

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. 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). Since March 1964, 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 discharges 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	e82	262	e46	e27	e82	114	247	114	e107	52	21
2	12	e81	231	e43	e28	e81	116	237	114	e102	49	19
3	16	e78	211	e40	e28	e79	116	228	113	e100	46	16
4	26	e75	195	e38	e29	e75	122	221	107	e150	43	20
5	38	e72	193	e36	e31	e74	125	228	106	e225	38	19
6	38	e70	189	e34	e32	e73	151	245	104	e200	33	17
7	34	e68	179	e32	e34	e72	213	271	97	e172	30	15
8	30	e67	162	e31	e37	e72	245	288	93	160	27	12
9	26	e68	147	e30	e40	e72	561	278	105	151	24	11
10	25	e73	136	e30	e43	e71	739	259	437	141	21	12
11	27	e81	e130	e29	e48	e69	770	254	e490	133	19	11
12	26	e80	123	e29	e52	e68	789	245	e390	123	17	10
13	26	80	116	e29	e54	e70	627	228	e340	114	15	9.5
14	e27	79	111	e28	e55	e76	540	215	304	112	15	9.4
15	e27	86	107	e28	e55	83	496	208	263	103	14	9.4
16	e32	99	102	e28	e58	118	452	205	e240	102	13	9.4
17	e39	112	100	e28	e61	244	408	202	e220	97	12	9.2
18	e53	123	94	e27	e64	225	384	188	e200	94	12	10
19	e71	e135	e65	e27	e64	166	356	171	e178	94	11	14
20	e69	e155	e60	e27	e64	167	327	170	e162	97	11	11
21	e62	e175	e57	e27	e64	168	307	177	e148	97	10	9.3
22	59	197	e56	e27	e64	160	296	169	134	97	9.9	9.3
23	55	243	e58	e27	e65	147	285	165	144	98	9.9	8.0
24	53	281	e59	e27	e68	135	269	155	153	92	9.8	7.7
25	51	309	e60	e27	e72	125	255	149	143	86	9.7	e7.8
26	49	320	e61	e27	e75	116	249	144	120	80	9.4	e7.9
27	e51	302	e62	e27	e79	110	267	138	e125	74	9.0	e7.6
28	e57	282	e61	e27	e81	121	289	131	e123	70	8.8	e7.4
29	e62	275	e57	e27	---	124	276	120	e118	65	8.8	e7.2
30	e66	283	e54	e27	---	119	258	115	e110	60	16	e7.0
31	e72	---	e52	e27	---	118	---	113	---	56	23	---
TOTAL	1288.6	4431	3550	937	1472	3480	10402	6164	5495	3452	626.3	344.1
MEAN	41.6	148	115	30.2	52.6	112	347	199	183	111	20.2	11.5
MAX	72	320	262	46	81	244	789	288	490	225	52	21
MIN	9.6	67	52	27	27	68	114	113	93	56	8.8	7.0
AC-FT	2560	8790	7040	1860	2920	6900	20630	12230	10900	6850	1240	683
CFSM	.16	.57	.44	.12	.20	.43	1.34	.77	.71	.43	.08	.04
IN.	.19	.64	.51	.13	.21	.50	1.49	.89	.79	.50	.09	.05

e Estimated

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	28.3	28.0	16.1	8.96	16.3	125	233	123	118	70.1	34.6	26.1
MAX	310	202	115	59.4	101	571	1152	1205	936	1161	610	292
(WY)	1996	1996	1999	1994	1983	1983	1969	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 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1940 - 1999
ANNUAL TOTAL	28897.2	41642.0	
ANNUAL MEAN	79.2	114	69.5 ^a
HIGHEST ANNUAL MEAN			421
LOWEST ANNUAL MEAN			5.13
HIGHEST DAILY MEAN	575	Apr 8	5300
LOWEST DAILY MEAN	7.0	Sep 21	.00 ^c
ANNUAL SEVEN-DAY MINIMUM	7.8	Sep 17	.00
INSTANTANEOUS PEAK FLOW			6380
INSTANTANEOUS PEAK STAGE			17.00
INSTANTANEOUS LOW FLOW			.00 ^c
ANNUAL RUNOFF (AC-FT)	57320	82600	50360
ANNUAL RUNOFF (CFSM)	.31	.44	.27
ANNUAL RUNOFF (INCHES)	4.15	5.98	3.65
10 PERCENT EXCEEDS	199	260	163
50 PERCENT EXCEEDS	39	75	13
90 PERCENT EXCEEDS	11	12	1.9

a Median of annual mean discharges is 44 ft³/s.
 b Estimated daily discharge.
 c Many days, several years.

