06472000 JAMES RIVER NEAR STRATFORD, SD

James Basin
Upper James Subbasin

LOCATION.--Lat 45°14′30″, long 98°23′28″ referenced to North American Datum of 1927, in NE ¼ NE ¼ NE ¼ sec.3, T.120 N., R.63 W., Spink County, SD, Hydrologic Unit 10160003, on right bank 10 ft downstream from bridge, 6.7 mi southwest of Stratford and 9.0 mi upstream from Mud Creek.

DRAINAGE AREA.--8,865 mi^2 of which 4,005 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--March 1950 to September 1972, October 1976 to September 1977, October 1996 to September 1997 (crest-stage partial record), and October 1999 to current year.

REVISED RECORDS.--WDR SD-00-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,254.29 ft above NGVD of 1929. Prior to May 17, 1950, nonrecording gage at site 20.9 mi upstream at different datum. May 17, 1950, to Aug. 5, 1951, nonrecording gage at site 60 ft upstream at present datum.

REMARKS.--Records good except 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. Occasional backwater from Mud Creek. Satellite data-collection platform at station. Water temperature and specific conductance are measured with each discharge measurement.

06472000 JAMES RIVER NEAR STRATFORD, SD—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	27	e17	e11	e6.5	e0.00	e0.03	e520	839	1,730	1,530	1,310	929
2	26	e18	e11	e5.5	e0.00	e0.03	e520	843	1,730	1,520	1,300	910
3	26	e19	e11	e5.5	e0.00	e0.02	e520	846	1,730	1,520	1,290	892
4	26	e22	e11	e5.5	e0.00	e0.02	e520	855	1,720	1,510	1,280	876
5	27	26	e11	e5.5	e0.00	e0.02	e510	895	1,710	1,500	1,280	859
6	29	25	e11	e5.5	e0.00	e0.03	e500	e1,000	1,680	1,500	1,270	845
7	30	23	e11	e5.5	e0.00	e0.05	e510	e1,150	1,670	1,490	1,260	837
8	26	22	e11	e5.0	e0.00	e0.10	e520	e1,250	1,650	1,480	1,250	825
9	26	21	e11	e5.0	e0.00	e0.30	e550	e1,600	1,640	1,480	1,240	818
10	29	21	e11	e5.0	e0.00	e0.40	e570	e1,800	1,620	1,470	1,230	804
11	30	e21	e10	e4.0	e0.00	e1.0	e600	e1,950	1,600	1,460	1,210	788
12	29	e21	e10	e1.5	e0.00	e3.0	656	e2,000	1,580	1,460	1,200	773
13	28	e20	e11	e1.0	e0.00	e4.0	664	e2,060	1,610	1,450	1,190	755
14	27	e20	e11	e0.80	e0.00	e4.0	671	2,030	1,630	1,450	1,180	740
15	27	e19	e11	e0.70	e0.00	e4.0	679	2,020	1,630	1,440	1,160	725
16	28	e17	e10	e0.55	e0.00	e4.0	685	2,000	1,620	1,430	1,150	711
17	26	e16	e9.5	e0.50	e0.01	e5.0	694	1,960	1,610	1,430	1,130	698
18	24	e14	e9.0	e0.55	e0.01	e9.0	702	1,910	1,600	1,430	1,160	688
19	24	e15	e9.5	e0.50	e0.02	e20	710	1,870	1,590	1,420	1,160	681
20	24	e18	e10	e0.45	e0.03	e40	719	1,850	1,590	1,410	1,150	684
21	23	21	e10	e0.35	e0.04	e75	740	1,820	1,600	1,400	1,130	679
22	23	23	e10	e0.25	e0.03	e120	763	1,790	1,610	1,410	1,120	668
23	23	23	e10	e0.25	e0.03	e200	772	1,800	1,610	1,410	1,100	654
24	23	22	e10	e0.25	e0.03	e250	779	1,760	1,600	1,400	1,080	637
25	23	e18	e9.5	e0.20	e0.02	e300	792	1,750	1,590	1,390	1,060	627
26	23	e16	e9.5	e0.15	e0.02	e400	805	1,720	1,580	1,380	1,040	629
27	23	e14	e10	e0.08	e0.01	e450	815	1,710	1,570	1,370	1,020	632
28	22	e13	e10	e0.04	e0.02	e480	824	1,690	1,560	1,360	1,010	631
29	22	e12	e11	e0.03	---	e500	830	1,670	1,550	1,350	986	621
30	21	e12	e10	e0.02	---	e500	835	1,700	1,540	1,330	968	605
31	21	---	e8.5	e0.01	---	e510	---	1,730	---	1,320	949	---
Total	786	569	319.5	66.68	0.27	3,880.00	19,975	49,868	48,750	44,500	35,863	22,221
Mean	25.4	19.0	10.3	2.15	0.01	125	666	1,609	1,625	1,435	1,157	741
Max	30	26	11	6.5	0.04	510	835	2,060	1,730	1,530	1,310	929
Min	21	12	8.5	0.01	0.00	0.02	500	839	1,540	1,320	949	605
Ac-ft	1,560	1,130	634	132	0.5	7,700	39,620	98,910	96,700	88,270	71,130	44,080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2007, BY WATER YEAR (WY) *

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	104	76.3	48.4	25.1	16.1	67.0	439	495	350	340	235	128
Max	1,135	792	421	198	128	453	2,036	2,283	1,714	1,435	1,254	844
(WY)	(2000)	(2000)	(2001)	(2001)	(2006)	(2000)	(1969)	(2001)	(2001)	(2007)	(2001)	(2001)
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1955)	(1953)	(1952)	(1952)	(1951)	(1956)	(1959)	(1959)	(1959)	(1959)	(1959)	(1958)

