

Water-Data Report 2008

**0214657975 IRVINS CREEK AT SECONDARY ROAD 3168 NEAR CHARLOTTE, NC**

Santee Basin  
Lower Catawba Subbasin

LOCATION.--Lat 35°09'31", long 80°42'48" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, on right bank at downstream side of bridge on Secondary Road 3168, 4.0 mi southwest of Mint Hill.

DRAINAGE AREA.--8.37 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--June 1999 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 612.56 ft above 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 500 ft<sup>3</sup>/s by step-backwater and culvert analysis. No flow also occurred Aug. 14-15, 2002, September 12, 13, 25-30, 2007, October 1, 2, 6-20, 2007.

## 0214657975 IRVINS CREEK AT SECONDARY ROAD 3168 NEAR CHARLOTTE, 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            | 0.00  | 0.06 | 0.14  | 1.5   | 45     | 1.8   | 2.4   | 2.9   | 0.68  | 0.11   | 0.47   | 2.6   |
| 2            | 0.12  | 0.10 | 0.14  | 0.93  | 6.8    | 1.8   | 1.9   | 2.3   | 0.69  | 0.09   | 0.29   | 0.67  |
| 3            | 0.15  | 0.09 | 0.17  | 0.71  | 2.7    | 1.5   | 2.5   | 2.1   | 0.59  | 0.08   | 0.26   | 0.54  |
| 4            | 0.06  | 0.08 | 0.18  | 0.63  | 1.9    | 77    | 3.6   | 2.1   | 0.56  | 0.09   | 0.23   | 0.48  |
| 5            | 0.02  | 0.11 | 0.29  | 0.65  | 1.6    | 36    | 13    | 1.6   | 0.50  | 0.38   | 0.22   | 0.44  |
| 6            | 0.00  | 0.11 | 0.20  | 0.60  | 1.5    | 6.0   | 5.5   | 1.5   | 0.44  | 7.1    | 0.20   | 0.51  |
| 7            | 0.00  | 0.11 | 0.18  | 0.57  | 1.4    | 24    | 3.2   | 1.3   | 0.40  | 0.53   | 0.20   | 0.47  |
| 8            | 0.00  | 0.09 | 0.19  | 0.54  | 1.2    | 21    | 2.6   | 1.3   | 0.38  | 11     | 0.20   | 0.41  |
| 9            | 0.00  | 0.08 | 0.18  | 0.52  | 1.2    | 6.7   | 2.4   | 1.3   | 0.35  | 2.7    | 0.18   | 0.41  |
| 10           | 0.00  | 0.08 | 0.19  | 0.74  | 1.1    | 4.2   | 2.1   | 1.2   | 0.33  | 0.82   | 0.20   | 2.9   |
| 11           | 0.00  | 0.07 | 0.20  | 1.1   | 0.99   | 3.4   | 1.9   | 1.5   | 7.1   | 1.1    | 0.15   | 1.5   |
| 12           | 0.00  | 0.06 | 0.20  | 0.77  | 1.2    | 3.0   | 2.8   | 1.2   | 2.2   | 0.42   | 0.15   | 0.59  |
| 13           | 0.00  | 0.06 | 0.19  | 0.61  | 13     | 2.8   | 2.2   | 1.0   | 0.34  | 6.2    | 1.4    | 0.49  |
| 14           | 0.00  | 0.06 | 0.21  | 0.57  | 8.5    | 2.5   | 2.0   | 1.0   | 0.25  | 3.7    | 0.70   | 0.41  |
| 15           | 0.00  | 0.19 | 0.51  | 0.56  | 2.7    | 52    | 1.8   | 0.97  | 0.22  | 0.63   | 3.5    | 0.39  |
| 16           | 0.00  | 0.17 | 16    | 0.50  | 2.0    | 19    | 1.7   | 1.8   | 0.21  | 0.41   | 1.4    | 12    |
| 17           | 0.00  | 0.09 | 0.56  | 20    | 1.7    | 5.4   | 1.6   | 0.97  | 0.18  | 0.26   | 1.5    | 2.4   |
| 18           | 0.00  | 0.06 | 0.32  | 5.2   | 8.1    | 4.1   | 1.6   | 0.95  | 0.15  | 0.21   | 0.43   | 0.78  |
| 19           | 0.01  | 0.07 | 0.27  | 3.7   | 2.8    | 13    | 1.5   | 1.1   | 0.13  | 0.19   | 0.25   | 0.56  |
| 20           | 0.01  | 0.07 | 0.40  | 3.6   | 1.9    | 12    | 1.7   | 0.85  | 0.13  | 0.15   | 0.18   | 0.50  |
| 21           | 0.21  | 0.06 | 1.0   | 1.6   | 1.7    | 4.6   | 1.6   | 0.82  | 0.23  | 0.11   | 0.16   | 0.47  |
| 22           | 0.09  | 0.08 | 0.52  | 1.4   | 7.3    | 3.6   | 1.6   | 0.78  | 0.58  | 6.6    | 0.15   | 0.46  |
| 23           | 0.06  | 0.08 | 0.72  | 2.0   | 3.6    | 3.0   | 1.5   | 0.72  | 1.5   | 106    | 0.13   | 0.49  |
| 24           | 0.18  | 0.08 | 0.72  | 1.4   | 2.4    | 2.7   | 1.4   | 0.70  | 0.23  | 34     | 0.12   | 0.48  |
| 25           | 6.3   | 0.09 | 0.40  | 1.1   | 2.1    | 2.5   | 1.4   | 0.72  | 0.15  | 1.2    | 0.12   | e0.45 |
| 26           | 14    | 0.12 | 14    | 1.0   | 14     | 2.3   | 4.8   | 0.64  | 0.13  | 0.67   | 56     | e20   |
| 27           | 1.0   | 0.15 | 1.5   | 0.96  | 5.2    | 2.0   | 15    | 0.75  | 2.8   | 0.54   | 446    | 15    |
| 28           | 0.24  | 0.17 | 3.5   | 0.90  | 2.7    | 1.8   | 104   | 6.4   | 0.57  | 0.40   | 4.0    | 2.2   |
| 29           | 0.13  | 0.16 | 9.3   | 0.95  | 2.1    | 1.8   | 15    | 1.6   | 0.46  | 0.35   | 1.4    | 1.0   |
| 30           | 0.10  | 0.14 | 38    | 1.2   | ---    | 1.7   | 4.4   | 0.86  | 0.17  | 0.31   | 1.5    | 0.79  |
| 31           | 0.08  | ---  | 6.7   | 0.91  | ---    | 2.2   | ---   | 0.78  | ---   | 0.37   | 1.3    | ---   |
| <b>Total</b> | 22.76 | 2.94 | 97.08 | 57.42 | 148.39 | 325.4 | 208.7 | 43.71 | 22.65 | 186.72 | 522.99 | 70.39 |
| <b>Mean</b>  | 0.73  | 0.10 | 3.13  | 1.85  | 5.12   | 10.5  | 6.96  | 1.41  | 0.76  | 6.02   | 16.9   | 2.35  |
| <b>Max</b>   | 14    | 0.19 | 38    | 20    | 45     | 77    | 104   | 6.4   | 7.1   | 106    | 446    | 20    |
| <b>Min</b>   | 0.00  | 0.06 | 0.14  | 0.50  | 0.99   | 1.5   | 1.4   | 0.64  | 0.13  | 0.08   | 0.12   | 0.39  |
| <b>Cfs/m</b> | 0.09  | 0.01 | 0.37  | 0.22  | 0.61   | 1.25  | 0.83  | 0.17  | 0.09  | 0.72   | 2.02   | 0.28  |
| <b>In.</b>   | 0.10  | 0.01 | 0.43  | 0.26  | 0.66   | 1.45  | 0.93  | 0.19  | 0.10  | 0.83   | 2.32   | 0.31  |

