

Water-Data Report 2013

07144795 NORTH FORK NINNESCAH RIVER AT CHENEY DAM, KS

Middle Arkansas Basin
North Fork Ninnescah Subbasin

LOCATION.--Lat 37°43'17", long 97°47'39" referenced to North American Datum of 1927, in NE ¼ SW ¼ SE ¼ sec.6, T.27 S., R.4 W., Sedgwick County, KS, Hydrologic Unit 11030014, on right bank 1,400 ft downstream from Cheney Dam, 6.0 mi north of Cheney, and at mile 15.5.

DRAINAGE AREA.--901 mi² of which 237 mi² probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete Parshall flume. Datum of gage is 1,366.02 ft above NGVD of 1929 (Bureau of Reclamation bench mark). Prior to Oct. 1, 1973, at datum 1.00 ft higher.

REMARKS.--Records fair. Flow completely regulated since 1964 by Cheney Reservoir (station 07144790), 1,400 ft upstream. Satellite telemeter at station.

07144795 NORTH FORK NINNESCAH RIVER AT CHENEY DAM, KS—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|------|------|------|------|------|------|------|------|------|------|--------|--------|
| 1 | 0.13 | 0.09 | 0.19 | 0.23 | 0.06 | 0.06 | 0.04 | 0.06 | 0.20 | 0.04 | 0.20 | 1,250 |
| 2 | 0.13 | 0.07 | 0.19 | 0.27 | 0.07 | 0.06 | 0.05 | 0.23 | 0.18 | 0.03 | 0.23 | 1,250 |
| 3 | 0.13 | 0.07 | 0.18 | 0.28 | 0.06 | 0.06 | 0.04 | 0.12 | 0.16 | 0.04 | 0.27 | 1,140 |
| 4 | 0.13 | 0.07 | 0.17 | 0.31 | 0.06 | 0.07 | 0.04 | 0.09 | 0.15 | 0.06 | 0.85 | 873 |
| 5 | 0.14 | 0.07 | 0.18 | 0.22 | 0.06 | 0.06 | 0.03 | 0.09 | 0.21 | 0.05 | 0.54 | 788 |
| 6 | 0.15 | 0.07 | 0.17 | 0.17 | 0.07 | 0.05 | 0.02 | 0.09 | 0.18 | 0.05 | 0.57 | 787 |
| 7 | 0.16 | 0.07 | 0.17 | 0.15 | 0.08 | 0.05 | 0.02 | 0.09 | 0.15 | 0.06 | 0.44 | 789 |
| 8 | 0.15 | 0.09 | 0.17 | 0.13 | 0.06 | 0.06 | 0.02 | 0.19 | 0.14 | 0.03 | 1.4 | 789 |
| 9 | 0.14 | 0.12 | 0.17 | 0.12 | 0.07 | 0.13 | 0.04 | 0.24 | 0.14 | 0.01 | 0.78 | 445 |
| 10 | 0.14 | 0.14 | 0.20 | 0.15 | 0.07 | 0.09 | 0.17 | 0.17 | 0.11 | 0.01 | 0.62 | 2.0 |
| 11 | 0.14 | 0.22 | 0.21 | 0.13 | 0.06 | 0.07 | 0.07 | 0.14 | 0.09 | 0.01 | 0.56 | 1.9 |
| 12 | 0.17 | 0.11 | 0.21 | 0.14 | 0.05 | 0.05 | 0.04 | 0.11 | 0.06 | 0.01 | 0.73 | 2.0 |
| 13 | 0.20 | 0.10 | 0.19 | 0.13 | 0.05 | 0.05 | 0.04 | 0.10 | 0.07 | 0.00 | 450 | 2.0 |
| 14 | 0.16 | 0.11 | 0.20 | 0.14 | 0.05 | 0.05 | 0.03 | 0.08 | 0.07 | 0.08 | 846 | 1.9 |
| 15 | 0.15 | 0.12 | 0.20 | 0.13 | 0.05 | 0.05 | 0.05 | 0.07 | 0.06 | 0.12 | 1,150 | 2.0 |
| 16 | 0.12 | 0.10 | 0.19 | 0.14 | 0.05 | 0.05 | 0.04 | 0.08 | 0.06 | 0.09 | 1,350 | 2.0 |
| 17 | 0.12 | 0.11 | 0.18 | 0.12 | 0.04 | 0.04 | 0.07 | 0.09 | 0.13 | 0.10 | 1,340 | 1.9 |
| 18 | 0.12 | 0.12 | 0.17 | 0.12 | 0.04 | 0.04 | 0.08 | 0.09 | 0.08 | 0.07 | 1,330 | 1.9 |
| 19 | 0.11 | 0.11 | 0.17 | 0.11 | 0.03 | 0.03 | 0.05 | 0.24 | 0.13 | 0.05 | 1,320 | 2.3 |
| 20 | 0.11 | 0.10 | 0.19 | 0.10 | 0.05 | 0.03 | 0.04 | 0.18 | 0.09 | 0.05 | 1,320 | 1.9 |
| 21 | 0.12 | 0.10 | 0.19 | 0.11 | 0.13 | 0.03 | 0.04 | 0.11 | 0.07 | 0.07 | 1,310 | 1.9 |
| 22 | 0.12 | 0.09 | 0.19 | 0.09 | 0.13 | 0.03 | 0.04 | 0.09 | 0.06 | 0.20 | 1,310 | 1.9 |
| 23 | 0.14 | 0.07 | 0.20 | 0.08 | 0.13 | 0.04 | 0.16 | 0.08 | 0.05 | 0.34 | 1,300 | 2.0 |
| 24 | 0.12 | 0.08 | 0.19 | 0.09 | 0.08 | 0.09 | 0.09 | 0.08 | 0.06 | 0.36 | 1,300 | 1.9 |
| 25 | 0.09 | 0.08 | 0.22 | 0.08 | 0.11 | 0.05 | 0.07 | 0.07 | 0.07 | 0.16 | 1,290 | 1.9 |
| 26 | 0.09 | 0.08 | 0.29 | 0.07 | 0.16 | 0.03 | 0.09 | 0.06 | 0.06 | 0.14 | 1,280 | 1.9 |
| 27 | 0.09 | 0.16 | 0.35 | 0.09 | 0.07 | 0.03 | 0.09 | 0.06 | 0.06 | 0.12 | 1,280 | 1.9 |
| 28 | 0.10 | 0.23 | 0.31 | 0.08 | 0.06 | 0.03 | 0.07 | 0.06 | 0.06 | 0.42 | 1,270 | 2.0 |
| 29 | 0.10 | 0.22 | 0.34 | 0.08 | --- | 0.03 | 0.06 | 0.06 | 0.04 | 0.28 | 1,270 | 1.9 |
| 30 | 0.10 | 0.19 | 0.32 | 0.07 | --- | 0.04 | 0.06 | 0.65 | 0.03 | 0.25 | 1,260 | 1.9 |
| 31 | 0.09 | --- | 0.24 | 0.06 | --- | 0.04 | --- | 0.27 | --- | 0.24 | 1,260 | --- |
| Mean | 0.13 | 0.11 | 0.21 | 0.14 | 0.07 | 0.05 | 0.06 | 0.13 | 0.10 | 0.11 | 750 | 272 |
| Max | 0.20 | 0.23 | 0.35 | 0.31 | 0.16 | 0.13 | 0.17 | 0.65 | 0.21 | 0.42 | 1,350 | 1,250 |
| Min | 0.09 | 0.07 | 0.17 | 0.06 | 0.03 | 0.03 | 0.02 | 0.06 | 0.03 | 0.00 | 0.20 | 1.9 |
| Ac-ft | 7.9 | 6.7 | 13 | 8.3 | 4.0 | 3.2 | 3.5 | 8.2 | 6.0 | 7.0 | 46,100 | 16,170 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2013, BY WATER YEAR (WY)

