

RED RIVER OF THE NORTH BASIN--Continued

05067500 MARSH RIVER NEAR SHELLY, MN

LOCATION.--Lat 47°24'45", long 96°45'50", in NE¹/₄NW¹/₄ sec. 3, T.145 N., R.48W., Norman County, Hydrologic Unit 09020107, on left bank, 10 ft downstream 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 (NGVD of 1929, 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	---	---	---	---	e90	22	e18	e1.8	240	1.5	1.7
2	5.2	---	---	---	---	e80	20	e16	e1.7	206	1.3	1.4
3	5.3	---	---	---	---	e70	18	e15	e1.7	179	1.2	1.4
4	5.8	---	---	---	---	e65	21	e14	e1.6	160	.95	1.3
5	5.5	---	---	---	---	e62	21	e13	e1.6	152	.70	1.1
6	5.2	---	---	---	---	e58	26	e12	1.4	115	.67	.99
7	5.4	---	---	---	---	e54	29	e12	.99	108	.69	1.5
8	5.2	---	---	---	---	e50	28	e11	.60	101	.62	e.45
9	6.2	---	---	---	---	e51	32	e11	.36	81	.54	e.10
10	6.0	---	---	---	---	e49	29	e10	.21	66	.51	e.00
11	5.5	---	---	---	---	e48	24	e9.0	.08	51	.51	e.00
12	5.6	---	---	---	---	e47	20	e8.0	.02	44	.63	e.00
13	5.5	---	---	---	---	e47	17	e7.8	.08	35	.70	.00
14	5.3	---	---	---	---	e48	18	e7.5	.54	23	1.1	.00
15	5.3	---	---	---	---	e47	17	e7.0	2.4	16	2.3	.00
16	4.7	---	---	---	---	e47	23	e6.6	9.2	9.6	4.3	.00
17	4.6	---	---	---	---	e46	23	e6.4	13	6.5	3.4	.00
18	4.7	---	---	---	---	e45	28	e6.0	13	5.9	2.4	.00
19	4.8	---	---	---	---	e46	44	e5.5	33	5.0	6.1	.00
20	4.6	---	---	---	---	e47	40	e5.0	126	4.0	12	.00
21	---	---	---	---	---	e46	34	e4.5	678	4.1	13	.00
22	---	---	---	---	---	e45	28	e4.0	1000	3.9	8.9	.36
23	---	---	---	---	---	e47	30	e3.5	1100	3.1	7.3	1.9
24	---	---	---	---	---	54	24	e3.0	1100	2.7	6.1	3.0
25	---	---	---	---	---	84	21	e2.5	1140	2.5	6.8	2.3
26	---	---	---	---	---	127	20	e2.2	1130	e2.4	5.9	1.5
27	---	---	---	---	---	103	37	e2.0	943	2.1	4.2	1.1
28	---	---	---	---	---	68	e28	e1.9	642	1.6	3.0	.50
29	---	---	---	---	e98	47	e25	e1.9	408	1.5	2.4	.19
30	---	---	---	---	---	38	e20	e1.8	293	1.7	2.1	.14
31	---	---	---	---	---	27	---	e1.8	---	1.8	2.1	---
TOTAL	---	---	---	---	---	1783	767	229.9	8643.28	1635.4	103.92	20.93
MEAN	---	---	---	---	---	57.5	25.6	7.42	288	52.8	3.35	.70
MAX	---	---	---	---	---	127	44	18	1140	240	13	3.0
MIN	---	---	---	---	---	27	17	1.8	.02	1.5	.51	.00
AC--FT	---	---	---	---	---	3540	1520	456	17140	3240	206	42
CFSM	---	---	---	---	---	.26	.12	.03	1.31	.24	.02	.00
IN.	---	---	---	---	---	.30	.13	.04	1.46	.28	.02	.00