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2008, BY WATER YEAR (WY)

|             | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Mean</b> | 3.98   | 6.24   | 5.81   | 5.07   | 7.45   | 11.8   | 9.55   | 5.40   | 8.79   | 4.58   | 5.02   | 6.22   |
| <b>Max</b>  | 10.1   | 35.9   | 15.2   | 10.3   | 13.6   | 32.1   | 42.7   | 33.0   | 56.2   | 17.7   | 16.9   | 39.0   |
| <b>(WY)</b> | (2000) | (2007) | (2003) | (2007) | (2003) | (2003) | (2003) | (2003) | (2003) | (2003) | (2008) | (2004) |
| <b>Min</b>  | 0.37   | 0.10   | 0.79   | 1.85   | 2.32   | 2.82   | 2.18   | 1.21   | 0.44   | 0.08   | 0.17   | 0.11   |
| <b>(WY)</b> | (2002) | (2008) | (2002) | (2008) | (2002) | (2006) | (2006) | (2004) | (2002) | (2002) | (2007) | (2007) |

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## SUMMARY STATISTICS

|                                 | Calendar Year 2007 |        | Water Year 2008    |        | Water Years 1999 - 2008 |              |
|---------------------------------|--------------------|--------|--------------------|--------|-------------------------|--------------|
| <b>Annual total</b>             | 1,857.78           |        | 1,709.15           |        |                         |              |
| <b>Annual mean</b>              | 5.09               |        | 4.67               |        | 6.80                    |              |
| <b>Highest annual mean</b>      |                    |        |                    |        | 20.1                    | 2003         |
| <b>Lowest annual mean</b>       |                    |        |                    |        | 2.16                    | 2002         |
| <b>Highest daily mean</b>       | 389                | Mar 2  | 446                | Aug 27 | 544                     | Sep 28, 2004 |
| <b>Lowest daily mean</b>        | 0.00               | Sep 12 | 0.00               | Oct 1  | 0.00                    | Aug 13, 2002 |
| <b>Annual seven-day minimum</b> | 0.00               | Sep 25 | 0.00               | Oct 6  | 0.00                    | Sep 25, 2007 |
| <b>Maximum peak flow</b>        |                    |        | <sup>a</sup> 2,100 | Aug 27 | <sup>a</sup> 2,670      | Jun 18, 2003 |
| <b>Maximum peak stage</b>       |                    |        | 9.46               | Aug 27 | 10.27                   | Jun 18, 2003 |
| <b>Instantaneous low flow</b>   |                    |        | <sup>a</sup> 0.00  | Oct 1  | <sup>a</sup> 0.00       | Aug 13, 2002 |
| <b>Annual runoff (cfs)</b>      | 0.608              |        | 0.558              |        | 0.812                   |              |
| <b>Annual runoff (inches)</b>   | 8.26               |        | 7.60               |        | 11.04                   |              |
| <b>10 percent exceeds</b>       | 7.1                |        | 6.7                |        | 9.1                     |              |
| <b>50 percent exceeds</b>       | 0.94               |        | 0.75               |        | 1.7                     |              |
| <b>90 percent exceeds</b>       | 0.06               |        | 0.09               |        | 0.19                    |              |

<sup>a</sup>See Remarks.