Water-Data Report 2013

06480000 BIG SIOUX RIVER NEAR BROOKINGS, SD

Big Sioux Basin
Lower Big Sioux Subbasin

LOCATION.--Lat 44°10′49″, long 96°44′57″ referenced to North American Datum of 1927, in NW ¼ NW ¼ sec.8, T.108 N., R.49 W., Moody County, SD, Hydrologic Unit 10170203, on right bank 3 ft downstream from county bridge, 2.2 mi downstream from Medary Creek, and 9.5 mi southeast of Brookings.

DRAINAGE AREA.--3,338 mi^2 of which 869 mi^2 probably is noncontributing, documented runoff occurred during 1994-2002 water years for 213 mi^2 of the usually noncontributing area.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1953 to current year.

REVISED RECORDS.--WDR SD-10-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,551.91 ft above NGVD of 1929. Prior to May 30, 1959, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite data-collection platform at station. Water temperature and specific conductance measured with each discharge measurement.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 06480000, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/06480000.2013.pdf

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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	17	28	e28	e14	e8.5	e5.0	e700	1,480	1,030	2,990	309	141
2	16	28	e28	e15	e9.0	e5.5	e600	1,360	977	2,550	298	137
3	16	27	e30	e15	e9.5	e6.0	559	1,170	841	1,990	291	132
4	16	28	e29	e15	e9.5	e6.5	617	1,020	738	1,480	280	128
5	16	29	e30	e15	e9.5	e6.0	644	914	662	1,160	282	127
6	16	29	e30	e16	e10	e5.5	645	848	613	977	293	123
7	17	29	e27	e16	e10	e6.0	657	793	574	859	284	120
8	17	29	e22	e16	e10	e7.0	677	792	561	782	276	117
9	18	29	e19	e16	e10	e7.5	676	895	727	777	261	115
10	19	29	e16	e17	e9.0	e7.0	447	919	1,020	790	251	112
11	19	e26	e17	e17	e8.5	e6.5	322	889	1,240	749	303	110
12	18	e20	e18	e16	e8.0	e6.5	316	822	1,400	702	301	107
13	19	e21	e19	e15	e8.0	e6.5	434	756	1,430	638	277	103
14	19	e22	e21	e13	e7.5	e7.0	535	689	1,250	716	256	101
15	20	e23	e24	e13	e7.0	e7.5	414	629	1,060	996	244	102
16	21	e24	e26	e14	e7.0	e7.0	329	589	933	1,100	236	102
17	21	29	e26	e14	e7.0	e7.0	404	564	822	1,130	228	98
18	25	32	e26	e14	e6.5	e7.0	454	536	727	1,050	221	101
19	32	32	e26	e13	e6.0	e6.5	408	520	653	865	213	119
20	34	32	e25	e12	e5.5	e6.0	428	526	589	726	206	130
21	32	31	e24	e11	e5.5	e5.5	435	528	535	635	198	114
22	31	30	e22	e10	e5.5	e6.0	505	561	608	579	191	111
23	31	e22	e20	e9.5	e5.0	e7.0	525	604	949	530	186	105
24	30	e20	e18	e9.0	e5.5	e7.5	546	646	1,420	487	183	98
25	29	e21	e16	e9.0	e6.0	e7.5	574	660	1,840	455	176	94
26	28	e20	e16	e9.5	e6.0	e8.0	670	661	2,250	427	172	89
27	27	e21	e15	e10	e6.0	e30	836	672	2,860	398	164	88
28	28	e22	e15	e11	e5.5	e60	1,030	673	3,330	371	158	89
29	28	e23	e14	e11	---	e120	1,200	682	3,410	351	155	91
30	27	e26	e14	e10	---	e240	1,390	780	3,290	335	150	97
31	28	---	e14	e9.0	---	e480	---	921	---	322	147	---
Total	715	782	675	405.0	211.0	1,101.0	17,977	24,099	38,339	27,917	7,190	3,301
Mean	23.1	26.1	21.8	13.1	7.54	35.5	599	777	1,278	901	232	110
Max	34	32	30	17	10	480	1,390	1,480	3,410	2,990	309	141
Min	16	20	14	9.0	5.0	5.0	316	520	535	322	147	88
Ac-ft	1,420	1,550	1,340	803	419	2,180	35,660	47,800	76,050	55,370	14,260	6,550

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	169	139	80.0	46.6	72.6	574	1,009	626	641	382	213	205
Max	1,424	1,007	563	311	606	3,417	5,717	3,084	3,432	3,269	1,553	3,280
(WY)	(1996)	(1996)	(1996)	(2011)	(1998)	(2011)	(1997)	(2011)	(1984)	(1993)	(1993)	(2010)
Min	0.04	0.09	0.09	0.00	0.00	1.45	27.3	21.4	13.5	0.94	0.02	0.01
(WY)	(1977)	(1977)	(1977)	(1977)	(1956)	(1975)	(1959)	(1959)	(1976)	(1976)	(1976)	(1976)

