06464100 KEYA PAHA RIVER NEAR KEYAPAHA, SD

LOCATION.--Lat 43°07'45", long 100°06'24", in NW¼ SW¼ SW¼ sec.17, T.96 N., R.78 W., Tripp County, Hydrologic Unit 10150006, on left bank at downstream side of highway bridge, 2.0 mi northeast of Keyapaha, and 2.0 mi upstream from Sand Creek.

DRAINAGE AREA.--466 mi^2, approximately.

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,230 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite data-collection platform at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1952 reached a stage of about 14 ft, at present datum, from information by local residents.

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	15	26	e21	e21	e40	23	34	63	39	29	13	8.6
2	24	27	e22	e19	e37	24	31	57	40	28	12	7.8
3	27	27	e23	e18	e35	24	29	53	43	25	11	7.6
4	22	27	e24	e17	e33	23	27	50	47	24	11	7.0
5	21	26	25	e16	31	23	26	48	55	22	10	6.7
6	22	25	25	e15	30	22	25	46	60	21	10	7.4
7	23	24	24	e14	27	23	23	45	65	21	9.6	8.4
8	21	24	24	e14	e25	24	25	44	65	20	9.2	8.5
9	19	23	24	e14	e23	25	24	43	59	19	9.1	7.2
10	18	23	23	e15	e24	25	23	42	57	18	9.2	6.7
11	17	23	23	e15	e25	25	31	45	66	19	9.3	6.8
12	16	23	24	e16	e28	25	49	87	99	18	9.8	7.2
13	16	22	23	e15	e31	25	76	144	159	17	14	8.4
14	16	22	e20	e14	30	24	78	149	205	17	16	8.7
15	16	21	e21	e13	29	23	70	130	300	16	16	9.0
16	16	21	e22	e13	27	24	63	111	260	15	15	8.6
17	16	21	e22	e13	26	23	51	95	183	13	12	8.4
18	17	22	e22	e14	26	23	43	81	146	13	11	8.3
19	16	22	e21	e16	27	22	37	73	116	12	11	8.9
20	16	22	e22	e18	27	24	37	62	93	12	10	8.8
21	16	22	e17	e25	26	25	46	53	77	14	10	8.7
22	16	22	e16	e23	25	28	167	45	66	14	10	8.7
23	18	22	e15	e22	25	30	495	40	57	12	9.7	8.6
24	18	22	e16	e21	25	35	385	37	51	13	8.9	11
25	19	22	e17	e35	25	44	235	37	45	16	8.6	14
26	19	22	e18	e55	24	49	166	37	42	17	9.7	15
27	18	23	e19	e50	24	52	125	37	37	17	9.9	14
28	19	e22	e20	e47	24	51	98	36	34	17	10	12
29	19	e21	e21	e45	---	47	82	34	32	15	9.9	12
30	22	e20	e23	e45	---	42	71	32	30	15	9.5	12
31	24	---	e24	e44	---	37	---	36	---	13	8.8	---
TOTAL	582	689	661	722	779	914	2,672	1,892	2,628	542	333.2	275.0
MEAN	18.8	23.0	21.3	23.3	27.8	29.5	89.1	61.0	87.6	17.5	10.7	9.17
MAX	27	27	25	55	40	52	495	149	300	29	16	15
MIN	15	20	15	13	23	22	23	32	30	12	8.6	6.7
AC-FT	1,150	1,370	1,310	1,430	1,550	1,810	5,300	3,750	5,210	1,080	661	545

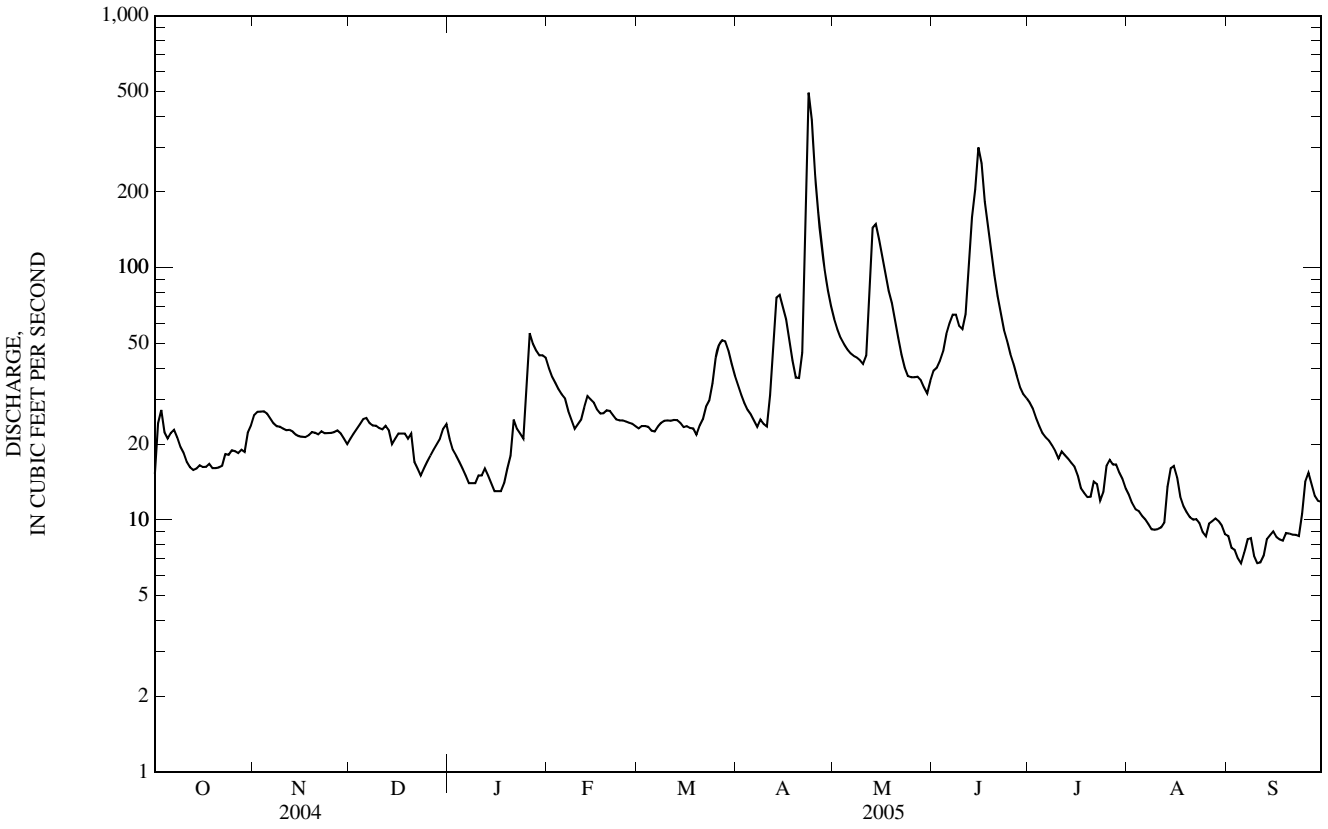
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2005, BY WATER YEAR (WY)

MEAN	23.9	29.2	25.0	21.9	54.1	81.1	79.3	86.4	63.0	34.8	21.4	18.2
MAX	54.8	81.3	56.1	67.0	247	158	206	257	148	130	87.1	44.0
(WY)	(1996)	(1999)	(2002)	(1997)	(1997)	(2001)	(2001)	(1995)	(1995)	(2000)	(1998)	(1999)
MIN	10.6	11.9	5.54	3.51	10.7	29.5	24.3	17.5	11.3	11.4	8.05	8.85
(WY)	(1990)	(1986)	(1986)	(1991)	(1989)	(2005)	(1990)	(1992)	(1985)	(2002)	(2003)	(2003)

06464100 KEYA PAHA RIVER NEAR KEYAPAHA, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1982 - 2005	
ANNUAL TOTAL	10,068.9		12,689.2			
ANNUAL MEAN	27.5		34.8		[a]44.8	
HIGHEST ANNUAL MEAN					81.0	1997
LOWEST ANNUAL MEAN					18.5	1989
HIGHEST DAILY MEAN	494	Jun 10	495	Apr 23	928	Feb 20, 1997
LOWEST DAILY MEAN	7.7	Sep 4	6.7	Sep 5	2.4	Jan 6, 1991
ANNUAL SEVEN-DAY MINIMUM	8.6	Aug 31	7.4	Sep 5	2.5	Jan 1, 1991
MAXIMUM PEAK FLOW			581	Apr 23	[b]1,200	May 11, 1999
MAXIMUM PEAK STAGE			7.63	Apr 23	[c]11.29	Feb 18, 1997
ANNUAL RUNOFF (AC-FT)	19,970		25,170		32,430	
10 PERCENT EXCEEDS	51		62		90	
50 PERCENT EXCEEDS	21		23		27	
90 PERCENT EXCEEDS	10		9.9		12	

a Median of annual mean discharges, 43 ft^3/s.
b Gage height, 9.48 ft.
c Backwater from ice.
e Estimated.



06464500 KEYA PAHA RIVER AT WEWELA, SD

LOCATION.--Lat 43°01'44", long 99°46'49", in NW¼ SW¼ SE¼ sec.24, T.95 N., R.76 W., Tripp County, Hydrologic Unit 10150006, on right bank at downstream side of bridge on U.S. Highway 183, 1.0 mi north of Wewela, 4.5 mi upstream from Holt Creek, and 11.5 mi downstream from Lost Creek.

DRAINAGE AREA.--1,070 mi^2, approximately.

PERIOD OF RECORD.--November 1937 to September 1940, October 1947 to current year. Monthly discharge only for October 1947, published in WSP 1309.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,049.78 ft above NGVD of 1929. Prior to June 21, 1957, nonrecording gage at site 13 ft upstream at same datum. Prior to Aug. 23, 1984, recording gage on left bank 13 ft downstream from bridge at same datum.

