Water-Data Report 2012

# 06821500 Arikaree River at Haigler, Nebr.

Republican Basin
Arikaree Subbasin

LOCATION.--Lat 40°01′45″, long 101°58′03″ referenced to North American Datum of 1983, in NE ¼ NE ¼ sec.29, T.1 N., R.41 W., Dundy County, NE, Hydrologic Unit 10250001, on right bank at downstream side of bridge on U.S. Highway 34, 1.3 mi upstream from Burlington Northern Inc. bridge, 1.9 mi upstream from confluence with North Fork Republican River, 2 mi northwest of Haigler, and 3.2 mi downstream from Kansas-Nebraska state line.

DRAINAGE AREA.--1,700 mi² of which 680 mi² probably is noncontributing.

## SURFACE-WATER RECORDS

PERIOD OF RECORD.--DAILY DISCHARGE--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1310.

PERIOD OF RECORD.--DAILY GAGE HEIGHT--October 2009 to current year.

REVISED RECORDS.--WSP 1919: 1951, 1954, 1956, 1960. WDR NE-94-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 3,250.98 ft above sea level. See WSP 1919 for history of changes prior to Sept. 29, 1964. Sept. 29, 1964 to Apr. 25, 1982, on left bank 57 ft downstream from bridge at present datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow affected by groundwater withdrawals and diversions for irrigation of about 1,500 acres in Colorado and by return flow from Haigler Canal.



Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 06821500, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/06821500.2012.pdf

**06821500 Arikaree River at Haigler, Nebr.—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**
**DAILY MEAN VALUES**

[e, estimated]

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 | 1.7 | e2.6 | 0.28 | 0.00 | 0.00 |
| **2** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 2.8 | e1.6 | 0.44 | 0.00 | 0.00 |
| **3** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 | e4.6 | e2.6 | 0.25 | 0.00 | 0.00 |
| **4** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.20 | e5.1 | e0.73 | 0.17 | 0.17 | 0.00 |
| **5** | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.28 | e4.5 | e1.1 | 0.33 | 0.02 | 0.00 |
| **6** | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.12 | 0.11 | e5.4 | e2.3 | 0.12 | 0.00 | 0.00 |
| **7** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.04 | e5.0 | e2.4 | 0.01 | 0.00 | 0.00 |
| **8** | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | e5.4 | e2.3 | 1.0 | 0.00 | 0.00 |
| **9** | 1.6 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | e5.0 | e1.6 | 2.6 | 0.00 | 0.00 |
| **10** | 0.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.12 | 0.00 | e5.4 | e1.3 | 2.0 | 0.00 | 0.00 |