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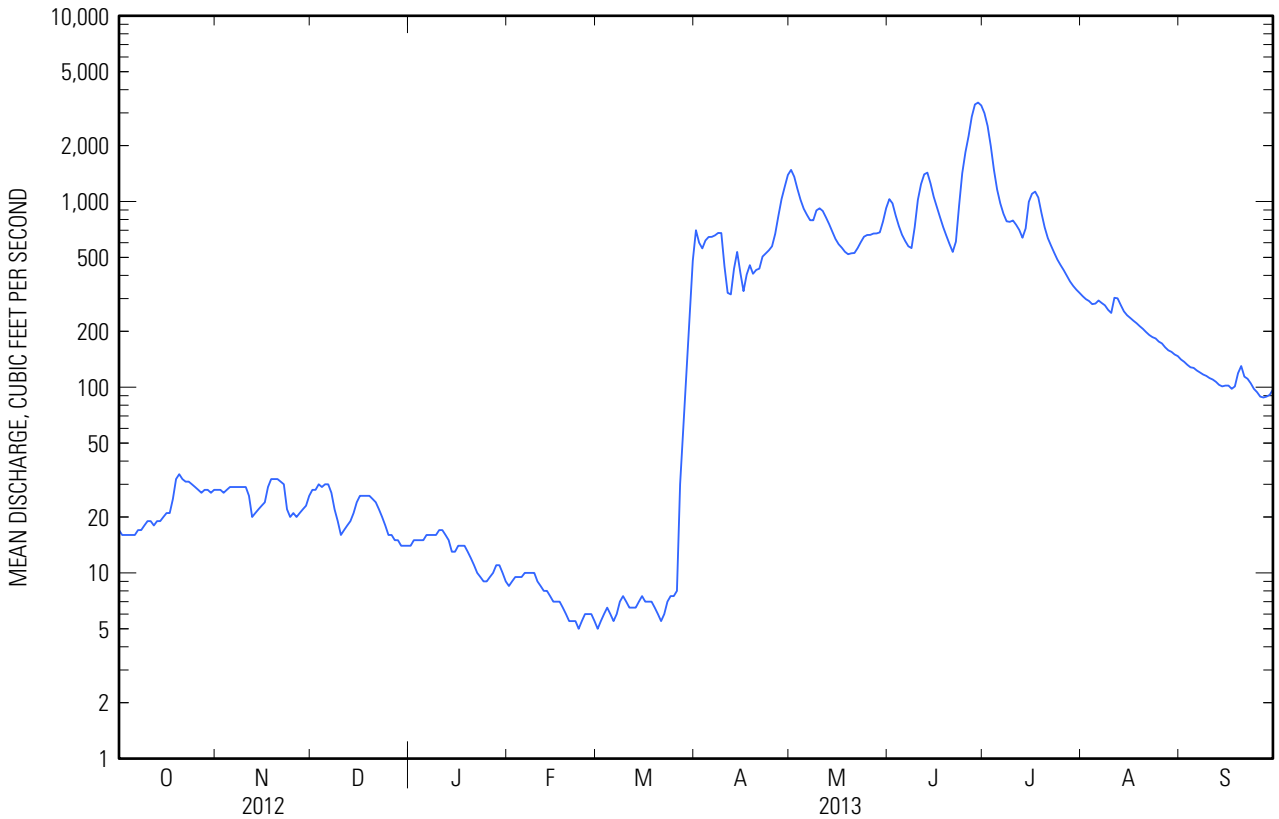
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1954 - 2013	
Annual total	75,980		122,712.0			
Annual mean	208		336		[a]347	
Highest annual mean					1,706	2011
Lowest annual mean					15.5	1959
Highest daily mean	2,460	May 9	3,410	Jun 29	31,200	Apr 9, 1969
Lowest daily mean	14	Dec 29	5.0	Feb 23	[b]0.00	Jan 18, 1956
Annual seven-day minimum	15	Dec 25	5.6	Feb 19	0.00	Jan 18, 1956
Maximum peak flow			3,480	Jun 29	33,900	Apr 9, 1969
Maximum peak stage			10.47	Jun 29	14.77	Apr 9, 1969
Annual runoff (ac-ft)	150,700		243,400		251,300	
10 percent exceeds	548		916		900	
50 percent exceeds	107		91		85	
90 percent exceeds	18		7.5		6.0	

[a] Median of annual mean discharges, 210 ft³/s.
[b] No flow at times in 1956, 1976, 1977, and 1982.



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WATER-QUALITY RECORDS

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

[ft^3/s, cubic feet per second; °C, degrees Celsius; µS/cm, microsiemens per centimeter]

Date	Sample start time	Discharge, instantaneous, ft^3/s (00061)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, air, °C (00020)	Temperature, water, °C (00010)
10-16-2012	**0925**	20	1,040	12.0	9.0
12-18-2012	**1309**	26	1,100	-1.0	0.0
02-05-2013	**1307**	9.6	1,210	0.0	0.0
03-28-2013	**1020**	65	1,180	2.0	0.5
04-03-2013	**1152**	557	686	8.0	3.0
04-25-2013	**1230**	514	1,000	17.0	4.5
05-01-2013	**1200**	1,440	732	4.0	8.5
06-26-2013	**1450**	2,310	506	29.0	25.5
07-25-2013	**0950**	444	967	24.0	22.5
09-05-2013	**1025**	127	1,120	24.5	22.0