Water-Data Report 2011

05286000 RUM RIVER NEAR ST. FRANCIS, MN

Upper Mississippi Basin
Rum Subbasin

LOCATION.--Lat 45°19′40″, long 93°22′20″ referenced to North American Datum of 1927, in SW ¼ SE ¼ SE ¼ sec.19, T.33 N., R.24 W., Anoka County, MN, Hydrologic Unit 07010207, on left bank at upstream side of County Highway 22 bridge, 4 mi south of St. Francis and 15.8 mi upstream from mouth.

DRAINAGE AREA.--1,360 mi^2.

SURFACE-WATER RECORDS

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). Unpublished, 2009: 1987(M).

GAGE.--Water-stage recorder. Datum of gage is 860.74 ft above sea level (NGVD of 1929, levels by Anoka County Highway Department). Prior to Nov. 9, 1933, non-recording gage at site 50 ft downstream at same datum.

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

05286000 RUM RIVER NEAR ST. FRANCIS, MN—Continued

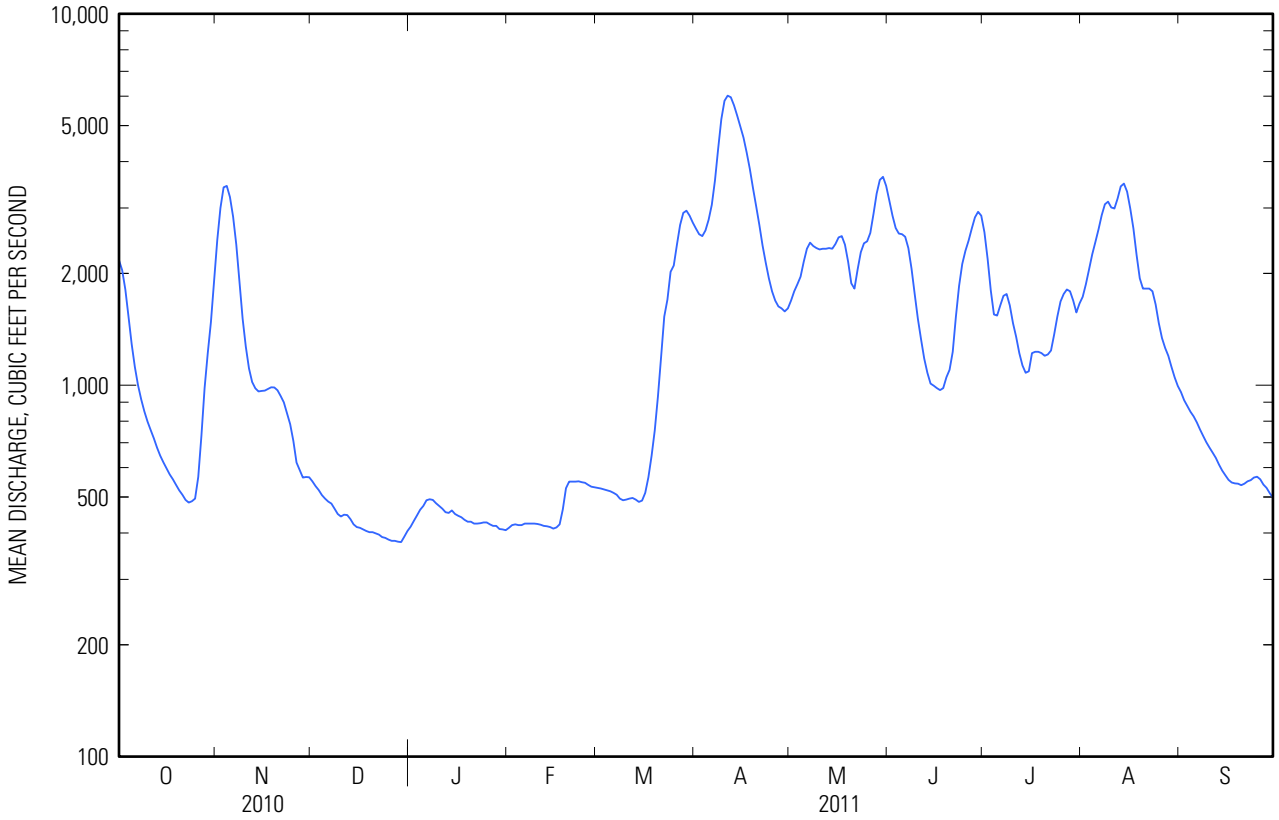
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,170	2,460	e551	e416	e413	e529	2,640	1,690	3,140	2,580	1,730	958
2	2,040	3,000	e535	e431	e420	e527	2,550	1,790	2,860	2,190	1,870	911
3	1,810	3,410	e522	e446	e422	e524	2,520	1,870	2,650	1,800	2,050	879
4	1,530	3,440	e506	e462	e420	e521	2,610	1,960	2,560	1,550	2,250	848
5	1,290	3,210	e495	e473	e420	e518	2,790	2,150	2,550	1,540	2,430	824
6	1,120	2,840	e486	e490	e424	e513	3,060	2,330	2,510	1,640	2,630	794
7	1,000	2,390	e480	e493	e424	e507	3,560	2,420	2,340	1,740	2,870	760
8	916	1,900	e465	e491	e424	e495	4,330	2,370	2,060	1,760	3,070	730
9	850	1,510	e450	e481	e424	e490	5,200	2,340	1,760	1,640	3,120	702
10	798	1,270	e443	e473	e423	e492	5,830	2,320	1,510	1,470	3,010	679
11	757	1,110	e448	e465	e421	e495	6,020	2,330	1,330	1,350	2,990	658
12	719	1,020	e447	e455	e418	e497	5,960	2,330	1,180	1,220	3,180	637
13	679	981	e436	e453	e417	e492	5,670	2,340	1,080	1,130	3,430	611
14	646	962	e422	e460	e415	e485	5,320	2,330	1,010	1,080	3,490	589
15	620	965	e415	e450	e411	e489	4,970	2,400	997	1,090	3,320	572
16	597	967	e413	e445	e414	e513	4,640	2,500	982	1,220	2,990	556
17	575	977	e409	e441	e422	e565	4,230	2,520	970	1,230	2,640	547
18	558	987	e405	e434	e463	e645	3,820	2,390	982	1,230	2,240	544
19	539	986	e402	e429	e528	e755	3,390	2,150	1,050	1,220	1,940	543
20	521	969	e402	e429	e550	931	3,030	1,880	1,100	1,200	1,820	538
21	507	935	e399	e424	e550	1,190	2,700	1,820	1,230	1,210	1,820	543
22	491	899	e396	e424	e550	1,530	2,380	2,050	1,530	1,240	1,820	551
23	483	840	e390	e425	e551	1,700	2,140	2,280	1,850	1,370	1,790	555
24	487	785	e388	e427	e548	2,020	1,940	2,410	2,120	1,530	1,650	564
25	495	708	e384	e427	e546	2,100	1,790	2,440	2,300	1,680	1,470	567
26	566	619	e381	e422	e539	2,390	1,690	2,570	2,450	1,760	1,340	558
27	731	e591	e381	e418	e533	2,700	1,630	2,890	2,640	1,810	1,260	540
28	982	e564	e379	e418	e531	2,910	1,610	3,280	2,830	1,790	1,200	529
29	1,220	e566	e378	e410	---	2,950	1,580	3,570	2,930	1,690	1,120	512
30	1,480	e565	e391	e409	---	2,860	1,610	3,640	2,860	1,570	1,050	498
31	1,910	---	e405	e407	---	2,740	---	3,440	---	1,660	995	---
Total	29,087	42,426	13,404	13,728	13,021	36,073	101,210	74,800	57,361	47,190	68,585	19,297
Mean	938	1,414	432	443	465	1,164	3,374	2,413	1,912	1,522	2,212	643
Max	2,170	3,440	551	493	551	2,950	6,020	3,640	3,140	2,580	3,490	958
Min	483	564	378	407	411	485	1,580	1,690	970	1,080	995	498
Ac-ft	57,690	84,150	26,590	27,230	25,830	71,550	200,800	148,400	113,800	93,600	136,000	38,280
Cfsm	0.69	1.04	0.32	0.33	0.34	0.86	2.48	1.77	1.41	1.12	1.63	0.47
In.	0.80	1.16	0.37	0.38	0.36	0.99	2.77	2.05	1.57	1.29	1.88	0.53

