Water-Data Report 2013

05464000 Cedar River at Waterloo, IA

Iowa Basin
Middle Cedar Subbasin

LOCATION.--Lat 42°29′44″, long 92°20′03″ referenced to North American Datum of 1927, in SE ¼ NW ¼ NW ¼ sec.25, T.89 N., R.13 W., Black Hawk County, IA, Hydrologic Unit 07080205, on left bank near end of East 7th Street, 0.3 mi upstream from bridge on 11th Street in Waterloo, 1.1 mi downstream from Black Hawk Creek, and 162.3 mi upstream from mouth.

DRAINAGE AREA.--5,146 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge records from October 1940 to current year. Prior to April 1941, monthly mean discharge for some periods published in WSP 1308.

REVISED RECORDS.--WSP 1438: Drainage area. WSP 1558: 1950.

GAGE.--Water-stage recorder. Datum of gage is 824.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharges, which are poor. Minor diurnal fluctuations during periods of low flow due to operations of power plant located 30.3 mi upstream. U.S. Geological Survey data collection platform with satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 16, 1929, reached a stage of about 20.0 ft, determined by U.S. Army Corps of Engineers, from information by city of Waterloo, discharge about 65,000 ft^3/s. Flood of April 2, 1933, reached a stage of about 19.5 ft, from information by city of Waterloo, discharge about 61,000 ft^3/s.

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 05464000, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/05464000.2013.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	453	607	560	462	620	560	12,200	6,110	40,700	13,500	4,180	1,790
2	452	586	565	462	496	535	12,200	5,910	30,500	11,900	3,890	1,740
3	449	565	574	462	498	525	9,970	6,760	26,000	10,400	3,720	1,650
4	444	557	575	462	472	546	6,090	10,100	22,100	9,190	3,550	1,570
5	416	565	554	462	445	554	4,760	13,100	18,800	8,220	3,620	1,580
6	413	581	529	459	415	540	4,160	16,700	17,400	7,540	3,540	1,550
7	414	577	541	459	425	529	3,790	19,700	17,200	6,890	4,390	1,530
8	412	539	550	456	428	529	3,610	21,500	15,100	6,320	4,870	1,520
9	457	579	558	474	433	822	3,900	20,600	13,300	6,010	4,350	1,450
10	453	568	530	483	665	4,170	4,880	17,900	12,200	5,710	3,910	1,420
11	475	660	505	514	843	12,600	7,550	16,000	12,500	5,500	3,550	1,450
12	447	490	489	541	938	17,600	9,850	14,100	12,000	5,160	3,730	1,390
13	369	584	501	459	1,090	15,600	10,100	12,500	13,500	4,870	3,910	1,310
14	623	582	520	394	1,290	12,500	8,960	10,900	17,500	4,740	4,100	1,270
15	545	570	616	464	1,140	10,100	8,180	9,410	31,300	6,760	3,860	1,320
16	459	567	627	477	957	9,020	9,790	8,380	26,900	7,680	3,480	1,330
17	437	559	623	472	931	8,510	10,800	7,490	18,300	6,790	3,200	1,350
18	405	562	631	466	940	9,150	11,200	7,240	15,000	6,090	2,950	1,400
19	405	579	610	492	683	7,020	11,400	9,180	12,700	5,450	2,890	1,500
20	393	587	594	399	758	4,900	11,900	11,900	11,200	4,980	2,530	1,470
21	379	560	451	332	718	3,840	11,000	15,800	10,200	4,630	2,570	1,420
22	413	558	491	333	638	3,300	9,720	29,900	9,480	4,410	2,540	1,340
23	410	544	524	333	630	3,250	8,420	37,900	9,370	4,100	2,550	1,300
24	674	545	526	333	619	3,570	8,120	23,800	11,200	3,990	2,420	1,260
25	629	511	529	333	584	3,510	8,790	17,100	20,500	4,230	2,430	1,250
26	588	517	493	333	591	3,150	8,780	15,900	36,800	5,030	2,340	1,220
27	626	479	462	359	581	3,450	7,910	18,500	31,600	5,830	2,240	1,280
28	625	521	464	447	565	4,390	6,930	29,800	25,700	6,070	2,180	1,200
29	869	524	474	590	---	5,970	6,330	31,500	20,200	5,930	2,140	1,090
30	844	519	474	465	---	8,580	6,210	46,900	16,200	5,430	1,800	1,130
31	645	---	462	442	---	10,700	---	53,700	---	4,680	1,870	---
Total	15,623	16,742	16,602	13,619	19,393	170,020	247,500	566,280	575,450	198,030	99,300	42,080
Mean	504	558	536	439	693	5,485	8,250	18,270	19,180	6,388	3,203	1,403
Max	869	660	631	590	1,290	17,600	12,200	53,700	40,700	13,500	4,870	1,790
Min	369	479	451	332	415	525	3,610	5,910	9,370	3,990	1,800	1,090
Ac-ft	30,990	33,210	32,930	27,010	38,470	337,200	490,900	1,123,000	1,141,000	392,800	197,000	83,470
Cfsm	0.10	0.11	0.10	0.09	0.13	1.07	1.60	3.55	3.73	1.24	0.62	0.27
In.	0.11	0.12	0.12	0.10	0.14	1.23	1.79	4.09	4.16	1.43	0.72	0.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,232	2,114	1,557	1,287	1,840	5,684	6,598	5,448	6,165	4,338	2,782	2,122
Max	9,996	7,434	6,891	5,479	9,448	16,530	24,940	19,010	33,690	21,210	18,770	9,258
(WY)	(2008)	(1973)	(1983)	(1973)	(1984)	(2010)	(1993)	(1991)	(2008)	(1993)	(1993)	(1993)
Min	364	370	266	252	188	687	741	732	474	455	328	387
(WY)	(1990)	(1990)	(1990)	(1959)	(1959)	(1964)	(1957)	(1977)	(1977)	(1989)	(1989)	(1955)

