06477000 JAMES RIVER NEAR FORESTBURG, SD

James Basin
Lower James Subbasin

LOCATION.--Lat 43°58′26″, long 98°04′14″ referenced to North American Datum of 1927, in SW ¼ SW ¼ NW ¼ sec.20, T.106 N., R.60 W., Sanborn County, SD, Hydrologic Unit 10160011, on right bank 5.0 ft downstream from highway bridge, 3.8 mi southeast of Forestburg, 5.4 mi downstream from Chicago and North Western Railway Co. bridge, and 6.1 mi downstream from Sand Creek.

DRAINAGE AREA.--17,590 mi^2 of which 4,148 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--March 1950 to current year.

REVISED RECORDS.--WDR SD-84-1: Drainage area. WDR SD-86-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,208.34 ft above NGVD of 1929 (Bureau of Reclamation bench mark). Prior to Sept. 5, 1951, nonrecording gage at same site and datum.

REMARKS.--Records good except those for July 18 - 31, which are fair and those for estimated daily discharges, which are poor. Low flow regulated by dams forming Arrowwood and Jim Lakes, combined capacity, 16,530 acre-ft, and by dam forming Jamestown Reservoir, capacity, 229,470 acre-ft, since May 1953, and by dam forming Pipestem Reservoir, capacity, 147,000 acre-ft, since 1973. Satellite data-collection platform at station. Water temperature and specific conductance are measured with each discharge measurement.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in March 1920 and March 1922 reached a stage of about 18 ft, from information by local residents.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	739	412	e185	e135	e80	e105	430	301	181	512	276	193
2	722	395	e185	e130	e80	e110	440	283	177	455	267	187
3	702	368	e175	e130	e85	e105	435	304	185	433	261	269
4	697	365	e175	e135	e85	e100	457	311	183	412	261	437
5	690	359	e180	e135	e84	e100	473	305	190	382	270	474
6	667	361	e175	e140	e90	e100	464	291	305	362	280	436
7	655	358	e170	e140	e85	e95	476	282	548	354	282	389
8	669	329	e160	e135	e85	e98	483	278	745	357	271	350
9	642	315	e170	e135	e85	e100	432	282	696	348	253	323
10	628	317	e170	e135	e80	e105	e420	296	601	325	238	292
11	607	314	e175	e135	e80	e108	e470	346	544	295	226	271
12	582	306	e175	e135	e80	e110	590	367	526	270	217	262
13	573	300	e180	e130	e80	e120	529	354	554	263	222	269
14	596	296	e170	e130	e75	e135	461	339	716	260	224	269
15	639	298	e160	e125	e75	e130	456	331	913	247	224	264
16	704	307	e165	e125	e75	e120	464	318	956	231	239	254
17	718	287	e170	e120	e75	e120	576	308	907	222	261	233
18	705	272	e175	e120	e73	e120	617	303	830	232	280	213
19	711	270	e173	e115	e70	e125	598	295	772	246	274	199
20	565	270	e170	e110	e70	e130	569	282	730	243	254	193
21	424	281	e170	e105	e70	e135	495	273	689	272	232	190
22	427	285	e165	e100	e75	e140	465	258	645	285	218	184
23	491	264	e165	e100	e80	e150	457	242	604	287	228	184
24	511	265	e165	e95	e85	e180	422	231	559	291	285	184
25	498	e240	e160	e90	e85	e170	e430	219	526	286	310	184
26	456	e217	e160	e90	e85	e175	e450	210	558	293	290	178
27	452	e200	e160	e100	e90	e180	456	214	563	300	265	173
28	475	e200	e155	e105	e95	e190	444	216	586	280	258	171
29	450	e194	e155	e90	e100	e210	419	205	643	277	263	168
30	418	e189	e145	e85	---	e220	362	193	604	277	255	171
31	410	---	e140	e75	---	e310	---	187	---	280	227	---
Total	18,223	8,834	5,198	3,630	2,357	4,296	14,240	8,624	17,236	9,577	7,911	7,564
Mean	588	294	168	117	81.3	139	475	278	575	309	255	252
Max	739	412	185	140	100	310	617	367	956	512	310	474
Min	410	189	140	75	70	95	362	187	177	222	217	168
Ac-ft	36,150	17,520	10,310	7,200	4,680	8,520	28,250	17,110	34,190	19,000	15,690	15,000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	195	178	120	64.1	68.3	558	1,569	1,301	871	551	422	261
Max	1,528	1,759	1,384	528	550	3,735	17,560	9,047	5,395	2,196	2,599	1,792
(WY)	(2000)	(1999)	(1999)	(1999)	(1996)	(1994)	(1997)	(1995)	(1995)	(1993)	(1993)	(1999)
Min	0.00	0.00	0.00	0.00	0.00	9.75	2.39	5.61	0.39	0.00	0.00	0.00
(WY)	(1977)	(1977)	(1977)	(1977)	(1977)	(1990)	(1990)	(1959)	(1981)	(1981)	(1976)	(1976)

