Water-Data Report 2013

06482000 BIG SIOUX RIVER AT SIOUX FALLS, SD

Big Sioux Basin
Lower Big Sioux Subbasin

LOCATION.--Lat 43°30′04″, long 96°44′53″ referenced to North American Datum of 1927, in SE ¼ SW ¼ SW ¼ sec.32, T.101 N., R.50 W., Minnehaha County, SD, Hydrologic Unit 10170203, on right bank near upstream end of bridge on Western Avenue, 0.1 mi downstream from previous gage, and 2.2 mi downstream from mouth of Skunk Creek.

DRAINAGE AREA.--4,609 mi² of which 883 mi² probably is noncontributing, documented runoff occurred during 1994-2002 water years for 213 mi² of the usually noncontributing area.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1943 to September 1960, October 2004 to current year.

REVISED RECORDS.--WDR SD-10-1: 2008(M); 2009(M); Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,392.83 ft above NGVD of 1929 (Corps of Engineers).

REMARKS.--Records good except those for May 25 - 27, which are fair and those for estimated daily discharges, which are poor. Satellite data-collection platform at station. Water temperature and specific conductance measured with each discharge measurement.

06482000 BIG SIOUX RIVER AT SIOUX FALLS, SD—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	15	52	e50	e26	e25	e17	e48	155	188	90	118	160
2	19	52	e50	e27	e23	e16	e50	91	163	80	138	129
3	27	54	e50	e27	e23	e17	e50	71	182	73	140	130
4	23	56	e50	e26	e20	e18	e49	61	341	67	136	131
5	26	59	e50	e27	e20	e18	e44	59	185	60	135	129
6	24	59	e50	e27	e21	e17	e45	61	144	55	136	128
7	24	e52	e50	e28	e21	e19	e44	58	125	53	133	129
8	24	e60	e49	e29	e20	e21	e47	160	374	53	136	126
9	24	e56	e43	e30	e21	e80	e60	226	688	54	143	128
10	24	e52	e32	e31	e20	e500	e55	161	586	116	154	103
11	24	e50	e37	e31	e19	e437	e60	92	432	123	399	100
12	24	e49	e44	e30	e18	e370	e65	72	303	126	209	99
13	25	e48	e45	e28	e21	e250	69	66	229	127	185	98
14	27	e49	e48	e28	e20	e160	78	97	188	129	170	101
15	27	e48	e50	e29	e19	e145	80	88	270	130	163	101
16	29	e48	e55	e30	e18	e140	75	63	269	136	159	87
17	32	e50	e57	e31	e23	e120	75	114	238	135	157	96
18	43	e52	e51	e32	e22	e90	90	65	157	131	155	100
19	51	e52	e45	e31	e20	e80	83	100	134	130	151	107
20	42	e50	e37	e29	e20	e70	69	71	123	137	148	102
21	47	e50	e36	e26	e19	e60	75	68	121	133	147	102
22	53	e50	e35	e24	e18	e55	89	70	323	131	151	101
23	56	e48	e35	e24	e17	e50	109	63	332	127	165	101
24	56	e47	e34	e22	e18	e46	103	59	298	125	179	101
25	67	e46	e32	e22	e19	e42	97	70	254	123	174	99
26	59	e44	e31	e23	e19	e38	109	2,330	214	122	168	98
27	55	e44	e29	e27	e20	e36	119	1,580	185	120	168	103
28	55	e46	e28	e38	e19	e35	111	744	154	119	161	128
29	54	e46	e27	e34	---	e38	95	422	125	118	155	105
30	54	e48	e26	e31	---	e44	84	306	105	118	131	100
31	53	---	e26	e27	---	e46	---	229	---	117	130	---
Total	1,163	1,517	1,282	875	563	3,075	2,227	7,872	7,430	3,358	4,994	3,322
Mean	37.5	50.6	41.4	28.2	20.1	99.2	74.2	254	248	108	161	111
Max	67	60	57	38	25	500	119	2,330	688	137	399	160
Min	15	44	26	22	17	16	44	58	105	53	118	87
Ac-ft	2,310	3,010	2,540	1,740	1,120	6,100	4,420	15,610	14,740	6,660	9,910	6,590

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2013, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	138	101	57.7	32.8	108	584	982	525	583	361	217	150
Max	563	333	164	129	637	2,126	6,140	1,412	2,718	975	712	789
(WY)	(2011)	(1947)	(2006)	(2006)	(1944)	(1948)	(1952)	(1952)	(1957)	(2011)	(2010)	(2010)
Min	2.15	5.65	3.45	2.45	2.04	27.4	45.0	55.7	37.0	4.25	6.89	1.64
(WY)	(1956)	(1956)	(1956)	(1959)	(1959)	(1956)	(1959)	(1956)	(1959)	(1959)	(1958)	(1955)