| **11** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | e5.8 | e0.99 | 0.91 | 0.26 | 0.00 |
| **12** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.07 | e6.8 | e0.66 | 1.2 | 0.04 | 0.00 |
| **13** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.07 | e7.6 | 1.5 | 0.98 | 0.00 | 0.00 |
| **14** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.07 | e7.2 | 1.2 | 0.14 | 0.00 | 0.00 |
| **15** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.12 | e5.5 | 1.1 | 0.00 | 0.00 | 0.00 |
| **16** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.03 | e3.5 | 1.2 | 0.00 | 0.00 | 0.00 |
| **17** | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 | e3.2 | 0.59 | 0.04 | 0.00 | 0.00 |
| **18** | 0.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 | e3.3 | 0.44 | 0.46 | 0.00 | 0.00 |
| **19** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.00 | e6.2 | 1.4 | 0.53 | 0.00 | 0.00 |
| **20** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.12 | 0.00 | e5.6 | 0.97 | 1.1 | 0.00 | 0.00 |
| **21** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 3.8 | e5.1 | 1.7 | 0.01 | 0.00 | 0.00 |
| **22** | 0.00 | 0.00 | 0.00 | 0.00 | e0.39 | 0.20 | 0.60 | e4.8 | 2.2 | 0.00 | 0.00 | 0.00 |
| **23** | 0.00 | 0.00 | 0.00 | 0.00 | e0.34 | 0.17 | 2.6 | e4.7 | 0.21 | 0.00 | 0.00 | 0.00 |
| **24** | 0.00 | 0.00 | 0.00 | 0.00 | e0.26 | 0.15 | 3.1 | e6.7 | 1.4 | 0.08 | 0.00 | 0.00 |
| **25** | 0.00 | 0.00 | 0.00 | 0.00 | e0.15 | 0.15 | 2.2 | e6.2 | 0.55 | 0.14 | 0.00 | 0.08 |
| **26** | 0.00 | 0.00 | 0.00 | 0.00 | e0.12 | 0.16 | 4.0 | e4.7 | 1.1 | 0.30 | 0.00 | 0.19 |
| **27** | 0.00 | 0.00 | 0.00 | 0.00 | e0.11 | 0.10 | 7.6 | e3.0 | 0.21 | 0.48 | 0.00 | 0.24 |
| **28** | 0.00 | 0.00 | 0.00 | 0.00 | e0.11 | 0.00 | 2.2 | e2.8 | 0.23 | 0.09 | 0.00 | 0.37 |
| **29** | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 | 1.2 | e2.5 | 0.72 | 0.00 | 0.00 | 0.59 |
| **30** | 0.00 | 0.00 | 0.00 | 0.00 | --- | 0.00 | 4.0 | e2.0 | 0.56 | 0.21 | 0.00 | 0.68 |
| **31** | 0.00 | --- | 0.00 | 0.00 | --- | 0.00 | --- | e2.0 | --- | 1.0 | 0.00 | --- |
| **Total** | 3.16 | 0.00 | 0.00 | 0.00 | 1.57 | 3.33 | 32.29 | 144.1 | 37.46 | 14.87 | 0.49 | 2.15 |
| **Mean** | 0.10 | 0.00 | 0.00 | 0.00 | 0.05 | 0.11 | 1.08 | 4.65 | 1.25 | 0.48 | 0.02 | 0.07 |
| **Max** | 1.6 | 0.00 | 0.00 | 0.00 | 0.39 | 0.20 | 7.6 | 7.6 | 2.6 | 2.6 | 0.26 | 0.68 |
| **Min** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.7 | 0.21 | 0.00 | 0.00 | 0.00 |
| **Ac-ft** | 6.3 | 0.00 | 0.00 | 0.00 | 3.1 | 6.6 | 64 | 286 | 74 | 29 | 1.0 | 4.3 |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2012, BY WATER YEAR (WY)**

