

05087500 MIDDLE RIVER AT ARGYLE, MN

LOCATION.--Lat 48°20'25", long 96°48'58", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ 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.

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 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	96	e9.6	e2.2	e2.3	e1.7	e930	56	193	606	65	117
2	55	149	e9.2	e2.0	e2.1	e1.8	e1,100	54	159	898	53	103
3	46	160	e8.7	e1.9	e1.9	e1.9	1,070	50	132	1,240	44	95
4	39	145	e8.4	e1.8	e1.7	e2.0	860	48	111	1,260	36	84
5	35	125	e8.0	e1.8	e1.7	e2.1	711	46	119	1,180	31	75
6	30	108	e7.8	e1.8	e1.7	e2.0	617	42	268	1,130	26	67
7	25	96	e7.6	e1.9	e1.8	e1.8	529	40	403	910	22	60
8	22	80	e7.4	e1.9	e1.9	e1.7	458	42	527	686	19	54
9	19	69	e7.3	e1.8	e2.1	e1.7	404	45	580	515	16	48
10	17	59	e7.1	e1.8	e2.3	e1.6	348	47	523	392	14	42
11	15	51	e7.0	e1.9	e2.4	e1.6	306	189	416	310	13	37
12	15	35	e7.0	e1.9	e2.4	e1.6	286	406	457	262	12	33
13	14	38	e7.0	e1.8	e2.2	e1.6	299	399	767	234	10	31
14	16	40	e6.9	e1.6	e2.0	e1.7	356	322	1,160	197	9.2	29
15	16	38	e6.6	e1.6	e1.8	e1.7	397	256	1,440	164	8.2	26
16	15	36	e6.2	e1.6	e1.8	e1.7	359	225	1,420	137	7.6	25
17	14	32	e5.6	e1.7	e1.7	e1.7	293	194	1,220	114	14	28
18	15	28	e5.1	e1.7	e1.7	e1.7	242	163	926	96	206	28
19	16	25	e5.0	e1.7	e1.7	e1.7	203	134	643	80	928	28
20	16	23	e5.0	e1.7	e1.7	e1.7	175	112	432	79	2,150	27
21	16	22	e3.8	e1.7	e1.7	e1.8	151	99	301	371	2,430	25
22	17	20	e2.1	e1.6	e1.7	e1.8	131	90	219	771	2,010	25
23	17	29	e2.0	e1.6	e1.8	e1.7	114	112	164	936	1,420	28
24	22	21	e2.0	e1.6	e1.8	e1.7	102	171	129	739	899	27
25	24	21	e2.0	e1.6	e1.8	e1.7	91	206	103	520	576	26
26	34	e17	e2.1	e1.7	e1.8	e1.8	83	210	83	362	396	26
27	49	e15	e2.2	e1.8	e1.7	e2.1	76	207	88	246	322	24
28	57	e13	e2.3	e1.9	e1.7	e3.1	71	201	104	169	281	21
29	56	e11	e2.4	e2.2	---	e5.0	65	206	106	128	224	20
30	54	e10	e2.4	e2.3	---	e12	60	219	216	103	174	21
31	57	---	e2.3	e2.3	---	e580	---	218	---	83	139	---
TOTAL	913	1,612	168.1	56.4	52.9	647.7	10,887	4,809	13,409	14,918	12,555.0	1,280
MEAN	29.5	53.7	5.42	1.82	1.89	20.9	363	155	447	481	405	42.7
MAX	70	160	9.6	2.3	2.4	580	1,100	406	1,440	1,260	2,430	117
MIN	14	10	2.0	1.6	1.7	1.6	60	40	83	79	7.6	20
AC-FT	1,810	3,200	333	112	105	1,280	21,590	9,540	26,600	29,590	24,900	2,540
CFSM	0.12	0.21	0.02	0.01	0.01	0.08	1.42	0.61	1.75	1.89	1.59	0.17
IN.	0.13	0.24	0.02	0.01	0.01	0.09	1.59	0.70	1.96	2.18	1.83	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2005, BY WATER YEAR (WY)

MEAN	12.8	19.3	3.79	1.54	2.88	37.6	235	102	102	68.4	21.7	19.5
MAX	94.1	535	22.2	8.77	69.8	335	966	896	660	688	405	272
(WY)	(1983)	(2001)	(1995)	(1995)	(2000)	(1995)	(1997)	(1996)	(1970)	(1975)	(2005)	(1993)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.20	2.12	0.37	0.00	0.00	0.00
(WY)	(1954)	(1954)	(1954)	(1953)	(1953)	(1954)	(1991)	(1981)	(1973)	(1961)	(1961)	(1952)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1945 - 2005	
ANNUAL TOTAL	39,476.01		61,308.1			
ANNUAL MEAN	108		168		a52.4	
HIGHEST ANNUAL MEAN					198	1999
LOWEST ANNUAL MEAN					1.60	1977
HIGHEST DAILY MEAN	1,950	May 15	2,430	Aug 21	4,800	May 19, 1996
LOWEST DAILY MEAN	0.44	Jan 26	b1.6	Jan 14	c0.00	Aug 18, 1952
ANNUAL SEVEN-DAY MINIMUM	0.45	Jan 24	1.6	Jan 19	0.00	Aug 18, 1952
MAXIMUM PEAK FLOW			2,500	Aug 21	5,020	May 19, 1996
MAXIMUM PEAK STAGE			15.73	Aug 21	d18.27	May 19, 1996
ANNUAL RUNOFF (AC-FT)	78,300		121,600		37,970	
ANNUAL RUNOFF (CFSM)	0.423		0.659		0.206	
ANNUAL RUNOFF (INCHES)	5.76		8.94		2.79	
10 PERCENT EXCEEDS	295		521		108	
50 PERCENT EXCEEDS	17		31		3.1	
90 PERCENT EXCEEDS	0.61		1.7		0.00	

- a Median of annual mean discharges is 42 ft³/s.
- b Many days.
- c Many days, several years.
- d From floodmark.
- e Estimated.

