



Water-Data Report 2011

0214643820 EDWARDS BRANCH AT SHEFFIELD DRIVE AT CHARLOTTE, NC

Santee Basin
Lower Catawba Subbasin

LOCATION.--Lat 35°12'12", long 80°46'20" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, on left bank at downstream end of culvert on Sheffield Drive, 3.8 mi east of city hall in Charlotte.

DRAINAGE AREA.--1.03 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 2004 to current year.

REVISED RECORDS.--WDR-US-2010: 2004-09: Maximum discharge.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 685.18 ft above North American Vertical Datum of 1988. Radio telemetry at streamgage.

REMARKS.--Records poor. No flow also occurred many days in water years 2007 to 2011. Peak flow for current water year and period of record from rating curve extended above 225 ft³/s based on computation of peak flow through culvert. Minimum discharges for all water years affected by regulation of unknown origin.

0214643820 EDWARDS BRANCH AT SHEFFIELD DRIVE AT CHARLOTTE, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1 | 0.10 | 0.09 | 5.0 | 1.1 | 0.15 | 0.61 | 0.49 | 0.19 | 0.21 | 0.14 | 0.13 | 0.01 |
| 2 | 0.07 | 0.10 | 0.19 | 1.2 | 3.7 | 0.19 | 0.39 | 0.21 | 0.20 | 0.10 | 0.05 | 2.8 |
| 3 | 0.08 | 0.08 | 0.15 | 0.18 | 0.21 | 0.15 | 0.38 | 4.3 | 0.19 | 0.10 | 0.02 | 0.12 |
| 4 | 0.10 | 1.4 | 0.22 | 0.18 | 6.6 | 0.15 | 0.35 | 2.3 | 0.23 | 4.4 | 0.02 | 0.02 |
| 5 | 0.10 | 0.12 | 0.17 | 0.15 | 4.1 | 0.16 | 2.8 | 0.24 | 0.17 | 0.27 | 35 | 6.6 |
| 6 | 0.09 | 0.10 | 0.19 | 0.21 | 0.30 | 8.7 | 0.21 | 0.57 | 0.15 | 4.0 | 2.5 | 0.63 |
| 7 | 0.09 | 0.12 | 0.14 | 0.15 | 0.23 | 0.38 | 0.20 | 0.23 | 0.15 | 2.7 | 0.27 | 0.09 |
| 8 | 0.10 | 0.10 | 0.13 | 0.16 | 0.21 | 0.22 | 0.21 | 0.22 | 0.14 | 0.47 | 2.4 | 0.06 |
| 9 | 0.10 | 0.10 | 0.14 | 0.17 | 0.17 | 4.7 | 2.8 | 0.22 | 0.88 | 0.43 | 0.38 | 0.06 |
| 10 | 0.10 | 0.10 | 0.15 | 0.38 | 0.37 | 2.0 | 0.32 | 0.20 | 1.1 | 0.13 | 0.11 | 0.06 |
| 11 | 0.11 | 0.10 | 0.15 | 0.72 | 0.22 | 0.37 | 0.17 | 5.7 | 1.7 | 0.10 | 0.30 | 0.05 |
| 12 | 0.12 | 0.10 | 1.2 | 0.34 | 0.17 | 0.24 | 0.19 | 0.97 | 0.59 | 0.09 | 0.16 | 0.05 |
| 13 | 0.12 | 0.10 | 0.16 | 0.24 | 0.17 | 0.21 | 0.17 | 0.30 | 0.20 | 0.08 | 0.27 | 0.05 |
| 14 | 0.59 | 0.10 | 0.15 | 0.21 | 0.18 | 0.20 | 0.17 | 0.43 | 0.15 | 0.09 | 0.85 | 0.04 |
| 15 | 0.09 | 0.10 | 0.15 | 0.18 | 0.17 | 2.3 | 0.17 | 0.30 | 0.14 | 0.10 | 0.18 | 0.02 |
| 16 | 0.09 | 0.44 | 0.29 | 0.18 | 0.17 | 0.36 | 3.5 | 0.43 | 0.18 | 0.11 | 0.09 | 0.01 |
| 17 | 0.09 | 0.25 | 0.23 | 0.19 | 0.17 | 0.20 | 0.26 | 6.1 | 0.12 | 0.10 | 0.07 | 0.03 |
| 18 | 0.09 | 0.10 | 0.14 | 0.29 | 0.17 | 0.19 | 0.20 | 0.60 | 0.14 | 0.08 | 0.07 | 0.04 |
| 19 | 0.10 | 0.10 | 0.14 | 0.18 | 0.17 | 0.18 | 0.20 | 0.38 | 0.13 | 0.08 | 0.08 | 0.05 |
| 20 | 0.31 | 0.11 | 0.13 | 0.16 | 0.18 | 0.17 | 0.20 | 0.27 | 0.17 | 0.08 | 0.06 | 0.03 |
| 21 | 0.13 | 0.10 | 0.13 | 0.15 | 0.17 | 0.17 | 0.20 | 0.27 | 9.5 | 0.06 | 1.2 | 1.5 |
| 22 | 0.14 | 0.11 | 0.11 | 0.15 | 0.16 | 0.16 | 1.2 | 0.33 | 1.2 | 0.05 | 0.72 | 0.47 |
| 23 | 0.13 | 0.12 | 0.11 | 0.15 | 0.17 | 0.15 | 0.22 | 0.45 | 0.13 | 0.02 | 0.05 | 28 |
| 24 | 0.12 | 0.12 | 0.12 | 0.15 | 0.17 | 0.42 | 0.22 | 0.24 | 0.72 | 0.02 | 0.04 | 7.2 |
| 25 | 1.8 | 0.11 | 0.39 | 0.17 | 0.19 | 0.17 | 0.22 | 0.24 | 0.17 | 0.01 | 0.03 | 2.5 |
| 26 | 0.42 | 0.56 | 0.96 | 0.80 | 0.17 | 4.9 | 0.21 | 0.23 | 0.10 | 0.02 | 0.02 | 0.57 |
| 27 | 0.70 | 0.12 | 0.18 | 0.17 | 0.17 | 2.1 | 0.22 | 2.0 | 0.10 | 0.01 | 0.02 | 5.0 |
| 28 | 0.30 | 0.11 | 0.16 | 0.15 | 8.2 | 1.3 | 1.6 | 0.37 | 9.2 | 0.00 | 0.01 | 2.3 |
| 29 | 0.11 | 0.15 | 0.15 | 0.15 | --- | 0.28 | 0.20 | 0.27 | 0.91 | 0.00 | 0.01 | 0.15 |
| 30 | 0.09 | 0.25 | 0.15 | 0.14 | --- | 8.2 | 0.19 | 0.25 | 0.20 | 0.00 | 0.01 | 0.13 |
| 31 | 0.09 | --- | 0.17 | 0.13 | --- | 0.76 | --- | 0.23 | --- | 11 | 0.01 | --- |
| Total | 6.67 | 5.56 | 11.85 | 8.88 | 27.21 | 40.29 | 17.86 | 29.04 | 29.17 | 24.84 | 45.13 | 58.64 |
| Mean | 0.22 | 0.19 | 0.38 | 0.29 | 0.97 | 1.30 | 0.60 | 0.94 | 0.97 | 0.80 | 1.46 | 1.95 |
| Max | 1.8 | 1.4 | 5.0 | 1.2 | 8.2 | 8.7 | 3.5 | 6.1 | 9.5 | 11 | 35 | 28 |
| Min | 0.07 | 0.08 | 0.11 | 0.13 | 0.15 | 0.15 | 0.17 | 0.19 | 0.10 | 0.00 | 0.01 | 0.01 |
| Cfsm | 0.21 | 0.18 | 0.37 | 0.28 | 0.94 | 1.26 | 0.58 | 0.91 | 0.94 | 0.78 | 1.41 | 1.90 |
| In. | 0.24 | 0.20 | 0.43 | 0.32 | 0.98 | 1.46 | 0.65 | 1.05 | 1.05 | 0.90 | 1.63 | 2.12 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2011, BY WATER YEAR (WY)

