

**07237500 NORTH CANADIAN RIVER AT WOODWARD, OK**

Lower North Canadian Basin  
Middle North Canadian Subbasin

LOCATION.--Lat 36°26'12", long 99°16'41" referenced to North American Datum of 1927, in SW ¼ SW ¼ sec.30, T.23 N., R.19 W., Woodward County, OK, Hydrologic Unit 11100301, on downstream side of pier of bridge on State Highway 412 (formerly State Highway 15), 275 ft downstream from The Atchison, Topeka and Santa Fe Railway Co. bridge, 6.0 mi east of Woodward, 7.2 mi upstream from Indian Creek, 27.5 mi downstream from Wolf Creek, and at mile 460.2.

DRAINAGE AREA.--11,883 mi<sup>2</sup> of which 3,497 mi<sup>2</sup> probably is noncontributing, from automated delineation using 10-meter National Elevation Dataset digital elevation model data dated 10/01/2006 and Watershed Boundary Dataset dated 10/01/2006, using Albers Equal-Area Projection, North American Datum 1983.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1903 to September 1905 (gage heights only), October 1905 to June 1906, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as Canadian River (North Fork) near Woodward 1903-06. Gage-height records collected in this vicinity since 1919 are contained in reports of National Weather Service.

REVISED RECORDS.--WDR 2012: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,829.95 ft above NGVD of 1929. Prior to July 1906, nonrecording gage at railway bridge 275 ft upstream at different datum. Oct. 1, 1938 to Oct. 26, 1943, nonrecording gage and Oct. 27, 1943 to July 12, 1951, water-stage recorder, at site 7.8 mi upstream at datum 37.01 ft higher than present datum.

REMARKS.--Records good. Some regulation since May 1942 by Fort Supply Lake on Wolf Creek, 33.0 mi upstream. Flow regulated since October 1978 by Optima Lake, 163.0 mi upstream, and by Palo Duro reservoir since May 1991. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 12, 1923, reached a stage of 11.0 ft, site and datum then in use; from reports of National Weather Service.

## 07237500 NORTH CANADIAN RIVER AT WOODWARD, OK—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	2.7	3.8	3.8	e6.0	5.8	14	13	9.9	6.9	3.4	11	4.9
2	2.5	3.8	3.8	e5.8	5.9	11	14	12	6.6	3.3	8.0	4.8
3	2.4	3.8	3.7	e5.6	5.8	12	16	14	6.5	3.1	6.7	4.7
4	2.3	3.7	3.7	e5.5	5.9	14	20	13	48	2.9	6.1	4.3
5	2.4	3.7	3.7	5.5	6.0	13	16	12	44	2.6	5.4	4.5
6	2.4	3.7	3.9	5.5	5.9	12	15	12	31	2.5	5.7	4.2
7	2.6	3.6	4.0	5.6	5.9	12	13	12	15	2.3	41	4.2
8	2.6	3.6	4.0	5.5	5.6	12	13	14	13	2.2	72	4.0
9	2.5	3.6	4.0	5.7	5.5	67	13	17	25	2.3	79	3.8
10	2.4	3.7	4.2	9.8	5.9	42	17	14	14	2.7	46	3.7
11	2.4	4.1	4.2	9.6	5.7	25	15	13	10	2.3	23	3.6
12	35	4.3	4.2	6.8	5.9	21	14	13	8.6	2.1	17	3.4
13	31	4.0	4.2	e6.2	7.5	18	14	13	7.8	1.9	17	3.6
14	8.4	4.0	4.3	e6.0	6.7	17	14	13	7.2	2.2	13	3.8
15	6.0	4.0	4.9	e6.1	6.5	16	13	12	6.7	4.5	12	3.6
16	5.1	4.1	4.8	e6.1	6.3	15	12	11	6.4	4.2	11	4.6
17	4.5	4.0	4.5	6.2	6.2	15	12	12	17	4.0	10	5.6
18	4.2	4.0	4.4	6.3	6.0	15	13	13	9.6	3.2	9.8	4.7
19	4.2	4.0	4.3	6.4	5.7	15	12	12	8.4	2.7	9.2	4.8
20	4.2	4.0	4.2	6.1	6.2	14	12	10	8.2	2.6	8.7	30
21	4.0	4.0	4.3	6.1	e9.0	15	11	9.4	6.2	2.7	8.3	15
22	3.9	4.0	4.3	6.1	e7.5	15	11	9.2	5.6	2.3	8.1	7.1
23	3.8	3.7	4.4	6.0	e7.6	15	12	9.0	5.2	2.1	7.6	5.8
24	3.8	3.9	4.5	6.0	9.3	15	13	9.3	4.9	1.9	7.0	5.2
25	3.6	3.9	e4.4	6.2	37	15	12	8.8	4.6	2.1	6.6	4.7
26	3.7	3.8	e4.4	6.1	55	14	12	8.0	4.4	71	6.2	4.5
27	3.8	3.8	e4.3	6.3	13	14	15	7.4	4.1	28	6.0	4.3
28	3.8	3.9	e4.5	6.4	15	13	12	7.0	3.9	7.5	5.8	15
29	3.8	4.0	e4.9	6.1	---	13	12	7.0	3.8	11	5.5	20
30	3.9	3.9	e5.5	5.9	---	12	10	10	3.5	102	5.0	7.0
31	3.8	---	e5.7	5.8	---	12	---	8.9	---	25	4.8	---
<b>Total</b>	171.7	116.4	134.0	193.3	274.3	533	401	345.9	346.1	312.6	482.5	199.4
<b>Mean</b>	5.54	3.88	4.32	6.24	9.80	17.2	13.4	11.2	11.5	10.1	15.6	6.65
<b>Max</b>	35	4.3	5.7	9.8	55	67	20	17	48	102	79	30
<b>Min</b>	2.3	3.6	3.7	5.5	5.5	11	10	7.0	3.5	1.9	4.8	3.4
<b>Ac-ft</b>	341	231	266	383	544	1,060	795	686	686	620	957	396

