Water-Data Report 2009

05280000 CROW RIVER AT ROCKFORD, MN

Upper Mississippi Basin
Crow Subbasin

LOCATION.--Lat 45°05′12″, long 93°44′02″ referenced to North American Datum of 1927, in SW ¼ NE ¼ sec.29, T.119 N., R.24 W., Hennepin County, MN, Hydrologic Unit 07010204, on right bank at Rockford, 150 ft downstream from bridge on State Highway 55, 2 miles downstream from confluence of North and South Forks, and 23 miles upstream from confluence with the Mississippi River.

DRAINAGE AREA.--2,640 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April to July 1906 (published as "near Dayton"), June 1909 to September 1917, April to November 1929, March 1930 to September 1931, April to November 1932, March to November 1933, March 1934 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1115: 1932. WSP 1508: 1933. WDR MN-77-2: 1972 (M)(m).

GAGE.--Water-stage recorder. Datum of gage is 893.08 ft above sea level (NGVD of 1929). Apr. 13 to July 21, 1906, nonrecording gage at Berning Mill 14 mi downstream at different datum. June 4, 1909 to Sept. 30, 1917, nonrecording gage at site 600 ft downstream at different datum; Apr. 23, 1929 to Aug. 21, 1934, nonrecording gage at site 600 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair to poor.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	95	139	e275	e151	e128	e230	5,540	1,520	405	276	108	508
2	93	133	e271	e150	e125	e217	5,430	1,480	382	255	104	457
3	91	134	e246	e148	e122	e214	5,220	1,430	359	236	101	417
4	92	140	e244	e148	e121	e219	5,000	1,380	335	220	105	382
5	94	148	e231	e147	e120	e222	4,840	1,330	315	210	104	351
6	92	160	e222	e147	e118	e228	4,680	1,270	300	203	98	323
7	99	180	e212	e145	e118	e236	4,530	1,230	294	191	106	298
8	106	224	e210	e144	e115	e242	4,350	1,170	346	180	153	276
9	114	241	e199	e143	e116	e258	4,160	1,120	394	170	562	260
10	129	265	e186	e143	e168	e266	3,970	1,080	495	161	802	265
11	139	279	e181	e143	e239	e258	3,760	1,030	513	152	824	308
12	137	280	e177	e144	e299	e253	3,560	990	501	145	855	323
13	133	274	e174	e137	e361	e260	3,370	944	482	138	874	299
14	128	272	e173	e133	e409	e256	3,190	899	460	134	872	290
15	127	280	e166	e129	e433	e282	3,020	871	434	129	827	279
16	122	282	e164	e128	e422	e346	2,860	842	424	123	781	268
17	121	277	e161	e130	e377	e471	2,700	816	437	118	724	258
18	123	254	e160	e134	e335	e663	2,570	790	444	116	650	255
19	121	218	e159	e136	e309	e893	2,460	774	458	117	732	254
20	120	e227	e158	e136	e284	e1,180	2,350	749	449	114	907	244
21	120	e205	e155	e135	e264	e1,490	2,240	709	420	127	1,070	230
22	125	e215	e153	e134	e248	e1,940	2,150	682	393	132	1,120	218
23	129	e199	e156	e131	e248	2,350	2,020	651	379	116	1,120	206
24	129	e277	e157	e129	e248	3,000	1,930	623	358	122	1,070	201
25	132	e302	e155	e126	e254	3,110	1,840	592	345	130	1,010	201
26	135	e292	e165	e124	e248	3,270	1,770	560	324	123	946	203
27	147	e285	e170	e124	e245	3,480	1,750	531	336	116	874	204
28	144	e293	e164	e124	e239	3,770	1,700	509	323	110	797	205
29	141	e281	e156	e124	---	4,250	1,620	480	313	107	712	195
30	145	e223	e154	e124	---	4,840	1,560	455	292	102	632	186
31	145	---	e153	e128	---	5,340	---	432	---	102	565	---
Total	3,768	6,979	5,707	4,219	6,713	44,034	96,140	27,939	11,710	4,675	20,205	8,364
Mean	122	233	184	136	240	1,420	3,205	901	390	151	652	279
Max	147	302	275	151	433	5,340	5,540	1,520	513	276	1,120	508
Min	91	133	153	124	115	214	1,560	432	292	102	98	186
Ac-ft	7,470	13,840	11,320	8,370	13,320	87,340	190,700	55,420	23,230	9,270	40,080	16,590
Cfsm	0.05	0.09	0.07	0.05	0.09	0.54	1.21	0.34	0.15	0.06	0.25	0.11
In.	0.05	0.10	0.08	0.06	0.09	0.62	1.35	0.39	0.17	0.07	0.28	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	467	432	303	185	179	859	2,242	1,520	1,334	1,066	571	490
Max	3,809	1,909	1,477	1,096	1,115	4,085	9,026	5,992	6,166	6,759	4,175	4,941
(WY)	(1986)	(1972)	(1983)	(2006)	(1966)	(1983)	(1965)	(1986)	(1906)	(1993)	(2002)	(1991)
Min	16.6	28.3	17.3	12.4	12.5	25.1	57.1	26.7	14.8	5.76	5.87	13.0
(WY)	(1934)	(1937)	(1938)	(1938)	(1959)	(1934)	(1934)	(1934)	(1934)	(1934)	(1934)	(1933)

