

# MINNESOTA RIVER BASIN

## 05290000 LITTLE MINNESOTA RIVER NEAR PEEVER, SD

LOCATION.--Lat 4536'05", long 9652'18", in SW 1 / 4 sec. 13, T.125 N., R.50 W., Roberts County, Hydrologic Unit 07020001, on Sisseton Indian Reservation, on right bank 2 mi northwest of town of Browns Valley, MN, 5.3 mi northeast of Peever, 7.2 mi downstream from Jorgenson River, and 8 mi upstream from Big Stone Lake.

DRAINAGE AREA.--438 mi<sup>2</sup> (revised).

PERIOD OF RECORD.--October 1939 to September 1981, October 1989 to current year.

REVISED RECORDS.--WSP 1308: 1943(M).

GAGE.--Water-stage recorder. Datum of gage is 1,002.20 ft above sea level. Oct. 1, 1939 to Mar. 20, 1940, nonrecording gage at site 4.5 mi downstream at different datum. Mar. 21 to Apr. 12, 1940, nonrecording gage at site 100 ft downstream at present datum. April 13 to Aug. 27, 1940, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge	Gage height (ft)	Date	Time	Discharge	Gage height (ft)
		(ft <sup>3</sup> /s)				(ft <sup>3</sup> /s)	
Feb. 27	(daily) e528		a5.08	Apr. 27	1130	580	4.90
Mar. 30	2100	614	5.07	May 13	1230	969	5.67
Apr. 08	0830	614	5.03	May 17	1900	*1340	6.31

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

### DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	4.8	8.5	e5.2	e4.0	229	477	182	159	82	11	2.6
2	1.4	5.2	8.3	e5.2	e4.1	177	406	152	150	75	9.2	2.5
3	1.5	5.0	8.0	e5.0	e4.2	128	428	131	138	68	10	2.5
4	1.6	5.1	7.3	e4.3	e4.1	118	470	114	122	62	10	2.3
5	1.5	5.9	7.2	e4.3	e4.0	e95	503	100	107	64	11	2.1

6	2.0	5.7	7.1	e4.0	e4.1	e80	545	91	98	121	11	2.0
7	2.3	5.9	7.0	e3.7	e4.2	e73	589	83	91	156	8.8	1.9
8	2.4	6.2	e6.8	e3.4	e4.5	e66	611	80	86	100	7.6	1.8
9	2.8	6.4	e6.8	e3.3	e4.7	e58	596	79	84	97	6.7	1.8
10	2.5	6.6	e6.8	e3.3	e4.9	e50	533	79	84	91	5.6	1.7
11	3.7	7.0	e6.8	e3.3	e5.1	e45	466	83	90	82	4.8	1.7
12	3.9	6.1	e6.7	e3.3	e5.4	e42	409	277	95	73	4.6	1.7
13	6.6	6.3	e6.6	e3.3	e5.6	e38	356	874	92	64	4.3	1.6
14	7.3	6.2	e6.8	e3.3	e5.9	e36	321	919	88	57	4.0	1.6
15	9.4	5.6	e6.8	e3.3	e6.2	e33	280	742	95	50	3.7	1.6
16	7.8	6.0	e6.9	e3.2	e6.8	e32	249	827	104	44	3.6	1.5
17	6.2	5.6	e7.0	e3.2	e7.4	e31	217	1190	102	39	3.4	1.5
18	5.5	5.5	e7.0	e3.2	e8.3	e30	190	1110	91	35	3.1	1.5
19	4.8	5.5	e6.9	e3.2	e9.2	e31	172	845	133	31	3.4	1.4
20	4.3	5.5	e6.6	e3.3	e10	33	153	701	128	28	3.2	1.4
21	4.0	5.8	e6.5	e3.5	e12	37	138	596	91	25	2.8	1.2
22	4.0	6.1	e6.3	e3.5	e15	47	123	518	78	23	6.1	1.3
23	4.0	6.0	e6.2	e3.5	e20	46	108	444	72	21	8.9	1.2
24	4.0	6.1	e6.1	e3.5	e40	53	98	414	66	20	9.3	1.3
25	4.1	6.4	e6.0	e3.5	e100	79	95	397	64	19	8.4	1.5
26	4.3	6.9	e5.9	e3.6	e410	112	169	353	65	19	6.0	1.5
27	4.6	7.3	e5.9	e3.6	e528	323	490	303	108	18	4.8	1.4
28	4.6	7.9	e5.9	e3.7	358	451	365	262	143	17	4.3	1.4
29	4.5	8.5	e5.8	e3.8	---	468	283	223	96	15	3.8	1.3
30	4.8	8.1	e5.8	e3.8	---	549	221	194	84	14	3.4	1.3
31	4.8	---	e5.2	e3.9	---	569	---	173	---	13	3.1	---
TOTAL	126.6	185.2	207.5	114.2	1595.7	4159	10061	12536	3004	1623	189.9	50.1
MEAN	4.08	6.17	6.69	3.68	57.0	134	335	404	100	52.4	6.13	1.67
MAX	9.4	8.5	8.5	5.2	528	569	611	1190	159	156	11	2.6

MIN	1.4	4.8	5.2	3.2	4.0	30	95	79	64	13	2.8	1.2
AC-FT	251	367	412	227	3170	8250	19960	24870	5960	3220	377	99
CFSM	.01	.01	.01	.01	.13	.30	.75	.90	.22	.12	.01	.00
IN.	.01	.02	.02	.01	.13	.35	.84	1.04	.25	.14	.02	.00

a Backwater from ice.

e Estimated

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1998, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.54	5.79	3.08	1.55	3.75	119	227	103	74.8	54.9	12.8	4.37
MAX	73.9	36.6	18.2	11.4	57.0	603	1321	531	355	865	235	43.3
(WY)	1996	1996	1994	1994	1998	1997	1952	1962	1942	1993	1993	1993
MIN	.21	.25	.10	.000	.000	.51	2.89	2.20	.41	.041	.059	.074
(WY)	1940	1940	1940	1940	1940	1956	1981	1981	1976	1976	1976	1976

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1940 - 1998		
ANNUAL TOTAL	62158.7		33852.2				
ANNUAL MEAN	170		92.7		51.3a		
HIGHEST ANNUAL MEAN					172		1997
LOWEST ANNUAL MEAN					1.37		1981
HIGHEST DAILY MEAN	3420		Mar 28	1190	May 17	5400	Jul 25 1993
LOWEST DAILY MEAN	1.4		Sep 29	1.2	Sep 21, 23	.00b	Jan 1 1940
ANNUAL SEVEN-DAY MINIMUM	1.5		Sep 29	1.3	Sep 18	.00	Jan 1 1940
INSTANTANEOUS PEAK FLOW			1340		May 17	8900	Jul 25 1993
INSTANTANEOUS PEAK STAGE			6.58c		Feb 26	14.40c	Mar 27 1997
INSTANTANEOUS			1.2		Sep 20	.00	Jan 1 1940

LOW FLOW							
ANNUAL RUNOFF (AC-FT)	123300		67150		37200		
ANNUAL RUNOFF (CFSM)	.38		.21		.11		
ANNUAL RUNOFF (INCHES)	5.17		2.82		1.56		
10 PERCENT EXCEEDS	460		335		114		
50 PERCENT EXCEEDS	6.7		7.6		3.6		
90 PERCENT EXCEEDS	3.1		2.5		.30		

a Median of annual mean discharges is 38 ft<sup>3</sup>/s.

b Many days, several years.

c Backwater from ice.