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2013, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	48.7	58.7	57.0	74.3	92.3	127	156	198	187	78.8	39.3	33.7
<b>Max</b>	377	281	242	206	246	404	576	900	814	328	254	368
<b>(WY)</b>	(1986)	(1997)	(1997)	(2005)	(2001)	(1987)	(1999)	(1979)	(1989)	(1989)	(1996)	(1996)
<b>Min</b>	2.19	3.59	4.32	6.24	9.80	17.2	13.4	11.2	5.63	3.99	1.73	0.95
<b>(WY)</b>	(2012)	(2012)	(2013)	(2013)	(2013)	(2013)	(2013)	(2013)	(2011)	(2012)	(1991)	(1984)

07237500 NORTH CANADIAN RIVER AT WOODWARD, OK—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1979 - 2013	
<b>Annual total</b>	8,569.6		3,510.2		c95.8	
<b>Annual mean</b>	23.4		9.62		248 1999	
<b>Highest annual mean</b>					9.62 2013	
<b>Lowest annual mean</b>					2,950 May 23, 1989	
<b>Highest daily mean</b>	258	Mar 26	102	Jul 30		
<b>Lowest daily mean</b>	1.2	Sep 11 <sup>a</sup>	1.9	Jul 13 <sup>b</sup>	0.00 At times	
<b>Annual seven-day minimum</b>	1.5	Sep 6	2.2	Jul 8	0.13 Sep 9, 1984	
<b>Maximum peak flow</b>			171	Jul 26	d3,090 May 23, 1989	
<b>Maximum peak stage</b>			4.12	Jul 26	e10.72 May 23, 1989	
<b>Annual runoff (ac-ft)</b>	17,000		6,960		69,420	
<b>10 percent exceeds</b>	67		15		228	
<b>50 percent exceeds</b>	6.8		6.1		51	
<b>90 percent exceeds</b>	2.2		3.6		5.8	

<sup>a</sup> Also Sep. 12.

<sup>b</sup> Also Jul. 24.

<sup>c</sup> Prior to regulation 1939-78, 194 ft<sup>3</sup>/s.

<sup>d</sup> Maximum discharge for period of record 42,000 ft<sup>3</sup>/s, Oct. 10, 1946.

<sup>e</sup> Maximum gage height for period of record 9.80 ft, Oct. 10, 1946, site and datum then in use.