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Mean** | 8.53 | 6.96 | 5.51 | 6.53 | 13.3 | 23.9 | 20.0 | 35.2 | 34.3 | 17.1 | 15.9 | 13.0 |
| **Max** | 39.8 | 31.8 | 28.3 | 24.0 | 67.0 | 400 | 78.0 | 709 | 599 | 193 | 111 | 140 |
| **(WY)** | (1943) | (1947) | (1939) | (1934) | (1937) | (1960) | (1944) | (1935) | (1935) | (1962) | (1938) | (1938) |
| **Min** | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.83 | 0.07 | 0.00 | 0.00 | 0.00 |
| **(WY)** | (2012) | (2002) | (2002) | (2003) | (2003) | (2004) | (2004) | (2004) | (2002) | (2002) | (1952) | (2002) |

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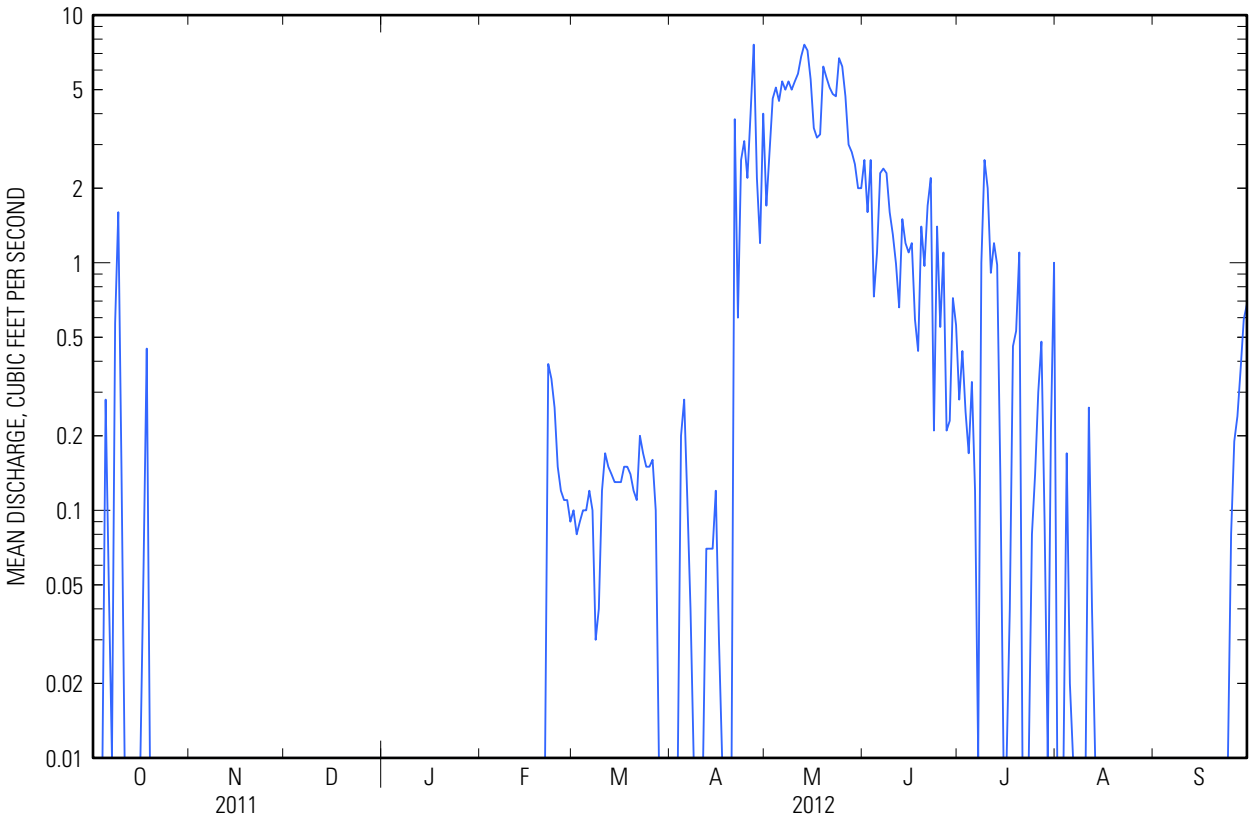
**SUMMARY STATISTICS**

| | Calendar Year 2011 | | Water Year 2012 | | Water Years 1932 - 2012 | |
|---|---|---|---|---|---|---|
| **Annual total** | 541.37 | | 239.42 | | | |
| **Annual mean** | 1.48 | | 0.65 | | 16.7 | |
| **Highest annual mean** | | | | | 127 | 1935 |
| **Lowest annual mean** | | | | | 0.28 | 2002 |
| **Highest daily mean** | 29 | May 26 | 7.6 | Apr 27 | 17,000 | May 31, 1935 |
| **Lowest daily mean** | 0.00 | Jan 1 | 0.00 | Oct 1 | 0.00 | Jul 21, 1932 |
| **Annual seven-day minimum** | 0.00 | Sep 28 | 0.00 | Oct 19 | 0.00 | Jul 30, 1934 |
| **Maximum peak flow** | | | [a]11 | Apr 27 | [b]50,000 | May 31, 1935 |
| **Maximum peak stage** | | | [c]6.14 | Jun 8 | [d]11.20 | May 31, 1935 |
| **Annual runoff (ac-ft)** | 1,070 | | 475 | | 12,070 | |
| **10 percent exceeds** | 4.1 | | 2.5 | | 28 | |
| **50 percent exceeds** | 0.25 | | 0.00 | | 6.4 | |
| **90 percent exceeds** | 0.00 | | 0.00 | | 0.08 | |

[a] Gage height, 5.25 ft.
[b] From rating curve extended above 3,800 ft³/s on basis of slope-area measurement.
[c] Backwater from beaver activity.
[d] Site and datum then in use.



