Water-Data Report 2012

05078000 CLEARWATER RIVER AT PLUMMER, MN

Lower Red Basin
Clearwater Subbasin

LOCATION.--Lat 47°55′24″, long 96°02′46″ referenced to North American Datum of 1927, in SE ¼ SW ¼ sec.4, T.151 N., R.42 W., Red Lake County, MN, Hydrologic Unit 09020305, on right bank 200 ft downstream from Soo Line Railroad bridge, 300 ft downstream from bridge on U.S. Highway 59, 0.9 mi northwest of railroad depot in Plummer, and 8 mi upstream from Hill River.

DRAINAGE AREA.--555 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1939 to September 1979, March 1982 to current year. Annual maximums only, October 1979 to February 1982.

REVISED RECORDS.--1968(M).

GAGE.--Water-stage recorder. Datum of gage is 1,098.57 ft above sea level (NGVD of 1929, levels by U.S. Army Corps of Engineers). Prior to Nov. 10, 1939, non-recording gage at site 100 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Since 1968, undetermined amounts of water diverted for the irrigation of wild rice paddies upstream.

EXTREMES FOR CURRENT YEAR.—No peaks above base discharge of 630 ft^3/s.

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 05078000, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/05078000.2012.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	54	50	e86	e84	e75	e80	488	164	155	76	41	25
2	43	50	e83	e82	e75	e82	450	131	142	77	40	25
3	57	50	e77	e82	e75	e84	416	154	131	68	42	25
4	52	49	e80	e82	e75	e86	378	150	136	79	64	25
5	54	50	e81	e84	e76	e86	334	146	117	86	90	23
6	55	47	e82	e84	e75	e91	309	162	99	76	90	22
7	70	49	e83	e84	e75	e96	307	153	84	84	80	23
8	67	62	e84	e84	e75	e99	290	149	72	94	74	23
9	50	52	e84	e84	e76	e100	267	140	63	90	75	23
10	35	50	e87	e84	e75	e102	225	150	75	77	72	24
11	31	54	e91	e82	e75	e104	194	162	86	61	63	22
12	41	52	e88	e81	e75	e143	194	160	77	54	55	19
13	39	51	e89	e80	e75	e204	185	160	63	48	51	19
14	42	52	e89	e80	e75	e273	205	152	55	49	48	21
15	38	50	e89	e79	e75	e352	212	134	59	45	49	21
16	41	e44	e89	e79	e75	e386	199	85	87	43	46	20
17	49	e47	e88	e78	e75	e417	195	97	86	45	41	20
18	45	e50	e88	e77	e75	e436	174	116	90	43	41	20
19	32	e53	e88	e75	e74	e446	162	110	82	42	38	20
20	34	e59	e87	e74	e74	e311	149	107	76	35	34	20
21	25	e64	e87	e74	e74	301	181	112	81	42	33	22
22	29	69	e87	e74	e74	282	211	112	94	43	32	22
23	51	82	e86	e74	e74	239	232	105	102	35	26	21
24	44	88	e86	e75	e74	329	196	114	97	36	23	22
25	44	84	e85	e75	e74	359	189	119	95	46	32	19
26	51	75	e87	e75	e75	338	218	108	86	44	29	21
27	54	72	e86	e75	e76	312	204	99	77	42	26	22
28	45	75	e86	e75	e77	287	203	133	60	53	28	24
29	51	82	e84	e75	e78	270	204	178	50	67	28	25
30	63	e86	e84	e75	---	342	192	171	60	57	25	26
31	52	---	e84	e75	---	481	---	167	---	43	26	---
Total	1,438	1,798	2,655	2,441	2,176	7,518	7,363	4,200	2,637	1,780	1,442	664
Mean	46.4	59.9	85.6	78.7	75.0	243	245	135	87.9	57.4	46.5	22.1
Max	70	88	91	84	78	481	488	178	155	94	90	26
Min	25	44	77	74	74	80	149	85	50	35	23	19
Ac-ft	2,850	3,570	5,270	4,840	4,320	14,910	14,600	8,330	5,230	3,530	2,860	1,320
Cfsm	0.08	0.11	0.15	0.14	0.14	0.44	0.44	0.24	0.16	0.10	0.08	0.04
In.	0.10	0.12	0.18	0.16	0.15	0.50	0.49	0.28	0.18	0.12	0.10	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	114	106	68.9	56.3	53.9	141	531	353	279	225	123	111
Max	483	617	211	125	184	925	1,472	1,974	1,140	1,072	507	666
(WY)	(1972)	(2001)	(2001)	(2001)	(1998)	(2009)	(1997)	(1950)	(1962)	(1997)	(1985)	(1973)
Min	21.5	23.8	24.4	18.4	19.0	22.8	26.8	7.52	30.1	16.0	13.3	14.1
(WY)	(1941)	(1991)	(1990)	(1940)	(1940)	(1940)	(1977)	(1977)	(1991)	(1940)	(1940)	(1940)

