05315000 REDWOOD RIVER NEAR MARSHALL, MN

LOCATION.--Lat 44°25′49", long 95°50′43", in SW¼SE¼ sec. 12, T.111 N., R.42 W., Lyon County, Hydrologic Unit 07020006, on right bank 1.7 mi upstream from Redwood River diversion structure on southwest edge of town of Marshall, MN. Prior to Apr. 10, 1980, at site 5 mi downstream.

DRAINAGE AREA.--259 mi^2.

PERIOD OF RECORD.--March 1940 to current year. Monthly discharge only for some periods, published in WSP 1308.

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

GAGE.--Water-stage recorder. Datum of gage is 1,188.23 ft above sea level (NGVD of 1929). March 1940 to April 9, 1980, nonrecording gage 5.0 mi downstream from present site at datum 43.35 ft lower (crest-stage gage added June 12, 1968). From March 1964 to April 1980, nonrecording gage and crest-stage gage on diversion channel 1.5 mi downstream at datum 1,100.00 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharge, which are fair to poor. Water diverted at medium and high stages into diversion channel 3.4 mi below station. Diversion began Mar. 18, 1964. Unknown amount of natural diversion into Cottonwood River basin occurs at extremely high stages 0.8 mi below station.

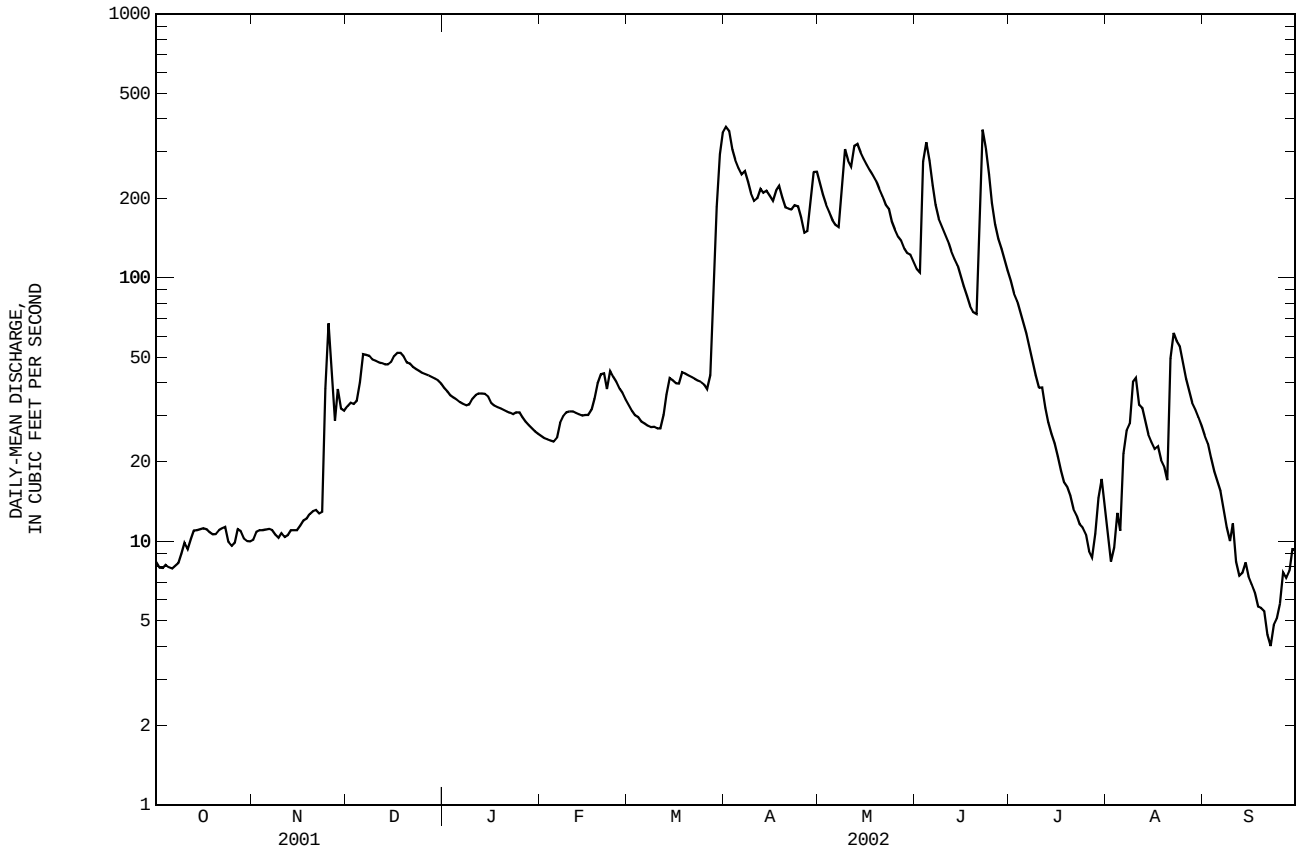
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	10	32	e38	e25	e33	e372	226	107	97	10	25
2	7.9	11	34	e37	e25	e31	e360	206	105	87	8.4	24
3	7.9	11	33	e36	e24	e30	306	189	275	82	9.4	21
4	8.1	11	34	e35	e24	e30	279	177	326	74	13	18
5	8.0	11	40	e34	e24	e28	260	165	278	67	11	17
6	7.9	11	51	e34	e25	e28	247	158	224	61	21	16
7	8.1	11	e51	e33	e28	e27	254	155	189	54	26	13
8	8.3	11	e51	e33	e30	e27	231	217	167	47	28	11
9	8.9	10	e49	e33	e31	e27	209	307	156	42	40	10
10	9.9	11	e48	e35	e31	e27	196	277	146	38	42	12
11	9.3	10	e48	e36	e31	e27	200	264	138	38	33	8.4
12	10	11	e47	e36	e31	e30	217	316	126	32	32	7.4
13	11	11	e47	e36	e30	e36	210	321	118	28	28	7.6
14	11	11	e47	e36	e30	e41	213	299	111	26	25	8.3
15	11	11	e48	e35	e30	e41	205	283	101	23	24	7.4
16	11	11	e50	e33	e30	e40	196	268	93	21	22	6.9
17	11	12	e52	e33	e31	e40	214	255	85	18	23	6.4
18	11	12	e52	e32	e35	e44	223	243	78	17	20	5.6
19	11	13	e50	e32	40	e43	201	232	74	16	19	5.6
20	11	13	e48	e31	43	e43	184	217	73	15	17	5.4
21	11	13	e47	e31	43	e42	182	204	172	13	49	4.4
22	11	13	e46	e31	38	e41	181	189	364	13	62	4.0
23	11	13	e45	e30	44	e41	188	182	310	12	58	4.8
24	9.9	38	e44	e31	e42	e40	186	163	247	11	55	5.1
25	9.6	67	e43	e31	e40	e39	168	152	192	11	48	5.8
26	9.9	45	e43	e30	e38	e38	148	143	159	9.2	41	7.6
27	11	29	e42	e28	e37	e43	150	138	140	8.7	37	7.3
28	11	38	e42	e28	e34	e93	192	129	128	11	34	7.7
29	10	32	e41	e27	---	e186	252	123	116	15	32	9.3
30	10	31	e41	e26	---	e294	252	122	106	17	29	9.3
31	10	---	e40	e26	---	e354	---	115	---	13	27	---
TOTAL	305.0	542	1386	1007	914	1884	6676	6435	4904	1016.9	923.8	301.3
MEAN	9.84	18.1	44.7	32.5	32.6	60.8	223	208	163	32.8	29.8	10.0
MAX	11	67	52	38	44	354	372	321	364	97	62	25
MIN	7.9	10	32	26	24	27	148	115	73	8.7	8.4	4.0
AC-FT	605	1080	2750	2000	1810	3740	13240	12760	9730	2020	1830	598
CFSM	0.04	0.07	0.17	0.13	0.13	0.23	0.86	0.80	0.63	0.13	0.12	0.04
IN.	0.04	0.08	0.20	0.14	0.13	0.27	0.96	0.92	0.70	0.15	0.13	0.04