REMARKS.--Records good except those for Oct. 1-7, July 29-31, Aug. 2-8, 9-11,14-16, and Aug. 31 to Sept. 27, which are fair, and those for estimated daily discharges, which are poor. Satellite data-collection platform at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

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	31	48	e44	e53	e65	47	72	136	83	68	26	20
2	30	49	e48	e50	e62	50	68	122	87	64	25	20
3	36	49	e55	e50	e60	50	65	114	93	61	24	18
4	41	49	e65	e48	e70	49	61	107	95	56	23	18
5	38	48	e60	e46	e65	50	59	102	98	53	22	17
6	36	48	e60	e44	e55	50	55	99	104	50	21	16
7	35	47	e59	e42	e45	49	54	99	116	48	21	17
8	36	46	e55	e40	e40	51	51	96	131	46	19	18
9	34	45	52	e42	e60	53	51	93	125	44	19	18
10	32	44	49	e42	e85	56	53	87	238	41	18	16
11	31	43	47	e44	e80	53	74	89	248	40	20	15
12	30	42	50	e44	e75	52	105	275	287	41	19	16
13	29	42	e45	e43	e85	51	114	355	400	39	24	16
14	30	42	e25	e42	e80	51	127	344	638	39	29	17
15	30	41	e43	e40	75	50	123	299	606	36	33	17
16	30	42	e60	e40	67	50	110	244	649	35	31	17
17	30	41	e58	e40	61	50	101	211	517	31	27	18
18	31	41	e55	e41	58	50	90	209	408	29	24	19
19	32	44	e37	e44	59	47	80	186	320	27	22	20
20	31	43	e46	e46	57	50	80	152	250	29	22	21
21	30	42	e43	e48	55	53	97	130	202	31	21	21
22	31	43	e40	e50	54	57	211	112	172	31	20	21
23	37	45	e36	e52	53	63	375	97	147	29	21	20
24	38	45	e32	e55	52	74	570	87	140	25	20	28
25	36	47	e34	e56	51	97	438	97	138	28	19	35
26	35	48	e36	e57	50	104	330	92	122	36	27	36
27	35	46	e38	e58	50	104	259	86	108	34	21	36
28	35	e43	e40	e59	49	101	208	79	96	31	21	30
29	37	e43	e44	e60	---	97	175	74	86	28	21	28
30	41	e42	e50	e61	---	89	153	69	76	28	20	27
31	45	---	e55	e63	---	79	---	74	---	26	18	---
TOTAL	1,053	1,338	1,461	1,500	1,718	1,927	4,409	4,416	6,780	1,204	698	636
MEAN	34.0	44.6	47.1	48.4	61.4	62.2	147	142	226	38.8	22.5	21.2
MAX	45	49	65	63	85	104	570	355	649	68	33	36
MIN	29	41	25	40	40	47	51	69	76	25	18	15
AC-FT	2,090	2,650	2,900	2,980	3,410	3,820	8,750	8,760	13,450	2,390	1,380	1,260

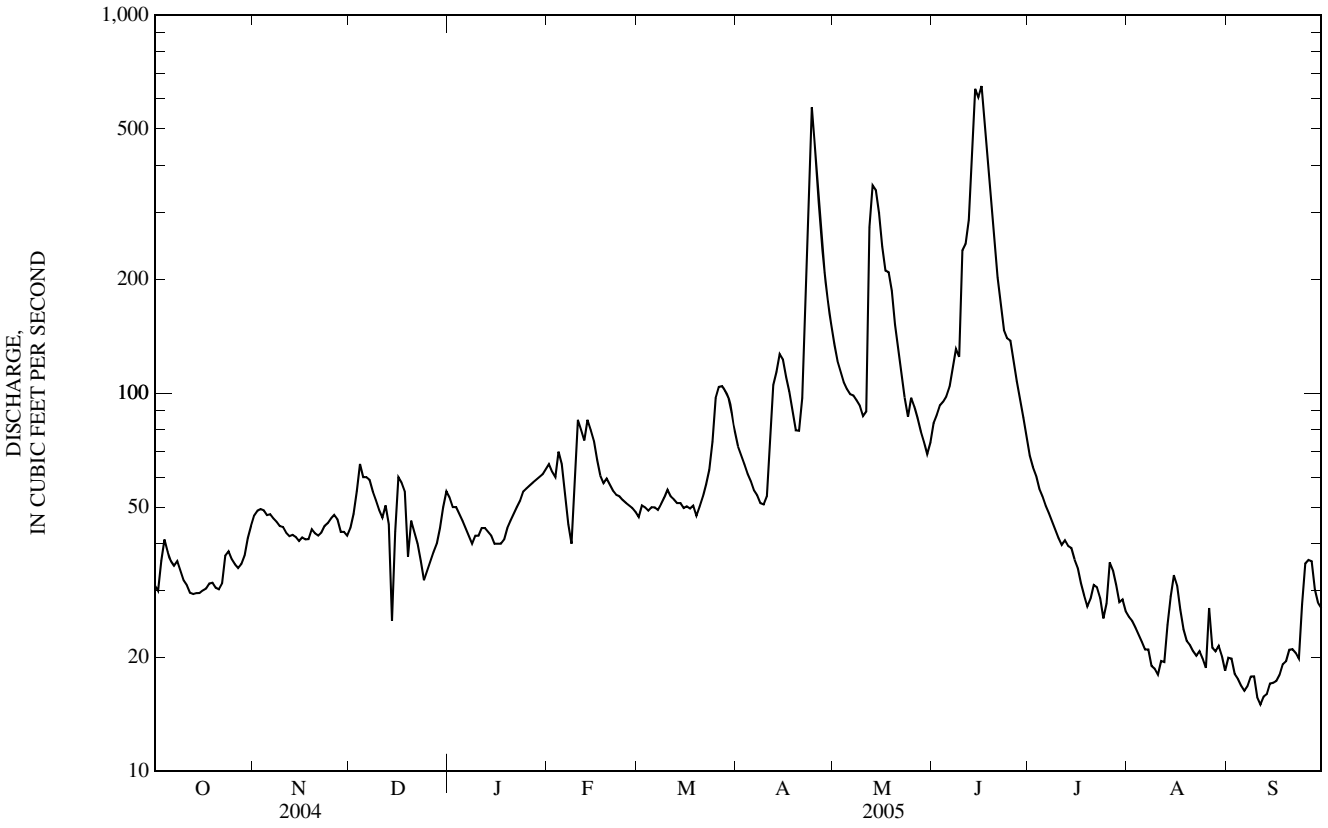
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939-1940, 1948 - 2005, BY WATER YEAR (WY)

MEAN	40.7	47.2	39.1	33.9	75.5	173	164	146	109	64.2	36.1	30.9
MAX	141	204	120	135	546	598	605	754	512	607	178	89.2
(WY)	(1996)	(1999)	(2002)	(1997)	(1997)	(1960)	(1952)	(1995)	(1962)	(1962)	(1998)	(1999)
MIN	8.49	12.0	8.74	1.61	5.08	33.5	31.3	27.4	12.2	3.55	0.80	3.71
(WY)	(1977)	(1977)	(1956)	(1949)	(1979)	(1975)	(1976)	(1981)	(1976)	(1940)	(1976)	(1976)

06464500 KEYA PAHA RIVER AT WEWELA, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939-1940,1948 - 2005	
ANNUAL TOTAL	17,875		27,140			
ANNUAL MEAN	48.8		74.4		[a]79.9	
HIGHEST ANNUAL MEAN					188	1997
LOWEST ANNUAL MEAN					19.5	1976
HIGHEST DAILY MEAN	378	Jun 11	649	Jun 16	4,930	Mar 30, 1952
LOWEST DAILY MEAN	10	Sep 4	15	Sep 11	[b]0.00	Jan 10, 1949
ANNUAL SEVEN-DAY MINIMUM	11	Sep 1	16	Sep 10	0.00	Jan 10, 1949
MAXIMUM PEAK FLOW			707	Jun 14	[c]5,430	Mar 31, 1952
MAXIMUM PEAK STAGE			4.42	Jun 14	[d]13.50	Mar 25, 1950
ANNUAL RUNOFF (AC-FT)	35,460		53,830		57,910	
10 PERCENT EXCEEDS	91		130		164	
50 PERCENT EXCEEDS	41		48		43	
90 PERCENT EXCEEDS	15		21		16	

a Median of annual mean discharges, 70 ft^3/s.
b Also Jan. 11 to Feb. 15, 1949, and Aug. 19 to Sept. 14, 1976.
c Gage height, 13.08 ft.
d Backwater from ice.
e Estimated.



06466700 LEWIS AND CLARK LAKE AT SPRINGFIELD, SD

LOCATION.--Lat 42°51'21", long 97°53'06", in SW¼ NE¼ SW¼ sec.24, T.93 N., R.60 W., Bon Homme County, Hydrologic Unit 10170101, on left bank at east edge of Springfield at mile 832.20.

PERIOD OF RECORD.--August 1967 to current year.

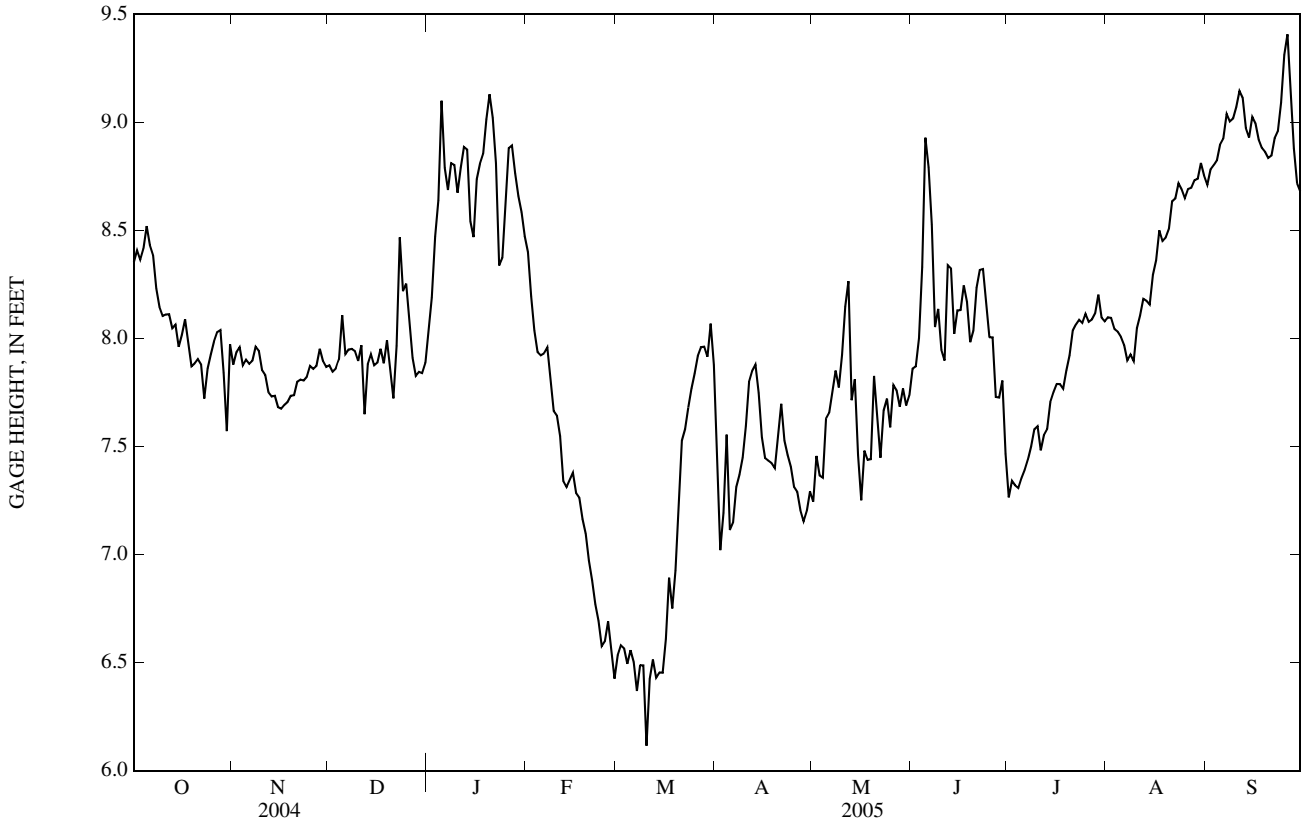
GAGE.--Water-stage recorder. Datum of gage is 1,200.00 ft above NGVD of 1929.