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Mean | 93.1 | 105 | 52.6 | 59.6 | 93.5 | 141 | 202 | 214 | 216 | 135 | 43.5 | 69.0 |
| Max | 1,054 | 1,782 | 334 | 360 | 569 | 681 | 933 | 1,142 | 1,504 | 1,162 | 750 | 973 |
| (WY) | (1974) | (1980) | (1993) | (1998) | (1993) | (2001) | (1973) | (1993) | (1995) | (1987) | (2013) | (1977) |
| Min | 0.04 | 0.04 | 0.03 | 0.02 | 0.04 | 0.05 | 0.05 | 0.01 | 0.00 | 0.00 | 0.08 | 0.03 |
| (WY) | (2007) | (2007) | (2007) | (2002) | (2002) | (2013) | (2011) | (2011) | (2011) | (2011) | (2012) | (2000) |

07144795 NORTH FORK NINNESCAH RIVER AT CHENEY DAM, KS—Continued

SUMMARY STATISTICS

| | Calendar Year 2012 | | Water Year 2013 | | Water Years 1965 - 2013 | |
|---------------------------------|--------------------|--------|-----------------|--------|-------------------------|--------------|
| Annual mean | 0.12 | | 86.1 | | 119 | |
| Highest annual mean | | | | | 406 | 1993 |
| Lowest annual mean | | | | | 0.12 | 2012 |
| Highest daily mean | 1.6 | Feb 3 | 1,350 | Aug 16 | 1,910 | Apr 30, 1969 |
| Lowest daily mean | 0.03 | Apr 22 | 0.00 | Jul 13 | 0.00 | May 18, 1966 |
| Annual seven-day minimum | 0.04 | Apr 19 | 0.02 | Jul 7 | 0.00 | Aug 16, 1980 |
| Maximum peak flow | | | 1,370 | Aug 15 | 2,070 | Nov 13, 1979 |
| Maximum peak stage | | | 5.27 | Aug 15 | 5.51 | Jul 13, 1987 |
| Instantaneous low flow | | | 0.00 | Jul 9 | 0.00 | at times |
| Annual runoff (ac-ft) | 89 | | 62,340 | | 85,920 | |
| 10 percent exceeds | 0.20 | | 1.9 | | 378 | |
| 50 percent exceeds | 0.10 | | 0.11 | | 0.48 | |
| 90 percent exceeds | 0.05 | | 0.04 | | 0.10 | |