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	493	463	326	248	250	635	1,597	1,143	906	653	446	449
Max	2,309	1,715	1,051	660	813	2,699	4,269	3,899	3,400	2,532	2,251	2,362
(WY)	(2006)	(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)

05286000 RUM RIVER NEAR ST. FRANCIS, MN—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1929 - 2011	
Annual total	289,867		516,182			
Annual mean	794		1,414		650	
Highest annual mean					1,512	1986
Lowest annual mean					66.1	1934
Highest daily mean	3,460	Mar 20	6,020	Apr 11	10,000	Apr 13, 1969
Lowest daily mean	140	Jan 10	[a]378	Dec 29	30	Aug 3, 1934
Annual seven-day minimum	143	Jan 6	383	Dec 23	31	Aug 1, 1934
Maximum peak flow			6,150	Apr 11	[b]10,100	Apr 20, 1965
Maximum peak stage			8.65	Apr 11	11.63	Apr 13, 1969
Instantaneous low flow			[a]378	Dec 29	29	Aug 18, 1934
Annual runoff (ac-ft)	575,000		1,024,000		471,100	
Annual runoff (cfsm)	0.584		1.04		0.478	
Annual runoff (inches)	7.93		14.12		6.50	
10 percent exceeds	1,710		2,900		1,450	
50 percent exceeds	575		995		385	
90 percent exceeds	202		422		121	

[a] Estimated daily-mean discharge, backwater from ice.
[b] Also occurred Apr. 13, 1969.