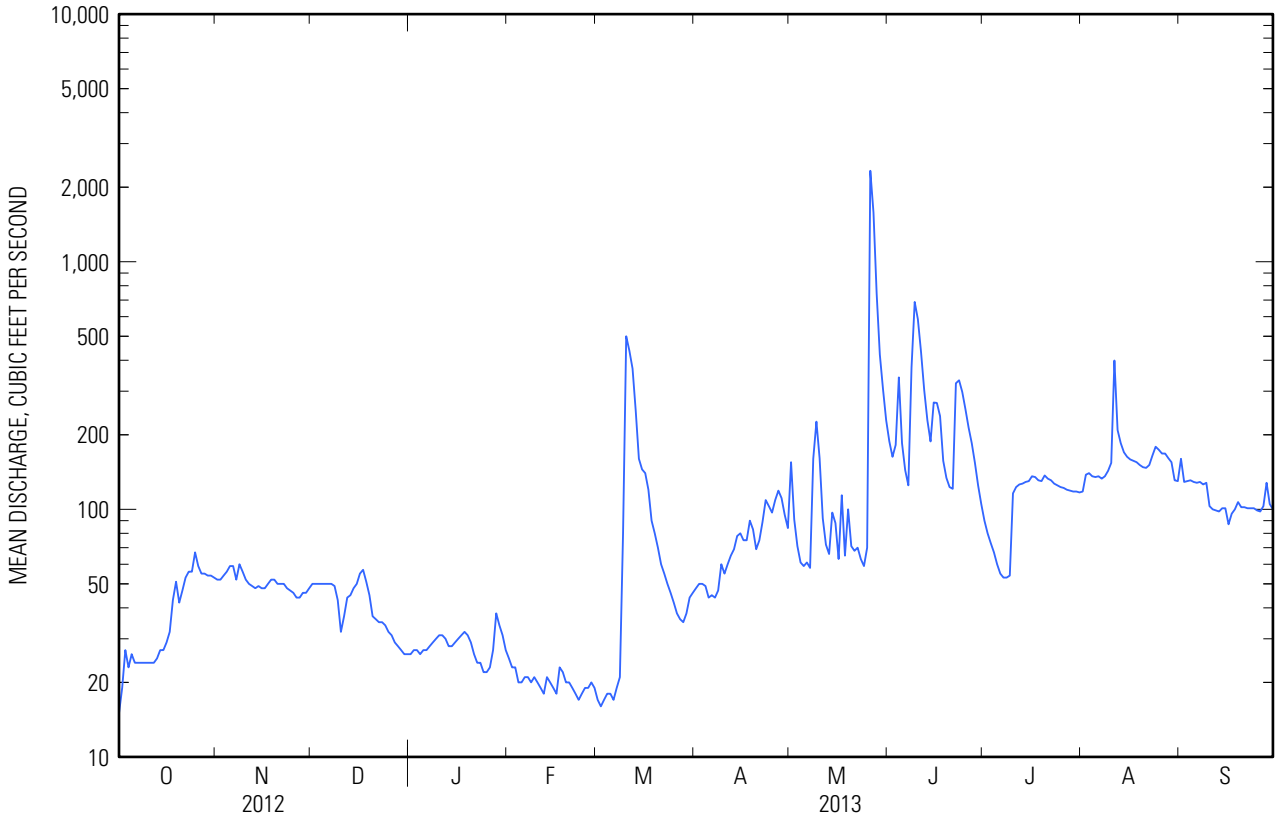
06482000 BIG SIOUX RIVER AT SIOUX FALLS, SD—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1944 - 2013*	
Annual total	37,542		37,678			
Annual mean	103		103		320	
Highest annual mean					925	1952
Lowest annual mean					33.8	1959
Highest daily mean	1,250	May 9	2,330	May 26	13,800	Jun 17, 1957
Lowest daily mean	11	Sep 27	15	Oct 1	0.50	Jan 22, 1959
Annual seven-day minimum	13	Sep 25	17	Feb 28	0.89	Sep 13, 1955
Maximum peak flow			4,280	May 26	[a]16,200	Jun 17, 1957
Maximum peak stage			11.26	May 26	16.01	Jun 17, 1957
Annual runoff (ac-ft)	74,460		74,730		231,900	
10 percent exceeds	228		172		757	
50 percent exceeds	44		59		102	
90 percent exceeds	19		23		12	

* Excludes 1961-2004. See PERIOD OF RECORD.

[a] Maximum combined discharge, bypass and main channel.



06482000 BIG SIOUX RIVER AT SIOUX FALLS, SD—Continued

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	**1415**	28	1,140	22.0	13.0
12-17-2012	**1540**	57	1,080	-2.0	0.0
02-05-2013	**1547**	20	1,850	3.0	0.0
03-11-2013	**1435**	437	442	-1.0	0.5
03-14-2013	**0947**	127	582	1.5	0.0
03-28-2013	**1030**	35	1,150	7.0	2.0
05-02-2013	**1142**	91	1,450	7.0	8.2
06-19-2013	**1525**	126	1,230	30.0	27.5
09-05-2013	**0822**	136	1,100	26.0	22.0