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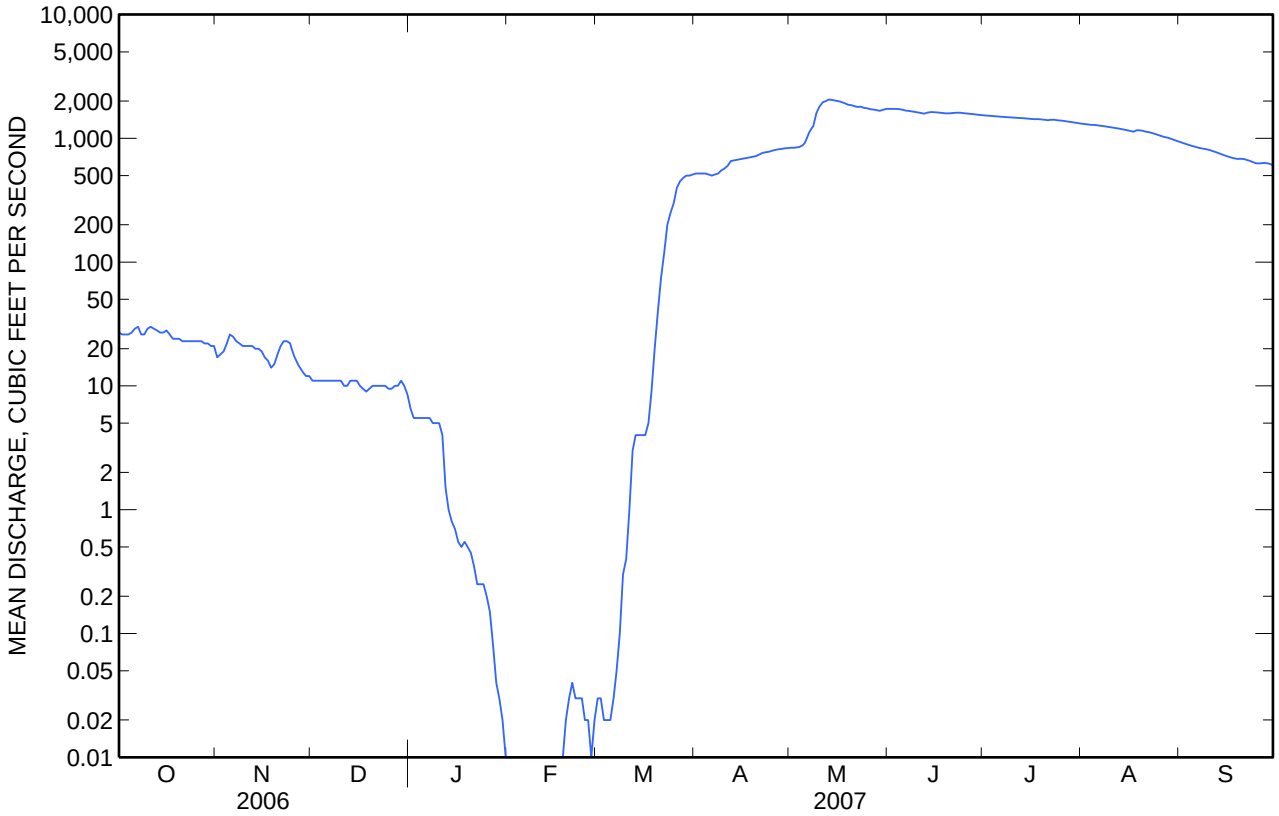
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1951 - 2007*	
Annual total	65,643.9		226,798.45			
Annual mean	180		621		[a]194	
Highest annual mean					929	2001
Lowest annual mean					0.00	1959
Highest daily mean	695	May 6	2,060	May 13	4,940	Apr 20, 1952
Lowest daily mean	8.5	Dec 31	0.00	Feb 1	[b]0.00	Nov 28, 1950
Annual seven-day minimum	9.7	Dec 16	0.00	Feb 1	0.00	Nov 28, 1950
Maximum peak flow			[c]2,060	May 13	[d]8,400	Apr 6, 1997
Maximum peak stage			[f]17.69	May 12	19.48	Apr 6, 1997
Annual runoff (ac-ft)	130,200		449,900		140,800	
10 percent exceeds	602		1,610		606	
50 percent exceeds	95		510		32	
90 percent exceeds	11		0.04		0.00	

* Excludes 1973-1976 and 1998-1999. Includes 1997 peak flow during partial-record year. See PERIOD OF RECORD.
[a] Median of annual mean discharges, 130 ft³/s.
[b] No flow for many days in some years.
[c] Maximum daily average.
[d] Backwater from downstream tribs.
[f] From floodmark.



WATER-QUALITY RECORDS

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

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					
02...	1630	26	1,920	25.0	18.5
Dec					
07...	1010	11	2,370	-10.0	.0
Mar					
26...	1315	405	824	18.0	8.0
Apr					
05...	1340	511	1,090	-2.8	1.1
12...	1605	651	1,130	7.0	4.0
May					
07...	1230	1,160	706	15.0	17.0
09...	1540	1,640	726	27.0	22.0
14...	1735	2,130	702	14.0	17.0
23...	1310	1,860	882	20.0	20.5
Jun					
11...	1340	1,550	995	32.0	24.0
Aug					
08...	1550	1,260	1,110	32.0	25.5