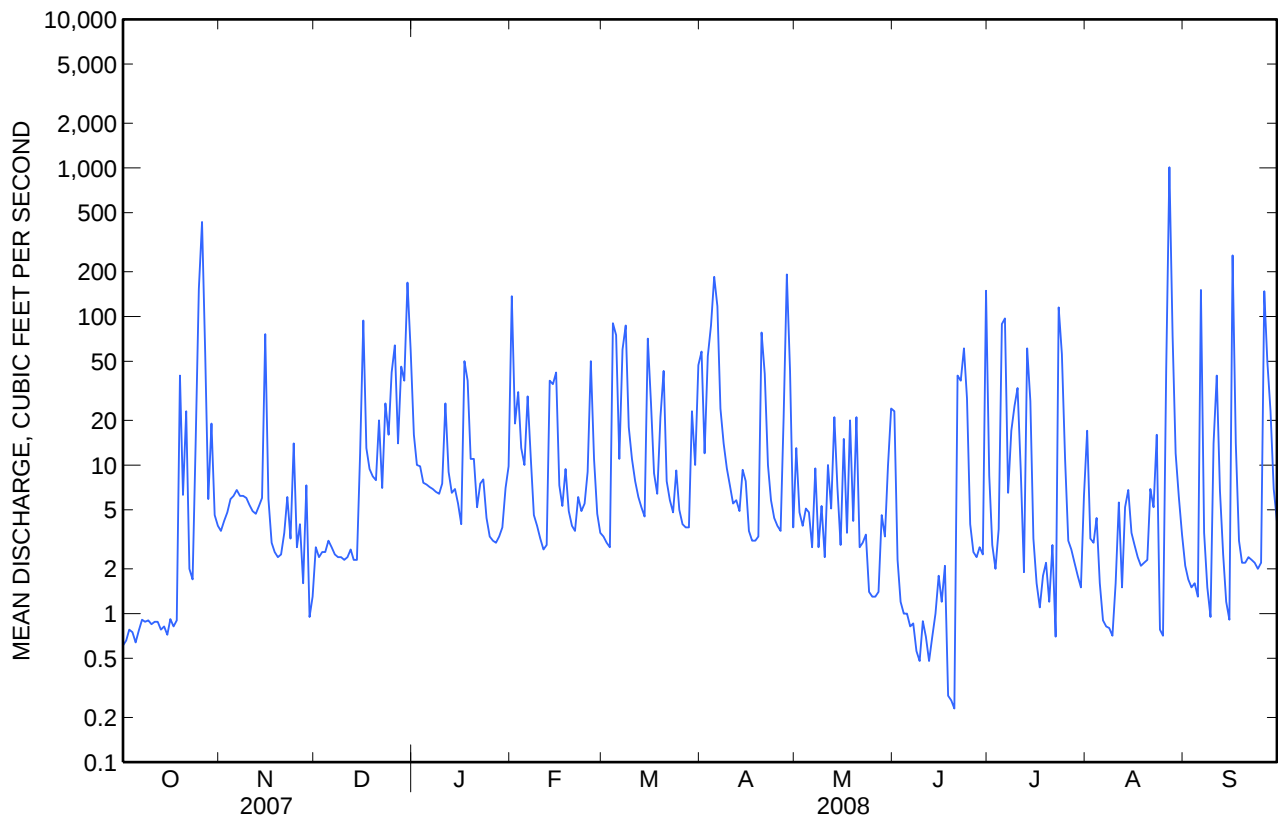
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2008, BY WATER YEAR (WY)

|             | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Mean</b> | 16.1   | 18.1   | 23.3   | 24.8   | 19.6   | 26.6   | 29.2   | 13.1   | 26.9   | 24.0   | 19.7   | 42.4   |
| <b>Max</b>  | 60.3   | 50.4   | 51.5   | 82.6   | 38.1   | 63.3   | 77.0   | 51.7   | 65.0   | 41.1   | 40.2   | 155    |
| <b>(WY)</b> | (2003) | (2007) | (2003) | (1999) | (2003) | (2003) | (2003) | (2003) | (2006) | (2003) | (2008) | (2000) |
| <b>Min</b>  | 3.59   | 3.00   | 5.78   | 8.65   | 8.76   | 6.89   | 4.06   | 4.70   | 3.15   | 9.98   | 2.78   | 1.77   |
| <b>(WY)</b> | (1999) | (1999) | (2001) | (2004) | (2006) | (2006) | (2002) | (2007) | (2002) | (2007) | (2007) | (2005) |

