Water-Data Report 2013

# 03281000 MIDDLE FORK KENTUCKY RIVER AT TALLEGA, KY

Kentucky Basin
Middle Fork Kentucky Subbasin

LOCATION.--Lat 37°33′18″, long 83°35′38″ referenced to North American Datum of 1927, Lee County, KY, Hydrologic Unit 05100202, on left bank 100 feet downstream of bridge on State Highway 708, 150 feet upstream from Lynam Creek, 0.5 miles southwest of Tallega, 8.3 miles upstream from confluence with North Fork, and at mile 8.3.

DRAINAGE AREA.--537.0 $mi^2$.

## SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1930 to March 1932. October 1939 to current year.

REVISED RECORDS.--WSP 1113: 1931, 1940. WSP 1385: 1931-32, 1948, drainage area. WSP 1505: 1946(M), 1951(M).

GAGE.--Water-stage recorder with telemetry. Datum of gage is 642.13 feet above NGVD of 1929. Prior to February 6, 1940, nonrecording gage at same site and datum.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District, and Kentucky River Authority.

REMARKS.--Records good. Flow regulated by Buckhorn Lake beginning December 1960 (station 03280900).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,370 $ft^3/s$, January 16, gage height, 19.94 feet.

REVISIONS.--Maximum peak stage for period of record for water years 2011 and 2012 is 43.33 feet, January 30, 1957.

**03281000 MIDDLE FORK KENTUCKY RIVER AT TALLEGA, KY—Continued**

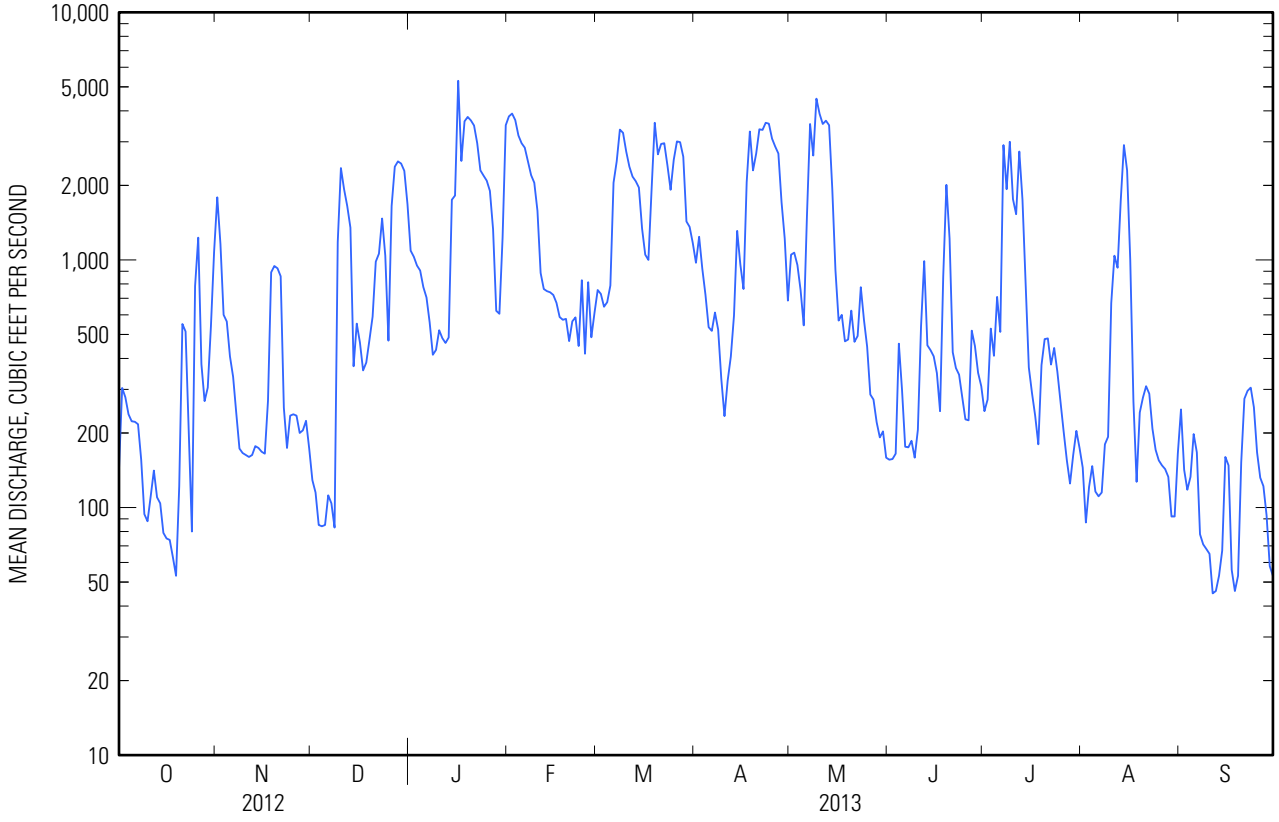
**DISCHARGE, CUBIC FEET PER SECOND**
**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**
**DAILY MEAN VALUES**
[e, estimated]

