Water-Data Report 2012

06485500 BIG SIOUX RIVER AT AKRON, IA

Big Sioux Basin
Lower Big Sioux Subbasin

LOCATION.--Lat 42°50'15.1", long 96°33'41.8" referenced to North American Datum of 1927, in SW ¼ SE ¼ SW ¼ sec.30, T.93 N., R.48 W., Plymouth County, IA, Hydrologic Unit 10170203, on left bank 15 ft downstream from Iowa Highway 403 bridge, 0.5 mi northwest of Akron, and 2.9 mi upstream from Union Creek.

DRAINAGE AREA.--7,879 mi^2 of which 883 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.--October 1928 to current year.

REVISED RECORDS.--WSP 1309: 1929(M), 1931-33(M), 1936(M), 1938(M), 1940(M). WDR SD-10-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,118.90 ft above NGVD of 1929. Prior to Dec. 3, 1934, nonrecording gage at bridge 0.5 mi downstream at same datum. From Dec. 3, 1934, to Oct. 31, 1985, water-stage recorder at site 0.6 mi downstream at same 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, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 06485500, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/06485500.2012.pdf

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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	926	830	e750	e620	e640	e2,000	1,390	1,360	9,610	1,280	324	203
2	907	826	e680	e600	e650	e3,600	1,340	1,420	7,210	1,220	329	198
3	895	826	e580	e620	e650	e3,200	1,300	2,590	6,120	1,160	315	197
4	882	829	e500	e650	e640	2,600	1,260	2,590	5,400	1,110	320	192
5	890	885	e480	e670	e630	2,050	1,210	2,270	4,860	1,060	328	197
6	875	840	e460	e700	e620	1,960	1,160	2,960	4,420	996	350	206
7	866	825	e480	e710	e610	2,370	1,110	5,070	4,030	983	365	217
8	860	826	e500	e720	e590	3,020	1,060	7,250	3,690	938	333	210
9	854	820	e500	e746	e570	3,050	1,020	9,190	3,410	864	301	203
10	887	812	e520	e700	e530	2,640	979	11,300	3,170	804	285	198
11	912	814	e550	e680	e500	2,420	955	11,900	2,960	752	272	186
12	956	810	e570	e660	e510	2,320	930	9,710	2,760	702	274	183
13	957	815	e575	e640	e510	2,240	959	6,900	2,600	656	276	184
14	949	806	e580	e650	e500	2,220	1,000	5,800	2,500	612	267	183
15	936	814	e580	e660	e520	2,200	1,200	4,910	2,450	573	265	181
16	921	807	e580	e650	e500	2,150	1,360	4,260	2,340	553	261	183
17	906	798	e600	e630	e500	2,100	1,410	3,790	2,240	532	251	183
18	896	e780	e620	e620	e500	2,030	1,600	3,440	2,170	508	253	175
19	889	e770	e610	e600	e520	1,980	1,640	3,160	2,060	494	265	173
20	886	e750	e600	e580	e550	1,940	1,650	3,010	1,960	484	266	172
21	880	725	e600	e550	e560	1,960	1,710	3,010	1,850	464	296	170
22	876	708	e590	e560	e600	1,970	1,760	3,410	1,790	446	292	167
23	867	751	e590	e570	e590	1,920	1,760	3,640	1,730	445	259	166
24	832	773	e600	e550	e560	1,900	1,730	3,720	1,670	412	247	167
25	846	793	e610	e560	e520	1,860	1,670	4,090	1,650	392	236	167
26	845	799	e630	e570	e550	1,780	1,590	5,030	1,600	375	245	166
27	819	801	e620	e580	e550	1,710	1,500	5,430	1,550	359	252	166
28	820	e780	e600	e590	e600	1,640	1,450	7,270	1,500	350	234	169
29	830	e770	e610	e600	e1,000	1,570	1,400	8,870	1,420	345	222	168
30	832	e770	e620	e620	---	1,500	1,420	10,700	1,350	339	215	167
31	823	---	e630	e630	---	1,450	---	11,900	---	335	207	---
Total	27,320	23,953	18,015	19,486	16,770	67,350	40,523	169,950	92,070	20,543	8,605	5,497
Mean	881	798	581	629	578	2,173	1,351	5,482	3,069	663	278	183
Max	957	885	750	746	1,000	3,600	1,760	11,900	9,610	1,280	365	217
Min	819	708	460	550	500	1,450	930	1,360	1,350	335	207	166
Ac-ft	54,190	47,510	35,730	38,650	33,260	133,600	80,380	337,100	182,600	40,750	17,070	10,900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	685	621	437	285	572	2,548	3,531	2,108	2,429	1,632	855	776
Max	7,439	3,630	2,606	1,955	2,975	9,692	20,690	9,499	15,820	21,740	6,523	8,705
(WY)	(2011)	(2011)	(2011)	(2011)	(2011)	(2010)	(1969)	(1993)	(1984)	(1993)	(2010)	(2010)
Min	32.9	47.9	32.1	6.68	12.1	124	139	73.3	100	50.7	45.2	36.4
(WY)	(1959)	(1959)	(1977)	(1977)	(1936)	(1931)	(1931)	(1934)	(1933)	(1931)	(1976)	(1976)

