Water-Data Report 2013

05305000 CHIPPEWA RIVER NEAR WATSON, MN

Minnesota Basin
Chippewa Subbasin

LOCATION.--Lat 45°01′16″, long 95°47′25″ referenced to North American Datum of 1927, in NE ¼ NW ¼ sec.22, T.118 N., R.41 W., Chippewa County, MN, Hydrologic Unit 07020005, 150 feet downstream from County Road 13 bridge and dam, one mile north of Watson, and 12.1 miles above confluence with Minnesota River.

DRAINAGE AREA.--(2040 sq. miles, from StreamStats, 2012)

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 2010 to current year. Seasonal record from 1910 to 1917 and 1931 to 1936, and high-flow partial-record station October 2001 to September 2010.

GAGE.--Recording gage. Datum of gage is 900.00 ft. msl (NGVD 1929).

REMARKS.--Discharges good except for those for estimated days, which are poor.

05305000 CHIPPEWA RIVER NEAR WATSON, MN—Continued

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

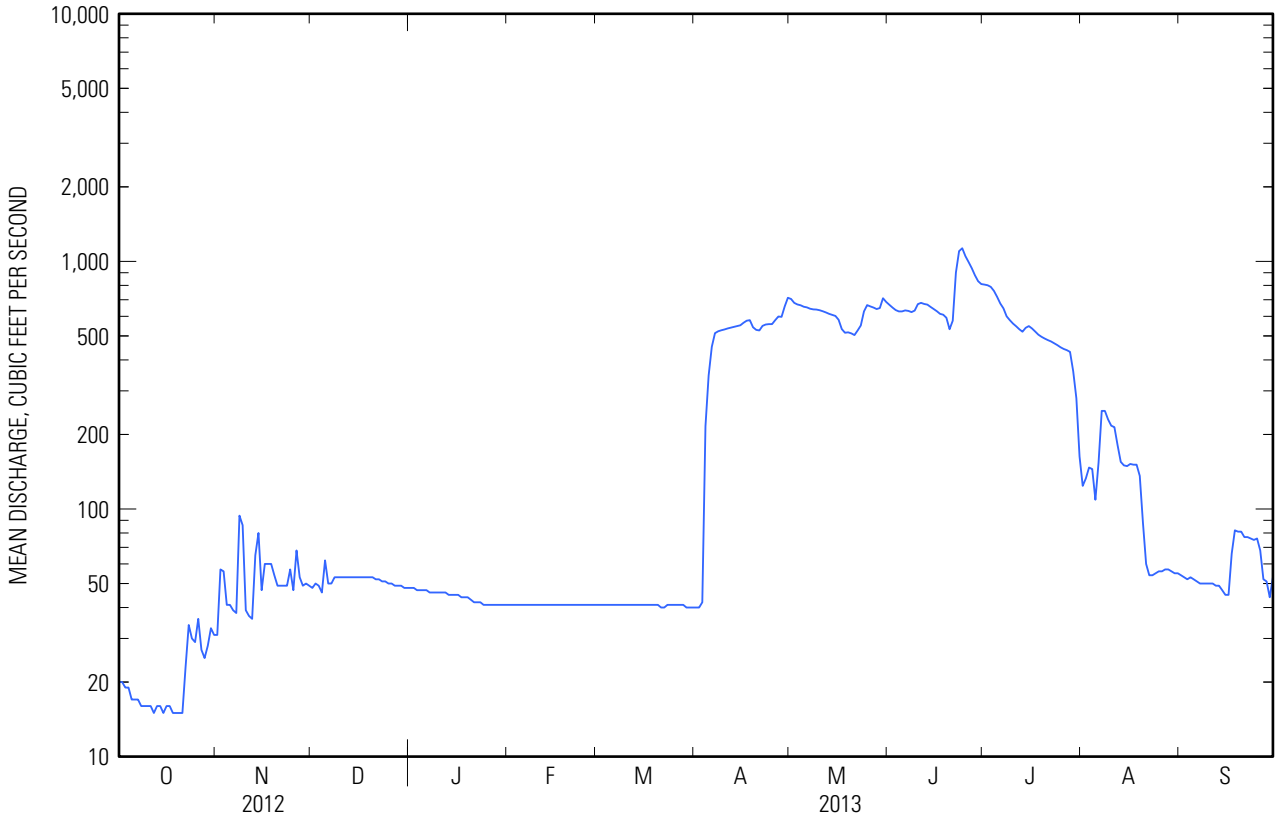
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	20	31	48	e48	e41	e41	e40	705	668	806	124	54
2	20	57	50	e48	e41	e41	e40	680	651	801	133	53
3	19	56	49	e47	e41	e41	e42	670	636	789	147	52
4	19	41	46	e47	e41	e41	e216	665	628	760	145	53
5	17	41	62	e47	e41	e41	e346	656	628	719	109	52
6	17	39	50	e47	e41	e41	e452	652	634	676	154	51
7	17	38	50	e46	e41	e41	e513	644	631	646	249	50
8	16	94	e53	e46	e41	e41	e522	640	624	600	249	50
9	16	86	e53	e46	e41	e41	e527	639	633	579	230	50
10	16	39	e53	e46	e41	e41	e531	635	672	561	217	50
11	16	37	e53	e46	e41	e41	e536	629	680	547	214	50
12	15	36	e53	e46	e41	e41	e540	622	673	532	181	49
13	16	65	e53	e45	e41	e41	e544	614	669	520	155	49
14	16	80	e53	e45	e41	e41	e548	608	655	539	150	47
15	15	47	e53	e45	e41	e41	e552	602	642	548	149	45
16	16	60	e53	e45	e41	e41	565	581	629	536	152	45
17	16	60	e53	e44	e41	e41	576	533	614	521	151	66
18	15	60	e53	e44	e41	e41	579	515	609	506	151	82
19	15	54	e53	e44	e41	e41	542	517	592	496	136	81
20	15	49	e53	e43	e41	e41	529	512	532	488	88	81
21	15	49	e52	e42	e41	e40	526	504	576	481	60	77
22	23	49	e52	e42	e41	e40	549	526	901	475	54	77
23	34	49	e51	e42	e41	e41	556	551	1,100	467	54	76
24	30	57	e51	e41	e41	e41	558	628	1,130	459	55	75
25	29	47	e50	e41	e41	e41	558	666	1,050	450	56	76
26	36	68	e50	e41	e41	e41	579	658	994	443	56	68
27	27	53	e49	e41	e41	e41	599	651	939	438	57	52
28	25	49	e49	e41	e41	e41	597	642	879	431	57	51
29	28	50	e49	e41	---	e40	658	648	832	360	56	44
30	33	49	e48	e41	---	e40	713	710	810	280	55	53
31	31	---	e48	e41	---	e40	---	686	---	163	55	---
Total	643	1,590	1,593	1,369	1,148	1,266	14,633	19,189	21,911	16,617	3,899	1,759
Mean	20.7	53.0	51.4	44.2	41.0	40.8	488	619	730	536	126	58.6
Max	36	94	62	48	41	41	713	710	1,130	806	249	82
Min	15	31	46	41	41	40	40	504	532	163	54	44
Ac-ft	1,280	3,150	3,160	2,720	2,280	2,510	29,020	38,060	43,460	32,960	7,730	3,490

