Water-Data Report 2008

05457700 Cedar River at Charles City, IA

Iowa Basin
Upper Cedar Subbasin

LOCATION.--Lat 43°03′45″, long 92°40′23″ referenced to North American Datum of 1927, in SE ¼ NE ¼ sec.12, T.95 N., R.16 W., Floyd County, IA, Hydrologic Unit 07080201, on right bank 800 ft downstream from bridge on U.S. Highway 18 (Brantingham Street) in Charles City, 10.6 mi upstream from Gizzard Creek, and at mile 231.3 upstream from mouth of Cedar River.

DRAINAGE AREA.--1,054 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge records from October 1964 to September 1995, October 1, 2000 to current year; stage-only records from October 1995 to September 2000.

GAGE.--Water-stage recorder. Datum of gage is 973.02 ft above NGVD of 1929.

REMARKS.--Records are considered good, except for those estimated daily discharges, which are poor. U.S. Geological Survey rain gage and data collection platform with satellite and telephone modem telemetry at station. Precipitation records are not published, but are available. Occasional minor regulation by dam 0.2 mi upstream from gage. Daily wire-weight gage readings available in Iowa City office for period September 13, 1945 to June 30, 1954, same site and datum. Discharge not published for this period because of extreme regulation of streamflow by dam 0.2 mi upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 27, 1961 reached a stage of 21.6 ft, from floodmarks, discharge 29,200 ft^3/s.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,130	e981	e302	e225	e228	e144	1,720	2,150	3,160	1,150	479	314
2	4,170	e967	e327	e210	e221	e285	2,140	1,940	2,350	1,090	453	305
3	e5,110	954	e294	e234	e214	e324	1,800	1,920	1,980	1,060	435	300
4	e4,820	1,020	e333	e243	e252	e281	1,530	2,130	1,740	947	432	300
5	3,870	978	e319	e257	e283	e225	1,320	2,170	2,470	848	428	294
6	2,910	931	e318	e287	e253	e245	1,250	1,910	2,550	785	405	296
7	2,420	1,070	e304	e303	e217	e225	1,150	1,800	2,640	932	395	293
8	2,720	939	e290	345	e200	e217	1,080	1,730	15,000	3,850	388	293
9	3,140	972	e272	338	e184	e194	968	1,710	e30,500	1,940	393	286
10	3,070	976	e279	342	e146	e182	1,100	1,570	e15,000	1,290	389	288
11	2,530	962	e330	338	e202	e221	2,070	1,410	9,060	1,090	366	293
12	2,150	954	e354	333	e203	e292	5,060	1,380	8,640	1,030	358	291
13	1,900	930	e322	e301	e195	933	5,390	1,240	18,800	925	365	307
14	1,790	881	e312	e270	e180	3,160	3,600	1,190	19,700	771	375	292
15	1,920	901	e285	e237	e152	4,170	2,650	1,120	e8,050	695	386	281
16	e2,200	902	e249	e235	e152	3,080	2,200	1,030	e5,480	642	416	283
17	2,200	872	e243	e208	e197	2,130	1,810	1,000	4,170	615	375	281
18	2,270	803	e273	e172	e238	1,500	1,910	960	3,170	686	359	271
19	2,560	857	e261	e180	e225	1,510	2,590	905	2,880	803	345	265
20	3,070	852	e258	e166	e202	1,440	3,160	873	2,560	833	337	260
21	3,000	845	e262	e226	e181	1,530	3,000	840	2,290	804	328	258
22	2,520	809	e263	e292	e163	1,380	2,690	810	2,080	751	323	246
23	2,110	768	e308	e239	e148	1,110	2,430	782	1,890	662	333	239
24	1,820	736	e283	e212	e135	942	2,130	751	1,650	611	311	258
25	1,610	e732	e268	e266	e138	855	2,950	728	1,490	579	304	264
26	1,460	e699	e263	e226	e144	815	5,130	751	1,380	555	298	263
27	1,360	505	e231	e250	e124	882	4,920	694	1,380	536	307	255
28	1,250	343	e222	e271	e120	901	3,740	642	1,880	525	340	249
29	1,150	355	e212	e206	e132	871	2,920	726	1,510	532	363	256
30	1,090	334	e231	e192	---	824	2,480	1,540	1,310	e502	366	265
31	1,050	---	e226	e250	---	969	---	3,780	---	483	334	---
Total	75,370	24,828	8,694	7,854	5,429	31,837	76,888	42,182	176,760	28,522	11,486	8,346
Mean	2,431	828	280	253	187	1,027	2,563	1,361	5,892	920	371	278
Max	5,110	1,070	354	345	283	4,170	5,390	3,780	30,500	3,850	479	314
Min	1,050	334	212	166	120	144	968	642	1,310	483	298	239
Ac-ft	149,500	49,250	17,240	15,580	10,770	63,150	152,500	83,670	350,600	56,570	22,780	16,550
Cfsm	2.31	0.79	0.27	0.24	0.18	0.97	2.43	1.29	5.59	0.87	0.35	0.26
In.	2.66	0.88	0.31	0.28	0.19	1.12	2.71	1.49	6.24	1.01	0.41	0.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	603	491	360	291	384	1,232	1,624	1,129	1,158	826	659	586
Max	2,431	1,639	1,396	888	1,707	3,388	6,010	3,434	5,892	3,009	4,704	2,987
(WY)	(2008)	(1983)	(1983)	(1973)	(1984)	(1997)	(2001)	(1991)	(2008)	(1993)	(1993)	(2004)
Min	126	97.7	85.4	86.3	127	176	251	197	130	159	114	116
(WY)	(1977)	(1977)	(1990)	(1990)	(1990)	(1968)	(1968)	(1977)	(1977)	(1988)	(1988)	(1976)

