

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)
May 12	0500	*2,110	*7.49	Jul 14	2300	1,410	6.25

Minimum discharge, 22 ft³/s, Sept. 11, 17, gage height, 2.05 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	137	72	67	41	55	172	188	192	189	70	35
2	125	136	91	68	81	50	165	180	185	177	70	32
3	127	132	66	56	67	45	161	173	182	167	69	33
4	344	132	81	68	50	50	156	233	178	221	68	32
5	402	133	74	67	51	46	151	314	174	170	66	32
6	355	131	73	66	50	48	144	382	187	186	69	29
7	310	129	77	67	46	48	146	381	198	328	66	28
8	275	127	72	70	47	45	141	378	292	208	65	27
9	243	124	64	71	43	41	142	602	257	214	60	26
10	246	126	71	52	44	45	146	732	281	182	58	26
11	230	127	72	52	44	59	153	1,270	244	182	58	27
12	222	118	74	53	42	67	158	1,820	228	168	56	41
13	207	116	73	51	43	61	157	1,040	214	152	55	28
14	194	115	71	50	44	107	159	794	200	207	54	28
15	188	113	74	48	43	231	160	680	188	253	52	27
16	184	111	72	48	43	237	262	572	181	160	48	27
17	179	106	72	46	45	172	294	491	187	144	45	27
18	179	109	113	45	46	145	271	437	171	131	44	86
19	173	107	93	43	46	135	287	399	162	122	44	76
20	167	106	89	43	79	139	312	364	152	115	44	45
21	169	104	77	42	171	128	334	329	144	112	40	39
22	164	102	77	38	122	119	305	311	142	107	39	36
23	160	101	64	35	84	115	275	294	136	100	39	38
24	158	96	67	34	75	113	253	277	170	95	37	34
25	159	94	77	34	67	109	239	262	203	91	47	32
26	156	78	66	33	59	106	224	246	258	88	44	32
27	152	91	69	33	57	197	211	234	254	84	42	31
28	152	89	71	34	56	373	202	224	230	80	41	30
29	149	94	71	35	---	324	193	214	218	78	39	29
30	146	86	74	36	---	213	191	208	210	76	37	29
31	141	---	66	39	---	183	---	198	---	74	36	---
TOTAL	6,183	3,370	2,323	1,524	1,686	3,806	6,164	14,227	6,018	4,661	1,602	1,042
MEAN	199	112	74.9	49.2	60.2	123	205	459	201	150	51.7	34.7
MAX	402	137	113	71	171	373	334	1,820	292	328	70	86
MIN	125	78	64	33	41	41	141	173	136	74	36	26
AC-FT	12,260	6,680	4,610	3,020	3,340	7,550	12,230	28,220	11,940	9,250	3,180	2,070
CFSM	0.66	0.37	0.25	0.16	0.20	0.41	0.68	1.51	0.66	0.50	0.17	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2003, BY WATER YEAR (WY)

MEAN	151	139	113	74.3	124	343	421	333	289	239	168	162
MAX	824	338	358	167	454	760	1,269	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 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1981 - 2003	
ANNUAL TOTAL	61,886			52,606				
ANNUAL MEAN	170			144			214	
HIGHEST ANNUAL MEAN							431	
LOWEST ANNUAL MEAN							87.3	
HIGHEST DAILY MEAN	1,080	Jun 21		1,820	May 12		7,710	Sep 21, 1986
LOWEST DAILY MEAN	61	Jan 4		26	Sep 9, 10		12	Sep 12, 1988
ANNUAL SEVEN-DAY MINIMUM	65	Jan 1		28	Sep 5		14	Sep 8, 1988
MAXIMUM PEAK FLOW				2,110			10,000	
MAXIMUM PEAK STAGE				7.49			20.77	
INSTANTANEOUS LOW FLOW				a22			a10	
ANNUAL RUNOFF (AC-FT)	122,800			104,300			155,200	
ANNUAL RUNOFF (CFSM)	0.56			0.48			0.71	
10 PERCENT EXCEEDS	275			273			462	
50 PERCENT EXCEEDS	141			106			123	
90 PERCENT EXCEEDS	74			38			48	

a Due in part to regulation.