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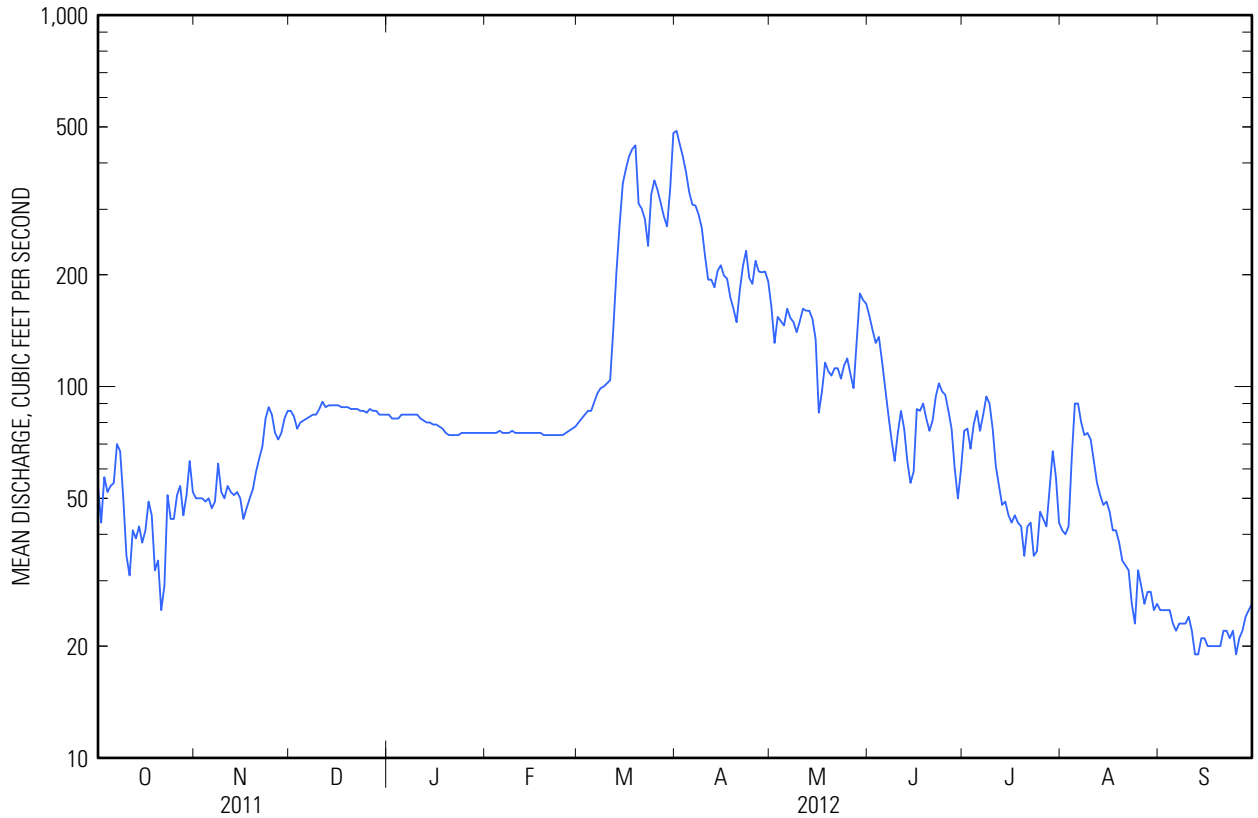
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1939 - 2012	
Annual total	116,515		36,112			
Annual mean	319		98.7		[a]181	
Highest annual mean					371	2011
Lowest annual mean					57.0	1990
Highest daily mean	2,840	Jun 29	488	Apr 1	3,840	Apr 25, 1979
Lowest daily mean	25	Oct 21	[b]19	Sep 12	2.6	May 16, 1977
Annual seven-day minimum	36	Oct 16	20	Sep 12	2.9	May 10, 1977
Maximum peak flow			[c]501	Apr 1	[d]3,940	Apr 25, 1979
Maximum peak stage			[f]6.64	Mar 19	[f]13.23	Mar 24, 2009
Instantaneous low flow			[g]17	Sep 12	2.5	May 16, 1977
Annual runoff (ac-ft)	231,100		71,630		131,100	
Annual runoff (cfsm)	0.575		0.178		0.326	
Annual runoff (inches)	7.81		2.42		4.43	
10 percent exceeds	750		203		416	
50 percent exceeds	109		76		80	
90 percent exceeds	50		27		35	

[a] Median of annual-mean discharges is 170 ft³/s.
[b] Also occurred Sept 13, 25.
[c] Gage-height, 4.87ft.
[d] Gage-height, 12.31 ft.
[f] Backwater from ice.
[g] Also occurred Sept 25.