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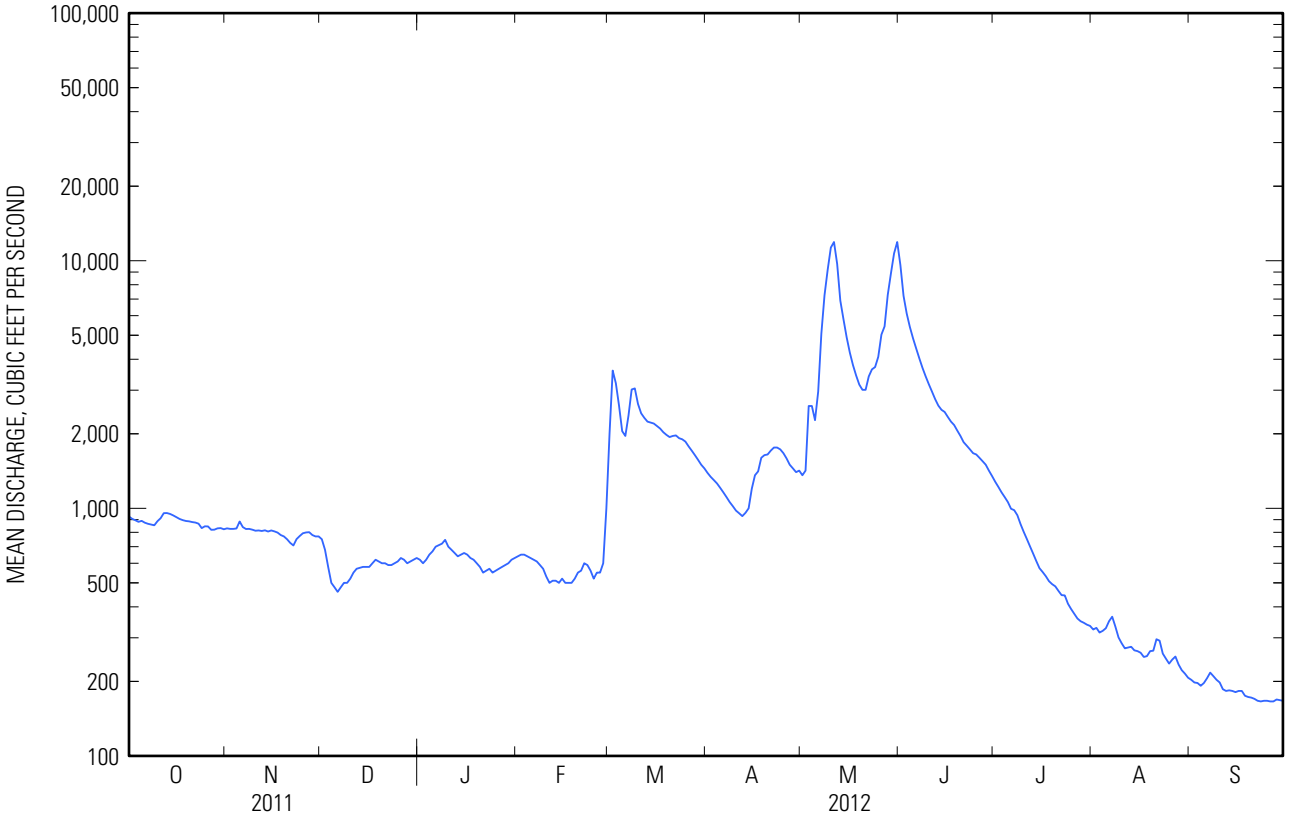
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1929 - 2012	
Annual total	1,772,627		510,082			
Annual mean	4,857		1,394		[a]1,374	
Highest annual mean					6,271	1993
Lowest annual mean					120	1931
Highest daily mean	19,500	Mar 26	11,900	May 11	77,500	Apr 9, 1969
Lowest daily mean	460	Dec 6	166	Sep 23	4.0	Jan 17, 1977
Annual seven-day minimum	491	Dec 4	167	Sep 22	4.4	Jan 15, 1977
Maximum peak flow			[b]12,100	May 11	[c]80,800	Apr 9, 1969
Maximum peak stage			[b]18.30	May 11	[d]23.38	Apr 26, 2001
Annual runoff (ac-ft)	3,516,000		1,012,000		995,500	
10 percent exceeds	11,800		3,030		3,280	
50 percent exceeds	2,450		796		490	
90 percent exceeds	770		246		77	

[a] Median of annual mean discharges, 1050 ft³/s.
[b] Also May 31.
[c] Gage height, 22.99 ft.
[d] Discharge, 40,400 ft³/s.



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1966 to current year.

REMARKS.--Water-quality sampling discontinued at this site in October 2010.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

[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)
10-25-2011	**0750**	845	960	8.0	11.0
01-09-2012	**0920**	746	1,070	4.0	0.5
03-07-2012	**0900**	2,280	680	1.5	2.5
04-17-2012	**0750**	1,400	821	8.0	9.0
05-10-2012	**1135**	11,600	487	21.0	17.0
06-06-2012	**0710**	4,440	949	24.5	22.5
07-17-2012	**0615**	533	735	24.0	27.0
08-13-2012	**0910**	271	754	19.5	19.0