

Water-Data Report 2010

02088500 LITTLE RIVER NEAR PRINCETON, NC

Neuse Basin
Upper Neuse Subbasin

LOCATION.--Lat 35°30'41", long 78°09'37" referenced to North American Datum of 1983, Johnston County, NC, Hydrologic Unit 03020201, on left bank 600 ft downstream of bridge on Secondary Road 2320, 0.8 mi upstream from Little Creek, and 3 mi north of Princeton.

DRAINAGE AREA.--232 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--February 1930 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 1233: 1935(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 107.75 ft above NGVD of 1929. Prior to November 17, 1934, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Slight fluctuation and occasional regulation for short periods is caused by mills upstream from station. Maximum discharge for period of record, from rating curve extended above 9,000 ft³/s, by logarithmic plotting. Minimum discharge for period of record occurred several days in August 2002, September 12, 13, 2005, and September 8-14, 2007 due to regulation from unknown source.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|-------|---------|--------|--------|--------|--------|-------|-------|-------|-------|-------|----------|
| 1 | 4.0 | e1.7 | 102 | 370 | 332 | 177 | 2,380 | 55 | 248 | 33 | 89 | 25 |
| 2 | 3.2 | e1.3 | 122 | 361 | 360 | 191 | 1,140 | 49 | 236 | 19 | 54 | 20 |
| 3 | 2.8 | e1.6 | 362 | 284 | 684 | 430 | 391 | 44 | 302 | 13 | 43 | 16 |
| 4 | 2.0 | e1.3 | 473 | 232 | 861 | 526 | 284 | 40 | 281 | 10 | 34 | 13 |
| 5 | 1.6 | e1.5 | 535 | 199 | 881 | 373 | 233 | 40 | 199 | 8.6 | 32 | 11 |
| 6 | 2.1 | e1.4 | 570 | 181 | 1,890 | 273 | 198 | 44 | 145 | 7.4 | 36 | 8.3 |
| 7 | 1.8 | e1.7 | 402 | 168 | 2,050 | 221 | 171 | 39 | 122 | 6.5 | 64 | 7.7 |
| 8 | 1.2 | e1.6 | 291 | 162 | 1,960 | 191 | 150 | 34 | 106 | 6.0 | 106 | 6.2 |
| 9 | 1.4 | e1.8 | 587 | 154 | 1,870 | 174 | 143 | 30 | 87 | 5.8 | 71 | 4.9 |
| 10 | 1.2 | e1.8 | 1,100 | 144 | 1,380 | 160 | 173 | 25 | 73 | 5.7 | 57 | 4.7 |
| 11 | 0.76 | e192 | 1,050 | 132 | 696 | 152 | 256 | 21 | 63 | 6.0 | 43 | e5.3 |
| 12 | 0.48 | 495 | 951 | 132 | 514 | 185 | 217 | 20 | 53 | 5.4 | 33 | e4.1 |
| 13 | 0.69 | 558 | 611 | 129 | 423 | 335 | 174 | 19 | 48 | 9.3 | 35 | e2.8 |
| 14 | 0.94 | 626 | 375 | 127 | 393 | 496 | 144 | 17 | 42 | 6.8 | 48 | e2.4 |
| 15 | 2.3 | 586 | 310 | 122 | 365 | 391 | 124 | 17 | 49 | 8.6 | 34 | e1.4 |
| 16 | 1.8 | 352 | 268 | 121 | 335 | 301 | 112 | 15 | 73 | 7.4 | 28 | e0.78 |
| 17 | 2.0 | 219 | 228 | 344 | 297 | 248 | 104 | 25 | 49 | 8.6 | 24 | e0.75 |
| 18 | 2.2 | 156 | 200 | 870 | 264 | 210 | 92 | 349 | 38 | 19 | 20 | e0.77 |
| 19 | 2.7 | 144 | 279 | 825 | 236 | 185 | 82 | 607 | 45 | 7.1 | 17 | e0.70 |
| 20 | 3.0 | 152 | 390 | 628 | 215 | 165 | 76 | 658 | 46 | 6.4 | 47 | e0.61 |
| 21 | e2.8 | 173 | 348 | 510 | 198 | 149 | 74 | 545 | 37 | 12 | 143 | e0.45 |
| 22 | e2.8 | 150 | 306 | 1,130 | 194 | 161 | 75 | 348 | 33 | 12 | 107 | e0.33 |
| 23 | e2.0 | 161 | 253 | 1,220 | 242 | 237 | 76 | 199 | 29 | 15 | 81 | e0.24 |
| 24 | e1.6 | 192 | 215 | 879 | 264 | 211 | 75 | 219 | 29 | 13 | 58 | e0.15 |
| 25 | e2.5 | 181 | 205 | 1,110 | 258 | 189 | 73 | 569 | 24 | 96 | 122 | e0.14 |
| 26 | e1.6 | 153 | 366 | 1,470 | 250 | 171 | 79 | 608 | 21 | 63 | 121 | e0.33 |
| 27 | e1.4 | 132 | 451 | 1,150 | 222 | 164 | 84 | 391 | 18 | 28 | 90 | e30 |
| 28 | e1.4 | 113 | 359 | 886 | 197 | 151 | 78 | 218 | 15 | 18 | 71 | e241 |
| 29 | e1.2 | 98 | 295 | 600 | --- | 859 | 71 | 568 | 12 | 14 | 53 | 424 |
| 30 | e1.2 | 91 | 233 | 402 | --- | 1,940 | 62 | 816 | 19 | 19 | 40 | 1,340 |
| 31 | e1.0 | --- | 276 | 364 | --- | 2,560 | --- | 510 | --- | 24 | 31 | --- |
| Total | 57.67 | 4,939.7 | 12,513 | 15,406 | 17,831 | 12,176 | 7,391 | 7,139 | 2,542 | 513.6 | 1,832 | 2,173.05 |
| Mean | 1.86 | 165 | 404 | 497 | 637 | 393 | 246 | 230 | 84.7 | 16.6 | 59.1 | 72.4 |
| Max | 4.0 | 626 | 1,100 | 1,470 | 2,050 | 2,560 | 2,380 | 816 | 302 | 96 | 143 | 1,340 |
| Min | 0.48 | 1.3 | 102 | 121 | 194 | 149 | 62 | 15 | 12 | 5.4 | 17 | 0.14 |
| Cfsm | 0.01 | 0.71 | 1.74 | 2.14 | 2.74 | 1.69 | 1.06 | 0.99 | 0.37 | 0.07 | 0.25 | 0.31 |
| In. | 0.01 | 0.79 | 2.01 | 2.47 | 2.86 | 1.95 | 1.19 | 1.14 | 0.41 | 0.08 | 0.29 | 0.35 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2010, BY WATER YEAR (WY)