REMARKS.--Records good except those for Mar. 23 to Apr.12, which are fair. Stage regulated by Gavins Point Dam 21.2 mi downstream. U.S. Army Corps of Engineers satellite data-collection platform at station. Prior to Oct. 1, 1980, gage heights in files of U.S. Army Corps of Engineers.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.35	7.88	7.88	8.04	8.40	6.53	7.52	7.24	7.86	7.26	8.10	8.71
2	8.41	7.94	7.85	8.19	8.20	6.58	7.02	7.46	7.87	7.34	8.10	8.78
3	8.36	7.96	7.86	8.47	8.04	6.57	7.19	7.37	8.00	7.32	8.04	8.80
4	8.42	7.88	7.90	8.64	7.94	6.49	7.55	7.36	8.33	7.31	8.03	8.83
5	8.52	7.90	8.11	9.10	7.92	6.56	7.11	7.63	8.93	7.35	8.01	8.90
6	8.43	7.88	7.93	8.79	7.93	6.50	7.15	7.66	8.79	7.39	7.97	8.93
7	8.39	7.90	7.95	8.69	7.96	6.37	7.31	7.75	8.53	7.44	7.90	9.04
8	8.23	7.96	7.95	8.81	7.80	6.49	7.37	7.85	8.05	7.50	7.93	9.00
9	8.15	7.94	7.94	8.80	7.66	6.49	7.45	7.77	8.14	7.58	7.90	9.02
10	8.10	7.85	7.90	8.67	7.64	6.12	7.59	7.92	7.95	7.59	8.05	9.07
11	8.11	7.83	7.97	8.79	7.55	6.42	7.80	8.15	7.90	7.48	8.11	9.15
12	8.11	7.75	7.65	8.89	7.34	6.51	7.85	8.27	8.34	7.55	8.18	9.11
13	8.05	7.73	7.88	8.87	7.31	6.43	7.88	7.71	8.32	7.58	8.17	8.97
14	8.06	7.74	7.93	8.54	7.35	6.45	7.75	7.81	8.02	7.71	8.16	8.93
15	7.96	7.68	7.88	8.47	7.38	6.45	7.54	7.46	8.13	7.75	8.29	9.03
16	8.02	7.67	7.89	8.74	7.28	6.61	7.45	7.25	8.13	7.79	8.36	9.00
17	8.09	7.69	7.95	8.81	7.26	6.89	7.43	7.48	8.25	7.79	8.50	8.92
18	7.97	7.71	7.89	8.85	7.16	6.75	7.42	7.44	8.17	7.77	8.45	8.88
19	7.87	7.74	7.99	9.01	7.10	6.93	7.40	7.44	7.98	7.85	8.47	8.86
20	7.88	7.74	7.86	9.13	6.97	7.23	7.56	7.83	8.04	7.92	8.51	8.83
21	7.90	7.80	7.72	9.02	6.88	7.53	7.70	7.65	8.24	8.04	8.63	8.85
22	7.88	7.81	7.97	8.81	6.77	7.58	7.53	7.45	8.32	8.07	8.65	8.93
23	7.72	7.81	8.47	8.34	6.69	7.68	7.46	7.67	8.32	8.09	8.72	8.96
24	7.86	7.82	8.22	8.37	6.58	7.77	7.41	7.72	8.16	8.07	8.69	9.09
25	7.93	7.87	8.25	8.60	6.60	7.84	7.31	7.59	8.01	8.11	8.65	9.31
26	7.99	7.86	8.09	8.88	6.69	7.92	7.29	7.78	8.00	8.08	8.69	9.41
27	8.03	7.87	7.91	8.89	6.56	7.96	7.20	7.76	7.73	8.09	8.70	9.12
28	8.04	7.95	7.83	8.76	6.43	7.96	7.15	7.68	7.73	8.12	8.73	8.88
29	7.84	7.90	7.85	8.66	---	7.92	7.20	7.77	7.81	8.20	8.74	8.72
30	7.57	7.87	7.84	8.59	---	8.07	7.29	7.69	7.47	8.10	8.81	8.68
31	7.97	---	7.89	8.47	---	7.88	---	7.74	---	8.08	8.75	---
MEAN	8.07	7.83	7.94	8.70	7.34	7.02	7.43	7.66	8.12	7.75	8.35	8.96
MAX	8.52	7.96	8.47	9.13	8.40	8.07	7.88	8.27	8.93	8.20	8.81	9.41
MIN	7.57	7.67	7.65	8.04	6.43	6.12	7.02	7.24	7.47	7.26	7.90	8.68

06466700 LEWIS AND CLARK LAKE AT SPRINGFIELD, SD—Continued



06467000 LEWIS AND CLARK LAKE NEAR YANKTON, SD

LOCATION.--Lat 42°50'56", long 97°28'54", in SW$^1/_4$ sec.7, T.33 N., R.1 W., Cedar County, NE, Hydrologic Unit 10170101, in powerhouse of Gavins Point Dam on Missouri River, 3.75 mi southwest of Yankton, 13.6 mi upstream from James River, 32.5 mi downstream from Niobrara River, and at mile 811.0.

DRAINAGE AREA.--279,500 mi^2, approximately.

PERIOD OF RECORD.--July 1955 to current year (monthend contents only). Prior to October 1955, published as Gavins Point Reservoir near Yankton.

GAGE.--Water-stage recorder. Elevations listed to NGVD of 1929. Prior to Dec. 9, 1955, recorder at temporary location on wall of intake structure unit 3.

REMARKS.--Reservoir is formed by earthfill dam; storage began in July 1955. Maximum capacity, 504,000 acre-ft below elevation 1,210.0 ft (top of spillway gates). Normal maximum, 442,600 acre-ft below elevation 1,208.0 ft. Inactive storage, 157,000 acre-ft below elevation 1,195.0 ft. Dead storage, 23,000 acre-ft below elevation 1,180.0 ft (crest of spillway). From capacity table put into use Nov. 1, 1986; maximum capacity, 491,700 acre-ft. Normal maximum, 432,000 acre-ft. Inactive storage, 149,400 acre-ft. Dead storage, 17,700 acre-ft. Figures given herein represent elevations at powerhouse and total contents adjusted for wind effect.

The spillway consists of 14 taintor gates, each 40 ft wide by 30 ft high; spillway capacity, 280,000 ft^3/s at pool elevation 1,210.0 ft. Crest of spillway is at elevation 1,180.0 ft. Normal releases are through 3 power units, installation completed in January 1957; maximum release through power units is 35,000 ft^3/s at pool elevation, 1,210.0 ft. Water is used for flood control, navigation, power, and incidental uses.

COOPERATION.--Records of elevation and contents provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 565,000 acre-ft, Apr. 1, 1960, affected by wind; maximum elevation, 1,210.6 ft, Mar. 29, 1960; minimum since initial filling, 61,950 acre-ft, Apr. 23, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 412,000 acre-ft, Sept. 26; minimum contents, 344,000 acre-ft, July 8.

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1,207.06	386,000	--
Oct. 31	1,207.52	398,000	+12,000
Nov. 30	1,207.59	398,000	0
Dec. 31	1,207.44	395,000	-3,000
CAL YR 2004	--	--	0
Jan. 31	1,207.79	405,000	+10,000
Feb. 28	1,206.16	362,000	-43,000
Mar. 31	1,206.58	372,000	+10,000
Apr. 30	1,205.97	356,000	-16,000
May 31	1,205.94	356,000	0
June 30	1,206.31	366,000	+10,000
July 31	1,206.71	376,000	+10,000
Aug. 31	1,207.35	393,000	+17,000
Sept. 30	1,207.58	399,000	+6,000
WTR YR 2005	--	--	+13,000

NOTE.--Lake frozen over Dec. 4 to Mar. 14.

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06467500 MISSOURI RIVER AT YANKTON, SD
(National stream-quality accounting network station)

LOCATION.--Lat 42°51'58", long 97°23'37", in SW¼ SW¼ sec.18, T.93 N., R.55 W., Yankton County, Hydrologic Unit 10170101, on left bank 10 ft upstream of Meridian Highway Bridge on U.S. Highway 81, 5.2 mi downstream from Gavins Point Dam, 6.0 mi upstream from James River, and at mile 805.8.

DRAINAGE AREA.--279,500 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1, 1995, to current year (daily gage-height records). October 1930 to September 1995 and October 2000 to current year (daily discharge). Monthly discharge only for some periods, published in WSP 1309. Gage-height records collected at same site March 1873 to November 1886, March 1905 to May 1908 (fragmentary), August 1921 to September 1950 (except winter months prior to 1932), are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 1,139.68 ft above NGVD of 1929. Prior to Sept. 20, 1932, nonrecording gage, and Sept. 20, 1932, to Mar. 9, 1967, water-stage recorder at present site and at datum 20.0 ft higher.

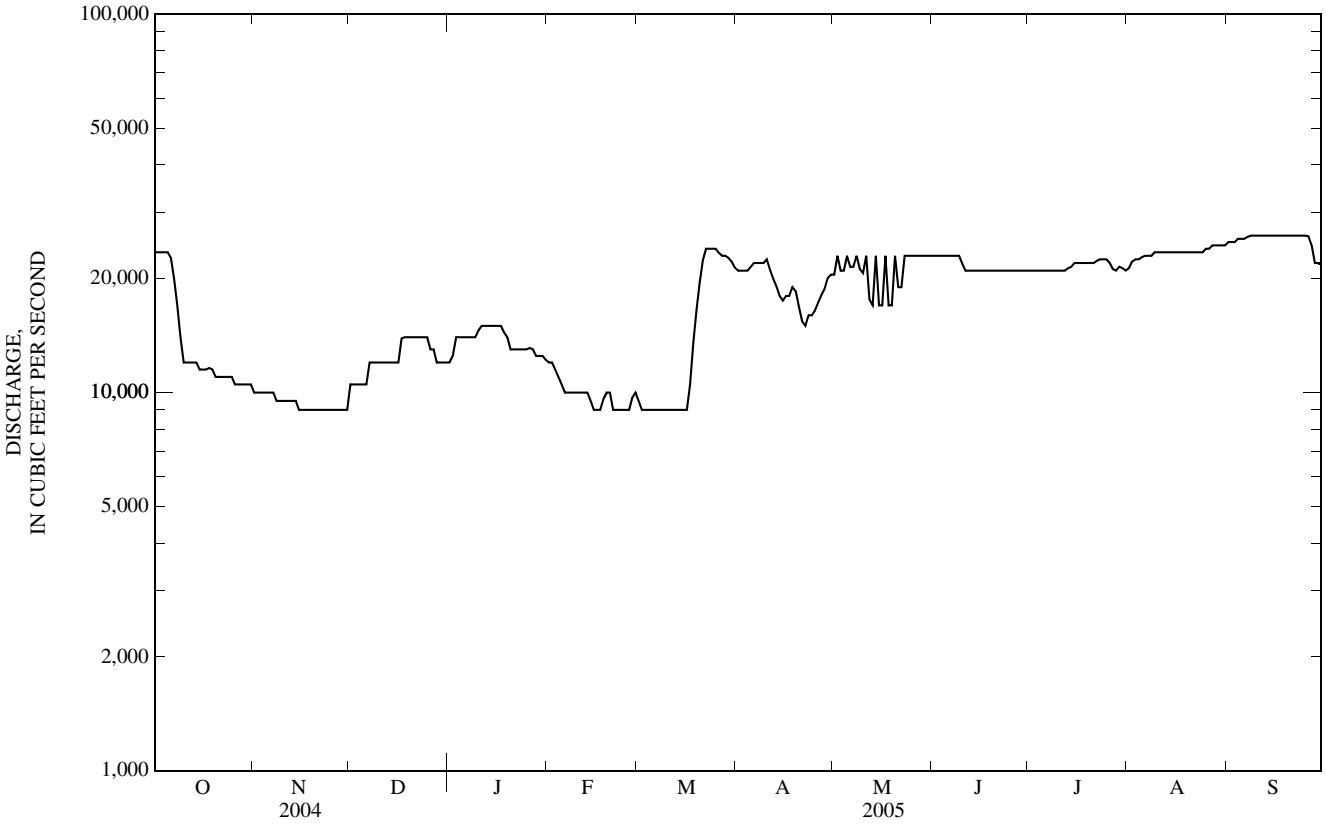
REMARKS.--Records good. Flow on Missouri River main stem completely regulated by a series of 6 dams with the most downstream being Gavins Point Dam (5.2 mi upstream from gage). Many diversions for irrigation and water supply above station. U.S. Army Corps of Engineers satellite data-collection platform at station.

