## 03601990 DUCK RIVER AT HIGHWAY 100 AT CENTERVILLE, TN

LOCATION.--Lat 35°47'03", long 87°27'36", Hickman County, Hydrologic Unit 06040003, on downstream right bank side of bridge on US Highway 48/100, at Defeated Creek, 0.43 mi northeast of public square in Centerville, 3.5 mi downstream from Swan Creek and at mile 72.6.

DRAINAGE AREA.--2,048 $mi^2$.

PERIOD OF RECORD.--April 1919 to September 1955, published as "at Centerville." May 2001 to current year.

GAGE.--Data collection platform. Datum of gage is 447.76 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges and discharge below 1,500 $ft^3/s$, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 14, 1948, (from graph through bi-hourly gage readings) at site downstream, 03602000 Duck River at Centerville, TN, 37.58 ft (discharge 97,700 ft/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36,900 $ft^3/s$, Dec. 10, gage height, 26.40 ft; minimum discharge, 398 $ft^3/s$, Aug. 15, 16, gage height, 3.12 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 582 | 2,040 | 35,500 | 2,920 | 3,260 | 4,630 | 5,410 | 3,810 | 672 | 587 | 520 | 3,070 |
| 2 | 565 | 1,820 | 34,700 | 2,640 | 2,960 | 4,430 | 10,900 | 6,380 | 807 | 678 | 512 | 2,200 |
| 3 | 545 | 1,710 | 30,900 | 2,440 | 4,280 | 3,960 | 9,890 | 3,620 | 1,030 | 655 | 486 | 1,540 |
| 4 | 523 | 2,410 | 14,600 | 2,290 | 5,240 | 3,240 | 7,520 | 2,610 | 971 | 576 | 466 | 1,150 |
| 5 | 507 | 3,940 | 8,330 | 2,320 | 4,950 | 2,760 | 5,390 | 2,140 | 1,010 | 548 | 455 | e924 |
| 6 | 488 | 4,040 | 7,550 | 2,390 | 4,120 | 2,440 | 4,620 | 1,850 | 1,160 | 586 | 454 | e803 |
| 7 | 481 | 3,540 | 21,700 | 2,990 | 3,620 | 2,270 | 12,000 | 1,650 | 1,600 | 589 | 470 | e722 |
| 8 | 479 | 2,860 | 34,700 | 17,500 | 4,090 | 2,230 | 18,600 | 1,500 | 1,200 | 577 | 465 | e661 |
| 9 | 480 | 2,450 | 34,600 | 21,000 | 4,800 | 2,120 | 18,100 | 1,380 | 1,700 | 576 | 471 | e620 |
| 10 | 480 | 2,160 | 35,800 | 14,600 | 4,630 | 2,060 | 13,500 | 1,330 | 2,230 | 553 | 454 | e600 |
| 11 | 480 | 2,010 | 31,500 | 9,030 | 3,960 | 2,010 | 9,030 | 1,260 | 2,460 | 628 | 477 | e580 |
| 12 | 649 | 1,950 | 22,600 | 9,440 | 3,480 | 1,870 | 6,870 | 1,190 | 3,090 | 825 | 490 | e540 |
| 13 | e811 | 2,190 | 10,900 | 10,400 | 3,250 | 1,750 | 5,130 | 1,130 | 4,290 | 735 | 446 | e540 |
| 14 | e819 | 3,680 | 8,460 | 16,600 | 4,040 | 1,630 | 4,600 | 1,070 | 2,780 | 693 | 424 | 489 |
| 15 | 908 | 2,990 | 7,120 | 15,500 | 7,380 | 1,540 | 3,990 | 1,120 | 2,060 | 1,240 | 405 | 497 |
| 16 | 811 | 2,290 | 6,240 | 10,500 | 6,880 | 1,500 | 3,290 | 1,180 | 1,570 | e1,520 | 413 | 585 |
| 17 | 756 | 1,910 | 5,660 | 7,580 | 5,240 | 1,500 | 2,720 | 1,080 | 1,210 | 1,330 | 549 | e681 |
| 18 | 774 | 1,690 | 5,160 | 6,060 | 4,330 | 1,460 | 2,360 | 1,020 | 998 | 1,000 | 784 | 657 |
| 19 | e4,880 | 1,560 | 4,530 | 5,070 | 3,830 | 1,430 | 2,130 | 972 | 885 | 838 | 624 | 594 |
| 20 | e12,000 | 1,470 | 3,250 | 4,180 | 4,300 | 1,420 | 1,950 | e968 | 813 | 750 | 506 | 584 |
| 21 | e10,600 | 1,380 | 2,790 | 3,650 | 12,400 | 1,360 | 1,850 | 952 | 762 | 860 | 464 | 577 |
| 22 | 6,810 | 1,320 | 3,030 | 3,220 | 21,700 | 1,330 | 2,220 | 891 | 725 | 914 | 454 | 538 |
| 23 | e4,020 | 1,360 | 16,300 | 2,850 | 21,300 | 3,270 | 2,900 | 850 | e689 | 841 | 447 | 525 |
| 24 | e2,790 | 6,350 | 20,200 | 2,550 | 11,600 | 3,500 | 3,360 | 830 | 649 | 787 | 425 | 485 |
| 25 | 2,370 | 13,200 | 14,100 | 2,350 | 7,790 | 2,660 | 2,530 | 782 | 621 | 706 | 444 | 479 |
| 26 | 2,210 | 12,700 | 8,050 | 2,210 | 6,200 | 2,270 | 2,090 | 746 | e623 | 708 | 584 | 640 |
| 27 | 2,790 | 7,330 | 6,060 | 2,060 | 5,190 | 2,050 | 1,890 | 729 | e623 | 652 | 649 | 1,060 |
| 28 | e2,570 | 5,600 | 4,900 | 1,920 | 4,710 | 2,520 | 1,750 | 702 | 631 | 649 | 612 | 1,530 |
| 29 | e2,440 | 4,740 | 3,970 | 2,040 | --- | 7,680 | 1,880 | 677 | 625 | 728 | 606 | 1,110 |
| 30 | 2,440 | 13,400 | 3,500 | 3,000 | --- | e6,320 | 2,560 | 663 | 602 | 587 | 5,540 | 873 |
| 31 | 2,240 | --- | 3,190 | 3,810 | --- | 4,620 | --- | 660 | --- | 540 | 5,900 | --- |
| TOTAL | 69,298 | 116,090 | 449,890 | 195,110 | 179,530 | 83,830 | 171,030 | 45,742 | 39,086 | 23,456 | 25,996 | 25,854 |
| MEAN | 2,235 | 3,870 | 14,510 | 6,294 | 6,412 | 2,704 | 5,701 | 1,476 | 1,303 | 757 | 839 | 862 |
| MAX | 12,000 | 13,400 | 35,800 | 21,000 | 21,700 | 7,680 | 18,600 | 6,380 | 4,290 | 1,520 | 5,900 | 3,070 |
| MIN | 479 | 1,320 | 2,790 | 1,920 | 2,960 | 1,330 | 1,750 | 660 | 602 | 540 | 405 | 479 |
| (†) | -2,900 | -3,900 | -4,500 | 100 | 1,400 | 4,700 | 8,400 | 700 | -900 | -600 | -2,000 | -2,600 |
| MEAN(‡) | 2,142 | 3,740 | 14,367 | 6,297 | 6,462 | 2,856 | 5,981 | 1,498 | 1,273 | 737 | 774 | 775 |
| CFSM(‡) | 1.05 | 1.83 | 7.02 | 3.07 | 3.16 | 1.39 | 2.92 | 0.73 | 0.62 | 0.36 | 0.38 | 0.38 |
| IN. (‡) | 1.21 | 2.04 | 8.09 | 3.54 | 3.29 | 1.61 | 3.26 | 0.84 | 0.69 | 0.42 | 0.44 | 0.42 |

