

RED RIVER OF THE NORTH BASIN--Continued

05067500 MARSH RIVER NEAR SHELLY, MN

LOCATION.--Lat 47°24'45", long 96°45'50", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T.145 N., R.48 W., Norman County, Hydrologic Unit 09020107, near center of span on downstream truss of County Road 129 bridge, 3.8 mi southeast of Shelly and 10 mi upstream from mouth.

DRAINAGE AREA.--220 mi².

PERIOD OF RECORD.--March 1944 to September 1983 and April 1985 to current year (no winter records since 1989). Monthly discharge only for March 1944, published in WSP 1308. Operated as a high-flow partial-record station October 1983 to March 1985.

GAGE.--Water-stage recorder. Datum of gage is 841.14 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1965, nonrecording gage at datum 3.0 ft higher. Oct. 1, 1965 to May 17, 1989, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Large part of high flow of Wild Rice River diverted into Marsh River basin at overflow section 4.6 mi east of Ada. Another diversion from Wild Rice River basin formed in 1947, 1.5 mi southeast of Ada and diverted water at all stages 1947- 51, after which it was closed except for a small regulated flow diverted for abatement of pollution from Ada sewage plant effluent.

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	.00	10	---	---	---	---	465	18	7.7	6.8	7.7	2.1
2	.00	10	---	---	---	---	483	16	6.8	7.6	5.7	3.0
3	.00	e9.2	---	---	---	---	432	13	6.1	8.5	4.1	5.5
4	.00	---	---	---	---	---	701	13	5.4	10	2.8	14
5	.00	---	---	---	---	---	809	16	5.4	25	2.2	77
6	.23	---	---	---	---	---	485	30	9.8	32	2.0	228
7	2.2	---	---	---	---	---	328	50	14	39	1.6	240
8	2.7	---	---	---	---	---	259	89	33	48	1.5	209
9	2.8	---	---	---	---	---	211	117	41	184	1.5	150
10	3.2	---	---	---	---	---	176	168	33	272	1.2	106
11	3.6	---	---	---	---	---	147	323	24	196	1.2	78
12	4.0	---	---	---	---	---	128	343	14	117	1.6	65
13	4.2	---	---	---	---	---	109	293	8.1	78	2.1	62
14	5.1	---	---	---	---	---	95	254	5.4	58	2.2	61
15	5.3	---	---	---	---	---	89	220	4.6	42	2.5	65
16	5.1	---	---	---	---	---	78	193	3.8	31	2.7	55
17	59	---	---	---	---	e20	71	165	4.5	23	2.9	40
18	233	---	---	---	---	e300	64	136	4.2	15	2.9	27
19	151	---	---	---	---	e500	59	111	3.1	9.9	2.7	15
20	83	---	---	---	---	e750	56	89	3.3	7.7	2.5	9.5
21	55	---	---	---	---	e900	56	74	2.8	6.1	2.3	5.4
22	40	---	---	---	---	e1050	56	54	3.2	5.4	2.3	3.0
23	30	---	---	---	---	e1050	54	43	4.9	6.6	2.5	2.3
24	21	---	---	---	---	e900	50	34	5.5	5.0	2.5	1.6
25	13	---	---	---	---	e740	43	25	5.2	3.8	2.6	2.0
26	10	---	---	---	---	583	36	19	5.8	3.1	2.6	2.0
27	8.9	---	---	---	---	602	33	14	5.7	2.4	2.4	2.4
28	7.5	---	---	---	---	856	29	10	5.9	2.1	2.2	2.7
29	7.2	---	---	---	---	1380	24	8.0	6.2	1.7	1.8	3.0
30	8.8	---	---	---	---	1060	21	6.4	6.6	8.2	1.6	4.0
31	11	---	---	---	---	625	---	6.7	---	9.9	1.5	---
TOTAL	776.83	---	---	---	---	---	5647	2951.1	289.0	1264.8	77.9	1540.5
MEAN	25.1	---	---	---	---	---	188	95.2	9.63	40.8	2.51	51.3
MAX	233	---	---	---	---	---	809	343	41	272	7.7	240
MIN	.00	---	---	---	---	---	21	6.4	2.8	1.7	1.2	1.6
AC-FT	1540	---	---	---	---	---	11200	5850	573	2510	155	3060
CFSM	.11	---	---	---	---	---	.86	.43	.04	.19	.01	.23
IN.	.13	---	---	---	---	---	.95	.50	.05	.21	.01	.26

e Estimated

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.6	11.0	5.60	3.79	3.29	77.9	304	129	83.4	76.2	19.1	13.0
MAX	130	102	77.1	64.5	62.1	437	1537	2617	1030	820	363	144
(WY)	1952	1952	1951	1951	1951	1945	1950	1950	1950	1950	1949	1944
MIN	.000	.000	.000	.000	.000	.000	.078	.87	.000	.000	.000	.000
(WY)	1955	1956	1956	1946	1946	1964	1981	1980	1980	1961	1959	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1944 - 1999
ANNUAL MEAN			63.3 ^a
HIGHEST ANNUAL MEAN			543 ^a 1950
LOWEST ANNUAL MEAN			1.24 1977
HIGHEST DAILY MEAN	1470	May 17	4740 Mar 29
LOWEST DAILY MEAN	.00	Aug 14	.00 ^b Oct 1-5
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 14	.00 Sep 12 1945
INSTANTANEOUS PEAK FLOW			1420 Mar 29
INSTANTANEOUS PEAK STAGE			15.04 Mar 29
ANNUAL RUNOFF (AC-FT)			45850
ANNUAL RUNOFF (CFSM)			.29
ANNUAL RUNOFF (INCHES)			3.91
10 PERCENT EXCEEDS	322		298
50 PERCENT EXCEEDS	13		116
90 PERCENT EXCEEDS	.00		13
			2.1
			.00

- a Based on complete years only, 1945-83, 86-89.
- b Many days, most years.
- c Gage-height, 22.36 ft., from floodmark.
- d From floodmark.