COOPERATION.--Daily discharges were provided by U.S. Army Corps of Engineers from October 2000 to current year.

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	23,500	10,000	10,500	12,000	12,000	9,500	21,000	20,500	23,000	21,000	21,300	25,000
2	23,500	10,000	10,500	12,500	12,000	9,000	21,000	23,000	23,000	21,000	22,200	25,000
3	23,500	10,000	10,500	14,000	11,500	9,000	21,000	21,000	23,000	21,000	22,500	25,000
4	23,500	10,000	10,500	14,000	11,000	9,000	21,000	21,000	23,000	21,000	22,500	25,500
5	23,500	10,000	10,500	14,000	10,500	9,000	21,500	23,000	23,000	21,000	22,800	25,500
6	22,700	10,000	10,500	14,000	10,000	9,000	22,000	21,500	23,000	21,000	23,000	25,500
7	20,000	10,000	12,000	14,000	10,000	9,000	22,000	21,500	23,000	21,000	23,000	25,800
8	17,000	9,500	12,000	14,000	10,000	9,000	22,000	23,000	23,000	21,000	23,000	26,000
9	14,000	9,500	12,000	14,000	10,000	9,000	22,000	21,200	23,000	21,000	23,500	26,000
10	12,000	9,500	12,000	14,600	10,000	9,000	22,500	20,700	21,900	21,000	23,500	26,000
11	12,000	9,500	12,000	15,000	10,000	9,000	21,100	23,000	21,000	21,000	23,500	26,000
12	12,000	9,500	12,000	15,000	10,000	9,000	20,000	17,600	21,000	21,000	23,500	26,000
13	12,000	9,500	12,000	15,000	10,000	9,000	19,100	17,000	21,000	21,300	23,500	26,000
14	12,000	9,500	12,000	15,000	9,500	9,000	18,000	23,000	21,000	21,500	23,500	26,000
15	11,500	9,000	12,000	15,000	9,000	9,000	17,500	17,000	21,000	22,000	23,500	26,000
16	11,500	9,000	12,000	15,000	9,000	9,000	18,000	17,000	21,000	22,000	23,500	26,000
17	11,500	9,000	13,900	15,000	9,000	10,500	18,000	23,000	21,000	22,000	23,500	26,000
18	11,600	9,000	14,000	14,400	9,600	13,500	19,000	17,000	21,000	22,000	23,500	26,000
19	11,500	9,000	14,000	14,000	10,000	16,500	18,500	17,000	21,000	22,000	23,500	26,000
20	11,000	9,000	14,000	13,000	10,000	19,500	16,800	23,000	21,000	22,000	23,500	26,000
21	11,000	9,000	14,000	13,000	9,000	22,400	15,400	19,000	21,000	22,000	23,500	26,000
22	11,000	9,000	14,000	13,000	9,000	24,000	15,000	19,000	21,000	22,300	23,500	26,000
23	11,000	9,000	14,000	13,000	9,000	24,000	16,000	23,000	21,000	22,500	23,500	26,000
24	11,000	9,000	14,000	13,000	9,000	24,000	16,000	23,000	21,000	22,500	23,500	26,000
25	11,000	9,000	14,000	13,000	9,000	24,000	16,500	23,000	21,000	22,500	24,000	26,000
26	10,500	9,000	13,000	13,100	9,000	23,400	17,300	23,000	21,000	22,000	24,000	25,900
27	10,500	9,000	13,000	13,000	9,700	23,000	18,100	23,000	21,000	21,200	24,500	24,500
28	10,500	9,000	12,000	12,500	10,000	23,000	18,800	23,000	21,000	21,000	24,500	22,000
29	10,500	9,000	12,000	12,500	---	22,700	20,100	23,000	21,000	21,500	24,500	22,000
30	10,500	9,000	12,000	12,500	---	22,200	20,500	23,000	21,000	21,300	24,500	22,000
31	10,500	---	12,000	12,200	---	21,400	---	23,000	---	21,000	24,500	---
TOTAL	437,800	280,500	382,900	424,300	276,800	458,600	575,700	656,000	648,900	666,600	726,800	761,700
MEAN	14,120	9,350	12,350	13,690	9,886	14,790	19,190	21,160	21,630	21,500	23,450	25,390
MAX	23,500	10,000	14,000	15,000	12,000	24,000	22,500	23,000	23,000	22,500	24,500	26,000
MIN	10,500	9,000	10,500	12,000	9,000	9,000	15,000	17,000	21,000	21,000	21,300	22,000
AC-FT	868,400	556,400	759,500	841,600	549,000	909,600	1,142,000	1,301,000	1,287,000	1,322,000	1,442,000	1,511,000

