

## TENNESSEE RIVER BASIN

03453000 IVY RIVER NEAR MARSHALL, NC

LOCATION.--Lat 35°46'10", long 82°37'16", Madison County, Hydrologic Unit 06010105, on right bank 0.2 mi downstream from bridge on U.S. Highway 25-70, 1.9 mi upstream from mouth, and 4.0 mi southeast of Marshall.

DRAINAGE AREA.--158 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1933 to September 1973. July 1, 1994 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,700.41 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Satellite telemetry at station.

REVISED RECORDS.--WSP 803: 1934(M), 1935. WSP 1910: 1936(P), 1937(M), 1940(M), 1946(M), 1957(P).

REMARKS.--No estimated daily discharges. Records fair. Considerable low flow regulation, at times, caused by small power plant at Ivy Dam, 0.4 mi upstream. Minimum discharge for period of record and current water year affected by regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June, 1876, reached a stage of 16.0 ft, from studies by Tennessee Valley Authority (discharge 14,000 ft<sup>3</sup>/s). An outstanding but lesser flood occurred in July, 1916 (stage and discharge unknown).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 42    | 36    | 48    | 45    | 121   | 53    | 769   | 162   | 51    | 52    | 29    | 35    |
| 2     | 41    | 37    | 43    | 54    | 107   | 59    | 518   | 116   | 47    | 56    | 28    | 27    |
| 3     | 40    | 37    | 41    | 51    | 97    | 77    | 379   | 141   | 47    | 184   | 33    | 33    |
| 4     | 38    | 36    | 40    | 42    | 95    | 61    | 294   | 219   | 48    | 112   | 27    | 26    |
| 5     | 37    | 36    | 38    | 51    | 82    | 54    | 239   | 205   | 92    | 87    | 24    | 23    |
| 6     | 37    | 35    | 38    | 56    | 83    | 57    | 202   | 163   | 138   | 52    | 24    | 21    |
| 7     | 38    | 34    | 38    | 71    | 135   | 57    | 177   | 140   | 241   | 43    | 21    | 19    |
| 8     | 36    | 34    | 40    | 50    | 160   | 55    | 159   | 124   | 93    | 42    | 20    | 19    |
| 9     | 35    | 34    | 39    | 62    | 135   | 55    | 149   | 111   | 74    | 41    | 18    | 19    |
| 10    | 34    | 34    | 53    | 58    | 128   | 57    | 177   | 100   | 65    | 40    | 19    | 17    |
| 11    | 36    | 33    | 140   | 74    | 124   | 52    | 144   | 93    | 58    | 62    | 18    | 16    |
| 12    | 37    | 33    | 77    | 67    | 112   | 59    | 133   | 84    | 53    | 65    | 19    | 16    |
| 13    | 43    | 33    | 77    | 61    | 104   | 76    | 134   | 100   | 57    | 75    | 17    | 16    |
| 14    | 60    | 33    | 88    | 54    | 95    | 79    | 130   | 149   | 113   | 91    | 16    | 16    |
| 15    | 82    | 33    | 69    | 54    | 90    | 69    | 126   | 91    | 67    | 66    | 16    | 45    |
| 16    | 52    | 34    | 60    | 49    | 86    | 89    | 115   | 80    | 58    | 52    | 33    | 43    |
| 17    | 46    | 32    | 71    | 49    | 80    | 1760  | 108   | 74    | 54    | 44    | 31    | 32    |
| 18    | 43    | 32    | 223   | 50    | 74    | 1400  | 109   | 120   | 49    | 44    | 22    | 27    |
| 19    | 42    | 35    | 133   | 268   | 72    | 695   | 103   | 100   | 47    | 41    | 22    | 24    |
| 20    | 41    | 33    | 95    | 443   | 71    | 452   | 96    | 84    | 46    | 37    | 23    | 26    |
| 21    | 41    | 32    | 79    | 240   | 74    | 369   | 91    | 80    | 45    | 42    | 20    | 32    |
| 22    | 40    | 32    | 69    | 172   | 67    | 282   | 91    | 76    | 42    | 35    | 17    | 56    |
| 23    | 39    | 32    | 64    | 982   | 64    | 228   | 84    | 71    | 39    | 75    | 15    | 132   |
| 24    | 38    | 42    | 73    | 765   | 64    | 187   | 79    | 67    | 48    | 67    | 15    | 49    |
| 25    | 40    | 65    | 62    | 861   | 60    | 164   | 139   | 64    | 42    | 86    | 21    | 51    |
| 26    | 38    | 56    | 57    | 467   | 59    | 172   | 97    | 60    | 51    | 50    | 32    | 130   |
| 27    | 35    | 45    | 54    | 308   | 58    | 229   | 88    | 58    | 77    | 42    | 181   | 261   |
| 28    | 35    | 43    | 57    | 227   | 55    | 178   | 84    | 66    | 69    | 36    | 121   | 168   |
| 29    | 36    | 41    | 52    | 180   | ---   | 165   | 80    | 57    | 53    | 34    | 40    | 91    |
| 30    | 36    | 41    | 47    | 154   | ---   | 583   | 74    | 54    | 48    | 32    | 32    | 66    |
| 31    | 36    | ---   | 46    | 134   | ---   | 887   | ---   | 54    | ---   | 30    | 29    | ---   |
| TOTAL | 1274  | 1113  | 2111  | 6199  | 2552  | 8760  | 5168  | 3163  | 2012  | 1815  | 983   | 1536  |
| MEAN  | 41.10 | 37.10 | 68.10 | 200.0 | 91.14 | 282.6 | 172.3 | 102.0 | 67.07 | 58.55 | 31.71 | 51.20 |
| MAX   | 82    | 65    | 223   | 982   | 160   | 1760  | 769   | 219   | 241   | 184   | 181   | 261   |
| MIN   | 34    | 32    | 38    | 42    | 55    | 52    | 74    | 54    | 39    | 30    | 15    | 16    |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2002,® BY WATER YEAR (WY)

