

Water-Data Report 2007

0214642825 BRIAR CREEK NEAR CHARLOTTE, NC

Santee Basin
Lower Catawba Subbasin

LOCATION.--Lat 35°14'10", long 80°46'16" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, 400 ft upstream from bridge on Shamrock Drive, and 4 mi northwest of city hall in Charlotte.

DRAINAGE AREA.--5.2 mi².

SURFACE-WATER RECORDS

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

REVISED RECORDS.-- WDR NC-2003-1B: 1998-2002 (daily discharges).

GAGE.--Water-stage recorder, crest-stage gage and concrete control. Datum of gage is 672.00 ft, North American Vertical Datum of 1988, from levels. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record and current water year from rating curve extended above 800 ft³/s by culvert computation of peak flow. No flow occurs most years. Minimum discharge for current water year, no flow, also occurred August 26, September 8-14, 23-30.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 1.7 | 2.0 | 7.9 | 17 | 15 | 76 | 5.1 | 2.4 | 0.39 | 1.8 | 0.06 | 2.3 |
| 2 | 1.8 | 1.6 | 4.2 | 5.5 | 8.9 | 223 | 3.2 | 2.6 | 0.46 | 0.25 | 0.06 | 0.30 |
| 3 | 1.8 | 1.5 | 3.9 | 4.3 | 4.9 | 9.3 | 2.2 | 2.8 | 8.3 | 0.29 | 0.05 | 0.01 |
| 4 | 2.1 | e1.5 | 3.9 | 4.2 | 4.3 | 5.8 | 2.1 | 3.8 | 0.76 | 0.30 | 0.04 | 0.01 |
| 5 | 2.3 | e1.5 | 3.9 | 32 | 4.3 | 4.6 | 2.0 | 4.2 | 0.48 | 0.31 | 0.04 | 0.01 |
| 6 | 2.5 | e1.6 | 3.9 | 12 | 4.2 | 4.1 | 2.3 | 3.7 | 0.44 | 0.40 | 0.06 | 0.02 |
| 7 | 1.1 | 18 | 3.9 | 19 | 4.3 | 3.9 | 2.4 | 3.1 | 0.32 | 2.9 | 0.03 | 0.02 |
| 8 | 12 | 13 | 3.9 | 41 | 4.3 | 3.9 | 2.4 | 3.0 | 0.29 | 0.47 | 0.03 | 0.01 |
| 9 | 0.82 | 2.8 | 3.9 | 7.9 | 4.3 | 3.7 | 2.4 | 2.8 | 0.28 | 0.20 | 0.03 | 0.01 |
| 10 | 0.51 | 2.4 | 3.9 | 5.5 | 4.3 | 3.7 | 2.8 | 2.9 | 0.28 | 0.43 | 0.02 | 0.01 |
| 11 | 0.65 | 12 | 3.9 | 4.7 | 4.3 | 3.6 | 9.2 | 2.7 | 0.40 | 5.1 | 0.05 | 0.00 |
| 12 | 2.0 | 26 | 4.0 | 4.3 | 4.3 | 3.5 | 17 | 4.0 | 4.7 | 1.3 | 0.02 | 0.00 |
| 13 | 1.3 | 3.9 | e4.5 | 4.3 | 41 | 3.7 | 2.3 | 2.5 | 2.0 | 0.26 | 0.02 | 0.00 |
| 14 | 1.3 | 2.8 | 4.8 | 4.3 | 20 | 3.9 | 5.2 | 2.0 | 9.9 | 0.38 | 0.02 | 6.6 |
| 15 | 1.7 | 3.5 | 4.4 | 4.3 | 6.5 | 4.0 | 64 | 1.9 | 2.0 | 6.4 | 0.02 | 3.9 |
| 16 | 1.7 | 98 | 4.3 | 4.4 | 5.3 | 14 | 5.7 | 1.8 | 0.48 | 1.4 | 0.02 | 0.01 |
| 17 | 58 | 6.5 | 4.6 | 5.2 | 4.8 | 4.2 | 2.8 | 1.9 | 0.34 | 0.31 | 0.03 | 0.05 |
| 18 | 8.2 | 4.0 | 4.0 | 8.3 | 4.6 | 3.9 | 2.3 | 1.7 | 0.30 | 4.6 | 0.03 | 0.02 |
| 19 | 2.4 | 3.4 | 4.3 | 5.5 | 4.3 | 4.1 | 7.4 | 1.7 | 0.36 | 0.24 | 0.02 | 0.05 |
| 20 | 2.0 | 3.1 | 4.3 | 4.7 | 4.4 | 4.2 | 5.7 | 1.7 | 0.48 | 0.24 | 0.02 | 0.02 |
| 21 | 1.8 | 116 | 4.5 | 14 | 4.3 | 3.9 | 2.1 | 1.6 | 0.30 | 0.27 | 0.03 | 0.02 |
| 22 | 1.8 | 245 | 29 | 13 | 4.4 | 4.0 | 1.9 | 1.5 | 0.30 | 0.18 | 0.28 | 0.02 |
| 23 | 1.9 | 14 | 6.8 | 5.2 | 4.2 | 3.9 | 1.7 | 1.4 | 0.25 | 0.18 | 7.2 | 0.01 |
| 24 | 1.8 | 7.3 | 4.4 | 4.5 | 4.2 | 3.9 | 1.7 | 1.4 | 0.49 | 0.17 | 1.0 | 0.00 |
| 25 | 2.2 | 5.6 | e43 | 4.3 | 22 | 3.7 | 1.6 | 1.3 | 29 | 0.09 | 0.01 | 0.00 |
| 26 | 3.4 | 4.9 | e6.0 | 4.1 | 6.3 | 3.3 | 1.8 | 1.2 | 4.3 | 0.08 | 6.4 | 0.00 |
| 27 | 13 | 4.5 | 5.2 | 4.2 | 4.3 | 3.1 | 10 | 1.1 | 0.98 | 5.3 | 1.4 | 0.00 |
| 28 | 15 | 4.3 | 4.1 | 4.3 | 3.1 | 2.9 | 2.9 | 0.91 | 0.27 | 2.7 | 0.02 | 0.00 |
| 29 | 2.3 | 4.2 | 3.9 | 3.9 | --- | 3.7 | 2.5 | 0.89 | 0.24 | 1.4 | 0.01 | 0.00 |
| 30 | 2.2 | 5.5 | 3.8 | 4.0 | --- | 2.4 | 2.4 | 0.68 | 2.5 | 0.59 | 0.01 | 0.00 |
| 31 | 2.0 | --- | 7.0 | 3.9 | --- | 2.4 | --- | 0.55 | --- | 0.10 | 0.37 | --- |
| Total | 153.28 | 620.4 | 204.1 | 263.8 | 211.1 | 424.3 | 177.1 | 65.73 | 71.59 | 38.64 | 17.40 | 13.40 |
| Mean | 4.94 | 20.7 | 6.58 | 8.51 | 7.54 | 13.7 | 5.90 | 2.12 | 2.39 | 1.25 | 0.56 | 0.45 |
| Max | 58 | 245 | 43 | 41 | 41 | 223 | 64 | 4.2 | 29 | 6.4 | 7.2 | 6.6 |
| Min | 0.51 | 1.5 | 3.8 | 3.9 | 3.1 | 2.4 | 1.6 | 0.55 | 0.24 | 0.08 | 0.01 | 0.00 |
| Cfsm | 0.95 | 3.98 | 1.27 | 1.64 | 1.45 | 2.63 | 1.14 | 0.41 | 0.46 | 0.24 | 0.11 | 0.09 |
| In. | 1.10 | 4.44 | 1.46 | 1.89 | 1.51 | 3.04 | 1.27 | 0.47 | 0.51 | 0.28 | 0.12 | 0.10 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2007, BY WATER YEAR (WY)

