

05317000 COTTONWOOD RIVER NEAR NEW ULM, MN

LOCATION.--Lat 44°17'29", long 94°26'24", in SW¹/₄NE¹/₄ sec. 33, T.110 N., R.30 W., Brown County, Hydrologic Unit 07020008, on left bank 600 ft upstream from highway bridge, 1.8 mi south of New Ulm, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--1,300 mi².

PERIOD OF RECORD.--July 1909 to December 1913, March 1931 to March 1938, August 1938 to current year (winter records incomplete prior to 1936).

REVISED RECORDS.--WSP 355: 1912.

GAGE.--Water-stage recorder. Datum of gage is 796.83 ft above sea level (NGVD of 1929). July 1, 1909 to Dec. 13, 1913, nonrecording gage at site 2.7 mi upstream at different datum. Mar. 15, 1931 to Mar. 31, 1938, nonrecording gage 2.2 mi upstream at datum 11.41 ft higher. Aug. 23, 1938 to June 25, 1948, nonrecording gage at present site and datum.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 19	1100	*2,280	*8.59	Jul 13	0800	1,660	7.57

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	35	52	51	e35	e29	200	56	56	679	157	140	57
2	40	48	48	e34	e30	181	55	54	691	187	124	56
3	39	47	49	e33	e30	166	55	54	661	250	108	53
4	38	47	48	e32	e31	145	53	53	693	414	97	50
5	37	43	46	e31	e31	137	53	50	654	473	103	48
6	35	39	35	e31	e31	125	51	45	596	403	101	46
7	36	39	44	e32	e31	116	51	44	563	333	135	45
8	39	39	46	e32	e31	117	51	76	523	286	171	43
9	37	e39	46	e33	e30	119	49	59	483	262	205	41
10	37	e39	34	e34	e30	107	49	62	437	304	256	39
11	37	e39	50	e34	e29	97	51	84	392	1020	291	38
12	34	e44	47	e34	e30	90	52	81	342	1460	245	36
13	31	e46	44	e33	e30	86	51	78	326	1590	199	33
14	31	e43	49	e32	e30	81	50	77	305	1290	170	31
15	33	e43	47	e31	e31	76	51	74	291	993	144	29
16	31	e43	32	e30	e32	72	54	88	289	770	139	28
17	35	43	e32	e29	e32	71	56	126	273	682	182	26
18	33	43	e33	e26	e32	68	55	1180	265	662	152	24
19	31	44	e34	e25	e33	67	65	2180	253	606	140	25
20	31	47	e34	e24	e33	66	67	1860	244	548	129	24
21	33	48	e32	e24	e34	66	65	1380	220	486	130	23
22	33	49	e30	e24	e35	65	64	1070	195	433	116	25
23	33	56	e29	e25	e37	68	63	871	195	385	103	27
24	36	53	e28	e26	e43	74	61	755	192	336	94	30
25	37	52	e28	e26	e53	70	61	628	215	301	87	32
26	36	53	e30	e26	e76	66	59	529	204	265	78	30
27	43	51	e32	e27	150	65	58	479	191	239	72	27
28	42	49	e34	e27	183	62	57	439	190	207	68	28
29	42	46	e35	e28	198	61	60	424	184	182	65	33
30	45	49	e36	e28	---	60	59	498	173	164	63	31
31	40	---	e36	e29	---	58	---	661	---	154	60	---
TOTAL	1120	1373	1199	915	1425	2902	1682	14115	10919	15842	4167	1058
MEAN	36.1	45.8	38.7	29.5	49.1	93.6	56.1	455	364	511	134	35.3
MAX	45	56	51	35	198	200	67	2180	693	1590	291	57
MIN	31	39	28	24	29	58	49	44	173	154	60	23
AC-FT	2220	2720	2380	1810	2830	5760	3340	28000	21660	31420	8270	2100
CFSM	.03	.04	.03	.02	.04	.07	.04	.35	.28	.39	.10	.03
IN.	.03	.04	.03	.03	.04	.08	.05	.40	.31	.45	.12	.03

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	175	161	108	56.8	100	656	1013	581	613	369	190	152
MAX	3208	1099	572	282	628	3350	7075	3497	5831	3815	1791	2438
(WY)	1969	1980	1980	1992	1983	1997	1969	1993	1993	1993	1993	1986
MIN	4.57	7.97	5.77	1.61	1.47	13.9	40.0	7.57	8.58	4.37	1.05	3.28
(WY)	1934	1940	1936	1940	1940	1965	1959	1934	1911	1934	1934	1933

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1909 - 2000
ANNUAL TOTAL	136158	56717	
ANNUAL MEAN	373	155	375 ^a
HIGHEST ANNUAL MEAN			1796
LOWEST ANNUAL MEAN			41.1
HIGHEST DAILY MEAN	2830	Apr 13	27100
LOWEST DAILY MEAN	28	Dec 24	.60
ANNUAL SEVEN-DAY MINIMUM	30	Dec 21	.64
INSTANTANEOUS PEAK FLOW			28700
INSTANTANEOUS PEAK STAGE			8.59
INSTANTANEOUS LOW FLOW			9.9 ^b
ANNUAL RUNOFF (AC-FT)	270100	112500	271300
ANNUAL RUNOFF (CFSM)	.29	.12	.29
ANNUAL RUNOFF (INCHES)	3.90	1.62	3.91
10 PERCENT EXCEEDS	1010	427	845
50 PERCENT EXCEEDS	114	52	83
90 PERCENT EXCEEDS	36	30	12

a Median of annual mean discharges is 240 ft³/s.
 b Result of freezeup.
 c Minimum observed.
 e Estimated.

