

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 (*):

	Time	Discharge (ft ³ /s)	Gage height (ft)		Time	Discharge (ft ³ /s)	Gage height (ft)
	Feb 14 0400	1,400	6.49		0300	*3,310	*9.78
	Mar 7 0900	1,590	6.90				

Minimum discharge, 47 ft³/s, July 19, gage height, 2.06 ft.

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	342	160	133	122	73	98	624	154	152	82	110	54
2	292	162	139	133	77	91	461	146	143	77	100	50
3	286	158	121	108	83	91	388	144	128	76	92	51
4	264	155	133	109	102	129	342	125	142	75	87	107
5	244	148	126	89	208	223	325	121	130	73	80	66
6	229	143	129	97	949	442	319	127	118	72	75	63
7	220	137	134	93	485	1,180	309	125	113	71	70	69
8	212	131	141	95	272	372	288	123	379	69	68	79
9	200	126	157	94	240	253	272	120	249	66	220	66
10	187	125	199	87	188	233	255	104	217	62	130	62
11	179	122	204	89	177	198	267	107	246	60	123	57
12	175	114	213	93	182	161	317	176	190	58	101	59
13	172	108	186	87	437	138	351	204	169	56	84	88
14	180	105	111	67	1,220	139	301	215	172	55	77	63
15	176	108	190	72	1,150	125	262	206	169	55	71	59
16	169	113	193	65	476	127	291	190	144	53	68	57
17	161	113	154	63	280	116	317	178	130	51	66	54
18	154	111	165	60	234	107	314	260	123	58	77	52
19	155	156	85	61	228	104	329	395	109	50	67	75
20	153	164	130	64	205	133	340	394	108	61	62	57
21	148	169	137	69	180	117	336	360	104	141	59	54
22	147	163	116	68	153	113	306	328	102	74	57	51
23	151	158	102	67	140	114	265	292	95	63	55	49
24	144	149	91	70	132	129	245	262	91	58	54	63
25	135	138	91	74	135	156	232	249	84	269	52	562
26	131	140	95	75	115	203	221	240	118	551	142	741
27	130	177	91	68	123	455	203	226	106	322	89	518
28	129	157	94	70	113	1,810	183	213	97	221	70	366
29	154	145	96	70	---	2,450	171	197	91	172	62	294
30	174	119	120	71	---	1,050	162	180	89	148	58	257
31	163	---	138	72	---	825	---	162	---	124	55	---
TOTAL	5,756	4,174	4,214	2,522	8,357	11,882	8,996	6,323	4,308	3,423	2,581	4,243
MEAN	186	139	136	81.4	298	383	300	204	144	110	83.3	141
MAX	342	177	213	133	1,220	2,450	624	395	379	551	220	741
MIN	129	105	85	60	73	91	162	104	84	50	52	49
AC-FT	11,420	8,280	8,360	5,000	16,580	23,570	17,840	12,540	8,540	6,790	5,120	8,420
CFSM	0.61	0.46	0.45	0.27	0.99	1.26	0.99	0.67	0.47	0.36	0.27	0.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2005, BY WATER YEAR (WY)

MEAN	147	135	111	72.7	127	341	405	323	310	235	162	177
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1981 - 2005	
ANNUAL TOTAL	91,090		66,779			
ANNUAL MEAN	249		183		213	
HIGHEST ANNUAL MEAN					431 1993	
LOWEST ANNUAL MEAN					87.3 1989	
HIGHEST DAILY MEAN	5,550	Jun 10	2,450	Mar 29	7,710	Sep 21, 1986
LOWEST DAILY MEAN	21	Jan 30	49	Sep 23	12	Sep 12, 1988
ANNUAL SEVEN-DAY MINIMUM	22	Jan 28	54	Jul 13	14	Sep 8, 1988
MAXIMUM PEAK FLOW			3,310	Mar 29	10,000	Sep 21, 1986
MAXIMUM PEAK STAGE			9.78	Mar 29	20.77	Sep 21, 1986
INSTANTANEOUS LOW FLOW			a47	Jul 19	a10	Oct 23, 1981
ANNUAL RUNOFF (AC-FT)	180,700		132,500		154,500	
ANNUAL RUNOFF (CFSM)	0.821		0.604		0.704	
10 PERCENT EXCEEDS	394		318		450	
50 PERCENT EXCEEDS	138		131		122	
90 PERCENT EXCEEDS	27		62		46	

a Due in part to regulation.