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 143 | 1,790 | 129 | 1,090 | e3,800 | 756 | 974 | 1,050 | 156 | 245 | 145 | 249 |
| 2 | 304 | 1,160 | 115 | 1,030 | 3,900 | 729 | 1,240 | 1,070 | 157 | 273 | 87 | 142 |
| 3 | 279 | 600 | 85 | 949 | 3,670 | 647 | 922 | 954 | 165 | 528 | 121 | 118 |
| 4 | 238 | 564 | 84 | 906 | 3,180 | 675 | 723 | 756 | 459 | 410 | 147 | 133 |
| 5 | 223 | 408 | 85 | 777 | 2,960 | 788 | 535 | 544 | 299 | 709 | 116 | 198 |
| 6 | 222 | 337 | 112 | 705 | 2,840 | 2,050 | 517 | 1,490 | 176 | 512 | 111 | 167 |
| 7 | 217 | 240 | 104 | 559 | 2,500 | 2,500 | 613 | 3,540 | 175 | 2,910 | 115 | 78 |
| 8 | 156 | 173 | 83 | 414 | 2,200 | 3,360 | 523 | 2,640 | 186 | 1,930 | 180 | 71 |
| 9 | 94 | 166 | 1,180 | 433 | 2,050 | 3,260 | 330 | 4,480 | 159 | 3,000 | 193 | 68 |
| 10 | 88 | 163 | 2,350 | 520 | 1,580 | 2,740 | 234 | 3,890 | 206 | 1,760 | 669 | 65 |
| 11 | 111 | 160 | 1,930 | 483 | 886 | 2,380 | 325 | 3,540 | 539 | 1,530 | 1,040 | 45 |
| 12 | 141 | 163 | 1,650 | 462 | 763 | 2,170 | 407 | 3,650 | 989 | 2,740 | 930 | 46 |
| 13 | 110 | 177 | 1,350 | 486 | 748 | 2,080 | 597 | 3,500 | 452 | 1,750 | 1,740 | 53 |
| 14 | 104 | 174 | 372 | 1,750 | 740 | 1,960 | 1,310 | 1,940 | 432 | 799 | 2,910 | 67 |
| 15 | 79 | 168 | 553 | 1,820 | 722 | 1,340 | 959 | 909 | 408 | 368 | 2,300 | 160 |
| 16 | 75 | 165 | 464 | 5,290 | 671 | 1,050 | 763 | 569 | 349 | 290 | 996 | 148 |
| 17 | 74 | 270 | 358 | e2,510 | 588 | 1,000 | 2,060 | 600 | 245 | 235 | 268 | 56 |
| 18 | 63 | 891 | 385 | 3,630 | 573 | 1,920 | 3,300 | 469 | 857 | 180 | 127 | 46 |
| 19 | 53 | 945 | 475 | 3,780 | 578 | 3,580 | 2,300 | 477 | 2,010 | 376 | 242 | 53 |
| 20 | 122 | 925 | 590 | 3,660 | 470 | 2,670 | 2,690 | 624 | 1,220 | 479 | 278 | 152 |
| 21 | 551 | 859 | 984 | 3,490 | 565 | 2,940 | 3,370 | 467 | 424 | 482 | 309 | 275 |
| 22 | 514 | 253 | 1,060 | 2,960 | 586 | 2,960 | 3,350 | 493 | 366 | 378 | 288 | 296 |
| 23 | 203 | 174 | 1,470 | 2,300 | 449 | 2,410 | 3,580 | 776 | 344 | 441 | 208 | 305 |
| 24 | 80 | 235 | 1,040 | 2,190 | 828 | 1,920 | 3,550 | 572 | 279 | 354 | 171 | 254 |
| 25 | 784 | 238 | 472 | 2,090 | 418 | 2,540 | 3,090 | 446 | 227 | 267 | 155 | 167 |
| 26 | 1,230 | 235 | 1,650 | 1,900 | 813 | 3,010 | 2,870 | 286 | 225 | 202 | 148 | 132 |
| 27 | 379 | 200 | 2,380 | 1,330 | 487 | 2,990 | 2,690 | 273 | 518 | 155 | 143 | 122 |
| 28 | 269 | 205 | 2,500 | 623 | 612 | 2,610 | 1,710 | 221 | 449 | 125 | 133 | 93 |
| 29 | 305 | 224 | 2,450 | 606 | --- | 1,430 | 1,220 | 192 | 350 | 163 | 92 | 58 |
| 30 | 540 | 173 | 2,290 | 1,230 | --- | 1,360 | 685 | 203 | 309 | 204 | 92 | 53 |
| 31 | 1,080 | --- | 1,680 | e3,500 | --- | 1,170 | --- | 159 | --- | 174 | 165 | --- |
| Total | 8,831 | 12,435 | 30,430 | 53,473 | 40,177 | 62,995 | 47,437 | 40,780 | 13,130 | 23,969 | 14,619 | 3,870 |
| Mean | 285 | 414 | 982 | 1,725 | 1,435 | 2,032 | 1,581 | 1,315 | 438 | 773 | 472 | 129 |
| Max | 1,230 | 1,790 | 2,500 | 5,290 | 3,900 | 3,580 | 3,580 | 4,480 | 2,010 | 3,000 | 2,910 | 305 |
| Min | 53 | 160 | 83 | 414 | 418 | 647 | 234 | 159 | 156 | 125 | 87 | 45 |
| Cfsm | 0.53 | 0.77 | 1.83 | 3.21 | 2.67 | 3.78 | 2.94 | 2.45 | 0.82 | 1.44 | 0.88 | 0.24 |
| In. | 0.61 | 0.86 | 2.11 | 3.70 | 2.78 | 4.36 | 3.29 | 2.82 | 0.91 | 1.66 | 1.01 | 0.27 |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2013, BY WATER YEAR (WY)**