06467500 MISSOURI RIVER AT YANKTON, SD—Continued

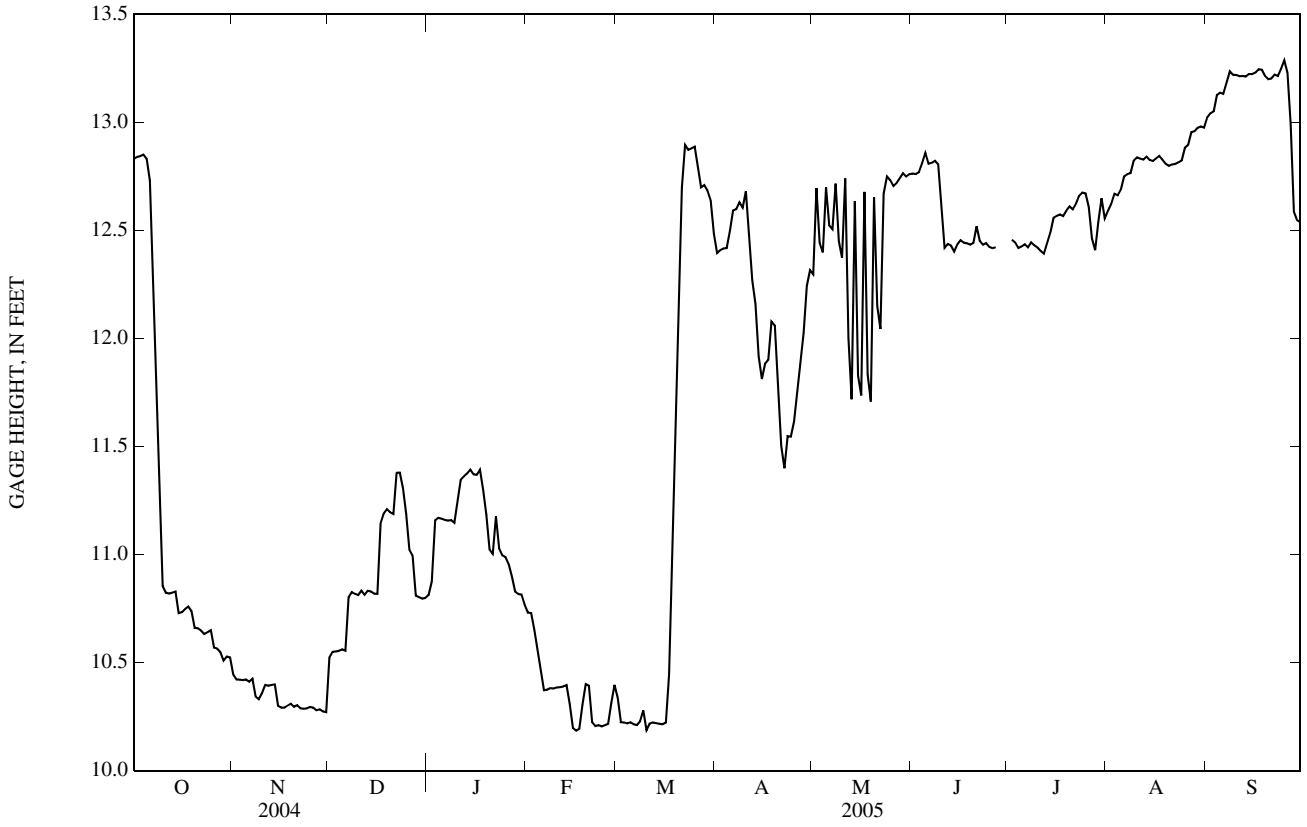


06467500 MISSOURI RIVER AT YANKTON, SD—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.83	10.45	10.52	10.81	10.73	10.34	12.39	12.30	12.76	---	12.59	13.02
2	12.84	10.42	10.55	10.88	10.73	10.22	12.41	12.70	12.76	12.46	12.62	13.04
3	12.84	10.42	10.55	11.16	10.65	10.22	12.42	12.44	12.77	12.44	12.67	13.05
4	12.85	10.42	10.55	11.17	10.56	10.22	12.42	12.40	12.81	12.42	12.66	13.13
5	12.83	10.42	10.56	11.17	10.47	10.22	12.50	12.70	12.86	12.43	12.69	13.14
6	12.73	10.41	10.55	11.16	10.37	10.21	12.59	12.52	12.81	12.44	12.75	13.13
7	12.27	10.43	10.80	11.16	10.38	10.21	12.60	12.51	12.81	12.42	12.76	13.18
8	11.74	10.34	10.83	11.16	10.38	10.23	12.63	12.72	12.82	12.45	12.76	13.24
9	11.22	10.33	10.82	11.15	10.38	10.28	12.61	12.45	12.81	12.43	12.82	13.22
10	10.85	10.36	10.81	11.25	10.38	10.19	12.68	12.37	12.62	12.42	12.84	13.22
11	10.82	10.40	10.83	11.35	10.39	10.22	12.49	12.74	12.42	12.40	12.83	13.21
12	10.82	10.39	10.81	11.36	10.39	10.22	12.27	12.00	12.44	12.39	12.83	13.22
13	10.82	10.40	10.83	11.38	10.40	10.22	12.16	11.72	12.43	12.44	12.84	13.21
14	10.83	10.40	10.83	11.39	10.31	10.22	11.92	12.64	12.40	12.49	12.83	13.22
15	10.73	10.30	10.82	11.37	10.20	10.21	11.81	11.83	12.44	12.56	12.82	13.22
16	10.73	10.29	10.82	11.37	10.19	10.22	11.88	11.74	12.45	12.57	12.83	13.23
17	10.75	10.29	11.14	11.39	10.19	10.44	11.90	12.68	12.44	12.57	12.84	13.25
18	10.76	10.30	11.19	11.30	10.31	11.06	12.08	11.83	12.44	12.57	12.83	13.24
19	10.74	10.31	11.21	11.18	10.40	11.73	12.06	11.71	12.43	12.59	12.81	13.22
20	10.66	10.30	11.20	11.02	10.39	12.23	11.75	12.65	12.44	12.61	12.80	13.20
21	10.66	10.30	11.19	11.00	10.23	12.70	11.50	12.15	12.52	12.60	12.81	13.20
22	10.65	10.29	11.38	11.18	10.21	12.90	11.40	12.04	12.45	12.62	12.81	13.22
23	10.63	10.29	11.38	11.03	10.21	12.87	11.55	12.67	12.43	12.66	12.82	13.21
24	10.64	10.29	11.31	11.00	10.20	12.88	11.55	12.75	12.44	12.67	12.82	13.25
25	10.65	10.29	11.19	10.99	10.21	12.89	11.62	12.73	12.42	12.67	12.88	13.29
26	10.57	10.29	11.02	10.96	10.22	12.79	11.75	12.71	12.42	12.61	12.90	13.23
27	10.56	10.28	10.99	10.90	10.31	12.70	11.90	12.72	12.42	12.46	12.95	12.99
28	10.55	10.28	10.81	10.83	10.40	12.71	12.03	12.74	---	12.41	12.96	12.59
29	10.51	10.27	10.80	10.82	---	12.68	12.24	12.76	---	12.54	12.98	12.55
30	10.53	10.27	10.80	10.82	---	12.64	12.32	12.75	---	12.65	12.98	12.54
31	10.52	---	10.80	10.77	---	12.48	---	12.76	---	12.55	12.97	---
MEAN	11.20	10.34	10.90	11.11	10.36	11.27	12.11	12.43	---	---	12.82	13.12
MAX	12.85	10.45	11.38	11.39	10.73	12.90	12.68	12.76	---	---	12.98	13.29
MIN	10.51	10.27	10.52	10.77	10.19	10.19	11.40	11.71	---	---	12.59	12.54

06467500 MISSOURI RIVER AT YANKTON, SD—Continued



06467500 MISSOURI RIVER AT YANKTON, SD—Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 2000 to current year (NASQAN). December 1950 to September 1951, October 1956 to September 1960, and July 1969 to September 1974 chemical analyses performed.
WATER TEMPERATURE: October 1956 to September 1960.

REMARKS.--Water-quality samples are collected about 1.2 mi below Gavins Point Dam, or 3.9 mi upstream from the gage on the main channel. Inflow between the location where water-quality samples are collected and the stage-gaging station generally is negligible. For the May sample collected during water year 2005, a field duplicate sample was collected for suspended-sediment analyses for quality-control purposes. On May 12, 2005, in addition to the primary sample (time 1200), a field duplicate sample (time 1210) for analysis of inorganic and organic constituents was collected for quality-control purposes. The analytical results for all duplicate samples are noted in the water-quality results. On Oct. 28, 2004 and Jan. 11, 2005, blank water was processed at the field site through the sampling equipment used for this site and then processed and analyzed for quality-control purposes. The analytical results for the field blank samples are presented in a table following the water-quality results. Additional quality-control data for this site are available from the South Dakota Water Science Center office in Rapid City, S. Dak.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Specif. conductance, wat unf uS/cm 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	Hardness, water, mg/L as CaCO3 (00900)	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)
OCT													
28...	1330	10,100	663	8.2	22.0	11.8	7.2	728	10.1	98	230	82	151
DEC													
07...	1415	11,700	638	8.4	2.0	3.5	3.4	734	13.2	103	200	50	149
JAN													
11...	1345	15,000	661	8.0	-7.0	0.9	2.0	735	15.3	112	220	58	160
APR													
21...	1210	14,800	680	8.2	12.0	12.5	6.3	742	11.6	112	220	62	159
MAY													
12...	1200	16,600	673	8.5	12.0	14.6	11	738	10.1	103	230	66	159
a12...	1210	16,600	673	8.5	12.0	14.6	11	738	10.1	103	220	59	162
JUL													
21...	1245	21,700	710	8.1	32.0	25.7	22	736	7.4	94	220	62	159
SEP													
15...	1300	26,200	738	8.3	26.0	22.6	11	739	7.9	94	230	80	154

Date	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Sodium adsorption ratio (00931)	Potassium, water, fltrd, mg/L (00935)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Sulfate water, fltrd, mg/L (00945)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
OCT													
28...	162	57.2	21.6	62.1	36	2	5.28	179	2	172	10.4	0.7	9.22
DEC													
07...	158	48.8	18.6	56.6	38	2	5.00	180	0.0	157	9.49	0.6	11.0
JAN													
11...	161	54.3	19.8	61.3	37	2	5.48	194	0.0	164	9.71	0.6	11.9
APR													
21...	156	55.9	19.7	60.7	37	2	4.93	190	2	172	10.3	0.6	6.48
MAY													
12...	156	55.2	21.0	58.6	36	2	5.03	188	3	167	9.99	0.6	8.35
a12...	156	54.0	20.8	57.1	35	2	4.96	192	2	167	10.0	0.6	8.26
JUL													
21...	163	55.3	19.9	62.8	38	2	5.17	194	--	180	10.4	0.6	7.72
SEP													
15...	162	57.2	21.9	68.2	38	2	5.62	187	--	200	11.8	0.6	7.67

06467500 MISSOURI RIVER AT YANKTON, SD—Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue water, fltrd, tons/d (70302)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Nitrite water, fltrd, mg/L as N (00613)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrate water, fltrd, mg/L as N (00618)	Phosphorus, water, unfltrd mg/L (00665)	Phosphorus, water, fltrd, mg/L (00666)	Orthophosphate, water, fltrd, mg/L as P (00671)	Arsenic water, fltrd, ug/L (01000)
OCT													
28...	430	432	11,800	E.007	0.29	0.20	E.001	0.024	--	0.022	0.005	<.006	2.1
DEC													
07...	398	416	13,200	<.010	0.24	0.18	0.002	0.154	0.15	0.014	0.005	<.006	2.0
JAN													
11...	424	432	17,500	E.006	0.22	0.20	0.002	0.255	0.25	0.019	0.007	E.003	2.6
APR													
21...	427	426	17,000	E.005	0.32	0.27	0.002	0.045	0.04	E.022	E.003	<.006	1.6
MAY													
12...	422	441	19,700	0.012	0.34	0.31	E.001	0.069	--	0.029	0.005	<.006	2.0
a12...	421	442	19,700	0.012	0.39	0.39	0.002	0.069	0.07	0.025	E.004	<.006	1.9
JUL													
21...	438	449	26,300	0.013	0.33	0.29	E.001	E.010	--	0.041	0.010	<.006	2.6
SEP													
15...	466	470	33,300	<.010	0.33	0.28	<.002	<.016	--	0.026	0.009	<.006	2.3

Date	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Lithium water, fltrd, ug/L (01130)	Selenium, water, fltrd, ug/L (01145)	Strontium, water, fltrd, ug/L (01080)	Vanadium, water, fltrd, ug/L (01085)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	Atrazine, water, fltrd, ug/L (39632)	CIAT, water, fltrd, ug/L (04040)
OCT													
28...	108	<6	40.0	1.6	510	2.0	2.8	0.9	<.006	<.005	<.006	0.029	E.009
DEC													
07...	117	<6	58.0	1.7	488	2.1	2.6	0.6	<.006	<.005	<.006	0.014	E.006
JAN													
11...	124	<6	46.1	2.2	488	2.4	2.9	0.4	<.006	<.005	<.006	0.013	<.006
APR													
21...	134	<6	43.8	1.4	508	2.1	3.2	0.7	<.006	<.005	<.006	0.017	<.006
MAY													
12...	140	<6	46.0	1.8	512	2.4	3.3	0.9	0.024	<.005	<.006	0.037	<.006
a12...	135	<6	44.1	1.5	499	2.3	3.5	0.9	0.027	<.005	<.006	0.040	<.006
JUL													
21...	125	E4	49.2	2.0	516	3.3	3.5	1.2	<.006	<.005	<.006	0.041	E.007
SEP													
15...	117	E4	52.3	1.9	630	2.6	4.2	0.8	<.006	<.005	<.006	0.076	E.012

Date	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	alpha-HCH, water, fltrd, ug/L (34253)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	p,p'-DDE, water, fltrd, ug/L (34653)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
OCT													
28...	<.050	<.010	<.005	<.004	<.041	<.020	<.018	<.003	<.003	<.005	<.009	<.02	<.004
DEC													
07...	<.050	<.010	<.005	<.004	<.041	<.020	<.018	<.003	<.003	<.005	<.009	<.02	<.004
JAN													
11...	<.050	<.010	<.005	<.004	<.041	<.020	<.018	<.003	<.003	<.005	<.009	<.02	<.004
APR													
21...	<.050	<.010	<.005	<.004	<.041	<.020	<.018	<.003	<.003	<.005	<.009	<.02	<.004
MAY													
12...	<.050	<.010	<.005	<.004	<.041	<.020	<.018	<.003	<.003	<.005	<.009	<.02	<.004
a12...	<.050	<.010	<.005	<.004	<.041	<.020	<.018	<.003	<.003	<.005	<.009	<.02	<.004
JUL													
21...	<.050	<.010	<.005	<.004	<.041	<.020	<.018	<.003	<.003	<.005	<.009	<.02	<.004
SEP													
15...	<.050	<.010	<.005	<.004	<.041	<.020	<.018	<.003	<.003	<.005	<.009	<.02	<.006

06467500 MISSOURI RIVER AT YANKTON, SD—Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Parathion, water, fltrd, ug/L (39542)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	Pebulate, water, fltrd 0.7u GF ug/L (82669)
OCT													
28...	<.009	<.005	<.003	<.004	<.035	<.027	.007	<.006	<.003	<.010	<.015	<.007	<.004
DEC													
07...	<.009	<.005	<.003	<.004	<.035	<.027	<.006	<.006	<.003	<.010	<.015	<.007	<.004
JAN													
11...	<.009	<.005	<.003	<.004	<.035	<.027	<.006	<.006	<.003	<.010	<.015	<.007	<.004
APR													
21...	<.009	<.005	<.003	<.004	<.035	<.027	<.006	<.006	<.003	<.010	<.015	<.007	<.004
MAY													
12...	<.009	<.005	<.003	<.004	<.035	<.027	0.011	<.006	<.003	<.010	<.015	<.007	<.004
a12...	<.009	<.005	<.003	<.004	<.035	<.027	0.011	<.006	<.003	<.010	<.015	<.007	<.004
JUL													
21...	<.009	<.005	<.003	<.004	<.035	<.027	E.006	<.006	<.003	<.010	<.015	<.007	<.004
SEP													
15...	<.009	<.005	<.003	<.004	<.035	<.027	0.016	<.006	<.003	<.010	<.015	<.007	<.004

