

02087359 WALNUT CREEK AT SUNNYBROOK DRIVE AT RALEIGH, NC

LOCATION.--Lat 35°45'31", long 78°34'57", Wake County, Hydrologic Unit 03020201, at bridge on Secondary Road 2544, 0.9 mi upstream from Big Branch, and 3.5 mi southeast of Raleigh.

DRAINAGE AREA.--29.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 190.8 ft above NGVD of 1929. Satellite and telephone telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record from computation of peak flow through culvert; maximum gage height, 17.03 ft, from high-water mark in gage shelter. Minimum discharge for period of record also occurred Aug. 5, 6, 7, 8, 1999, Oct. 6, 2002.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|---------|-------|-------|------|-------|-------|-------|---------|-------|---------|-------|-------|
| 1 | 3.1 | 30 | 12 | 140 | 36 | 94 | 34 | 18 | 43 | 75 | 39 | 146 |
| 2 | 2.9 | 21 | 11 | 73 | 24 | 233 | 26 | 16 | 23 | 246 | 111 | 38 |
| 3 | 2.7 | 16 | 11 | 57 | 19 | 81 | 24 | 15 | 18 | 371 | 59 | 24 |
| 4 | 5.8 | 17 | 12 | 38 | 36 | 48 | 22 | 14 | 19 | 59 | 28 | 23 |
| 5 | 4.9 | 26 | 284 | 27 | 27 | 70 | 32 | 17 | 17 | 31 | 148 | 41 |
| 6 | 2.3 | 187 | 130 | 22 | 32 | 389 | 27 | 36 | 15 | 23 | 49 | 26 |
| 7 | 2.2 | 56 | 54 | 20 | 220 | 170 | 128 | 24 | 59 | 19 | 29 | 18 |
| 8 | 2.6 | 29 | e36 | 18 | 70 | 56 | 94 | 19 | 382 | 16 | 352 | 44 |
| 9 | 3.2 | 21 | e23 | 16 | 35 | 39 | 345 | 16 | 97 | 14 | 879 | 38 |
| 10 | 8.1 | 17 | e19 | 16 | 84 | 33 | 608 | 14 | 36 | 13 | 194 | 23 |
| 11 | 582 | 21 | 61 | 16 | 50 | 28 | 511 | 13 | 24 | 14 | 249 | 17 |
| 12 | 708 | 166 | 42 | 14 | 32 | 25 | 106 | 12 | 29 | 24 | 55 | 14 |
| 13 | 65 | 242 | 165 | 13 | 24 | 28 | 54 | 10 | 30 | 14 | 36 | 13 |
| 14 | 26 | 66 | 221 | 13 | 21 | 39 | 35 | 8.6 | 20 | 33 | 50 | 14 |
| 15 | 20 | 35 | 54 | 13 | 28 | 26 | 30 | 8.3 | 62 | 31 | 36 | 14 |
| 16 | 76 | e28 | 32 | 13 | 28 | 125 | 26 | 19 | 191 | 20 | 39 | 13 |
| 17 | 38 | e56 | 23 | 18 | 40 | 73 | 24 | 13 | 94 | 29 | 29 | 11 |
| 18 | 22 | e69 | 20 | 14 | 85 | 42 | 21 | 19 | 41 | 15 | 47 | 98 |
| 19 | 15 | 42 | 21 | 13 | 76 | 31 | 21 | 91 | 73 | 41 | 54 | 175 |
| 20 | 12 | 30 | 86 | 13 | 52 | 476 | 20 | 34 | 91 | 19 | 34 | 44 |
| 21 | 202 | 25 | 59 | 13 | 36 | 372 | 21 | 21 | 54 | 13 | 25 | 26 |
| 22 | 102 | 22 | 32 | 12 | 127 | 76 | 31 | 180 | 30 | 11 | 30 | 45 |
| 23 | 46 | 19 | 23 | 14 | 291 | 45 | 21 | 150 | 22 | 8.9 | 24 | 115 |
| 24 | 27 | 16 | 91 | 14 | 64 | 34 | 18 | 59 | 18 | 9.4 | 18 | 42 |
| 25 | 19 | 16 | 117 | 13 | 31 | 29 | 42 | 51 | 15 | 7.8 | 16 | 26 |
| 26 | 17 | 14 | 58 | 13 | 24 | 26 | 82 | 39 | 14 | 6.8 | 16 | 20 |
| 27 | 14 | 13 | 33 | 13 | 175 | 24 | 57 | 29 | 12 | 6.4 | 14 | 16 |
| 28 | 100 | 12 | 25 | 12 | 361 | 22 | 32 | 22 | 12 | 6.1 | 12 | 15 |
| 29 | 132 | 11 | 21 | 12 | --- | e28 | 24 | 23 | 15 | 69 | 12 | 13 |
| 30 | 146 | 11 | 19 | 70 | --- | e54 | 20 | 34 | 30 | 382 | 10 | 11 |
| 31 | 53 | --- | 18 | 94 | --- | e65 | --- | 37 | --- | 55 | 160 | --- |
| TOTAL | 2,459.8 | 1,334 | 1,813 | 847 | 2,128 | 2,881 | 2,536 | 1,061.9 | 1,586 | 1,682.4 | 2,854 | 1,163 |
| MEAN | 79.3 | 44.5 | 58.5 | 27.3 | 76.0 | 92.9 | 84.5 | 34.3 | 52.9 | 54.3 | 92.1 | 38.8 |
| MAX | 708 | 242 | 284 | 140 | 361 | 476 | 608 | 180 | 382 | 382 | 879 | 175 |
| MIN | 2.2 | 11 | 11 | 12 | 19 | 22 | 18 | 8.3 | 12 | 6.1 | 10 | 11 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 32.4 | 22.4 | 29.9 | 53.4 | 46.6 | 59.9 | 44.4 | 18.8 | 33.8 | 34.4 | 32.8 | 80.1 |
| MAX | 79.3 | 44.5 | 58.5 | 106 | 98.0 | 123 | 84.5 | 34.3 | 81.9 | 54.3 | 92.1 | 263 |
| (WY) | (2003) | (2003) | (2003) | (1998) | (1998) | (1998) | (2003) | (2003) | (2001) | (2003) | (2003) | (1999) |
| MIN | 9.04 | 5.69 | 15.2 | 13.9 | 21.9 | 26.0 | 20.9 | 3.03 | 11.9 | 11.3 | 8.00 | 10.6 |
| (WY) | (2001) | (2002) | (2001) | (2001) | (1999) | (2002) | (1999) | (2002) | (2002) | (1999) | (1997) | (2001) |

