

Water-Data Report 2013

**06330000 MISSOURI RIVER NEAR WILLISTON, ND**

Lake Sakakawea Basin  
Lake Sakakawea Subbasin

LOCATION.--Lat 48°06'29", long 103°42'51" referenced to North American Datum of 1927, in NW ¼ NE ¼ sec.6, T.153 N., R.101 W., McKenzie County, ND, Hydrologic Unit 10110101, on right bank of Missouri River, 100 ft downstream from bridge about 5 miles SW of Williston.

DRAINAGE AREA.--164,500 mi<sup>2</sup>, approximately.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--DAILY GAGE HEIGHT--April 1966 to current year.

PERIOD OF RECORD.--DAILY DISCHARGE--October 1897 to July 1965. October 1897 to September 1928 monthly discharge only, published in WSP 1309; figures of daily discharge April 1905 to May 1907 published in WSP 172, 208, and 246 have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 1,830.20 ft above National Geodetic Vertical Datum of 1929. See WSP 1917 for history of changes prior to April 1966.

REMARKS.--Stage regulated by upstream reservoirs and backwater from Lake Sakakawea.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily gage height recorded, 30.33 ft, June 21, 2011; minimum daily recorded, 7.80 ft, November 2, 1966.

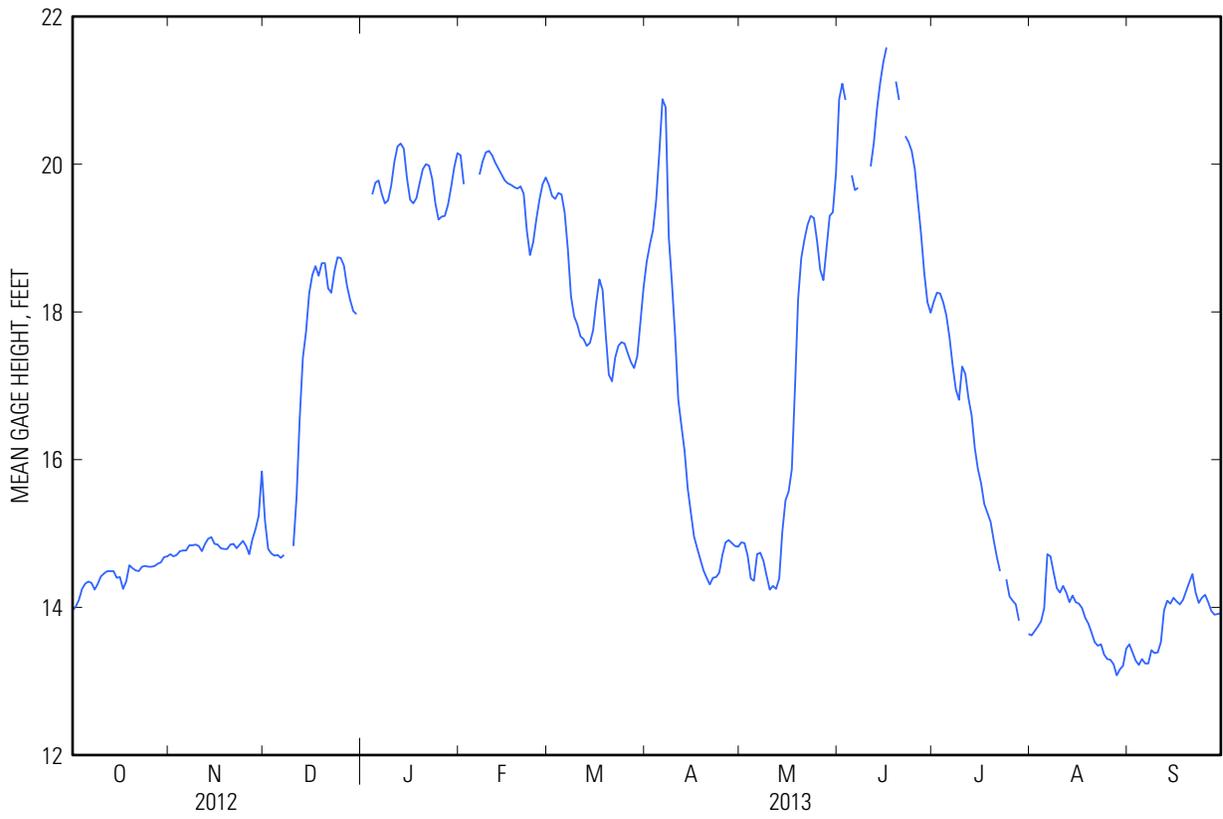
EXTREMES FOR CURRENT YEAR.--Maximum daily gage height recorded, 21.58 ft, June 16; minimum daily gage height recorded, 13.08 ft, August 28.