Date	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)
OCT													
28...	<.022	<.006	<.011	E.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010
DEC													
07...	<.022	<.006	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010
JAN													
11...	<.022	<.006	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010
APR													
21...	<.022	<.006	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010
MAY													
12...	<.022	<.006	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010
a12...	<.022	<.006	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010
JUL													
21...	<.022	<.006	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010
SEP													
15...	<.022	<.006	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010

Date	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Suspended sediment concentration mg/L (80154)	Suspnd. sediment, sieve diametr percent <.063mm (70331)
OCT				
28...	<.006	<.009	13	99
DEC				
07...	<.006	<.009	4	96
JAN				
11...	<.006	<.009	15	100
APR				
21...	<.006	<.009	7	99
MAY				
12...	<.006	<.009	11	99
a12...	<.006	<.009	11	99
JUL				
21...	<.006	<.009	19	99
SEP				
15...	<.006	<.009	12	96

06467500 MISSOURI RIVER AT YANKTON, SD—Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Sodium, water, fltrd, mg/L (00930)	Potassium, water, fltrd, mg/L (00935)	Sulfate water, fltrd, mg/L (00945)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite water, fltrd, mg/L as N (00613)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)
OCT													
b28...	1338	<.02	<.008	<.20	<.010	<.01	<.01	<.01	<.04	<.010	<.002	<.016	<.006
JAN													
c11...	1353	--	--	--	--	--	--	--	--	--	--	--	--

Date	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Lithium water, fltrd, ug/L (01130)	Selenium, water, fltrd, ug/L (01145)	Strontium, water, fltrd, ug/L (01080)	Vanadium, water, fltrd, ug/L (01085)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	Atrazine, water, fltrd, ug/L (39632)
OCT													
b28...	<.2	<8	<6	<.6	<.4	<.40	<.1	--	--	--	--	--	--
JAN													
c11...	--	--	--	--	--	--	--	<.3	<.1	<.006	<.005	<.006	<.007

Date	CIAT, water, fltrd, ug/L (04040)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	alpha-HCH, water, fltrd, ug/L (34253)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	p,p-' DDE, water, fltrd, ug/L (34653)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)
OCT													
b28...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
c11...	<.006	<.050	<.010	<.005	<.004	<.041	<.020	<.005	<.018	<.003	<.003	<.005	<.009

Date	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Parathion, water, fltrd, ug/L (39542)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)
OCT													
b28...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
c11...	<.02	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.006	<.006	<.003	<.010	<.015

06467500 MISSOURI RIVER AT YANKTON, SD—Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Napropamide, water, fltrd 0.7u GF ug/L (82684)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)
OCT													
b28...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
c11...	<.007	<.004	<.022	<.006	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034

Date	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Chlorophyll a phytoplankton fluoro, ug/L (70953)
OCT					
b28...	--	--	--	--	--
JAN					
c11...	<.02	<.010	<.006	<.009	<.1

< Less than.
a Field duplicate suspended sample collected for quality-control purposes.
b Field blank inorganic constituents collected for quality-control purposes.
c Field blank organic constituents collected for quality-control purpposes.
E Estimated value.

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06470878 JAMES RIVER AT NORTH DAKOTA-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 45°56'10", long 98°10'26", in SE¼SE¼ sec. 34, T.129 N., R.60 W., Dickey County, Hydrologic Unit 10160003, at bridge on North Dakota-South Dakota state line road 6.5 mi south and 1 mi west from Ludden.

DRAINAGE AREA.--5,480 mi^2, approximately, of which about 3,300 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 2001 to current year. October 1981 to September 2001 equivalent discharge site formerly published as James River at Dakota Lake Dam near Ludden. October 1981 to September 1999 (gage heights only).

GAGE.--Acoustic doppler velocity meter and water-stage recorder. Datum of gage is 1,200 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

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	324	161	e85	e46	e37	30	201	e100	160	917	271	372
2	167	129	72	e42	50	33	179	e60	207	840	266	358
3	231	130	82	e51	40	30	188	e40	286	851	280	376
4	153	195	59	e39	48	45	178	e70	288	807	248	346
5	143	162	74	e37	50	52	218	e62	274	676	209	312
6	163	180	72	e35	49	112	174	e105	e283	625	181	383
7	199	e184	64	e33	51	190	109	e80	e310	579	221	306
8	253	162	77	e37	40	170	25	93	235	590	203	e279
9	169	135	57	e41	24	162	23	201	507	536	223	e246
10	132	202	38	e41	33	154	158	245	605	469	204	142
11	211	113	96	e39	35	153	204	318	815	581	219	249
12	185	116	33	e35	39	161	180	145	985	559	242	265
13	222	88	45	e43	41	148	159	132	e1,260	499	243	189
14	75	101	53	e33	57	140	49	258	e1,420	442	219	161
15	154	139	56	e40	59	138	136	185	e1,410	422	227	154
16	86	e146	56	e36	64	122	142	225	1,420	e296	230	141
17	e84	e153	61	e30	66	145	141	240	1,390	243	200	132
18	56	e130	54	e27	55	156	68	250	1,240	303	240	152
19	33	e110	59	e27	55	132	235	362	1,460	187	e300	149
20	69	e95	54	e32	64	118	184	340	1,620	232	330	e131
21	25	e90	61	e38	51	113	87	261	1,530	218	575	e132
22	117	e70	62	e32	41	114	219	402	e1,300	218	760	e186
23	138	e100	57	e28	36	117	41	375	e1,250	231	771	141
24	83	e80	43	e30	34	74	27	370	1,320	245	667	207
25	58	e70	44	e30	19	91	159	357	1,170	334	724	225
26	69	e74	47	e38	34	100	76	347	1,110	324	670	228
27	51	e100	49	e33	16	131	e50	332	1,100	315	623	248
28	76	e100	55	e29	34	124	e48	298	e993	354	e537	308
29	e117	e80	51	36	---	e120	e56	265	e1,010	342	e504	161
30	213	e80	48	44	---	139	e74	242	1,070	317	448	253
31	115	---	e47	33	---	180	---	210	---	306	389	---
TOTAL	4,171	3,675	1,811	1,115	1,222	3,694	3,788	6,970	28,028	13,858	11,424	6,932
MEAN	135	122	58.4	36.0	43.6	119	126	225	934	447	369	231
MAX	324	202	96	51	66	190	235	402	1,620	917	771	383
MIN	25	70	33	27	16	30	23	40	160	187	181	131
AC-FT	8,270	7,290	3,590	2,210	2,420	7,330	7,510	13,820	55,590	27,490	22,660	13,750

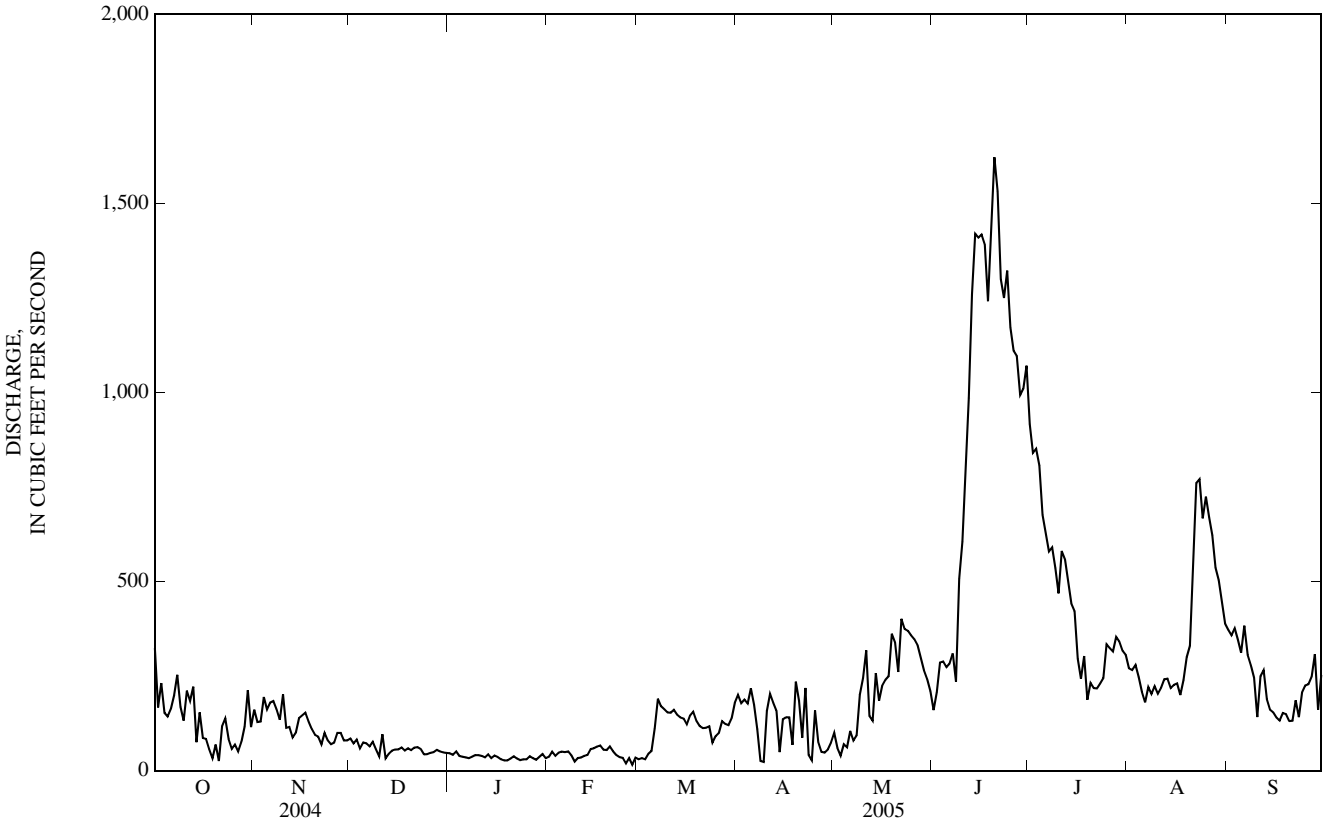
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2005, BY WATER YEAR (WY)

MEAN	192	136	63.4	28.6	30.2	314	773	587	500	402	305	242
MAX	867	613	239	77.1	88.1	853	4,617	2,316	1,447	1,181	1,143	1,003
(WY)	(1994)	(2001)	(2001)	(1995)	(2000)	(1995)	(1997)	(1997)	(1997)	(1995)	(1993)	(1999)
MIN	1.86	0.20	0.28	0.06	0.62	26.0	33.4	9.92	2.12	0.02	0.00	0.01
(WY)	(1989)	(1991)	(1991)	(1991)	(1989)	(1990)	(1990)	(1990)	(1988)	(1988)	(1988)	(1990)

06470878 JAMES RIVER AT NORTH DAKOTA-SOUTH DAKOTA STATE LINE—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1982 - 2005	
ANNUAL TOTAL	108,010		86,688			
ANNUAL MEAN	295		238		[a]299	
HIGHEST ANNUAL MEAN					[a]969	1997
LOWEST ANNUAL MEAN					[a]10.3	1990
HIGHEST DAILY MEAN	1,260	Jun 5	1,620	Jun 20	7,500	Apr 6, 1997
LOWEST DAILY MEAN	11	Feb 1	16	Feb 27	0.00	Oct 8, 1981
ANNUAL SEVEN-DAY MINIMUM	12	Jan 29	28	Feb 25	0.00	Jul 10, 1985
MAXIMUM PEAK FLOW			[b]2,050	Jun 20	7,500	Apr 6, 1997
MAXIMUM PEAK STAGE			92.49	Jun 21	[c]98.04	Apr 6, 1997
ANNUAL RUNOFF (AC-FT)	214,200		171,900		216,300	
10 PERCENT EXCEEDS	686		577		926	
50 PERCENT EXCEEDS	204		145		96	
90 PERCENT EXCEEDS	20		37		1.0	

a Historic discharge data, water years 1982-2003, from equivalent station, James River at Dakota Lake Dam near Ludden (06470875)
b Gage height, 92.37 ft
c From floodmark at present location
e Estimated.