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | 310 | 590 | 947 | 1,286 | 1,402 | 1,648 | 1,207 | 962 | 504 | 238 | 188 | 217 |
| Max | 2,225 | 1,715 | 2,826 | 3,320 | 3,634 | 3,672 | 3,280 | 2,762 | 2,599 | 773 | 623 | 2,086 |
| (WY) | (1990) | (1978) | (1973) | (1974) | (1994) | (1994) | (1994) | (1971) | (1989) | (2013) | (1992) | (2004) |
| Min | 47.5 | 23.8 | 45.5 | 56.8 | 270 | 241 | 98.7 | 57.9 | 49.1 | 43.6 | 33.9 | 36.4 |
| (WY) | (1989) | (2002) | (1966) | (1981) | (1968) | (1988) | (1986) | (1986) | (1988) | (1988) | (2002) | (2010) |

**03281000 MIDDLE FORK KENTUCKY RIVER AT TALLEGA, KY—Continued**

**SUMMARY STATISTICS**

| | Calendar Year 2012 | | Water Year 2013 | | Water Years 1961 - 2013 | |
|---|---|---|---|---|---|---|
| **Annual total** | 263,420 | | 352,146 | | | |
| **Annual mean** | 720 | | 965 | | 789 | |
| **Highest annual mean** | | | | | 1,492 | 1994 |
| **Lowest annual mean** | | | | | 267 | 1988 |
| **Highest daily mean** | 3,600 | Jan 25 | 5,290 | Jan 16 | 12,200 | May 9, 2009 |
| **Lowest daily mean** | 31 | Jun 27 | 45 | Sep 11 | 3.7 | Nov 15, 2001 |
| **Annual seven-day minimum** | 33 | Jun 26 | 59 | Sep 8 | 4.4 | Nov 10, 2001 |
| **Maximum peak flow** | | | 6,370 | Jan 16 | 52,700 | Jan 30, 1957 |
| **Maximum peak stage** | | | 19.94 | Jan 16 | 43.33 | Jan 30, 1957 |
| **Instantaneous low flow** | | | 39 | Sep 12 | 0.10 | Oct 12, 1953 |
| **Annual runoff (cfsm)** | 1.34 | | 1.80 | | 1.47 | |
| **Annual runoff (inches)** | 18.25 | | 24.39 | | 19.95 | |
| **10 percent exceeds** | 2,360 | | 2,780 | | 2,520 | |
| **50 percent exceeds** | 261 | | 493 | | 310 | |
| **90 percent exceeds** | 44 | | 115 | | 61 | |