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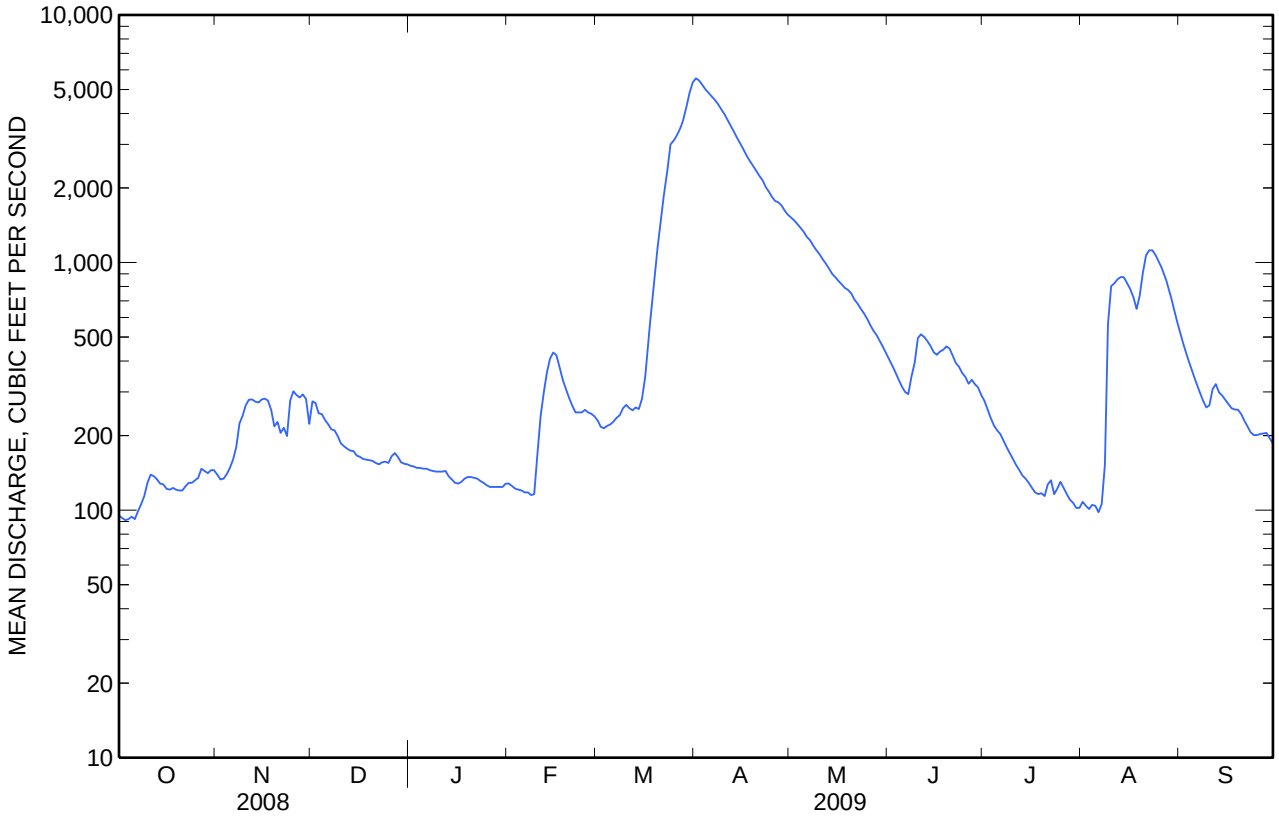
SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1906 - 2009	
Annual total	212,391		240,453			
Annual mean	580		659		[a]833	
Highest annual mean					2,754	1986
Lowest annual mean					64.5	1931
Highest daily mean	2,910	May 7	5,540	Apr 1	22,100	Apr 16, 1965
Lowest daily mean	86	Aug 26	91	Oct 3	3.8	Aug 4, 1934
Annual seven-day minimum	94	Sep 30	94	Oct 1	4.0	Jul 31, 1934
Maximum peak flow			5,560	Apr 1	22,400	Apr 16, 1965
Maximum peak stage			8.97	Apr 1	[b]19.27	Apr 16, 1965
Instantaneous low flow			91	Oct 2	[c]1.8	Nov 15, 1936
Annual runoff (ac-ft)	421,300		476,900		603,700	
Annual runoff (cfsm)	0.220		0.250		0.316	
Annual runoff (inches)	2.99		3.39		4.29	
10 percent exceeds	1,770		1,760		2,320	
50 percent exceeds	174		254		288	
90 percent exceeds	102		122		43	

[a] Median of annual mean discharges is 660 cfs.

[b] From floodmark.

[c] Result of ice jam upstream.