

05293000 YELLOW BANK RIVER NEAR ODESSA, MN

LOCATION.--Lat 45°13'37", long 96°21'12", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec. 6, T. 120 N., R. 45 W., Lac qui Parle County, Hydrologic Unit 07020001, on left bank 1,200 ft upstream from highway bridge, 2.5 mi southwest of Odessa, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--459 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1939 to September 1999, October 1999 to March 2001 (peak flow only), April 2001 to current year.

REVISED RECORDS.--WSP 1388: 1947(M), 1950. WDR MN-95-1: Sept. 5 (Q). WRIR 97-4249: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 953.34 ft above sea level (U.S. Army Corps of Engineers benchmark, NGVD of 1929). Prior to Aug. 28, 1940, nonrecording gage at site 150 ft upstream at same datum.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
June 14	1000	*98	*2.65	No peaks greater than base discharge.			

Minimum discharge, 1.1 ft<sup>3</sup>/s, Feb. 10 (estimated daily-mean, backwater from ice).

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	6.6	e2.8	e2.2	e1.3	e40	34	12	27	9.6	4.6	4.3
2	1.9	5.6	e2.9	e2.2	e1.3	e42	30	11	39	9.7	4.1	4.1
3	2.1	4.8	e2.9	e2.0	e1.2	e43	26	10	43	12	4.1	2.9
4	2.1	5.3	e3.0	e1.8	e1.2	e42	23	9.2	40	11	3.5	2.2
5	2.0	4.8	e3.0	e1.7	e1.2	e39	21	9.5	36	18	3.7	2.7
6	1.9	4.8	e3.1	e1.6	e1.2	e37	19	8.4	34	27	3.6	3.3
7	2.0	4.7	e3.2	e1.5	e1.2	e36	17	8.6	28	28	4.3	2.8
8	2.4	4.4	e3.2	e1.5	e1.2	e35	15	9.0	30	30	3.8	3.0
9	2.6	4.5	e3.0	e1.5	e1.2	e37	14	7.8	51	28	3.2	3.0
10	2.7	4.6	e2.6	e1.5	e1.1	e40	13	6.5	68	26	3.3	2.4
11	3.0	4.0	e2.2	e1.6	e1.1	e38	13	6.5	74	25	3.4	3.2
12	3.7	3.6	e2.0	e1.6	e1.1	e47	13	8.5	87	22	3.4	3.0
13	3.8	3.6	e2.0	e1.6	e1.1	e52	12	8.0	94	20	3.3	2.6
14	4.1	3.6	e2.0	e1.6	e1.1	e58	12	7.0	95	18	3.3	2.4
15	4.3	3.7	e2.1	e1.6	e1.1	e66	11	6.6	86	16	3.0	3.7
16	4.4	3.7	e2.3	e1.5	e1.1	e62	11	6.8	73	14	4.9	3.9
17	4.6	3.8	e2.5	e1.5	e1.2	e56	10	8.5	62	12	2.9	5.3
18	4.5	3.7	e2.5	e1.4	e1.3	e59	10	8.7	50	11	2.2	4.9
19	4.7	3.6	e2.6	e1.4	e1.4	e50	10	9.6	41	9.2	2.2	4.3
20	5.0	3.3	e2.6	e1.4	e1.7	e45	11	9.8	34	8.2	2.4	5.0
21	5.9	3.2	e2.6	e1.4	e2.0	e45	15	9.0	29	7.2	2.2	6.6
22	6.0	3.2	e2.6	e1.4	e2.4	e53	15	9.2	25	6.4	2.5	8.2
23	6.2	2.5	e2.5	e1.4	e3.1	e50	15	9.8	21	5.7	2.0	14
24	5.9	e2.6	e2.4	e1.4	e4.3	51	20	11	18	4.9	2.2	26
25	5.2	e2.8	e2.4	e1.4	e7.5	56	21	11	16	4.4	2.1	36
26	5.2	e2.6	e2.4	e1.3	e9.9	49	19	12	14	3.9	2.4	44
27	5.4	e2.6	e2.4	e1.3	e18	46	18	14	14	3.5	2.1	38
28	5.4	e2.6	e2.3	e1.3	e31	47	16	15	13	5.3	2.2	33
29	5.8	e2.7	e2.3	e1.3	e38	43	14	13	11	5.0	2.5	27
30	5.9	e2.8	e2.3	e1.3	---	40	12	17	10	6.0	2.4	25
31	5.7	---	e2.3	e1.3	---	38	---	20	---	5.5	2.9	---
TOTAL	126.2	114.3	79.0	47.5	140.5	1,442	490	313.0	1,263	412.5	94.7	326.8
MEAN	4.07	3.81	2.55	1.53	4.84	46.5	16.3	10.1	42.1	13.3	3.05	10.9
MAX	6.2	6.6	3.2	2.2	38	66	34	20	95	30	4.9	44
MIN	1.8	2.5	2.0	1.3	1.1	35	10	6.5	10	3.5	2.0	2.2
AC-FT	250	227	157	94	279	2,860	972	621	2,510	818	188	648
CFSM	0.01	0.01	0.01	0.00	0.01	0.10	0.04	0.02	0.09	0.03	0.01	0.02
IN.	0.01	0.01	0.01	0.00	0.01	0.12	0.04	0.03	0.10	0.03	0.01	0.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	24.8	24.2	12.9	7.84	17.2	169	259	108	103	63.1	28.9	16.7
MAX	588	256	86.3	68.0	147	693	1,614	652	577	741	281	273
(WY)	(1996)	(1996)	(1996)	(1994)	(1998)	(1996)	(1997)	(1972)	(1992)	(1993)	(1991)	(1985)
MIN	0.31	0.44	0.32	0.09	0.00	1.59	9.13	2.94	1.83	0.27	0.09	0.08
(WY)	(1941)	(1977)	(1977)	(1977)	(1977)	(1965)	(1981)	(1981)	(1976)	(1976)	(1976)	(1976)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	5,583.75		4,849.5		a69.7	
ANNUAL MEAN	15.3		13.3		237	
HIGHEST ANNUAL MEAN					3.98 1981	
LOWEST ANNUAL MEAN					6,640 Apr 9, 1969	
HIGHEST DAILY MEAN	299	Mar 17	95	Jun 14	b0.00	Jan 26, 1940
LOWEST DAILY MEAN	0.29	Sep 9	1.1	Feb 10-16	0.00	Jan 26, 1940
ANNUAL SEVEN-DAY MINIMUM	0.41	Sep 3	1.1	Feb 10	6,970	Apr 9, 1969
MAXIMUM PEAK FLOW			98	Jun 14	19.07	Apr 9, 1969
MAXIMUM PEAK STAGE			2.65	Jun 14	b0.00	Jan 26, 1940
INSTANTANEOUS LOW FLOW			c1.1	Feb 10		
ANNUAL RUNOFF (AC-FT)	11,080		9,620		50,530	
ANNUAL RUNOFF (CFSM)	0.033		0.029		0.152	
ANNUAL RUNOFF (INCHES)	0.45		0.39		2.06	
10 PERCENT EXCEEDS	44		40		147	
50 PERCENT EXCEEDS	4.1		4.9		11	
90 PERCENT EXCEEDS	1.0		1.5		1.0	

- a Median of annual mean discharges is 52 ft<sup>3</sup>/s.
- b Many days, several years.
- c Estimated daily-mean discharge, backwater from ice.
- e Estimated.

