

05087500 MIDDLE RIVER AT ARGYLE, MN

LOCATION.--Lat 48°20'25", long 96°48'58", in NE¹/₄NW¹/₄ sec. 15, T.156 N., R.48 W., Marshall County, Hydrologic Unit 09020309, on left bank 30 ft upstream of bridge on County Highway 4 in Argyle and 14 mi upstream from mouth.

DRAINAGE AREA.--255 mi².

PERIOD OF RECORD.--March to September 1945, November 1950 to September 1981, February 1982 to current year. Monthly discharge only for some periods, published in WSP 1728. October 1981 to January 1982, operated as a high-flow partial-record station.

GAGE.--Water-stage recorder. Datum of gage is 828.53 ft above sea level (NGVD of 1929). Prior to Nov. 8, 1951, nonrecording gage and Nov. 8, 1951 to Sept. 18, 1952, water-stage recorder at site 800 ft downstream at datum 1.0 ft higher. Sept. 19, 1952 to June 28, 1982, recording gage at site 800 feet downstream at present datum. June 29, 1982 to Sept. 20, 1983, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 1950 reached a stage of 15.25 ft present datum, site then in use, from floodmarks, discharge, 2,790 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	1.6	e10	e3.8	e3.0	e2.6	e8.0	e120	127	169	13	130
2	3.0	1.7	e9.7	e3.8	e3.0	e2.6	22	97	138	132	12	286
3	2.3	14	e9.3	e3.8	e3.0	e2.5	53	84	121	107	13	193
4	2.4	49	e8.3	e3.7	e2.9	e2.5	36	71	91	89	12	144
5	2.3	66	e7.7	e3.9	e2.9	e2.4	28	62	68	75	10	113
6	2.3	58	e7.5	e3.9	e2.9	e2.4	22	57	53	65	9.8	83
7	2.6	51	e7.0	e3.9	e2.9	e2.3	20	60	43	60	9.0	61
8	2.9	44	e6.4	e3.8	e2.9	e2.3	18	98	36	106	8.4	45
9	2.8	39	e6.1	e3.6	e2.8	e2.2	16	122	41	e150	9.9	34
10	3.2	34	e6.0	e3.6	e2.8	e2.2	15	162	67	e220	9.4	28
11	2.9	30	e5.8	e3.6	e2.8	e2.2	16	258	496	e320	8.2	23
12	2.7	28	e5.8	e3.6	e2.8	e2.2	16	268	2140	e360	7.7	20
13	2.7	26	e5.7	e3.7	e2.8	e2.2	18	243	2550	e300	7.0	17
14	2.7	24	e5.6	e3.7	e2.7	e2.2	24	202	2060	e240	6.8	14
15	3.1	23	e5.5	e3.7	e2.7	e2.2	37	169	1620	e170	6.8	12
16	2.6	21	e5.3	e3.6	e2.9	e2.2	48	145	1350	e120	6.7	12
17	2.5	20	e5.0	e3.5	e3.1	e2.2	45	126	1140	e90	7.5	e11
18	2.8	20	e4.7	e3.4	e3.1	e2.2	39	104	886	e65	6.7	11
19	3.5	19	e4.5	e3.4	e3.0	e2.2	37	88	636	52	6.5	21
20	3.6	18	e4.4	e3.2	e3.0	e2.2	37	74	478	43	6.1	32
21	3.6	17	e4.4	e3.3	e2.9	e2.2	39	61	386	36	5.7	20
22	3.8	17	e4.3	e3.2	e2.9	e2.2	35	52	323	31	4.9	15
23	2.4	16	e4.3	e3.3	e2.8	e2.2	31	45	448	26	4.5	11
24	4.7	15	e4.2	e3.3	e2.8	e2.3	30	41	598	24	4.8	10
25	4.7	15	e4.2	e3.2	e2.7	e2.3	57	38	786	21	4.4	8.5
26	5.6	14	e4.2	e3.1	e2.7	e2.3	292	35	856	19	4.2	8.1
27	6.3	13	e4.3	e3.1	e2.7	e2.3	325	33	706	17	6.1	7.0
28	4.1	e12	e4.1	e3.1	e2.6	e2.3	297	33	483	13	186	6.2
29	3.0	e11	e4.0	e3.1	---	e2.4	216	32	336	12	192	5.5
30	2.4	e10	e4.0	e3.1	---	e3.0	153	31	233	11	89	5.5
31	1.8	---	e3.9	e3.0	---	e4.0	---	64	---	11	62	---
TOTAL	98.1	727.3	176.2	108.0	80.1	73.5	2030.0	3075	19296	3154	740.1	1386.8
MEAN	3.16	24.2	5.68	3.48	2.86	2.37	67.7	99.2	643	102	23.9	46.2
MAX	6.3	66	10	3.9	3.1	4.0	325	268	2550	360	192	286
MIN	1.8	1.6	3.9	3.0	2.6	2.2	8.0	31	36	11	4.2	5.5
AC-FT	195	1440	349	214	159	146	4030	6100	38270	6260	1470	2750
CFSM	0.01	0.10	0.02	0.01	0.01	0.01	0.27	0.39	2.52	0.40	0.09	0.18
IN.	0.01	0.11	0.03	0.02	0.01	0.01	0.30	0.45	2.81	0.46	0.11	0.20

RED RIVER OF THE NORTH BASIN--Continued

05087500 MIDDLE RIVER AT ARGYLE, MN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12.8	19.2	3.83	1.53	2.98	36.6	237	94.3	91.8	62.5	15.0	18.6
MAX	94.1	535	22.2	8.77	69.8	335	966	896	660	688	265	272
(WY)	1983	2001	1995	1995	2000	1995	1997	1996	1970	1975	1993	1993
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.20	2.12	0.37	0.000	0.000	0.000
(WY)	1954	1954	1954	1953	1953	1954	1991	1981	1973	1961	1961	1952

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1945 - 2002

ANNUAL TOTAL	32009.5		30945.1		49.8a	
ANNUAL MEAN	87.7		84.8		198 1999	
HIGHEST ANNUAL MEAN					1.60 1977	
LOWEST ANNUAL MEAN					4800 May 19 1996	
HIGHEST DAILY MEAN	2190	Apr 9	2550	Jun 13		
LOWEST DAILY MEAN	1.6	Nov 1	1.6	Nov 1	0.00b Aug 18 1952	
ANNUAL SEVEN-DAY MINIMUM	2.5	Oct 3	2.2	Mar 9	0.00 Aug 18 1952	
MAXIMUM PEAK FLOW			2730		5020 May 19 1996	
MAXIMUM PEAK STAGE			16.16		18.27c May 19 1996	
ANNUAL RUNOFF (AC-FT)	63490		61380		36100	
ANNUAL RUNOFF (CFSM)	0.34		0.33		0.20	
ANNUAL RUNOFF (INCHES)	4.67		4.51		2.65	
10 PERCENT EXCEEDS	191		188		101	
50 PERCENT EXCEEDS	8.0		10		3.0	
90 PERCENT EXCEEDS	3.2		2.5		0.00	

- a Median of annual mean discharges is 41 ft³/s.
- b Many days, several years.
- c From floodmark.
- e Estimated.