**06821500 Arikaree River at Haigler, Nebr.—Continued**

**GAGE HEIGHT, FEET**
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**
**DAILY MEAN VALUES**

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | --- | --- | 3.87 | --- | 4.43 | 5.89 | 3.93 | --- | --- |
| 2 | --- | --- | --- | --- | --- | 3.86 | --- | 4.59 | 5.89 | 4.06 | --- | --- |
| 3 | --- | --- | --- | --- | --- | 3.87 | --- | 5.08 | 6.00 | 3.98 | --- | --- |
| 4 | --- | --- | --- | --- | --- | 3.87 | 3.91 | 4.92 | 6.00 | 3.87 | 3.77 | --- |
| 5 | 4.02 | --- | --- | --- | --- | 3.87 | 3.95 | 4.84 | 6.00 | 4.00 | 3.70 | --- |
| 6 | 4.01 | --- | --- | --- | --- | 3.89 | 3.88 | 5.06 | 6.01 | 3.90 | --- | --- |
| 7 | --- | --- | --- | --- | --- | 3.87 | 3.84 | 4.89 | 5.99 | 3.77 | --- | --- |
| 8 | 4.11 | --- | --- | --- | --- | 3.84 | 3.80 | 5.09 | 6.10 | 4.13 | --- | --- |
| 9 | 4.32 | --- | --- | --- | --- | 3.84 | 3.80 | 4.90 | 5.94 | 4.35 | --- | --- |
| 10 | 3.99 | --- | --- | --- | --- | 3.88 | 3.75 | 5.18 | 5.91 | 4.25 | --- | --- |
| 11 | --- | --- | --- | --- | --- | 3.90 | 3.73 | 5.27 | 5.98 | 4.04 | 3.82 | --- |
| 12 | --- | --- | --- | --- | --- | 3.90 | 3.85 | 5.39 | 5.01 | 4.09 | 3.72 | --- |
| 13 | --- | --- | --- | --- | --- | 3.89 | 3.86 | 5.55 | 4.37 | 4.05 | --- | --- |
| 14 | --- | --- | --- | --- | --- | 3.89 | 3.86 | 5.52 | 4.30 | 3.79 | --- | --- |
| 15 | --- | --- | --- | --- | --- | 3.89 | 3.88 | 5.40 | 4.29 | --- | --- | --- |
| 16 | --- | --- | --- | --- | --- | 3.89 | 3.84 | 5.46 | 4.31 | --- | --- | --- |
| 17 | 4.03 | --- | --- | --- | --- | 3.90 | 3.80 | 5.49 | 4.12 | 3.75 | --- | --- |
| 18 | 4.11 | --- | --- | --- | --- | 3.90 | 3.75 | 5.56 | 4.06 | 3.90 | --- | --- |
| 19 | --- | --- | --- | --- | --- | 3.89 | 3.75 | 5.62 | 4.33 | 3.89 | --- | --- |
| 20 | --- | --- | --- | --- | --- | 3.88 | 3.75 | 5.68 | 4.24 | 4.07 | --- | --- |
| 21 | --- | --- | --- | --- | --- | 3.88 | 4.56 | 5.75 | 4.39 | 3.70 | --- | --- |
| 22 | --- | --- | --- | --- | --- | 3.91 | 4.04 | 5.68 | 4.47 | --- | --- | --- |
| 23 | --- | --- | --- | --- | --- | 3.90 | 4.46 | 5.64 | 3.96 | --- | --- | --- |
| 24 | --- | --- | --- | --- | --- | 3.90 | 4.55 | 5.66 | 4.33 | 3.73 | --- | 3.70 |
| 25 | --- | --- | --- | --- | --- | 3.90 | 4.42 | 5.81 | 4.08 | 3.76 | --- | 3.80 |
| 26 | --- | --- | --- | --- | --- | 3.90 | 4.68 | 5.82 | 4.28 | 3.84 | --- | 3.92 |
| 27 | --- | --- | --- | --- | --- | 3.87 | 5.01 | 5.76 | 3.91 | 3.91 | --- | 3.87 |
| 28 | --- | --- | --- | --- | --- | 3.82 | 4.38 | 5.71 | 3.89 | 3.74 | --- | 3.99 |
| 29 | --- | --- | --- | --- | 3.87 | 3.78 | 4.22 | 5.68 | 4.17 | --- | --- | 4.05 |
| 30 | --- | --- | --- | --- | --- | --- | 4.80 | 5.71 | 4.06 | 3.79 | --- | 4.07 |
| 31 | --- | --- | --- | --- | --- | --- | --- | 5.85 | --- | 4.05 | --- | --- |
| Mean | --- | --- | --- | --- | --- | --- | --- | 5.39 | 4.88 | --- | --- | --- |
| Max | --- | --- | --- | --- | --- | --- | --- | 5.85 | 6.10 | --- | --- | --- |
| Min | --- | --- | --- | --- | --- | --- | --- | 4.43 | 3.89 | --- | --- | --- |

**06821500 Arikaree River at Haigler, Nebr.—Continued**