## 06330000 MISSOURI RIVER NEAR WILLISTON, ND—Continued

**GAGE HEIGHT, FEET**  
**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	13.96	14.72	15.17	---	20.12	19.72	18.68	14.88	20.88	18.14	13.62	13.50
2	14.01	14.69	14.79	---	19.73	19.57	18.91	14.87	21.09	18.26	13.68	13.39
3	14.10	14.71	14.73	---	---	19.53	19.11	14.70	20.87	18.25	13.74	13.28
4	14.25	14.76	14.70	19.59	---	19.61	19.51	14.39	---	18.13	13.81	13.22
5	14.32	14.77	14.71	19.75	---	19.59	20.16	14.36	19.85	17.95	13.99	13.30
6	14.35	14.77	14.67	19.78	---	19.34	20.88	14.72	19.65	17.65	14.72	13.24
7	14.33	14.84	14.71	19.60	19.86	18.85	20.77	14.74	19.68	17.27	14.69	13.24
8	14.24	14.84	---	19.47	20.04	18.21	19.01	14.63	---	16.95	14.47	13.42
9	14.32	14.85	---	19.51	20.16	17.94	18.39	14.43	---	16.81	14.26	13.38
10	14.42	14.83	14.83	19.71	20.18	17.83	17.68	14.24	---	17.26	14.20	13.39
11	14.46	14.76	15.49	20.03	20.12	17.67	16.81	14.29	19.97	17.16	14.29	13.53
12	14.49	14.86	16.56	20.24	20.02	17.63	16.46	14.25	20.29	16.83	14.20	13.96
13	14.49	14.93	17.38	20.28	19.94	17.54	16.12	14.39	20.75	16.60	14.07	14.09
14	14.49	14.95	17.73	20.21	19.86	17.58	15.61	15.03	21.10	16.16	14.16	14.05
15	14.40	14.86	18.25	19.81	19.78	17.75	15.28	15.45	21.38	15.87	14.07	14.13
16	14.41	14.85	18.50	19.52	19.74	18.13	14.96	15.57	21.58	15.68	14.05	14.08
17	14.25	14.80	18.62	19.47	19.72	18.44	14.80	15.87	---	15.40	13.99	14.04
18	14.35	14.79	18.49	19.54	19.69	18.30	14.65	16.97	---	15.28	13.86	14.10
19	14.57	14.79	18.66	19.74	19.67	17.70	14.50	18.18	21.12	15.16	13.78	14.22
20	14.53	14.85	18.66	19.93	19.70	17.15	14.40	18.73	20.87	14.91	13.66	14.34
21	14.50	14.86	18.32	20.00	19.60	17.06	14.31	18.98	---	14.68	13.53	14.45
22	14.49	14.80	18.26	19.98	19.10	17.38	14.40	19.18	20.38	14.49	13.48	14.20
23	14.55	14.85	18.55	19.80	18.77	17.54	14.41	19.30	20.30	---	13.50	14.06
24	14.56	14.90	18.74	19.47	18.94	17.59	14.47	19.27	20.18	14.38	13.36	14.13
25	14.55	14.83	18.73	19.25	19.25	17.57	14.71	18.96	19.93	14.15	13.30	14.17
26	14.55	14.72	18.63	19.29	19.52	17.44	14.88	18.57	19.48	14.09	13.29	14.07
27	14.56	14.92	18.35	19.30	19.73	17.32	14.91	18.43	19.04	14.04	13.23	13.95
28	14.59	15.06	18.16	19.45	19.82	17.24	14.87	18.86	18.52	13.82	13.08	13.90
29	14.61	15.24	18.01	19.69	---	17.40	14.83	19.30	18.13	---	13.16	13.91
30	14.68	15.84	17.97	19.96	---	17.86	14.82	19.35	17.99	---	13.21	13.92
31	14.69	---	---	20.15	---	18.33	---	19.88	---	13.64	13.44	---
<b>Mean</b>	14.42	14.87	---	---	---	18.09	16.44	16.61	---	---	13.80	13.82
<b>Max</b>	14.69	15.84	---	---	---	19.72	20.88	19.88	---	---	14.72	14.45
<b>Min</b>	13.96	14.69	---	---	---	17.06	14.31	14.24	---	---	13.08	13.22

06330000 MISSOURI RIVER NEAR WILLISTON, ND—Continued



## 06330000 MISSOURI RIVER NEAR WILLISTON, ND—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-65, 1969-70, 1974-82, 1992.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1951 to June 1965, October 2009 to current year.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 26.7° C, July 21, 22, 1958; minimum daily recorded, -0.2° C, many days from January to April 2013.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum daily recorded, 20.9° C, July 6-9, 13, 14; minimum daily recorded, -0.2° C, many days from January to April.

