Water-Data Report 2008

# 07315500 Red River near Terral, OK

Red-Lake Texoma Basin
Farmers-Mud Subbasin

LOCATION.--Lat 33°52′43″, long 97°56′03″ referenced to North American Datum of 1927, Jefferson County, Hydrologic Unit 11130201, on left bank at downstream side of bridge abutment on U.S. Highway 81, 0.5 mi downstream from Chicago and Rock Island Railroad Co. bridge, 1.2 mi south of Terral, 3.6 mi downstream from Little Wichita River, and at mile 872.

DRAINAGE AREA.--28,723 $mi^2$ of which 5,936 $mi^2$ probably is noncontributing.

## SURFACE-WATER RECORDS

PERIOD OF RECORD.--Apr. 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

PERIOD OF RECORD.--Water-Quality,--
CHEMICAL DATA: Oct. 1967 to Sept. 1997, Oct. 2002 to Sept. 2007.
BIOLOGICAL DATA: May 1997 to Sept. 1997, Oct. 1999 to Sept. 2007.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 770.31 ft above NGVD of 1929. Prior to Jan. 12, 1939, nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically. Since installation of gage in Apr. 1938, at least 10% of contributing drainage area has been regulated. There are many small diversions upstream from station for irrigation, oil field operations, and for municipal uses.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 19, 1935, reached a stage of 27.2 ft, although floods in 1891 and on May 1, 1908, are reported to have reached about the same stage.

**07315500 Red River near Terral, OK—Continued**

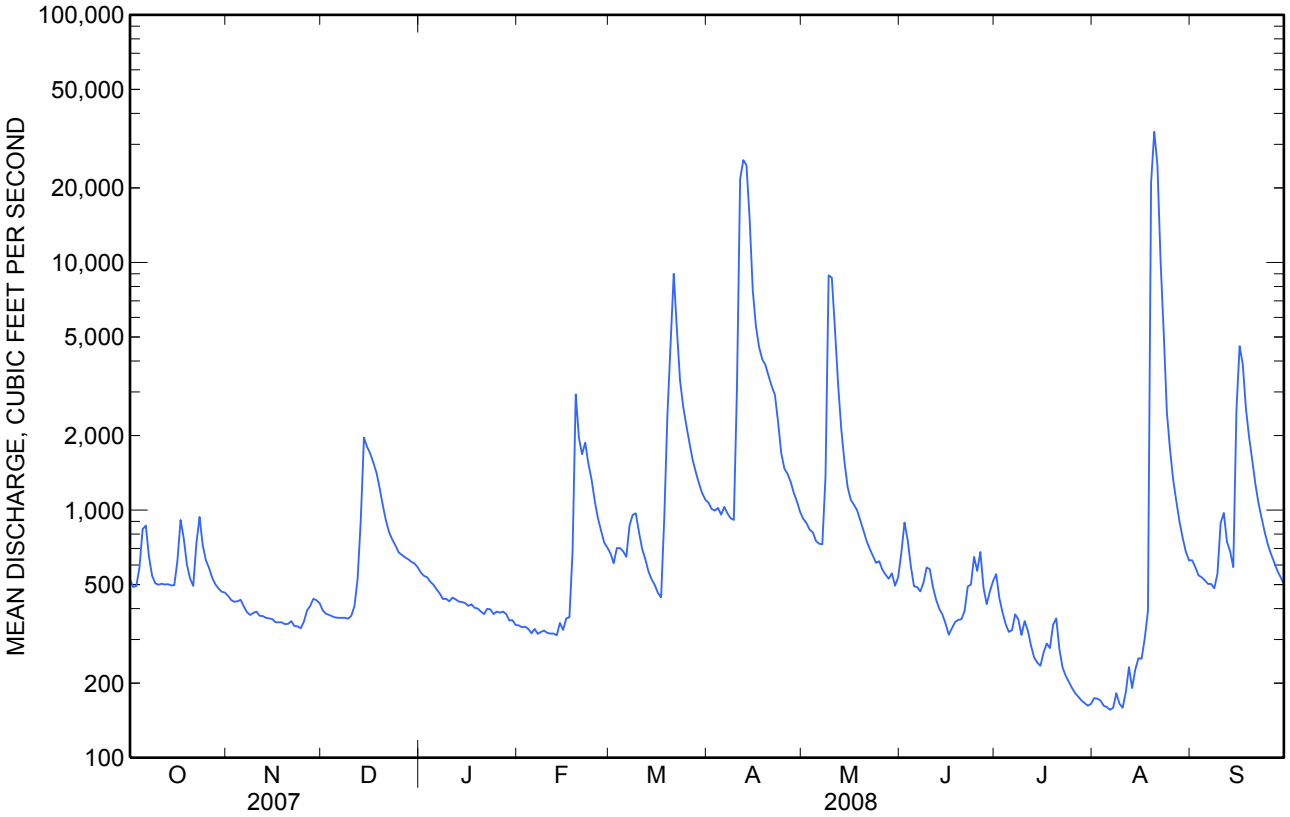
**DISCHARGE, CUBIC FEET PER SECOND**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
**DAILY MEAN VALUES**
[e, estimated]