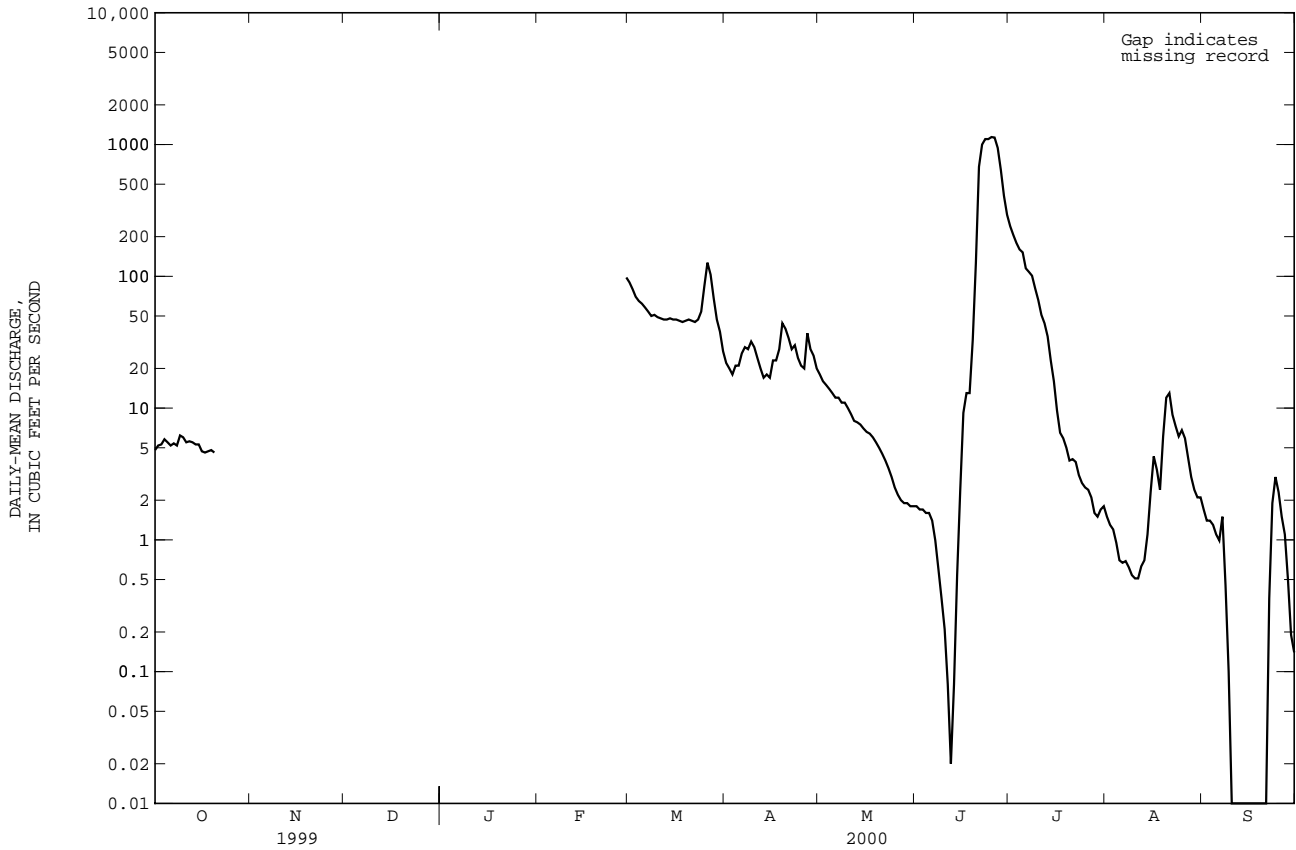
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.6	11.0	5.60	3.79	3.29	77.5	299	126	87.0	75.8	18.8	12.8
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

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SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1944 - 2000	
ANNUAL MEAN					63.3	
HIGHEST ANNUAL MEAN					543 ^a	1950
LOWEST ANNUAL MEAN					1.24	1977
HIGHEST DAILY MEAN	1380	Mar 29	1140	Jun 25	4740	Apr 19 1979
LOWEST DAILY MEAN	1.2	Aug 10	.00	Sep 10-21	.00 ^b	Sep 4 1945
ANNUAL SEVEN-DAY MINIMUM	1.5	Aug 6	.00	Sep 10	.00	Sep 12 1945
INSTANTANEOUS PEAK FLOW			1160	Jun 26	4880 ^c	Apr 19 1979
INSTANTANEOUS PEAK STAGE			14.07	Jun 26	25.45 ^d	Apr 18 1997
ANNUAL RUNOFF (AC-FT)					45850	
ANNUAL RUNOFF (CFSM)					.29	
ANNUAL RUNOFF (INCHES)					3.91	
10 PERCENT EXCEEDS	324		86		116	
50 PERCENT EXCEEDS	10		6.1		1.5	
90 PERCENT EXCEEDS	2.3		.51		.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.
^e Estimated.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1975, 1979, 2000.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	
SEP	08...	1155	3.3	605	8.3	17.2	50	8.9	70	98