RUM RIVER BASIN

05286000 RUM RIVER NEAR ST. FRANCIS, MN

LOCATION.--Lat 45° 19'40", long 93° 22'20", in SE¼ sec. 19, T.33 N., R.24 W., Anoka County, Hydrologic Unit 07010207, on left bank at upstream side of highway bridge, 4 mi south of St. Francis and 15.8 mi upstream from mouth.

DRAINAGE AREA.--1,360 mi², approximately.

PERIOD OF RECORD.--May to November 1929, March 1930 to September 1931, April to November 1932, March 1933 to current year.

REVISED RECORDS.--WSP 1308: 1930(M), 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 860.74 ft above mean sea level (levels by Anoka County Highway Department). Prior to Nov. 9, 1933, nonrecording gage at site 50 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional regulation by Ogechie (also controls Mille Lacs Lake) and Onamia Lakes.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	254	397	e555	e270	e255	e400	1730	871	562	510	775	e445
2	246	394	e540	e270	e260	e400	2220	840	546	799	719	430
3	233	376	e530	e270	e270	e400	2630	820	523	821	693	416
4	225	354	e510	e270	e280	e400	2880	789	502	825	e690	409
5	223	360	e500	e270	e290	e400	3420	749	488	771	e710	399
6	225	378	e485	e270	e300	e400	4800	716	466	718	e730	385
7	227	385	e475	e270	e315	e400	6440	697	446	688	e740	373
8	219	376	e460	e270	e330	e415	7320	715	422	730	e730	364
9	216	361	e455	e270	e345	e430	7770	724	401	723	e690	370
10	211	356	e450	e270	e360	e435	7910	714	386			

704	e620	372										
11	211	347	e440	e270	e370	e450	7610	720	373	722	e560	363
12	212	e295	e430	e265	e375	e450	7020	733	366	692	e510	346
13	211	e285	e415	e265	e380	e450	6290	726	356	857	e490	338
14	215	e290	e400	e265	e380	e450	5430	709	343	1030	e485	332
15	210	e230	e380	e260	e385	e450	4560	695	337	972	e480	328
16	212	e300	e360	e260	e390	e450	3870	677	336	893	e485	376
17	248	e450	e345	e260	e390	e450	3280	664	330	836	e490	419
18	280	e700	e330	e255	e395	e450	2810	663	334	761	e520	418
19	290	e900	e315	e255	e395	e455	2390	661	334	699	e600	407
20	294	e960	e305	e250	e400	e460	2080	652	334	673	e670	386
21	311	e940	e290	e250	e400	e470	1850	640	335	674	e690	361
22	306	e900	e280	e250	e400	e480	1670	634	331	696	e700	352
23	322	e830	e275	e250	e400	e490	1500	634	315	744	e700	355
24	340	e770	e270	e250	e400	e515	1360	640	284	790	e670	348
25	345	e730	e270	e250	e400	e540	1250	626	270	857	e640	341
26	343	e680	e270	e250	e400	e570	1160	604	265	880	e580	332
27	343	e650	e270	e250	e400	e610	1090	596	263	870	e540	326
28	343	e620	e270	e250	e400	689	1030	591	320	880	e520	327
29	356	e600	e270	e250	---	806	972	591	417	892	e500	314
30	384	e570	e270	e250	---	1000	918	584	461	872	e485	306
31	404	---	e270	e250	---	1250	---	578	---	830	e465	---
TOTAL	8459	15784	11685	8055	10065	16015	105260	21253	11446	24409	18877	11038
MEAN	273	526	377	260	359	517	3509	686	382	787	609	368
MAX	404	960	555	270	400	1250	7910	871	562	1030	775	445
MIN	210	230	270	250	255	400	918	578	263			

510	465	306							
AC-FT	16780	31310	23180	15980	19960	31770	208800	42160	22700
48420	37440	21890							
CFSM	.20	.39	.28	.19	.26	.38	2.58	.50	.28
.58	.45	.27							

- e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	465	450	328	246	248	626	1558	1108	873
638	413	433							
MAX	2300	1715	1051	660	813	2699	4269	3899	3400
2532	2251	2362							
(WY)	1969	1972	1983	1987	1966	1966	1969	1986	1984
1954	1972	1986							
MIN	65.4	71.8	55.8	51.5	59.2	75.8	154	73.6	43.7
34.5	37.3	47.1							
(WY)	1934	1934	1934	1934	1934	1934	1934	1934	1934
1934	1934	1933							

SUMMARY STATISTICS	*FOR 1996 CALENDAR YEAR*		*FOR 1997 WATER YEAR*		*WATER YEARS 1929 - 1997*	
ANNUAL TOTAL	278596		262346			
ANNUAL MEAN	761		719		634	
HIGHEST ANNUAL MEAN						
1512 1986						
LOWEST ANNUAL MEAN						
66.1 1934						
HIGHEST DAILY MEAN	4400	Apr 24	7910	Apr 10	10000	Apr
13 1969						
LOWEST DAILY MEAN	210	Oct 15	210	Oct 15	30	
Aug 3 1934						
ANNUAL SEVEN-DAY MINIMUM	212	Oct 10	212	Oct 10	31	
Aug 1 1934						
INSTANTANEOUS PEAK FLOW			7960	Apr 10	10100a	Apr
20 1965						
INSTANTANEOUS PEAK STAGE			10.11	Apr 10	11.63	Apr
13 1969						
INSTANTANEOUS LOW FLOW			162b	Nov 15	29	Aug
18 1934						
ANNUAL RUNOFF (AC-FT)	552600		520400		459600	
ANNUAL RUNOFF (CFSM)	.56		.53		.47	
10 PERCENT EXCEEDS	1680		907		1360	
50 PERCENT EXCEEDS	467		422		365	
90 PERCENT EXCEEDS	251		260		110	

- a Also occurred Apr. 13, 1969.

b Result of freezeup.

(National Water-Quality Assessment Station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	DIS
APR 02...	0922	2160	199	7.4	2.0	746	11.0	81	80		98

DATE	TIME	CAR-BONATE WATER DIS IT FIELD % FINER THAN .062 MM (00452)	NITRO-GEN, SUSP. AMMONIA SIEVE DIS-DIAM. SOLVED (MG/L AS N) (00608)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	GEN, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (70331)	SED. SUS-PENDED (MG/L) (80154)
APR 02...	0	47	0.330	0.020	1.0	1.2	0.850	0.190	0.050	0.040	72	