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 524 | 451 | 393 | 559 | 342 | 668 | 1,070 | 920 | 672 | 551 | 174 | 627 |
| 2 | 489 | 433 | 381 | 542 | 336 | 610 | 1,010 | 885 | 890 | 441 | 173 | 587 |
| 3 | 493 | 426 | 377 | 535 | 338 | 702 | 994 | 833 | 757 | 386 | 170 | 545 |
| 4 | 588 | 428 | 372 | 513 | 331 | 702 | 1,020 | 813 | 594 | 346 | 162 | 535 |
| 5 | 837 | 434 | 368 | 499 | 318 | 681 | 958 | 750 | 492 | 322 | 160 | 520 |
| 6 | 866 | 408 | 367 | 478 | 331 | 647 | 1,030 | 731 | 488 | 327 | 156 | 503 |
| 7 | 649 | 387 | 367 | 460 | 316 | 865 | 969 | 727 | 469 | 379 | 159 | 503 |
| 8 | 542 | 377 | 367 | 437 | 322 | 956 | 927 | 1,360 | 509 | 362 | 182 | 483 |
| 9 | 506 | 384 | 364 | 438 | 326 | 970 | 912 | 8,870 | 586 | 313 | 165 | 554 |
| 10 | 499 | 389 | 374 | 428 | 319 | 815 | 3,100 | 8,680 | 577 | 356 | 159 | 887 |
| 11 | 504 | 374 | 409 | 443 | 317 | 697 | 21,700 | 5,370 | 488 | 326 | 184 | 973 |
| 12 | 500 | 373 | 527 | 436 | 317 | 634 | 25,900 | 3,210 | 434 | 284 | 232 | 744 |
| 13 | 502 | 367 | 910 | 427 | 312 | 565 | 24,700 | 2,120 | 399 | 254 | 191 | 681 |
| 14 | 496 | 365 | 1,960 | 425 | 350 | 525 | 15,100 | 1,570 | 378 | 242 | 227 | 588 |
| 15 | e497 | 363 | 1,800 | 421 | 328 | 498 | 7,700 | 1,240 | 347 | 235 | 252 | 2,540 |
| 16 | e623 | 352 | 1,690 | 410 | 365 | 462 | 5,530 | 1,100 | 314 | 266 | 251 | 4,590 |
| 17 | 911 | 352 | 1,550 | 416 | 369 | 444 | 4,550 | 1,050 | 333 | 289 | 304 | 3,880 |
| 18 | 769 | 352 | 1,410 | 403 | 683 | 930 | 4,060 | 998 | 353 | 277 | 391 | 2,570 |
| 19 | 602 | 346 | 1,220 | 400 | 2,930 | 2,420 | 3,850 | 909 | 360 | 344 | 21,000 | 1,970 |
| 20 | 529 | 347 | 1,040 | 389 | 1,960 | 4,660 | 3,480 | 828 | 362 | 365 | 33,700 | 1,590 |
| 21 | 494 | 356 | 902 | 380 | 1,680 | 9,000 | 3,160 | 750 | 391 | 274 | 24,700 | 1,270 |
| 22 | 734 | 340 | 811 | 399 | 1,870 | 5,350 | 2,920 | 697 | 491 | 231 | 10,200 | 1,060 |
| 23 | 938 | 339 | 758 | 397 | 1,540 | 3,330 | 2,270 | 653 | 500 | 214 | 5,180 | 924 |
| 24 | 721 | 333 | 718 | 380 | 1,330 | 2,610 | 1,700 | 612 | 647 | 202 | 2,470 | 808 |
| 25 | 627 | 354 | 674 | 389 | 1,090 | 2,190 | 1,470 | 621 | 568 | 191 | 1,750 | 721 |
| 26 | 584 | 393 | 659 | 385 | 929 | 1,860 | 1,400 | 574 | 677 | 182 | 1,320 | 661 |
| 27 | 533 | 410 | 644 | 389 | 827 | 1,590 | 1,300 | 548 | 485 | 176 | 1,080 | 612 |
| 28 | 501 | 438 | 633 | 380 | 739 | 1,420 | 1,170 | 528 | 417 | 170 | 895 | 567 |
| 29 | 482 | 432 | 618 | 358 | 705 | 1,280 | 1,080 | 555 | 469 | 166 | 771 | 535 |
| 30 | 468 | 420 | 608 | 359 | --- | 1,170 | 981 | 495 | 516 | 162 | 678 | 503 |
| 31 | 464 | --- | 587 | 343 | --- | 1,100 | --- | 536 | --- | 165 | 626 | --- |
| Total | 18,472 | 11,523 | 23,858 | 13,218 | 21,920 | 50,351 | 146,011 | 49,533 | 14,963 | 8,798 | 108,062 | 33,531 |
| Mean | 596 | 384 | 770 | 426 | 756 | 1,624 | 4,867 | 1,598 | 499 | 284 | 3,486 | 1,118 |
| Max | 938 | 451 | 1,960 | 559 | 2,930 | 9,000 | 25,900 | 8,870 | 890 | 551 | 33,700 | 4,590 |
| Min | 464 | 333 | 364 | 343 | 312 | 444 | 912 | 495 | 314 | 162 | 156 | 483 |
| Ac-ft | 36,640 | 22,860 | 47,320 | 26,220 | 43,480 | 99,870 | 289,600 | 98,250 | 29,680 | 17,450 | 214,300 | 66,510 |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2008, BY WATER YEAR (WY)**

