

RED RIVER OF THE NORTH BASIN

05067500 MARSH RIVER NEAR SHELLY, MN

LOCATION.--Lat 47° 24'45", long 96° 45'50", in NE¼NW¼ sec. 3, T.145 N., R.48 W., Norman County, Hydrologic Unit 09020107, near center of span on downstream truss of bridge, 3.8 mi southeast of Shelly and 10 mi upstream from mouth.

DRAINAGE AREA.--151 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 mean 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, 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	.00	---	---	---	---	---	e.20	e170	38
409	4.5	1.5							
2	.00	---	---	---	---	---	e6.0	e140	33
567	4.0	1.3							
3	.00	---	---	---	---	---	e60	e120	34
505	3.7	.94							
4	.00	---	---	---	---	---	e260	e110	43
635	3.1	.70							
5	.00	---	---	---	---	---	e450	e100	42
634	3.0	.79							
6	.00	---	---	---	---	---	e700	e90	35
470	3.2	.64							
7	.00	---	---	---	---	---	e1250	e81	28
349	3.5	.49							
8	.00	---	---	---	---	---	e1700	e76	22
304	4.8	.67							
9	.00	---	---	---	---	---	e2100	74	17

281	4.9	.30								
10	.00	---	---	---	---	---	---	e2300	67	13
244	4.3	1.8								
11	.00	---	---	---	---	---	---	e2200	62	9.5
210	3.9	2.5								
12	.00	---	---	---	---	---	---	e1600	59	6.7
156	3.5	2.2								
13	.00	---	---	---	---	---	---	e1500	49	5.6
147	3.1	2.0								
14	.00	---	---	---	---	---	---	e1400	43	4.6
407	2.6	1.5								
15	.00	---	---	---	---	---	---	e1600	41	4.4
672	2.5	1.3								
16	.00	---	---	---	---	---	---	e3300	37	3.7
643	2.4	1.3								
17	.04	---	---	---	---	---	---	e4000	33	3.5
402	2.0	1.2								
18	.04	---	---	---	---	---	---	e4100	30	4.2
206	1.8	1.2								
19	.04	---	---	---	---	---	---	e3000	27	3.9
116	2.1	1.7								
20	.02	---	---	---	---	---	---	e2000	25	3.3
90	2.3	1.5								
21	.00	---	---	---	---	---	---	e1400	22	2.7
76	2.1	1.3								
22	.00	---	---	---	---	---	---	e1100	21	2.4
63	2.2	1.1								
23	.00	---	---	---	---	---	---	e900	56	3.0
47	2.5	1.2								
24	.00	---	---	---	---	---	---	e740	161	526
34	2.2	1.2								
25	.00	---	---	---	---	---	---	e550	241	1740
24	1.9	1.2								
26	.04	---	---	---	---	---	---	e300	194	1990
17	1.7	1.2								
27	.36	---	---	---	---	---	---	e200	121	1670
13	1.4	1.1								
28	.33	---	---	---	---	---	---	e180	89	1180
10	1.2	1.7								
29	.41	---	---	---	---	---	---	e180	70	845
7.9	1.0	2.0								
30	1.6	---	---	---	---	---	---	e200	58	552
6.3	.96	2.4								
31	1.3	---	---	---	---	---	---	---	47	---
5.2	.85	---								
TOTAL	4.18	---	---	---	---	---	---	39276.20		2514
8865.5	7750.4	83.21	39.93							
MEAN	.13	---	---	---	---	---	---	1309	81.1	296
250	2.68	1.33								
MAX	1.6	---	---	---	---	---	---	4100	241	1990

672	4.9	2.5							
MIN	.00	---	---	---	---	---	.20	21	2.4
5.2	.85	.30							
AC-FT	8.3	---	---	---	---	---	77900	4990	17580
15370	165	79							
CFSM	.00	---	---	---	---	---	8.67	.54	1.96
1.66	.02	.01							
IN.	.00	---	---	---	---	---	9.68	.62	2.18
1.91	.02	.01							

- e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	13.1	11.0	5.60	3.79	3.29	76.7	311	126	83.0
77.4	19.7	12.5							
MAX	130	102	77.1	64.5	62.1	437	1537	2617	1030
821	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 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1944 - 1997

ANNUAL MEAN									63.3a
HIGHEST ANNUAL MEAN									
543a		1950							
LOWEST ANNUAL MEAN									
1.24a		1977							
HIGHEST DAILY MEAN			2080	Apr 15		4100	Apr 18		
4740	Apr 19	1979							
LOWEST DAILY MEAN			.00b			.00b			.00c
ANNUAL SEVEN-DAY MIN			.00	Aug 24		.00	Oct 1		
.00	Sep 12	1945							
INSTANTANEOUS PEAK FLOW						4300	Apr 18		
4880d	Apr 19	1979							
INSTANTANEOUS PEAK STAGE						25.45e	Apr 18		
25.45e	Apr 18	1997							

a Based on complete water years only, 1945-83, 86-89.

- b Many days.
- c Many days, most years.

d Gage height, 23.36 ft, from floodmark.

- e From floodmark.