|      |       |       |       |       |       |       |       |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| MEAN | 75.66 | 90.31 | 130.4 | 212.9 | 259.3 | 309.3 | 238.2 | 154.6 | 109.8 | 96.58 | 86.47 | 60.14 |
| MAX  | 367   | 229   | 407   | 636   | 563   | 848   | 574   | 328   | 272   | 280   | 444   | 141   |
| (WY) | 1965  | 1950  | 1962  | 1937  | 1957  | 1963  | 1936  | 1946  | 1950  | 1949  | 1940  | 1949  |
| MIN  | 19.3  | 28.9  | 39.8  | 46.4  | 60.9  | 129   | 76.1  | 58.6  | 43.3  | 29.8  | 22.8  | 20.5  |
| (WY) | 1953  | 1940  | 1940  | 1940  | 1941  | 1970  | 1942  | 1941  | 1953  | 1952  | 1956  | 1998  |

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1934 - 2002®

|                          |       |        |       |             |
|--------------------------|-------|--------|-------|-------------|
| ANNUAL TOTAL             | 36340 | 36686  |       |             |
| ANNUAL MEAN              | 99.56 | 100.5  |       |             |
| HIGHEST ANNUAL MEAN      |       |        | 151.2 |             |
| LOWEST ANNUAL MEAN       |       |        | 232   | 1936        |
| HIGHEST DAILY MEAN       | 1210  | Jul 30 | 92.1  | 1941        |
| LOWEST DAILY MEAN        | 32    | Jan 11 | 8010  | Mar 12 1963 |
| ANNUAL SEVEN-DAY MINIMUM | 33    | Nov 17 | 15    | Aug 23      |
| MAXIMUM PEAK FLOW        |       |        | 17    | Sep 8       |
| MAXIMUM PEAK STAGE       |       |        | 4200  | Mar 17      |
| INSTANTANEOUS LOW FLOW   |       |        | 11.73 | Mar 17      |
| 10 PERCENT EXCEEDS       | 189   |        | 3.8*  | Jul 2       |
| 50 PERCENT EXCEEDS       | 65    |        |       |             |
| 90 PERCENT EXCEEDS       | 37    |        |       |             |

® See PERIOD OF RECORD.

\* See REMARKS.

03453000 IVY RIVER NEAR MARSHALL, NC--Continued