02087359 WALNUT CREEK AT SUNNYBROOK DRIVE AT RALEIGH, NC—Continued

| SUMMARY STATISTICS | FOR 2002 CALENDAR YEAR | | FOR 2003 WATER YEAR | | WATER YEARS 1996 - 2003 | |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|-------------|
| ANNUAL TOTAL | 12,984.65 | | 22,346.1 | | 39.4 | |
| ANNUAL MEAN | 35.6 | | 61.2 | | 61.2 | |
| HIGHEST ANNUAL MEAN | | | | | 23.4 | 2003 |
| LOWEST ANNUAL MEAN | | | | | 23.4 | 2002 |
| HIGHEST DAILY MEAN | 708 | Oct 12 | 879 | Aug 9 | 3,600 | Sep 6, 1996 |
| LOWEST DAILY MEAN | 0.50 | Aug 8 | 2.2 | Oct 7 | 0.50 | Aug 8, 2002 |
| ANNUAL SEVEN-DAY MINIMUM | 0.50 | Aug 8 | 3.3 | Oct 2 | 0.50 | Aug 8, 2002 |
| MAXIMUM PEAK FLOW | | | 1,750 | Oct 11 | 6,760* | Sep 6, 1996 |
| MAXIMUM PEAK STAGE | | | 10.97 | Oct 11 | 17.03* | Sep 6, 1996 |
| INSTANTANEOUS LOW FLOW | | | 2.0 | Oct 6 | 2.0* | Aug 4, 1999 |
| 10 PERCENT EXCEEDS | 84 | | 146 | | 71 | |
| 50 PERCENT EXCEEDS | 14 | | 28 | | 16 | |
| 90 PERCENT EXCEEDS | 1.8 | | 12 | | 6.1 | |

e Estimated.
 * See REMARKS.