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	14.9	14.7	14.8	---	---	6.1	---	---	1.4	---	---	0.3
2	14.7	14.4	14.5	---	---	6.1	---	---	1.4	---	---	0.3
3	14.4	13.9	14.2	---	---	5.9	---	---	1.5	---	---	0.3
4	13.9	13.0	13.4	---	---	5.9	---	---	1.7	---	---	0.3
5	13.0	12.1	12.5	---	---	6.0	---	---	1.6	---	---	0.2
6	12.1	11.3	11.6	---	---	6.0	---	---	1.7	---	---	0.2
7	11.3	10.7	10.9	---	---	6.2	---	---	1.7	---	---	0.2
8	10.7	10.5	10.6	---	---	6.3	---	---	1.6	---	---	0.2
9	10.5	10.1	10.3	---	---	6.2	---	---	1.3	---	---	0.2
10	10.1	9.7	9.9	---	---	5.5	---	---	1.2	---	---	0.2
11	9.7	9.5	9.6	---	---	4.4	---	---	1.1	---	---	0.2
12	9.5	9.4	9.4	---	---	3.4	---	---	1.0	---	---	0.1
13	9.6	9.4	9.5	---	---	2.9	---	---	0.9	---	---	0.1
14	9.8	9.6	9.6	---	---	2.6	---	---	0.8	---	---	0.0
15	10.3	9.8	10.0	---	---	2.4	---	---	0.7	---	---	-0.1
16	10.7	10.3	10.5	---	---	2.3	---	---	0.7	---	---	-0.1
17	10.8	10.6	10.7	---	---	2.5	---	---	0.6	---	---	-0.2
18	10.7	10.0	10.3	---	---	2.8	---	---	0.6	---	---	-0.2
19	10.0	9.3	9.6	---	---	3.0	---	---	0.6	---	---	-0.2
20	9.3	9.0	9.1	---	---	3.1	---	---	0.5	---	---	-0.2
21	9.0	8.9	8.9	---	---	3.3	---	---	0.5	---	---	-0.2
22	9.0	8.9	9.0	---	---	3.5	---	---	0.5	---	---	-0.1
23	8.9	8.8	8.8	---	---	3.3	---	---	0.4	---	---	-0.1
24	8.8	8.4	8.6	---	---	2.9	---	---	0.4	---	---	-0.1
25	8.4	7.7	8.1	---	---	2.7	---	---	0.4	---	---	-0.1
26	7.7	6.9	7.3	---	---	2.4	---	---	0.4	---	---	0.0
27	6.9	6.3	6.5	---	---	2.0	---	---	0.4	---	---	0.0
28	6.3	5.8	6.0	---	---	1.7	---	---	0.4	---	---	0.0
29	5.8	5.5	5.6	---	---	1.6	---	---	0.3	---	---	0.0
30	5.6	5.5	5.5	---	---	1.4	---	---	0.3	---	---	0.0
31	---	---	5.8	---	---	---	---	---	0.3	---	---	0.0
Month	---	---	9.7	---	---	3.8	---	---	0.9	---	---	0.0