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Mean | 0.60 | 1.16 | 1.35 | 1.12 | 1.08 | 1.65 | 0.95 | 1.23 | 1.19 | 1.23 | 1.69 | 0.81 |
| Max | 1.19 | 4.58 | 2.45 | 3.06 | 2.06 | 2.85 | 1.80 | 3.36 | 2.83 | 1.90 | 5.93 | 1.95 |
| (WY) | (2007) | (2007) | (2010) | (2010) | (2010) | (2007) | (2007) | (2009) | (2010) | (2010) | (2008) | (2011) |
| Min | 0.22 | 0.08 | 0.38 | 0.29 | 0.71 | 0.37 | 0.44 | 0.43 | 0.60 | 0.56 | 0.21 | 0.19 |
| (WY) | (2011) | (2008) | (2011) | (2011) | (2009) | (2006) | (2006) | (2008) | (2007) | (2007) | (2007) | (2005) |

0214643820 EDWARDS BRANCH AT SHEFFIELD DRIVE AT CHARLOTTE, NC—Continued**SUMMARY STATISTICS**

| | Calendar Year 2010 | | Water Year 2011 | | Water Years 2004 - 2011 | |
|---------------------------------|--------------------|--------|-----------------|--------|-------------------------|--------------|
| Annual total | 458.50 | | 305.14 | | | |
| Annual mean | 1.26 | | 0.84 | | 1.25 | |
| Highest annual mean | | | | | 1.54 | 2010 |
| Lowest annual mean | | | | | 0.84 | 2011 |
| Highest daily mean | 45 | Jun 1 | 35 | Aug 5 | 117 | Aug 27, 2008 |
| Lowest daily mean | 0.04 | Sep 24 | a0.00 | Jul 28 | a0.00 | Sep 28, 2007 |
| Annual seven-day minimum | 0.05 | Sep 19 | 0.01 | Jul 24 | 0.00 | Sep 27, 2007 |
| Maximum peak flow | | | a836 | Aug 5 | a969 | Jan 24, 2010 |
| Maximum peak stage | | | 8.02 | Aug 5 | 8.72 | Jan 24, 2010 |
| Instantaneous low flow | | | a0.00 | Jul 23 | a0.00 | Sep 28, 2007 |
| Annual runoff (cfsm) | 1.22 | | 0.812 | | 1.21 | |
| Annual runoff (inches) | 16.56 | | 11.02 | | 16.51 | |
| 10 percent exceeds | 1.6 | | 1.9 | | 2.4 | |
| 50 percent exceeds | 0.23 | | 0.17 | | 0.22 | |
| 90 percent exceeds | 0.10 | | 0.06 | | 0.07 | |

^a See Remarks.