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Mean | 136 | 151 | 232 | 378 | 454 | 469 | 317 | 180 | 146 | 162 | 174 | 174 |
| Max | 1,202 | 684 | 717 | 999 | 1,285 | 1,204 | 969 | 835 | 698 | 826 | 783 | 2,861 |
| (WY) | (1965) | (2007) | (1937) | (1954) | (1948) | (1989) | (1959) | (1989) | (1995) | (1959) | (1931) | (1999) |
| Min | 1.86 | 5.91 | 16.0 | 24.1 | 49.6 | 85.3 | 53.3 | 17.3 | 7.24 | 6.75 | 2.48 | 1.71 |
| (WY) | (2010) | (2006) | (1934) | (1934) | (1934) | (2006) | (1986) | (1986) | (2002) | (2007) | (2007) | (2005) |

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SUMMARY STATISTICS

| | Calendar Year 2009 | | Water Year 2010 | | Water Years 1930 - 2010 | |
|---------------------------------|--------------------|--------|-----------------|--------|-------------------------|--------------|
| Annual total | 61,379.06 | | 84,514.02 | | | |
| Annual mean | 168 | | 232 | | 248 | |
| Highest annual mean | | | | | 511 | 1960 |
| Lowest annual mean | | | | | 91.8 | 1951 |
| Highest daily mean | 1,640 | Mar 2 | 2,560 | Mar 31 | 17,600 | Sep 17, 1999 |
| Lowest daily mean | 0.48 | Oct 12 | 0.14 | Sep 25 | 0.00 | Aug 12, 2002 |
| Annual seven-day minimum | 0.95 | Oct 8 | 0.32 | Sep 20 | 0.01 | Sep 8, 2007 |
| Maximum peak flow | | | 2,740 | Mar 31 | ^a 20,700 | Sep 17, 1999 |
| Maximum peak stage | | | 11.29 | Mar 31 | 16.58 | Sep 17, 1999 |
| Instantaneous low flow | | | Not Determined | | ^a 0.00 | Aug 12, 2002 |
| Annual runoff (cfsm) | 0.725 | | 0.998 | | 1.07 | |
| Annual runoff (inches) | 9.84 | | 13.55 | | 14.49 | |
| 10 percent exceeds | 454 | | 586 | | 615 | |
| 50 percent exceeds | 90 | | 106 | | 114 | |
| 90 percent exceeds | 2.3 | | 1.8 | | 18 | |

^a See Remarks.

