05301000 MINNESOTA RIVER NEAR LAC QUI PARLE, MN

Minnesota Basin
Hawk-Yellow Medicine Subbasin

LOCATION.--Lat 45°01′17″, long 95°52′05″ referenced to North American Datum of 1927, in NW ¼ NE ¼ sec.24, T.118 N., R.42 W., Chippewa County, MN, Hydrologic Unit 07020004, on left bank 200 ft downstream from highway bridge and dam, 2.4 mi northeast of village of Lac Qui Parle, and 3.5 mi west of town of Watson.

DRAINAGE AREA.--4,050 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1942 to September 1994, October 1998 to present.

REVISED RECORDS.--WDR MN-91-2; 1979

GAGE.--Water-stage recorder. Datum of gage is 900.00 ft above sea level (NGVD of 1929, levels by U.S. Army Corps of Engineers). Prior to Nov. 10, 1944, at datum 0.20 ft. lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. At most times part of flow from Chippewa River basin is diverted into Minnesota River above station. Some regulation by Big Stone Lake since Apr. 17, 1937, Lac qui Parle since Jan. 1938, Marsh Lake since Nov. 1, 1939, and Odessa Dam since May 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 1997 reached a discharge of approximately 43,000 ft^3/s, combination of measured flow through dam and indirect computation of flow over dam; peak stage occurred Apr. 7, 1997 (from Corps of Engineers).

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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	62	435	721	e441	293	408	12,500	3,250	932	594	157	254
2	97	434	722	443	294	569	11,700	3,140	932	564	154	125
3	123	434	689	433	e287	800	10,700	3,050	926	531	154	83
4	122	433	635	e431	e281	792	10,100	2,930	922	532	154	83
5	122	434	562	e438	e284	782	9,620	2,850	837	529	110	83
6	123	434	e507	e443	e290	773	9,310	2,770	757	504	81	83
7	154	575	e507	441	289	776	9,840	2,690	754	465	91	83
8	256	745	e490	e438	291	775	10,100	2,600	758	390	245	84
9	316	947	476	e438	291	627	9,100	2,530	743	349	352	83
10	356	1,170	e471	435	314	e498	8,250	2,420	836	350	352	85
11	393	968	454	429	372	e484	7,530	2,340	836	352	365	89
12	393	960	443	e423	406	e484	6,980	2,280	835	353	397	85
13	396	998	424	e404	405	e481	6,580	2,260	831	372	382	87
14	393	1,060	e425	e384	406	477	6,190	2,260	825	401	323	86
15	401	1,060	e422	e354	408	479	5,860	2,170	721	402	304	85
16	393	1,040	e424	e304	407	701	5,600	1,980	666	402	304	85
17	345	984	e425	e275	405	e1,050	5,440	1,930	666	403	304	85
18	316	906	e425	265	400	e1,600	5,260	1,910	665	402	246	85
19	317	777	e424	256	e403	e2,090	5,000	1,850	663	402	290	86
20	316	e675	e427	256	406	e2,480	4,860	1,620	662	382	425	87
21	316	e731	e425	255	403	e2,780	4,520	1,490	664	345	514	87
22	320	e731	e424	281	405	e2,990	4,280	1,480	664	345	540	87
23	392	e729	e425	e305	408	3,960	4,050	1,480	663	264	542	87
24	488	728	e431	e307	406	6,050	4,110	1,420	672	236	604	87
25	541	793	e437	e307	402	8,420	3,920	1,270	779	285	665	273
26	747	850	e442	e307	403	11,500	3,770	1,060	824	287	665	502
27	601	846	e436	e307	e404	15,200	3,770	963	780	219	663	428
28	531	785	439	e305	e405	15,800	3,540	937	779	215	659	338
29	526	721	430	303	---	15,300	3,410	916	694	250	658	305
30	501	722	426	307	---	14,400	3,360	937	599	184	637	304
31	455	---	e429	299	---	13,600	---	935	---	158	448	---
Total	10,812	23,105	14,817	11,014	10,168	127,126	199,250	61,718	22,885	11,467	11,785	4,404
Mean	349	770	478	355	363	4,101	6,642	1,991	763	370	380	147
Max	747	1,170	722	443	408	15,800	12,500	3,250	932	594	665	502
Min	62	433	422	255	281	408	3,360	916	599	158	81	83
Ac-ft	21,450	45,830	29,390	21,850	20,170	252,200	395,200	122,400	45,390	22,740	23,380	8,740
Cfsm	0.09	0.19	0.12	0.09	0.09	1.01	1.64	0.49	0.19	0.09	0.09	0.04
In.	0.10	0.21	0.14	0.10	0.09	1.17	1.83	0.57	0.21	0.11	0.11	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	298	318	254	177	204	927	2,787	1,511	1,232	996	510	257
Max	2,924	2,327	1,204	874	824	4,599	14,580	5,837	4,229	7,024	6,012	2,402
(WY)	(1987)	(1985)	(1985)	(2006)	(2006)	(1994)	(2001)	(2001)	(1984)	(1993)	(1993)	(1986)
Min	4.16	0.46	0.17	0.19	0.09	46.5	151	122	29.5	14.7	11.8	5.59
(WY)	(1977)	(1977)	(1977)	(1977)	(1977)	(1956)	(1961)	(1959)	(1988)	(1988)	(1974)	(1967)