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | 2,836 | 1,580 | 1,106 | 956 | 1,346 | 1,995 | 2,553 | 6,063 | 5,950 | 1,717 | 1,362 | 1,870 |
| Max | 23,900 | 9,713 | 11,810 | 5,306 | 9,320 | 14,710 | 18,080 | 43,580 | 37,460 | 11,370 | 14,730 | 9,653 |
| (WY) | (1987) | (1987) | (1992) | (1992) | (1987) | (1998) | (1990) | (1957) | (1941) | (2007) | (1995) | (1986) |
| Min | 108 | 102 | 91.2 | 76.5 | 136 | 66.1 | 142 | 134 | 268 | 103 | 107 | 100 |
| (WY) | (1953) | (1940) | (1939) | (1940) | (1953) | (1940) | (1971) | (1971) | (2006) | (2006) | (2003) | (2000) |

**07315500 Red River near Terral, OK—Continued**

**SUMMARY STATISTICS**

| | Calendar Year 2007 | | Water Year 2008 | | Water Years 1938 - 2008 | |
|---|---|---|---|---|---|---|
| **Annual total** | 1,619,932 | | 500,240 | | | |
| **Annual mean** | 4,438 | | 1,367 | | 2,442 | |
| **Highest annual mean** | | | | | 8,925 | 1987 |
| **Lowest annual mean** | | | | | 411 | 2006 |
| **Highest daily mean** | 92,600 | Jul 1 | 33,700 | Aug 20 | 215,000 | Jun 7, 1995 |
| **Lowest daily mean** | 333 | Nov 24 | 156 | Aug 6 | 44 | Aug 10, 2006 |
| **Annual seven-day minimum** | 345 | Nov 18 | 163 | Aug 4 | 47 | Mar 18, 1940 |
| **Maximum peak flow** | | | 40,100 | Aug 19 | 236,000 | Jun 7, 1995 |
| **Maximum peak stage** | | | 17.50 | Aug 19 | 33.60 | Oct 22, 1983 |
| **Annual runoff (ac-ft)** | 3,213,000 | | 992,200 | | 1,769,000 | |
| **10 percent exceeds** | 11,200 | | 2,140 | | 5,300 | |
| **50 percent exceeds** | 1,030 | | 531 | | 590 | |
| **90 percent exceeds** | 404 | | 313 | | 175 | |