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Mean | 3.16 | 4.59 | 4.62 | 5.42 | 5.23 | 8.06 | 7.24 | 5.45 | 5.51 | 4.82 | 4.25 | 6.38 |
| Max | 7.12 | 20.7 | 10.6 | 12.0 | 7.54 | 21.6 | 22.2 | 30.3 | 25.3 | 13.2 | 12.6 | 24.4 |
| (WY) | (2000) | (2007) | (2003) | (1999) | (2007) | (2003) | (2003) | (2003) | (2003) | (2005) | (2006) | (2004) |
| Min | 0.41 | 0.44 | 1.08 | 1.68 | 1.78 | 2.61 | 1.36 | 1.70 | 0.33 | 1.25 | 0.29 | 0.45 |
| (WY) | (2001) | (2002) | (2002) | (2004) | (2002) | (2006) | (2002) | (2004) | (2002) | (2007) | (2001) | (2007) |

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SUMMARY STATISTICS

| | Calendar Year 2006 | | Water Year 2007 | | Water Years 1998 - 2007 | |
|---------------------------------|--------------------|--------|--------------------|--------|-------------------------|--------------|
| Annual total | 2,299.11 | | 2,260.84 | | | |
| Annual mean | 6.30 | | 6.19 | | 5.38 | |
| Highest annual mean | | | | | 12.7 | 2003 |
| Lowest annual mean | | | | | 1.96 | 2002 |
| Highest daily mean | 245 | Nov 22 | 245 | Nov 22 | 386 | May 22, 2003 |
| Lowest daily mean | 0.02 | Aug 3 | 0.00 | Sep 11 | 0.00 | Aug 17, 1999 |
| Annual seven-day minimum | 0.03 | Jul 29 | 0.00 | Sep 24 | 0.00 | Aug 4, 2002 |
| Maximum peak flow | | | ^a 1,160 | Mar 2 | ^a 2,500 | Jun 7, 2003 |
| Maximum peak stage | | | 5.52 Mar 2 | | 7.44 Jun 7, 2003 | |
| Instantaneous low flow | | | ^a 0.00 | Aug 25 | ^a 0.00 | Aug 18, 1999 |
| Annual runoff (cfsm) | 1.21 | | 1.19 | | 1.03 | |
| Annual runoff (inches) | 16.45 | | 16.17 | | 14.05 | |
| 10 percent exceeds | 9.7 | | 8.5 | | 8.8 | |
| 50 percent exceeds | 2.0 | | 2.8 | | 1.7 | |
| 90 percent exceeds | 0.41 | | 0.03 | | 0.19 | |

^a See Remarks.