06471000 JAMES RIVER AT COLUMBIA, SD

LOCATION.--Lat 45°36'13", long 98°18'36", in NW¼ NW¼ sec.33, T.125 N., R.62 W., Brown County, Hydrologic Unit 10160003, on left bank 20 ft downstream from highway bridge, 0.6 mi south of Columbia, 0.9 mi downstream from Chicago and North Western Railway Co. bridge, 0.3 mi upstream from Elm River, and 12.7 mi downstream from Columbia Road Dam.

DRAINAGE AREA.--5,857 mi^2, of which about 3,376 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1945 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 1,272.91 ft above NGVD of 1929. From Oct. 1, 1945, to Oct. 4, 1957, nonrecording gage. From Oct. 5, 1957, to Sept. 30, 1980, water-stage recorder. Both gages described above at site 3.3 mi upstream from present site and at different datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. 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, which reached maximum pool elevation in May 1974. Maximum discharge prior to Sept. 30, 1974, 5,420 ft^3/s, May 24, 25, 1950, gage height, 16.89 ft, from graph based on gage readings; maximum daily reverse flow, 1,860 ft^3/s, Apr. 8, 1952, backwater from Elm River. U.S. Army Corps of Engineers gage-height telemeter and satellite data-collection platform at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

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	223	181	e60	e48	e37	e40	144	109	278	e500	661	312
2	225	180	e59	e48	e37	e40	147	110	268	e700	610	307
3	225	173	e58	e48	e38	e42	148	109	268	e800	580	304
4	231	171	e57	e47	e39	e43	149	108	272	e900	539	300
5	240	169	e55	e47	e39	e48	148	105	278	e1,000	506	294
6	246	167	e60	e46	e37	e50	151	101	281	e1,100	461	295
7	245	167	e58	e46	e36	e48	161	100	281	e1,150	418	295
8	246	168	e56	e46	e39	e47	162	99	293	1,200	374	310
9	248	168	e54	e47	e43	e45	147	114	e140	1,220	324	311
10	246	115	e52	e48	e46	e44	146	120	e-20	1,250	282	297
11	242	77	e53	e50	e47	e43	161	135	e-1,250	1,240	265	290
12	244	54	e55	e52	e46	e43	164	163	e-1,950	1,230	260	286
13	246	49	e57	e51	e43	e43	166	179	e-800	1,220	233	293
14	248	40	e59	e48	e41	e43	163	188	e-20	1,200	213	313
15	246	47	e60	e45	e39	e45	154	190	e100	1,180	198	327
16	245	51	e61	e45	e38	e46	158	187	e200	1,160	179	325
17	246	55	e60	e44	e38	e49	159	215	e300	1,130	164	319
18	247	61	e59	e44	e37	e52	151	272	e400	1,100	167	314
19	244	64	e58	e44	e37	e56	127	285	e500	1,080	191	313
20	220	63	e57	e43	e35	e61	124	285	e600	1,060	203	312
21	191	e50	e55	e43	e35	e68	122	279	e650	1,020	223	311
22	179	e44	e53	e42	e40	e81	121	265	e750	979	232	e310
23	184	e50	e52	e41	e42	98	122	258	e850	951	252	309
24	180	e55	e51	e39	e42	117	118	263	e900	917	280	306
25	176	e60	e50	e38	e40	124	115	273	e920	893	298	312
26	173	e55	e50	e37	e40	135	119	286	e940	882	307	e312
27	173	e55	e49	e37	e40	137	118	285	e950	841	306	311
28	173	e55	e49	e37	e39	135	114	281	e970	804	308	310
29	173	e60	e49	e36	---	133	112	279	e900	764	307	309
30	190	e55	e49	e36	---	132	111	279	e300	732	309	306
31	185	---	e49	e36	---	134	---	278	---	703	314	---
TOTAL	6,780	2,759	1,704	1,359	1,110	2,222	4,202	6,200	8,549	30,906	9,964	9,213
MEAN	219	92.0	55.0	43.8	39.6	71.7	140	200	285	997	321	307
MAX	248	181	61	52	47	137	166	286	970	1,250	661	327
MIN	173	40	49	36	35	40	111	99	-1,950	500	164	286
AC-FT	13,450	5,470	3,380	2,700	2,200	4,410	8,330	12,300	16,960	61,300	19,760	18,270

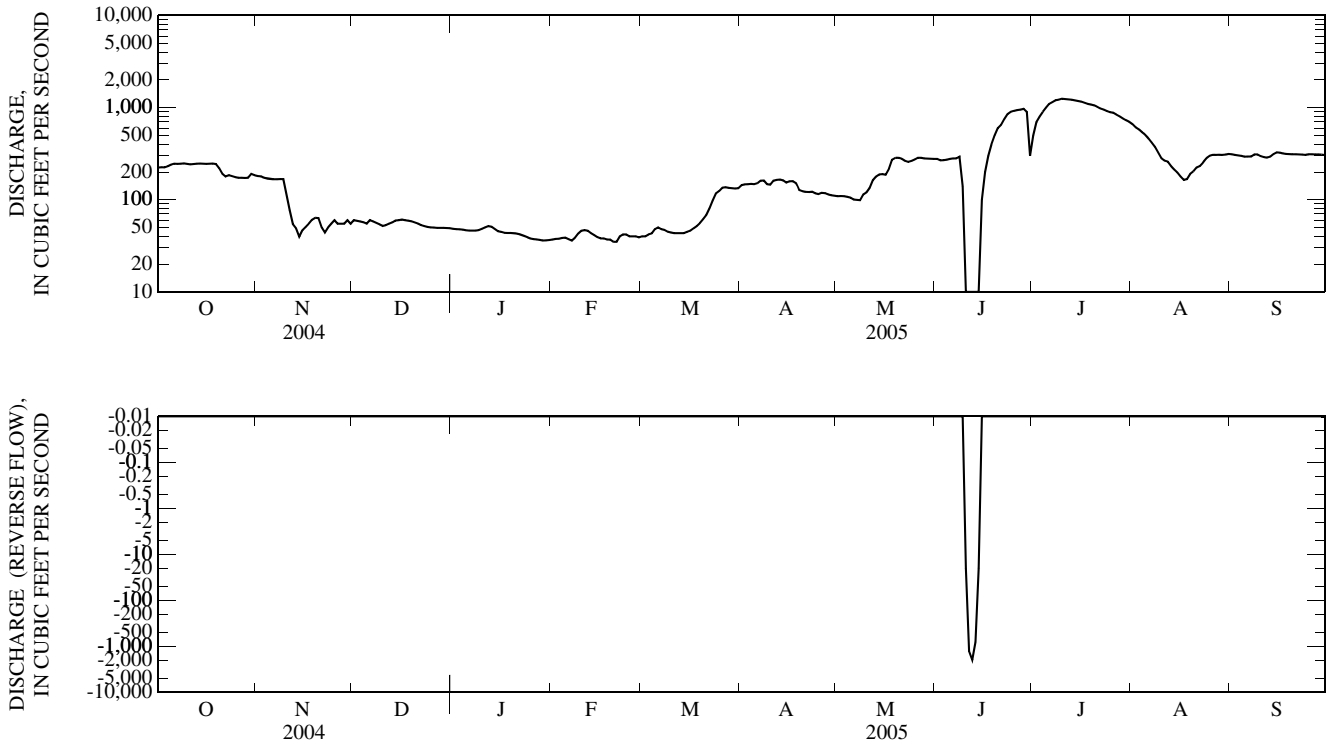
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2005, BY WATER YEAR (WY)*

MEAN	190	159	78.6	25.4	22.7	66.6	532	571	414	394	280	206
MAX	949	930	478	113	103	468	2,856	2,661	1,610	1,211	1,085	1,084
(WY)	(1994)	(1994)	(1994)	(2001)	(1998)	(2000)	(1997)	(1997)	(1997)	(1997)	(1995)	(1993)
MIN	0.00	0.00	0.00	0.00	0.00	-215	0.01	0.00	0.00	0.00	0.00	0.00
(WY)	(1977)	(1977)	(1977)	(1977)	(1977)	(1997)	(1977)	(1977)	(1977)	(1977)	(1977)	(1976)

06471000 JAMES RIVER AT COLUMBIA, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1975 - 2005*	
ANNUAL TOTAL	100,043		84,968			
ANNUAL MEAN	273		233		246	
HIGHEST ANNUAL MEAN					856	1997
LOWEST ANNUAL MEAN					0.06	1977
HIGHEST DAILY MEAN	980	Jun 11	1,250	Jul 10	4,100	Apr 30, 1997
LOWEST DAILY MEAN	14	Jan 23	-1,950	Jun 12	[a]-2,400	Mar 30, 1997
ANNUAL SEVEN-DAY MINIMUM	14	Jan 23	-543	Jun 9	[a]-1,410	Mar 27, 1997
MAXIMUM PEAK FLOW			[b]1,250	Jul 10	[c]4,130	Apr 30, 1997
MAXIMUM PEAK STAGE			[a]17.21	Jun 14	[a]19.08	Apr 19, 1997
ANNUAL RUNOFF (AC-FT)	198,400		168,500		178,000	
10 PERCENT EXCEEDS	818		715		850	
50 PERCENT EXCEEDS	176		158		58	
90 PERCENT EXCEEDS	18		41		0.00	

* Regulated period only (1975-2005). See REMARKS.
a Backwater from Elm River.
b Maximum daily average used due to backwater from Elm River.
c Gage height, 12.32 ft.
e Estimated.