05315000 REDWOOD RIVER NEAR MARSHALL, MN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.4	27.5	16.3	9.28	16.4	121	245	128	121	70.1	34.1	25.3
MAX	310	202	115	59.4	101	571	1252	1205	936	1161	610	292
(WY)	1996	1996	1999	1994	1983	1983	2001	1993	1993	1993	1993	1986
MIN	0.029	0.58	0.87	0.000	0.090	2.70	7.36	3.90	0.83	0.058	0.042	0.007
(WY)	1977	1977	1977	1977	1979	1965	1990	1981	1976	1976	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	65357.1		26295.0			
ANNUAL MEAN	179		72.0		70.7a	
HIGHEST ANNUAL MEAN					421	1993
LOWEST ANNUAL MEAN					5.13	1981
HIGHEST DAILY MEAN	3670	Apr 24	372	Apr 1	5300	May 9 1993
LOWEST DAILY MEAN	7.1	Feb 27	4.0	Sep 22	0.00b	Jul 28 1940
ANNUAL SEVEN-DAY MINIMUM	7.4	Jan 1	5.0	Sep 18	0.00	Jul 28 1940
MAXIMUM PEAK FLOW			392	Jun 21	6380	May 9 1993
MAXIMUM PEAK STAGE			12.71c	Mar 30	17.00	May 9 1993
INSTANTANEOUS LOW FLOW			3.2	Sep 23	0.00b	Jul 28 1940
ANNUAL RUNOFF (AC-FT)	129600		52160		51220	
ANNUAL RUNOFF (CFSM)	0.69		0.28		0.27	
ANNUAL RUNOFF (INCHES)	9.39		3.78		3.71	
10 PERCENT EXCEEDS	489		213		168	
50 PERCENT EXCEEDS	21		34		13	
90 PERCENT EXCEEDS	8.2		9.9		2.0	

a Median of annual mean discharges is 45.0 ft^3/s.
b Many days, several years.
c Backwater from ice.
e Estimated.