## 06330000 MISSOURI RIVER NEAR WILLISTON, ND—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	0.0	---	---	-0.2	---	---	-0.2	---	---	6.6
2	---	---	0.0	---	---	-0.2	---	---	-0.2	---	---	6.5
3	---	---	0.0	---	---	-0.2	---	---	-0.2	---	---	6.6
4	---	---	0.0	---	---	-0.2	---	---	-0.2	---	---	6.8
5	---	---	0.0	---	---	-0.2	---	---	-0.2	---	---	7.2
6	---	---	0.0	---	---	-0.2	---	---	-0.2	---	---	7.8
7	---	---	0.0	---	---	-0.2	---	---	0.2	---	---	8.5
8	---	---	0.0	---	---	-0.2	---	---	0.9	---	---	9.2
9	---	---	-0.1	---	---	-0.2	---	---	0.8	---	---	9.7
10	---	---	-0.1	---	---	-0.2	---	---	0.8	---	---	9.8
11	---	---	-0.2	---	---	-0.2	---	---	1.2	---	---	9.8
12	---	---	-0.2	---	---	-0.2	---	---	1.7	---	---	9.8
13	---	---	-0.2	---	---	-0.2	---	---	1.9	---	---	10.0
14	---	---	-0.2	---	---	-0.2	---	---	2.1	---	---	10.8
15	---	---	-0.2	---	---	-0.2	---	---	2.0	---	---	12.1
16	---	---	-0.2	---	---	-0.2	---	---	1.9	---	---	13.1
17	---	---	-0.2	---	---	-0.2	---	---	2.0	---	---	13.7
18	---	---	-0.2	---	---	-0.2	---	---	2.1	---	---	14.0
19	---	---	-0.2	---	---	-0.2	---	---	2.4	---	---	14.4
20	---	---	-0.2	---	---	-0.2	---	---	2.8	---	---	14.2
21	---	---	-0.2	---	---	-0.2	---	---	3.0	---	---	13.5
22	---	---	-0.2	---	---	-0.2	---	---	3.2	---	---	12.8
23	---	---	-0.2	---	---	-0.2	---	---	3.3	---	---	12.4
24	---	---	-0.2	---	---	-0.2	---	---	3.4	---	---	12.3
25	---	---	-0.2	---	---	-0.2	---	---	3.6	---	---	12.4
26	---	---	-0.2	---	---	-0.2	---	---	3.9	---	---	12.5
27	---	---	-0.2	---	---	-0.2	---	---	4.4	---	---	13.0
28	---	---	-0.2	---	---	-0.2	---	---	5.1	---	---	13.6
29	---	---	---	---	---	-0.2	---	---	5.9	---	---	14.3
30	---	---	---	---	---	-0.2	---	---	6.4	---	---	14.9
31	---	---	---	---	---	-0.2	---	---	---	---	---	14.7
<b>Month</b>	---	---	-0.1	---	---	-0.2	---	---	2.1	---	---	11.2

## 06330000 MISSOURI RIVER NEAR WILLISTON, ND—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	---	---	14.1	---	---	19.6	---	---	18.1	---	---	19.5
2	---	---	13.4	---	---	19.9	---	---	18.1	---	---	19.4
3	---	---	13.2	---	---	20.2	---	---	18.1	---	---	19.3
4	---	---	12.7	---	---	20.5	---	---	18.0	---	---	19.2
5	---	---	12.4	---	---	20.8	---	---	17.9	---	---	19.2
6	---	---	12.7	---	---	20.9	---	---	17.9	---	---	19.2
7	---	---	13.2	---	---	20.9	---	---	18.1	---	---	19.2
8	---	---	13.9	---	---	20.9	---	---	18.1	---	---	19.4
9	---	---	14.4	---	---	20.9	---	---	18.1	---	---	19.2
10	---	---	14.7	---	---	20.8	---	---	18.0	---	---	19.1
11	---	---	15.4	---	---	20.7	---	---	18.0	---	---	18.9
12	---	---	16.1	---	---	20.7	---	---	17.9	---	---	18.8
13	---	---	16.8	---	---	20.9	---	---	18.0	---	---	18.7
14	---	---	17.5	---	---	20.9	---	---	18.0	---	---	18.5
15	---	---	17.8	---	---	20.7	---	---	18.1	---	---	18.4
16	---	---	17.9	---	---	20.4	---	---	18.2	---	---	18.2
17	---	---	17.7	---	---	20.2	---	---	18.5	---	---	18.0
18	---	---	17.3	---	---	19.9	---	---	18.7	---	---	17.9
19	---	---	17.5	---	---	19.7	---	---	18.8	---	---	17.8
20	---	---	17.7	---	---	19.7	---	---	18.8	---	---	17.7
21	---	---	18.0	---	---	19.7	---	---	18.9	---	---	17.3
22	---	---	18.1	---	---	19.7	---	---	19.0	---	---	16.9
23	---	---	18.2	---	---	---	---	---	18.9	---	---	16.6
24	---	---	18.3	---	---	19.6	---	---	18.8	---	---	16.4
25	---	---	18.4	---	---	19.6	---	---	18.8	---	---	16.2
26	---	---	18.6	---	---	19.5	---	---	18.8	---	---	16.0
27	---	---	18.7	---	---	19.3	---	---	18.9	---	---	15.8
28	---	---	18.9	---	---	19.0	---	---	19.0	---	---	15.3
29	---	---	19.2	---	---	---	---	---	19.0	---	---	14.8
30	---	---	19.4	---	---	---	---	---	19.1	---	---	14.4
31	---	---	---	---	---	18.1	---	---	19.3	---	---	---
<b>Month</b>	---	---	16.4	---	---	---	---	---	18.4	---	---	17.8