## 02094770 SOUTH BUFFALO CREEK AT U.S. HIGHWAY 220 AT GREENSBORO, NC—Continued

## SUMMARY STATISTICS

|                          | Calendar Year 2007 |        | Water Year 2008 |        | Water Years 1998 - 2008 |              |
|--------------------------|--------------------|--------|-----------------|--------|-------------------------|--------------|
| Annual total             | 6,198.67           |        | 7,385.66        |        |                         |              |
| Annual mean              | 17.0               |        | 20.2            |        | 23.9                    |              |
| Highest annual mean      |                    |        |                 |        | 50.6                    | 2003         |
| Lowest annual mean       |                    |        |                 |        | 10.7                    | 2002         |
| Highest daily mean       | 524                | Apr 15 | 1,010           | Aug 27 | 1,640                   | Sep 2, 2000  |
| Lowest daily mean        | 0.37               | Sep 7  | 0.23            | Jun 20 | 0.10                    | Aug 14, 2002 |
| Annual seven-day minimum | 0.53               | Sep 7  | 0.67            | Jun 7  | 0.19                    | Sep 13, 2001 |
| Maximum peak flow        |                    |        | 2,580           | Aug 27 | 2,770                   | Sep 23, 2003 |
| Maximum peak stage       |                    |        | 16.00           | Aug 27 | 16.44                   | Sep 23, 2003 |
| Instantaneous low flow   |                    |        |                 |        | 0.08                    | Aug 14, 2002 |
| Annual runoff (cfs)      | 1.10               |        | 1.31            |        | 1.55                    |              |
| Annual runoff (inches)   | 14.97              |        | 17.84           |        | 21.11                   |              |
| 10 percent exceeds       | 37                 |        | 48              |        | 48                      |              |
| 50 percent exceeds       | 4.9                |        | 4.9             |        | 5.3                     |              |
| 90 percent exceeds       | 1.0                |        | 0.92            |        | 1.7                     |              |



**02094770 SOUTH BUFFALO CREEK AT U.S. HIGHWAY 220 AT GREENSBORO, NC—Continued****CLIMATOLOGICAL RECORDS**

PERIOD OF RECORD.--August 1998 to current year. Records for August 1998 to December 1999 are unpublished and available from the USGS Water Science Center, Raleigh, NC.

INSTRUMENTATION.--Tipping bucket raingage. Satellite telemetry at station.

REMARKS.--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 | 0.95 | 0.00 | 0.23 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 |
| 2            | 0.00 | 0.00 | ---  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 |
| 3            | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4            | 0.01 | 0.00 | 0.00 | 0.00 | 0.24 | 1.00 | 0.81 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 |
| 5            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.36 | 0.00 | 1.23 | 0.00 | 0.02 |
| 6            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.39 | 0.00 | 0.00 | 0.14 | 0.00 | 1.39 |
| 7            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.82 | 0.00 | 0.00 |
| 9            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.19 | 0.00 | 0.00 |
| 10           | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.32 |
| 11           | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.39 | 0.00 | 0.00 | 0.00 | 0.16 |
| 12           | 0.00 | 0.00 | 0.03 | 0.00 | 0.09 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13           | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 1.42 | 0.15 | 0.00 |
| 14           | 0.00 | 0.01 | 0.00 | 0.00 | 0.16 | 0.00 | 0.22 | 0.00 | 0.07 | 0.01 | 0.00 | 0.00 |
| 15           | 0.00 | 0.36 | 0.66 | 0.00 | 0.00 | 0.74 | 0.00 | 0.08 | 0.00 | 0.00 | 0.14 | 0.00 |
| 16           | 0.00 | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 | 1.72 |
| 17           | 0.00 | 0.00 | 0.00 | 0.57 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18           | 0.00 | 0.00 | 0.00 | 0.07 | 0.01 | 0.00 | 0.00 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19           | 0.92 | 0.02 | 0.00 | 0.02 | 0.00 | 0.26 | 0.15 | 0.00 | 0.00 | 0.21 | 0.00 | 0.00 |
| 20           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.47 | 0.00 | 0.00 | 0.00 | 0.33 | 0.00 |
| 21           | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 | 0.00 | 0.33 | 0.00 | 0.43 | 0.00 | 0.00 | 0.00 |
| 22           | 0.00 | 0.16 | 0.00 | 0.06 | 0.06 | 0.00 | 0.01 | 0.00 | 0.70 | 0.00 | 0.00 | 0.00 |
| 23           | 0.07 | 0.00 | 0.33 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.19 | 0.75 | 0.00 | 0.00 |
| 24           | 1.15 | 0.00 | 0.00 | 0.00 | 0.08 | 0.07 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| 25           | 1.23 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.04 |
| 26           | 2.96 | 0.03 | 0.36 | 0.00 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.89 | 1.11 |
| 27           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.62 | 0.17 | 0.03 | 0.00 | 4.60 | 0.12 |
| 28           | 0.00 | 0.00 | 0.40 | 0.00 | 0.00 | 0.00 | 1.28 | 0.21 | 0.00 | 0.00 | 0.09 | 0.00 |
| 29           | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.22 | 0.00 | 0.00 | 0.36 | 0.00 | 0.00 | 0.01 |
| 30           | 0.00 | 0.00 | 1.18 | 0.10 | ---  | 0.05 | 0.00 | 0.00 | 0.34 | 0.00 | 0.00 | 0.02 |
| 31           | 0.00 | ---  | 0.01 | 0.00 | ---  | 0.57 | ---  | 0.71 | ---  | 0.20 | 0.00 | ---  |
| <b>Total</b> | 6.34 | 0.63 | ---  | 1.04 | 2.48 | 3.59 | 5.28 | 2.39 | 2.12 | 5.24 | 6.38 | 4.91 |

**02094770 SOUTH BUFFALO CREEK AT U.S. HIGHWAY 220 AT GREENSBORO, NC—Continued**