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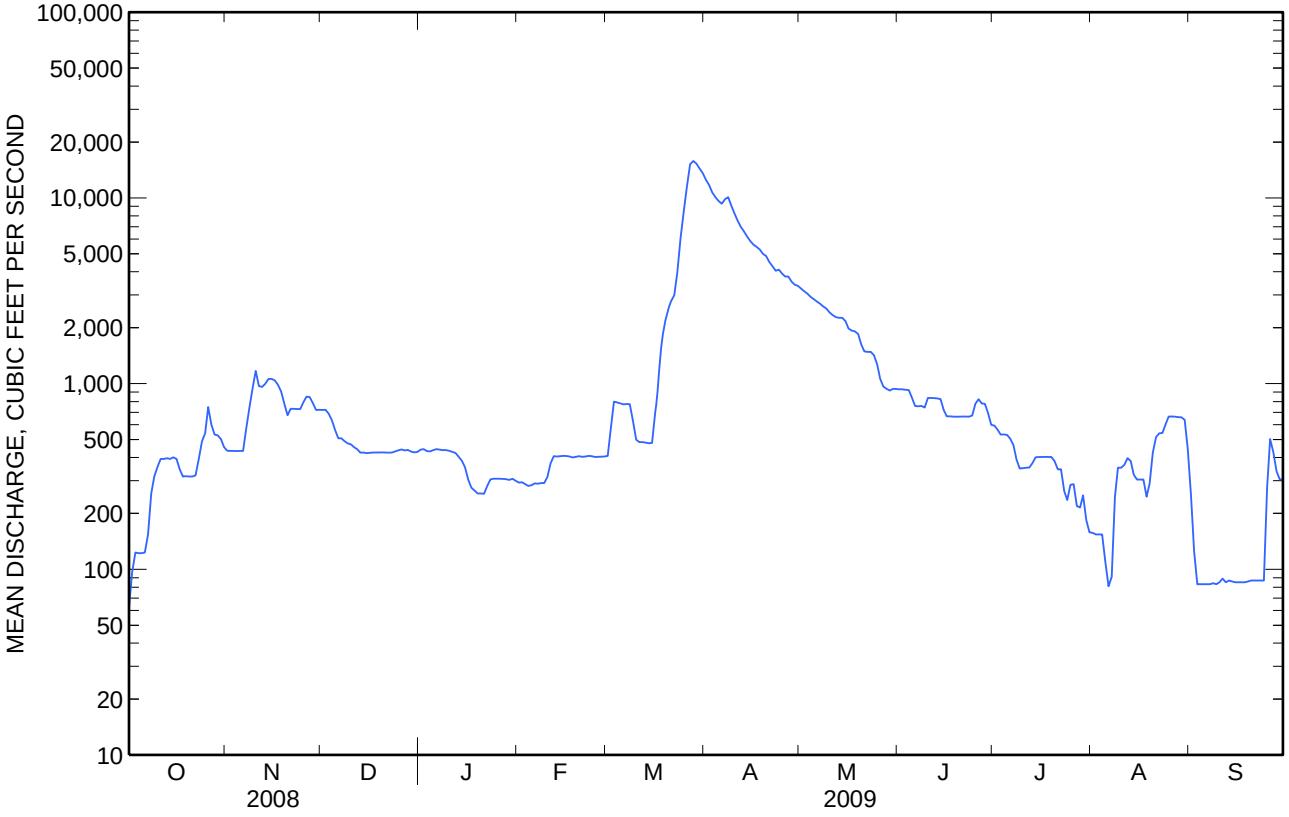
SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1943 - 2009	
Annual total	420,926		508,551			
Annual mean	1,150		1,393		790	
Highest annual mean					2,507	1986
Lowest annual mean					75.7	1959
Highest daily mean	3,860	Jun 21	15,800	Mar 28	29,800	Apr 14, 2001
Lowest daily mean	24	Sep 23	[a]62	Oct 1	[b]0.00	Oct 19, 1951
Annual seven-day minimum	35	Sep 22	83	Sep 3	0.00	Oct 19, 1951
Maximum peak flow			[c]15,800	Mar 28	30,100	Apr 14, 2001
Maximum peak stage			[c]37.42	Mar 28	40.05	Apr 14, 2001
Instantaneous low flow			[a]62	Oct 1	[b]0.00	Oct 19, 1951
Annual runoff (ac-ft)	834,900		1,009,000		572,100	
Annual runoff (cfsm)	0.284		0.344		0.195	
Annual runoff (inches)	3.87		4.67		2.65	
10 percent exceeds	3,290		3,630		1,960	
50 percent exceeds	528		448		260	
90 percent exceeds	123		156		30	

[a] Due in part to regulation, rising stage.

[b] Many days, several years.

[c] Affected by regulation.