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	178	155	119	113	103	206	596	454	361	331	173	142
Max	577	486	323	317	259	1,123	3,509	1,685	1,358	1,561	750	708
(WY)	(2011)	(2010)	(2006)	(2006)	(2010)	(2010)	(1917)	(1916)	(1916)	(1916)	(2011)	(1916)
Min	1.89	1.77	0.00	0.00	0.03	20.0	7.31	2.69	0.57	0.00	0.00	0.54
(WY)	(1935)	(1935)	(1935)	(1935)	(1936)	(1912)	(1934)	(1934)	(1934)	(1934)	(1934)	(1934)

05305000 CHIPPEWA RIVER NEAR WATSON, MN—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1910 - 2013	
Annual total	58,438		85,617			
Annual mean	160		235		199	
Highest annual mean					632	2011
Lowest annual mean					20.9	1932
Highest daily mean	929	Jun 21	1,130	Jun 24	9,700	Apr 4, 1917
Lowest daily mean	15	Oct 12	[a]15	Oct 12	0.00	Jul 25, 1933
Annual seven-day minimum	15	Oct 15	15	Oct 15	0.00	Jul 25, 1933
Maximum peak flow			[b]1,150	Jun 23	[c]9,700	Apr 4, 1917
Maximum peak stage			41.53	Jun 24	45.41	Apr 12, 2001
Instantaneous low flow			14	Oct 20		
Annual runoff (ac-ft)	115,900		169,800		144,100	
10 percent exceeds	396		647		589	
50 percent exceeds	73		53		63	
90 percent exceeds	25		39		2.0	

[a] Due in part to regulation; also occurred Oct. 18-21.
[b] Affected by regulation. Gage height 41.51 ft.
[c] Gage height 17.86 ft, site and datum then in use.