

MINNESOTA RIVER BASIN--Continued

05315000 REDWOOD RIVER NEAR MARSHALL, MN

LOCATION.--Lat 44°25'49", long 95°50'43", in SE¹/₄SW¹/₄ sec. 12, T.111 N., R.42 W., Lyon County, Hydrologic Unit 07020006, on right bank 2.0 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 mi².

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 poor. Water diverted at medium and high stages into diversion channel 2.0 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 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4.8	e28	e16	e7.4	e9.3	e7.6	e257	706	163	168	57	11
2	e4.6	e29	e15	e7.3	e8.5	e8.0	e368	625	159	153	53	11
3	e5.3	e26	e14	e7.3	e8.9	e8.2	e681	560	148	143	48	10
4	e6.0	e23	e13	e7.3	e8.6	e8.4	1520	501	140	129	44	9.3
5	e6.2	e23	e13	e7.3	e8.4	e8.4	1580	489	141	118	40	8.9
6	e6.4	e25	e12	e7.4	e8.4	e8.4	1180	652	142	110	36	9.0
7	e6.8	e30	e12	e7.5	e8.4	e8.3	1480	677	169	104	32	13
8	e8.1	e51	e12	e7.9	e8.2	e8.6	1380	561	171	99	29	13
9	e8.2	e43	e11	e8.0	e8.1	e8.6	984	508	157	92	26	12
10	e9.1	e39	e11	e8.2	e8.1	e8.7	758	477	166	85	23	11
11	e11	e39	e11	e8.5	e8.1	e8.8	1150	441	170	78	21	10
12	e11	e38	e11	e8.8	e8.1	e8.9	1960	406	157	73	20	9.6
13	e12	e31	e10	e9.0	e8.1	e9.9	1660	377	417	66	19	9.1
14	e11	e21	e10	e9.1	e7.9	e11	1240	348	878	59	19	9.4
15	e12	e19	e10	e9.4	e7.7	e12	876	324	801	52	19	10
16	e11	e18	e9.9	e9.7	e7.7	e11	686	302	620	46	18	12
17	e10	e19	e9.0	e9.4	e7.7	e10	554	283	489	43	18	13
18	e12	e18	e8.5	e8.8	e7.7	e12	488	262	407	39	18	12
19	e12	e16	e7.7	e8.6	e7.7	e17	444	245	351	35	17	12
20	e12	e15	e7.5	e8.6	e7.6	e38	407	237	301	40	16	12
21	e12	e15	e7.5	e8.8	e7.3	e156	445	231	262	153	15	11
22	e13	e15	e7.4	e9.2	e7.6	e176	1080	218	235	123	15	11
23	e12	e15	e7.3	e9.4	e7.6	e177	3100	212	211	104	15	11
24	e13	e15	e7.4	e9.4	e8.2	e172	3670	213	191	91	14	11
25	e14	e16	e7.2	e9.2	e8.2	e164	3010	206	171	92	14	10
26	e14	e16	e7.5	e9.2	e7.5	e156	2230	215	155	87	14	9.9
27	e14	e16	e8.0	e9.3	e7.1	e155	1610	206	149	80	13	9.7
28	e14	e15	e8.1	e9.3	e7.3	e162	1130	196	138	75	12	9.4
29	e15	e16	e8.2	e9.6	---	e169	875	186	162	69	12	8.9
30	e17	e17	e8.1	e9.7	---	e180	771	174	181	62	13	8.6
31	e22	---	e8.0	e9.9	---	e195	---	168	---	58	12	---
TOTAL	339.5	707	308.3	268.5	224.0	2083.8	37574	11206	8002	2726	722	317.8
MEAN	11.0	23.6	9.95	8.66	8.00	67.2	1252	361	267	87.9	23.3	10.6
MAX	22	51	16	9.9	9.3	195	3670	706	878	168	57	13
MIN	4.6	15	7.2	7.3	7.1	7.6	257	168	138	35	12	8.6
AC-FT	673	1400	612	533	444	4130	74530	22230	15870	5410	1430	630
CFSM	.04	.09	.04	.03	.03	.26	4.84	1.40	1.03	.34	.09	.04
IN.	.05	.10	.04	.04	.03	.30	5.40	1.61	1.15	.39	.10	.05

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.7	27.6	15.9	8.90	16.2	122	246	127	120	70.7	34.2	25.6
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	.029	.58	.87	.000	.090	2.70	7.36	3.90	.83	.058	.042	.007
(WY)	1977	1977	1977	1977	1979	1965	1990	1981	1976	1976	1941	1941

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1940 - 2001
ANNUAL TOTAL	13141.5	64478.9	
ANNUAL MEAN	35.9	177	70.7a
HIGHEST ANNUAL MEAN			421
LOWEST ANNUAL MEAN			5.13
HIGHEST DAILY MEAN	399	May 31	5300
LOWEST DAILY MEAN	4.6	Oct 2	.00c
ANNUAL SEVEN-DAY MINIMUM	4.9	Jan 22	.00
MAXIMUM PEAK FLOW			6380
MAXIMUM PEAK STAGE			17.00
INSTANTANEOUS LOW FLOW			.00c
ANNUAL RUNOFF (AC-FT)	26070	127900	51210
ANNUAL RUNOFF (CFSM)	.14	.68	.27
ANNUAL RUNOFF (INCHES)	1.89	9.26	3.71
10 PERCENT EXCEEDS	97	489	166
50 PERCENT EXCEEDS	12	15	13
90 PERCENT EXCEEDS	5.4	7.9	2.0

- a Median of annual mean discharges is 44.4 ft³/s.
- b Estimated daily discharge.
- c Many days, several years.
- e Estimated.

