

05372995 SOUTH FORK ZUMBRO RIVER AT ROCHESTER, MN

LOCATION.--Lat 44°03'42", long 92°27'58", in NW¹/₄NE¹/₄ sec. 23, T.107 N., R.14 W., Olmsted County, Hydrologic Unit 07040004, on left bank 50 ft downstream from 37th Street bridge, 0.2 mi upstream from wastewater treatment plant, and 2.0 mi downstream from Silver Lake Dam.

DRAINAGE AREA.--303 mi².

PERIOD OF RECORD.--March 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft above sea level (NGVD of 1929). Prior to Mar. 1981, recording gage at site 0.6 miles downstream. Record published as "near Rochester, MN" and under downstream order number 05373000. Peak flow record is considered equivalent at both sites but daily-mean streamflows are not.

REMARKS.--Record good. Some regulation at times from Silver Lake.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 6, 1978, reached a stage of about 28.0 ft, on upstream side of bridge, discharge 30,500 ft³/s. This is the highest known stage since at least 1908.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jun 10	1000	7,620	13.92	Sep 15	2200	*9,940	*15.57

Minimum discharge, 20 ft³/s, Jan. 30, gage height, 1.99 ft.

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	29	36	35	38	23	311	150	88	309	230	117	91
2	30	36	32	40	24	795	136	84	295	212	109	87
3	31	47	38	37	22	492	127	81	274	206	181	83
4	31	56	39	33	23	280	119	77	248	235	144	80
5	30	44	41	32	23	246	113	74	223	220	118	81
6	31	40	39	27	25	259	109	72	210	699	104	93
7	32	38	38	26	24	304	104	72	196	544	100	76
8	31	34	46	26	24	238	99	103	182	441	96	74
9	29	35	46	25	23	223	93	79	1,620	375	94	73
10	28	39	39	25	24	253	93	123	5,550	332	91	71
11	47	41	34	26	24	467	90	86	2,590	401	91	68
12	40	49	32	27	24	291	89	119	3,750	466	89	68
13	34	43	30	29	24	233	85	247	2,390	391	84	64
14	35	41	31	30	24	235	77	290	1,400	321	80	478
15	35	41	33	30	23	210	77	224	1,070	277	77	5,110
16	34	40	37	30	24	180	74	181	1,050	250	220	3,990
17	34	52	35	30	25	173	74	160	1,280	225	146	1,210
18	34	50	36	27	27	209	96	143	906	204	140	817
19	34	47	35	26	30	254	148	132	748	187	113	639
20	33	46	34	27	40	251	118	126	642	174	102	532
21	42	44	35	27	39	205	113	165	578	256	95	464
22	39	43	36	24	42	171	108	368	512	181	109	416
23	38	50	36	24	39	158	104	535	459	157	93	390
24	37	40	32	24	36	154	102	543	434	144	97	354
25	37	40	32	23	35	207	140	449	389	132	94	322
26	37	39	33	24	39	256	129	361	349	121	92	292
27	37	40	42	24	47	230	127	336	330	113	90	270
28	37	39	44	23	59	224	114	270	310	105	89	251
29	38	37	44	22	79	215	104	346	281	181	91	239
30	38	40	43	21	---	185	97	344	252	129	162	222
31	37	---	39	22	---	162	---	351	---	127	97	---
TOTAL	1,079	1,267	1,146	849	915	8,071	3,209	6,629	28,827	8,036	3,405	17,005
MEAN	34.8	42.2	37.0	27.4	31.6	260	107	214	961	259	110	567
MAX	47	56	46	40	79	795	150	543	5,550	699	220	5,110
MIN	28	34	30	21	22	154	74	72	182	105	77	64
AC-FT	2,140	2,510	2,270	1,680	1,810	16,010	6,370	13,150	57,180	15,940	6,750	33,730
CFSM	0.11	0.14	0.12	0.09	0.10	0.86	0.35	0.71	3.17	0.86	0.36	1.87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2004, BY WATER YEAR (WY)

MEAN	146	135	110	72.3	120	339	409	328	317	240	165	179
MAX	824	338	358	167	454	760	1,310	735	1,014	663	501	1,075
(WY)	(1987)	(1992)	(1992)	(1983)	(1984)	(1983)	(2001)	(2001)	(1993)	(1993)	(1990)	(1986)
MIN	20.0	24.5	21.0	22.5	23.8	109	79.4	88.3	49.0	23.2	24.6	31.5
(WY)	(1990)	(1990)	(1990)	(1990)	(1990)	(2001)	(2000)	(1989)	(1989)	(1988)	(1988)	(1988)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1981 - 2004	
ANNUAL TOTAL	44,222		80,438		215	
ANNUAL MEAN	121		220		87.3	
HIGHEST ANNUAL MEAN					431	1993
LOWEST ANNUAL MEAN					87.3	1989
HIGHEST DAILY MEAN	1,820	May 12	5,550	Jun 10	7,710	Sep 21, 1986
LOWEST DAILY MEAN	26	Sep 9	21	Jan 30	12	Sep 12, 1988
ANNUAL SEVEN-DAY MINIMUM	28	Sep 5	22	Jan 28	14	Sep 8, 1988
MAXIMUM PEAK FLOW			9,940	Sep 15	10,000	Sep 21, 1986
MAXIMUM PEAK STAGE			a15.57	Sep 15	20.77	Sep 21, 1986
INSTANTANEOUS LOW FLOW			b20	Jan 30	b10	Oct 23, 1981
ANNUAL RUNOFF (AC-FT)	87,710		159,500		155,500	
ANNUAL RUNOFF (CFSM)	0.400		0.725		0.708	
10 PERCENT EXCEEDS	255		394		459	
50 PERCENT EXCEEDS	52		90		121	
90 PERCENT EXCEEDS	33		27		45	

a From highwater mark.
 b Due in part to regulation.

