

MINNESOTA RIVER BASIN

05316500 REDWOOD RIVER NEAR REDWOOD FALLS, MN

LOCATION.--Lat 44° 31'25', long 95° 10'20", in SE¹/₄NE¹/₄ sec. 9, T.112 N., R.36 W., Redwood County, Hydrologic Unit 07020006, on right bank 4 ft upstream from highway bridge, 3 mi west of town of Redwood Falls, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--629 mi².

PERIOD OF RECORD.--July 1909 to September 1914 (no winter records except 1911-12). August 1930 to September 1935 (no winter records), October 1935 to current year.

REVISED RECORDS.--WDR MN-89-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 972.33 ft above sea level. July 1909 to September 1914, nonrecording gage at bridge 20 ft downstream at datum 0.22 ft lower. August 1930 to Oct. 25, 1949, nonrecording gage, at bridge 20 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Natural discharge affected by unknown amount of interbasin flow between Yellow Medicine, Redwood, and Cottonwood River basins during extreme floods.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
1	28	77	e82	81	e46	e50	5730	623	227
386	389	63							
2	26	65	e80	71	e45	e51	4970	606	218
376	341	67							
3	26	75	e77	61	e43	e52	4380	640	210
315	291	108							
4	22	80	e74	73	e42	e53	4000	694	207
272	277	84							
5	23	65	e70	69	e41	e54	3780	715	201
232	292	78							
6	24	61	e72	39	e41	e56	4140	678	191
205	268	72							
7	26	58	e74	e51	e40	e58	3900	645	179
190	245	64							

8	25	55	e75	e50	e40	e60	3840	614	168
186	222	58							
9	24	52	e76	e49	e40	e59	3800	579	157
176	205	55							
10	26	41	e77	e49	e40	e60	3910	541	145
163	202	57							
11	26	30	e76	e48	e40	e63	2870	505	137
149	216	52							
12	26	36	e74	e46	e40	e65	2320	483	130
136	217	48							
13	28	41	e72	e44	e40	e66	1990	455	119
132	197	47							
14	29	37	e70	e41	e40	e67	1780	430	111
128	178	47							
15	27	45	e60	e40	e40	e69	1630	405	105
123	163	46							
16	28	62	e46	e40	e40	e69	1500	388	100
109	147	50							
17	40	76	e44	e40	e40	e71	1400	369	96
110	135	55							
18	69	78	e43	e40	e41	e80	1320	355	90
106	122	56							
19	72	67	e42	e42	e43	e90	1240	332	89
127	122	47							
20	61	64	e40	e45	e48	e100	1160	307	97
112	138	45							
21	54	61	e38	e46	e49	e120	1090	289	97
98	177	42							
22	46	57	e34	e45	e49	e150	1010	280	92
107	132	42							
23	43	59	e31	e44	e48	e200	948	272	90
109	114	44							
24	40	56	e28	e43	e45	e300	885	272	223
115	103	56							
25	38	57	26	e42	e50	e450	826	265	301
731	94	53							
26	37	59	25	e41	e50	e700	777	255	305
1130	86	49							
27	37	64	27	e41	e50	e1500	741	243	264
934	80	45							
28	33	70	29	e40	e50	e7090	706	238	227
769	73	44							
29	35	76	33	e40	---	e7100	673	241	241
637	69	42							
30	e75	83	36	e43	---	e7200	652	237	308
530	74	39							
31	e91	---	45	e47	---	6510	---	233	---
445	67	---							
TOTAL	1185	1807	1676	1491	1221	32613	67968	13189	5125
9338	5436	1655							

MEAN	38.2	60.2	54.1	48.1	43.6	1052	2266	425	171
301	175	55.2							
MAX	91	83	82	81	50	7200	5730	715	308
1130	389	108							
MIN	22	30	25	39	40	50	652	233	89
98	67	39							
AC-FT	2350	3580	3320	2960	2420	64690	134800	26160	10170
18520	10780	3280							
CFSM	.06	.10	.09	.08	.07	1.67	3.60	.68	.27
.48	.28	.09							
IN.	.07	.11	.10	.09	.07	1.93	4.02	.78	.30
.55	.32	.10							

a Result of ice jam.

b Maximum daily, backwater from ice.

o e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	57.4	59.8	34.3	16.7	20.9	243	435	220	259
149	79.7	52.2							
MAX	509	541	245	104	167	1289	2880	1530	2724
1994	934	673							
(WY)	1996	1980	1983	1994	1983	1983	1969	1993	1993
1993	1993	1986							
MIN	.84	.96	.46	.19	.20	1.54	14.6	2.75	1.01
.44	.51	.31							
(WY)	1937	1936	1936	1940	1937	1965	1934	1934	1934
1934	1934	1976							

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1909 - 1997

ANNUAL TOTAL		67735				142704			
ANNUAL MEAN		185				391			150a
HIGHEST ANNUAL MEAN									
789		1993							
LOWEST ANNUAL MEAN									
10.8		1959							
HIGHEST DAILY MEAN			969	May 29		7200b	Mar 30		13200
Apr 9 1969									
LOWEST DAILY MEAN			22	Sep 17		22	Oct 4		.00c Jan
17 1940									
ANNUAL SEVEN-DAY MINIMUM			24	Sep 14		24	Oct 3		.01 Jan
25 1940									
INSTANTANEOUS PEAK FLOW						7200b	Mar 30		19700 Jun
18 1957									
INSTANTANEOUS PEAK STAGE						18.01d	Mar 29		18.01d Mar
29 1997									
INSTANTANEOUS LOW FLOW						20e	Nov 11		.00 Jan

17	1940			
ANNUAL RUNOFF (AC-FT)	134400	283100	108800	
ANNUAL RUNOFF (INCHES)	4.01	8.44	3.24	
10 PERCENT EXCEEDS	477	721	320	
50 PERCENT EXCEEDS	80	75	27	
90 PERCENT EXCEEDS	28	40	2.2	

- a Median of annual mean discharges is 97.1 ft³/s.
- b Estimated daily discharge, backwater from ice.
- c Many days in 1940 and 1959.
- d Result of ice jam.
- e Result of temporary storage.