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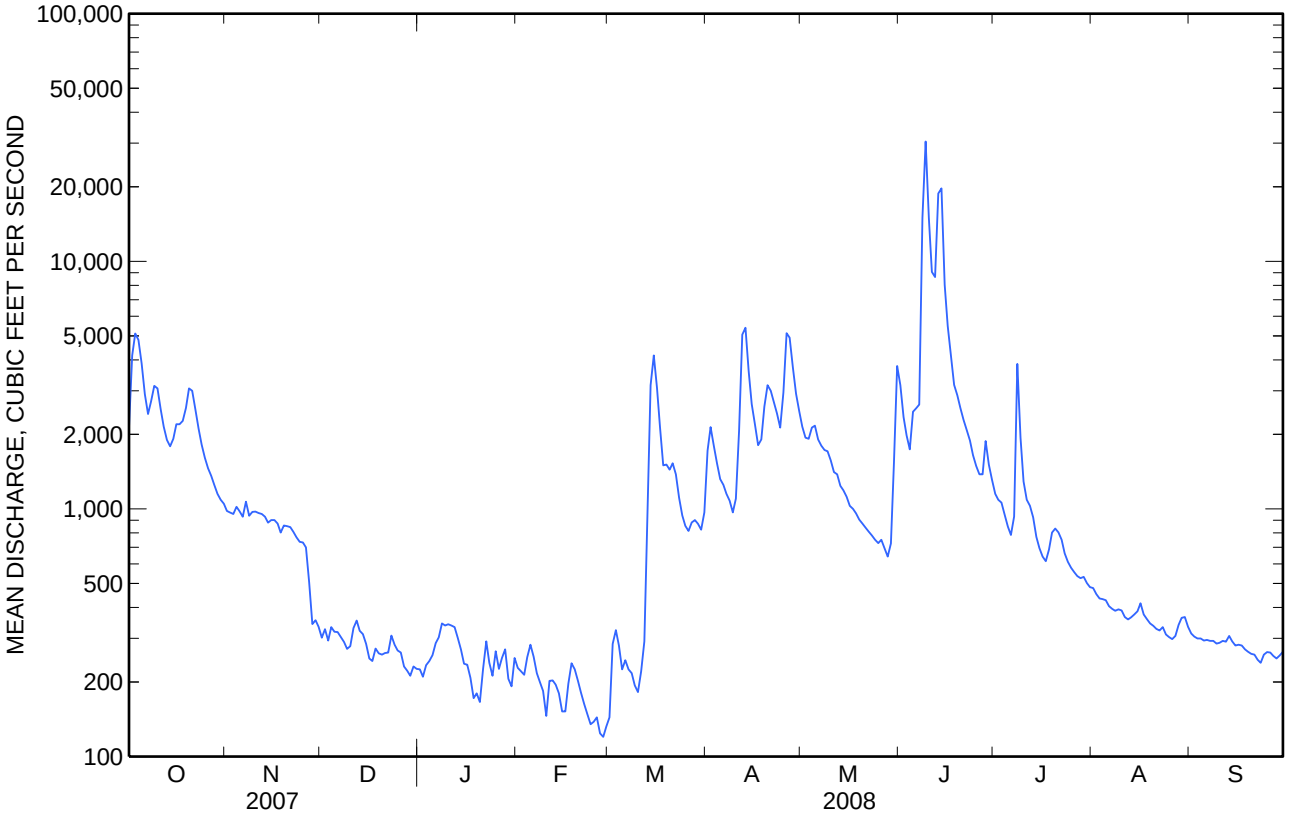
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1965 - 2008	
Annual total	407,800		498,196			
Annual mean	1,117		1,361		786	
Highest annual mean					2,048	1993
Lowest annual mean					159	1977
Highest daily mean	7,070	Mar 22	30,500	Jun 9	30,500	Jun 9, 2008
Lowest daily mean	212	Dec 29	120	Feb 28	60	Nov 23, 1976[a]
Annual seven-day minimum	236	Dec 25	134	Feb 24	65	Dec 17, 1989
Maximum peak flow			34,600	Jun 9	34,600	Jun 9, 2008
Maximum peak stage			25.33	Jun 9	25.33	Jun 9, 2008
Instantaneous low flow			109	Nov 28[b]	45	Nov 17, 1989
Annual runoff (ac-ft)	808,900		988,200		569,200	
Annual runoff (cfsm)	1.06		1.29		0.745	
Annual runoff (inches)	14.39		17.58		10.13	
10 percent exceeds	2,540		2,890		1,680	
50 percent exceeds	784		697		393	
90 percent exceeds	278		221		166	

[a]Also Jan 7, 1978.

[b]Result of freeze-up.