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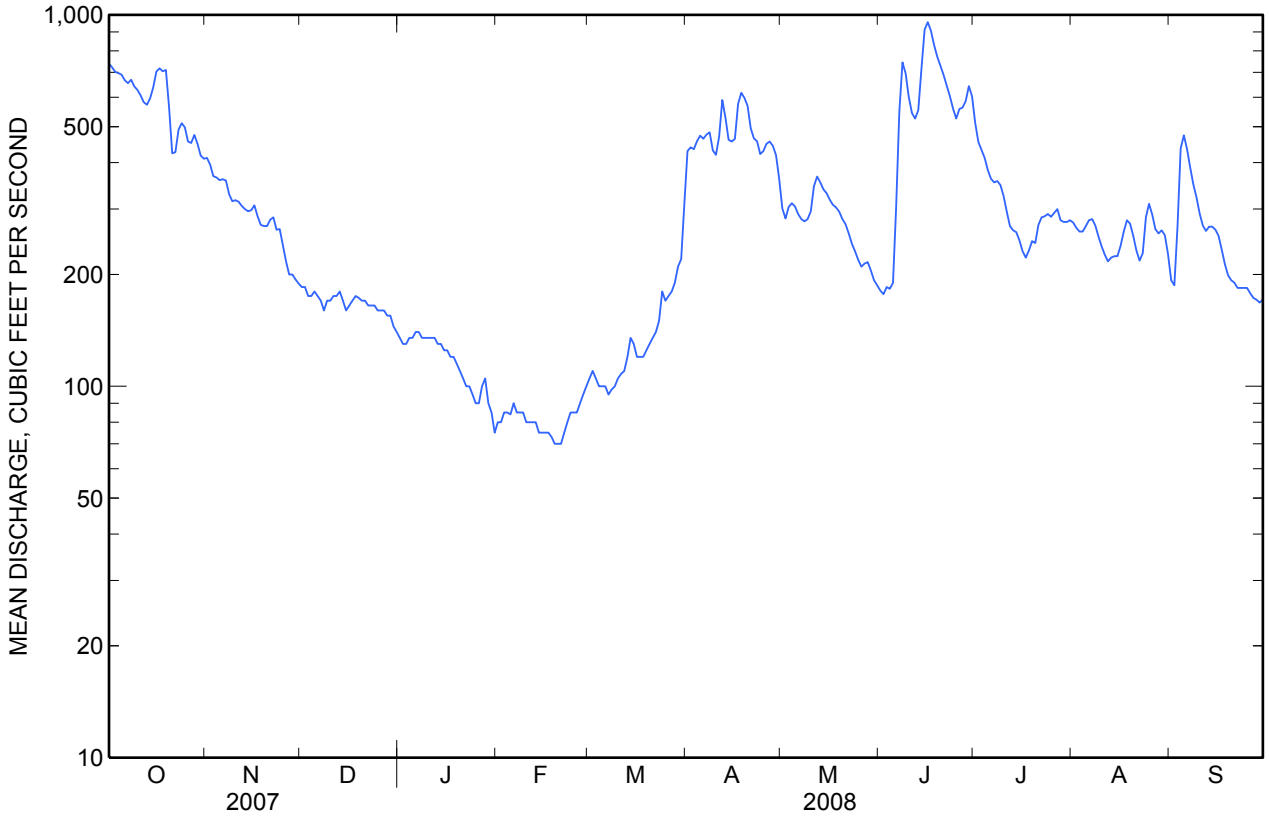
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1951 - 2008	
Annual total	575,762.7		107,690			
Annual mean	1,577		294		[a]514	
Highest annual mean					3,054	1997
Lowest annual mean					4.75	1959
Highest daily mean	20,500	May 8	956	Jun 16	25,100	Apr 6, 1997
Lowest daily mean	6.1	Feb 3	70	Feb 19	[b]0.00	Jul 10, 1959
Annual seven-day minimum	6.6	Feb 3	73	Feb 15	0.00	Aug 9, 1959
Maximum peak flow			965	Jun 16	25,600	Apr 6, 1997
Maximum peak stage			7.23	Jun 16	20.61	Apr 6, 1997
Annual runoff (ac-ft)	1,142,000		213,600		372,600	
10 percent exceeds	3,740		583		1,350	
50 percent exceeds	923		261		96	
90 percent exceeds	9.4		99		3.0	

[a] Median of annual mean discharges, 270 ft³/s.

[b] No flow at times in some years.



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WATER-QUALITY RECORDS

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, wat unf µS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
Oct					
01...	1730	732	1,240	22.5	18.0
Nov					
26...	1710	214	1,700	-3.0	2.0
Feb					
05...	1305	84	2,000	-11.0	1.0
Apr					
02...	1045	416	1,770	6.0	4.5
May					
20...	0900	287	2,150	11.5	17.0
Jul					
10...	1240	335	1,620	35.0	28.5
Aug					
14...	0915	216	1,340	24.5	25.0