

## 05078770 JUDICIAL DITCH 66 NEAR MARCOUX CORNERS, MN

LOCATION.--Lat 47°46'55", long 96°19'53", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec. 29, T.150 N., R.44 W., Red lake County, Hydrologic Unit 09020303, at culvert on township road, 1.5 miles north of U.S. Highway 2, 3.4 miles northwest of Marcoux Corners.

DRAINAGE AREA.--14.2 mi<sup>2</sup>.

PERIOD OF RECORD.--September 2002 to September 2005, discontinued.

GAGE.--Water-stage recorder. Datum of gage is 1,040.84 ft above sea level (NAVD 1988).

REMARKS.--Records fair except those for estimated daily discharges, and discharges less than 1.0 ft<sup>3</sup>/s, which are poor.

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	2.5	79	e2.4	e0.73	e0.46	e0.40	e61	e1.5	e3.6	8.4	1.5	1.7
2	2.2	60	e2.4	e0.71	e0.45	e0.40	e50	e1.4	e2.5	5.9	1.4	1.6
3	1.9	43	e2.3	e0.68	e0.45	e0.41	39	e1.3	e2.3	4.0	1.5	1.4
4	1.8	28	e2.3	e0.67	e0.45	e0.42	24	e1.3	e2.6	3.1	1.4	1.5
5	1.7	21	e2.3	e0.65	e0.44	e0.43	18	e1.2	e15	2.4	1.2	4.4
6	1.6	15	e2.2	e0.64	e0.44	e0.43	14	e1.2	e60	2.0	1.1	38
7	1.7	12	e2.2	e0.62	e0.44	e0.44	11	e1.4	18	1.7	0.89	12
8	1.5	9.5	e2.1	e0.61	e0.43	e0.44	9.3	e2.8	35	1.5	0.90	6.8
9	1.5	8.1	e2.1	e0.60	e0.43	e0.45	8.2	6.6	25	1.4	0.88	5.8
10	1.9	7.2	e2.1	e0.59	e0.43	e0.46	6.6	4.6	13	1.2	0.83	8.4
11	1.5	5.7	e2.1	e0.58	e0.43	e0.47	12	2.9	26	1.1	0.94	5.6
12	1.6	5.2	e2.0	e0.57	e0.42	e0.48	33	2.0	85	1.2	0.97	4.2
13	1.5	4.1	e2.0	e0.56	e0.42	e0.49	39	1.9	67	1.4	0.88	3.6
14	1.2	3.7	e2.0	e0.55	e0.42	e0.51	20	2.8	82	1.2	0.86	3.2
15	1.3	3.8	e1.9	e0.54	e0.42	e0.52	13	2.3	68	0.92	0.81	2.9
16	1.4	3.8	e1.7	e0.54	e0.41	e0.54	9.0	2.1	49	0.86	0.73	2.4
17	1.4	3.6	e1.6	e0.53	e0.41	e0.56	6.7	1.8	24	0.82	2.2	2.4
18	1.5	3.2	e1.5	e0.52	e0.41	e0.59	6.0	1.5	12	0.73	4.6	2.0
19	2.0	3.0	e1.4	e0.51	e0.41	e0.61	4.5	1.4	7.6	0.73	12	2.0
20	1.8	3.1	e1.3	e0.51	e0.41	e0.69	3.5	1.2	5.6	0.58	9.0	1.9
21	1.8	3.0	e1.3	e0.50	e0.41	e0.90	3.3	1.2	4.3	0.52	3.5	1.8
22	1.9	e2.9	e1.2	e0.50	e0.40	e1.3	2.8	e3.2	3.7	0.46	2.9	1.6
23	5.9	e2.8	e1.1	e0.49	e0.40	e2.3	2.4	e2.8	3.1	0.49	2.6	1.5
24	10	e2.7	e1.1	e0.49	e0.40	e1.8	e2.3	e2.2	2.8	0.53	2.4	1.7
25	12	e2.6	e1.0	e0.48	e0.40	e1.5	e2.2	e1.8	2.5	0.67	4.3	1.5
26	e13	e2.6	e0.99	e0.48	e0.40	e2.1	e2.1	e3.2	2.6	0.72	9.5	1.6
27	e13	e2.5	e0.93	e0.48	e0.40	e3.7	e1.9	e4.5	3.0	0.68	4.2	1.5
28	e17	e2.5	e0.87	e0.47	e0.40	e8.3	e1.8	e7.0	2.7	0.62	3.0	1.2
29	40	e2.4	e0.84	e0.47	---	e13	e1.6	e12	3.5	1.1	2.5	1.3
30	103	e2.4	e0.80	e0.47	---	e80	e1.6	e9.0	7.1	1.6	2.3	1.3
31	108	---	e0.76	e0.46	---	e76	---	e5.6	---	5.9	2.1	---
TOTAL	359.1	348.4	50.79	17.20	11.79	200.64	409.8	95.7	638.5	54.43	83.89	126.8
MEAN	11.6	11.6	1.64	0.55	0.42	6.47	13.7	3.09	21.3	1.76	2.71	4.23
MAX	108	79	2.4	0.73	0.46	80	61	12	85	8.4	12	38
MIN	1.2	2.4	0.76	0.46	0.40	0.40	1.6	1.2	2.3	0.46	0.73	1.2
AC-FT	712	691	101	34	23	398	813	190	1,270	108	166	252
CFSM	0.82	0.82	0.12	0.04	0.03	0.46	0.96	0.22	1.50	0.12	0.19	0.30
IN.	0.94	0.91	0.13	0.05	0.03	0.53	1.07	0.25	1.67	0.14	0.22	0.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	4.58	4.67	1.00	0.45	0.29	5.46	7.36	5.83	11.6	1.92	2.13	4.92
MAX	11.6	11.6	1.64	0.73	0.42	7.11	13.7	9.84	21.3	2.43	3.54	10.3
(WY)	(2005)	(2005)	(2005)	(2003)	(2005)	(2004)	(2005)	(2004)	(2005)	(2003)	(2004)	(2004)
MIN	0.40	0.70	0.43	0.07	0.11	2.80	2.30	3.09	5.57	1.57	0.13	0.23
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)	(2005)	(2004)	(2004)	(2003)	(2003)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	2,107.76		2,397.04		4.18	
ANNUAL MEAN	5.76		6.57		2.17	
HIGHEST ANNUAL MEAN					6.57	2005
LOWEST ANNUAL MEAN					2.17	2003
HIGHEST DAILY MEAN	108	Oct 31	108	Oct 31	108	Oct 31, 2004
LOWEST DAILY MEAN	0.06	Jan 4	0.40	Feb 22 - Mar 2	0.02	Sep 5, 2003
ANNUAL SEVEN-DAY MINIMUM	0.06	Jan 4	0.40	Feb 22	0.04	Aug 30, 2003
MAXIMUM PEAK FLOW			122	Oct 30	122	Oct 30, 2004
MAXIMUM PEAK STAGE			a7.03	Mar 29	a7.06	Mar 26, 2004
INSTANTANEOUS LOW FLOW			b0.40	Feb 22	0.00	Sep 3, 2003
ANNUAL RUNOFF (AC-FT)	4,180		4,750		3,030	
ANNUAL RUNOFF (CFSM)	0.406		0.462		0.295	
ANNUAL RUNOFF (INCHES)	5.52		6.28		4.00	
10 PERCENT EXCEEDS	17		13		8.3	
50 PERCENT EXCEEDS	1.6		1.8		1.3	
90 PERCENT EXCEEDS	0.07		0.46		0.19	

a Backwater from ice.  
 b Estimated, minimum daily.  
 e Estimated.