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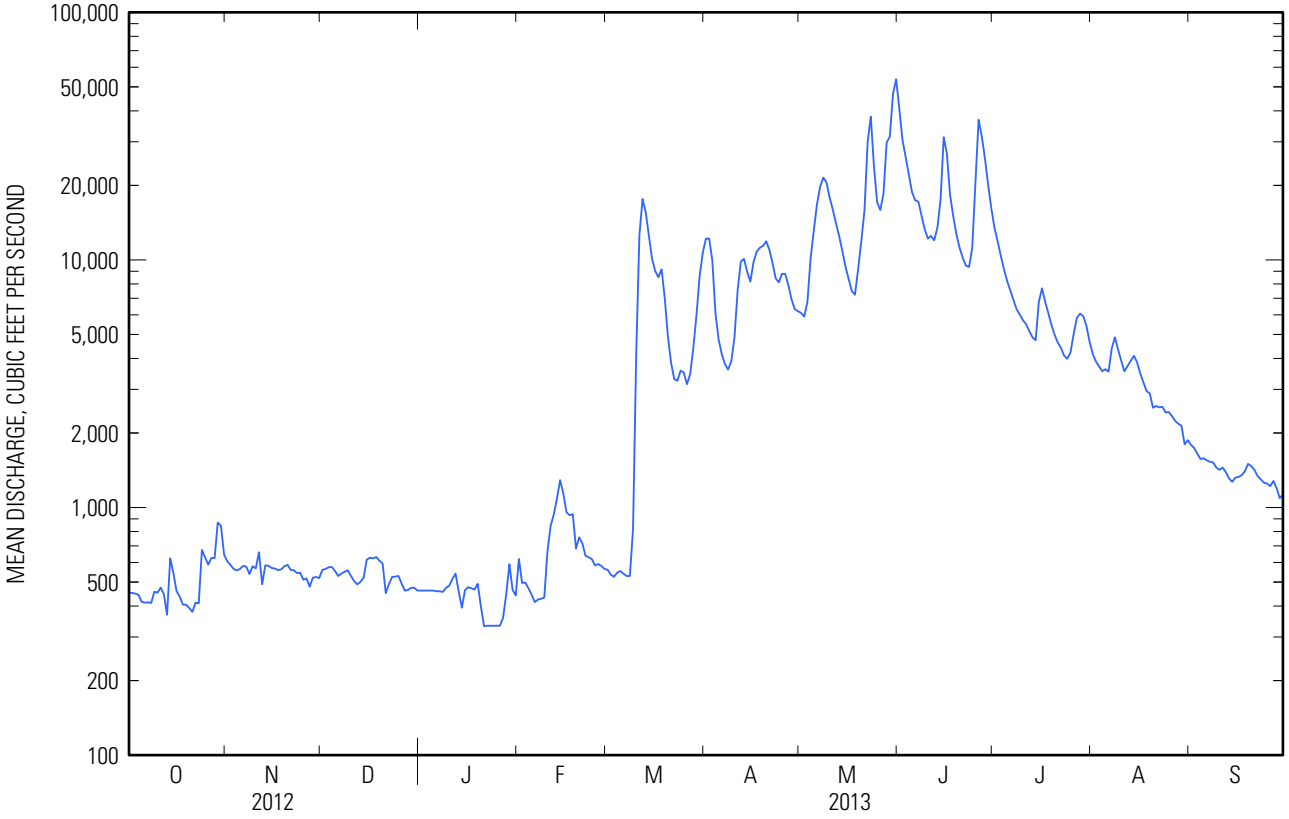
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1941 - 2013	
Annual total	506,672		1,980,639			
Annual mean	1,384		5,426		3,518	
Highest annual mean					10,580	1993
Lowest annual mean					636	1977
Highest daily mean	10,500	May 8	53,700	May 31	104,000	Jun 11, 2008
Lowest daily mean	369	Oct 13	332	Jan 21	152	Jan 28, 1959
Annual seven-day minimum	406	Oct 17	337	Jan 21	173	Feb 13, 1959
Maximum peak flow			57,300	May 31	112,000	Jun 11, 2008
Maximum peak stage			18.59	May 31	27.01	Jun 11, 2008
Annual runoff (ac-ft)	1,005,000		3,929,000		2,549,000	
Annual runoff (cfsm)	0.269		1.05		0.684	
Annual runoff (inches)	3.66		14.32		9.29	
10 percent exceeds	2,890		15,300		8,200	
50 percent exceeds	793		1,520		1,910	
90 percent exceeds	460		457		587