CAL YR 2004 MEAN(‡) 4622 CFSM(‡) 2.26 IN.(‡) 30.64
WTR YR 2005 MEAN(‡) 3898 CFSM(‡) 1.90 IN.(‡) 25.84

(†) Change in contents, in cfs-days in Normandy Lake.
(‡) Adjusted for change in content.
NOTE.--Contents (cfs-days) for adjustments furnished by Tennessee Valley Authority.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1,844 | 3,476 | 7,920 | 5,817 | 9,298 | 5,728 | 4,504 | 4,357 | 2,068 | 1,437 | 1,140 | 1,350 |
| MAX | 2,451 | 5,073 | 14,510 | 11,530 | 16,650 | 10,750 | 5,893 | 13,230 | 4,058 | 3,162 | 1,984 | 2,370 |
| (WY) | (2003) | (2003) | (2005) | (2002) | (2003) | (2002) | (2002) | (2003) | (2004) | (2004) | (2001) | (2003) |
| MIN | 607 | 2,359 | 2,938 | 1,790 | 3,150 | 2,704 | 3,200 | 1,077 | 758 | 757 | 584 | 737 |
| (WY) | (2004) | (2004) | (2004) | (2003) | (2002) | (2005) | (2004) | (2001) | (2002) | (2005) | (2002) | (2001) |

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| SUMMARY STATISTICS | FOR 2004 CALENDAR YEAR | | FOR 2005 WATER YEAR | | WATER YEARS 2001 - 2005 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 1,688,021 | | 1,424,912 | | | |
| ANNUAL MEAN | 4,612 | | 3,904 | | 4,142 | |
| HIGHEST ANNUAL MEAN | | | | | 5,090 | 2003 |
| LOWEST ANNUAL MEAN | | | | | 3,370 | 2004 |
| HIGHEST DAILY MEAN | 44,400 | Feb 7 | 35,800 | Dec 10 | 53,200 | May 8, 2003 |
| LOWEST DAILY MEAN | 479 | Oct 8 | 405 | Aug 15 | 405 | Aug 15, 2005 |
| ANNUAL SEVEN-DAY MINIMUM | 485 | Oct 5 | 444 | Aug 10 | 440 | Sep 9, 2002 |
| MAXIMUM PEAK FLOW | | | 36,900 | Dec 10 | 54,400 | May 8, 2003 |
| MAXIMUM PEAK STAGE | | | 26.40 | Dec 10 | 33.10 | May 8, 2003 |
| INSTANTANEOUS LOW FLOW | | | a398 | Aug 15 | 398 | Aug 15, 2005 |
| 10 PERCENT EXCEEDS | 8,640 | | 9,620 | | 8,330 | |
| 50 PERCENT EXCEEDS | 2,350 | | 1,950 | | 1,910 | |
| 90 PERCENT EXCEEDS | 807 | | 539 | | 587 | |

a Also occurred Aug. 16, 2005.
e Estimated