06471065 ELM RIVER NEAR FREDERICK, SD

LOCATION.--Lat 45°50'15", long 98°42'06", in NW¼ NW¼ NW¼ sec.8, T.127 N., R.65 W., Brown County, Hydrologic Unit 10160004, on right bank at downstream side of bridge on Brown County Road 5, 1.7 mi downstream of Elm Lake Dam on Elm River and 8.8 mi west of Frederick.

DRAINAGE AREA.--To be determined.

PERIOD OF RECORD.--October 1999 to current year (seasonal mean daily gage height and yearly instantaneous peak gage height and discharge).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,455 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. Satellite data-collection platform, telemeter, and seasonal National Weather Service rain gage at site. Flow regulated to some extent for Aberdeen municipal water supply by rolled earth dam forming Elm Lake 1.7 mi upstream with a storage capacity of 15,200 acre-ft. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

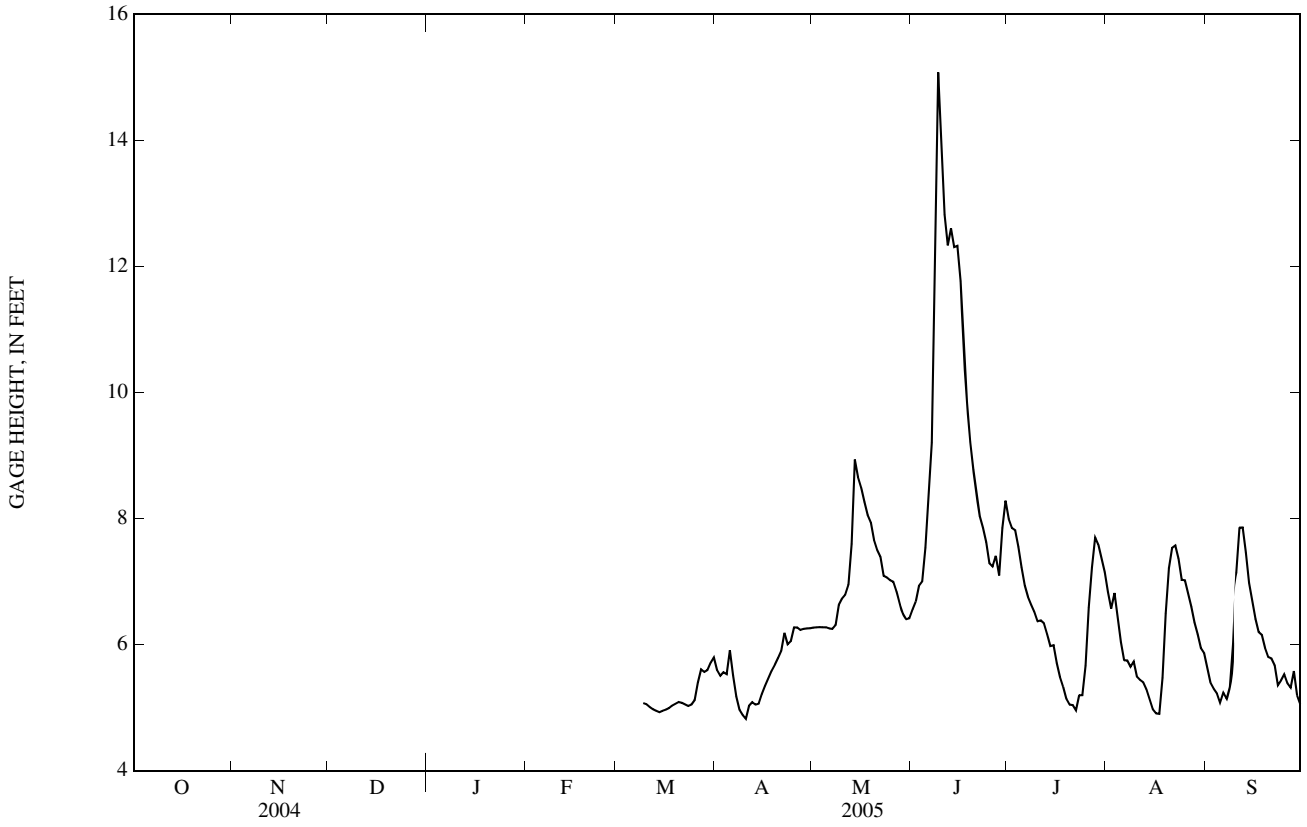
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,980 ft^3/s, June 9, 2005, gage height, 15.31 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,980 ft^3/s, June 9, gage height, 15.31 ft.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	5.59	6.27	6.56	7.99	6.83	5.62
2	---	---	---	---	---	---	5.51	6.27	6.68	7.85	6.57	5.39
3	---	---	---	---	---	---	5.56	6.28	6.93	7.81	6.82	5.30
4	---	---	---	---	---	---	5.53	6.27	7.00	7.55	6.45	5.23
5	---	---	---	---	---	---	5.91	6.27	7.54	7.22	6.04	5.08
6	---	---	---	---	---	---	5.51	6.26	8.26	6.94	5.75	5.24
7	---	---	---	---	---	---	5.18	6.25	9.20	6.76	5.75	5.14
8	---	---	---	---	---	---	4.97	6.31	12.73	6.63	5.65	5.33
9	---	---	---	---	---	5.07	4.88	6.63	15.08	6.52	5.73	6.02
10	---	---	---	---	---	5.05	4.82	6.73	13.97	6.37	5.49	7.14
11	---	---	---	---	---	5.01	5.03	6.79	12.82	6.38	5.44	7.85
12	---	---	---	---	---	4.98	5.09	6.95	12.34	6.34	5.40	7.86
13	---	---	---	---	---	4.95	5.04	7.60	12.60	6.17	5.29	7.46
14	---	---	---	---	---	4.93	5.06	8.93	12.31	5.97	5.13	6.98
15	---	---	---	---	---	4.95	5.22	8.66	12.33	5.99	4.97	6.71
16	---	---	---	---	---	4.97	5.35	8.49	11.77	5.71	4.91	6.41
17	---	---	---	---	---	4.99	5.46	8.27	10.87	5.49	4.90	6.20
18	---	---	---	---	---	5.03	5.58	8.06	9.85	5.33	5.47	6.15
19	---	---	---	---	---	5.06	5.68	7.94	9.22	5.14	6.49	5.95
20	---	---	---	---	---	5.09	5.78	7.66	8.77	5.05	7.21	5.80
21	---	---	---	---	---	5.08	5.90	7.50	8.40	5.04	7.53	5.78
22	---	---	---	---	---	5.05	6.19	7.39	8.04	4.96	7.57	5.67
23	---	---	---	---	---	5.03	6.01	7.09	7.85	5.19	7.36	5.36
24	---	---	---	---	---	5.05	6.06	7.06	7.63	5.20	7.03	5.43
25	---	---	---	---	---	5.12	6.27	7.02	7.29	5.66	7.02	5.53
26	---	---	---	---	---	5.40	6.27	7.00	7.24	6.59	6.82	5.39
27	---	---	---	---	---	5.61	6.23	6.84	7.41	7.22	6.60	5.32
28	---	---	---	---	---	5.57	6.25	6.64	7.10	7.70	6.35	5.58
29	---	---	---	---	---	5.60	6.26	6.49	7.85	7.59	6.16	5.19
30	---	---	---	---	---	5.71	6.26	6.40	8.28	7.36	5.95	5.05
31	---	---	---	---	---	5.80	---	6.42	---	7.15	5.87	---
MEAN	---	---	---	---	---	---	5.62	7.06	9.46	6.42	6.15	5.91
MAX	---	---	---	---	---	---	6.27	8.93	15.08	7.99	7.57	7.86
MIN	---	---	---	---	---	---	4.82	6.25	6.56	4.96	4.90	5.05

06471065 ELM RIVER NEAR FREDERICK, SD—Continued



06471200 MAPLE RIVER AT NORTH DAKOTA-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 45°56'20", long 98°27'08", in SW¼ SE¼ sec.33, T.129 N., R.62 W., Dickey County, ND, Hydrologic Unit 10160004, on left bank 0.4 mi upstream from State line, 7.8 mi northeast of Frederick, SD, and 15.7 mi upstream from mouth.

DRAINAGE AREA.--716 mi^2, of which about 332 mi^2 is probably noncontributing.

PERIOD OF RECORD.--June 1956 to current year.

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

GAGE.--Water-stage recorder. Elevation of gage is 1,365 ft above NGVD of 1929, from topographic map. Prior to June 14, 1962, nonrecording gage at site 0.4 mi downstream at datum 0.94 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Satellite data-collection platform at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

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	0.00	5.7	4.3	e1.7	e1.7	e2.9	12	7.6	19	282	57	16
2	0.00	12	4.3	e1.6	e1.9	e3.5	12	7.1	20	312	43	15
3	0.00	18	4.3	e1.6	e2.1	e4.0	12	6.5	24	339	39	16
4	0.00	31	4.7	e1.6	e2.6	e6.0	11	5.9	24	265	30	23
5	0.00	42	4.5	e1.6	e3.2	e8.0	12	5.8	23	209	25	24
6	0.00	35	4.3	e1.6	e2.6	e8.2	12	5.3	21	167	22	18
7	0.00	28	4.0	e1.6	e2.2	e7.0	10	5.5	97	141	20	14
8	0.00	23	3.9	e1.5	e2.2	e8.7	8.6	6.4	307	120	18	14
9	0.00	19	4.1	e1.6	e2.4	e12	8.2	9.1	695	103	18	14
10	0.00	18	3.7	e1.5	e2.8	e17	8.6	11	3,550	87	16	12
11	0.00	14	3.5	e1.5	e3.0	e20	9.9	13	3,240	80	17	12
12	0.00	13	3.7	e1.4	e3.0	e28	10	14	2,250	76	18	14
13	0.00	11	3.2	e1.4	e3.0	e34	9.8	24	1,600	66	19	13
14	0.00	9.9	3.2	e1.3	e3.1	e28	8.7	50	1,410	59	20	12
15	0.00	9.4	3.4	e1.2	e3.1	e22	9.7	51	1,290	55	20	10
16	0.00	8.7	3.4	e1.1	e3.0	e20	10	44	1,270	49	19	9.3
17	0.00	8.1	3.4	e1.3	e3.0	e18	10	39	1,240	47	17	8.8
18	0.00	7.6	3.3	e1.4	e2.9	e17	9.8	39	960	43	34	9.4
19	0.00	7.2	2.9	e1.3	e2.8	16	13	40	672	38	39	8.9
20	0.00	6.9	e2.6	e1.4	e2.7	15	13	36	517	37	31	8.3
21	0.00	6.4	e2.5	e1.4	e2.6	15	12	33	531	32	22	7.8
22	0.00	6.2	e2.1	e1.4	e2.6	14	13	33	466	28	19	6.7
23	0.00	6.0	e1.9	e1.4	e2.5	13	12	30	424	35	18	5.8
24	0.00	5.8	e1.7	e1.3	e2.5	13	12	27	365	43	22	5.9
25	0.00	5.6	e1.7	e1.2	e2.4	12	13	25	309	73	34	6.2
26	0.00	5.4	e1.6	e1.1	e2.4	12	11	24	269	54	37	5.8
27	0.00	5.0	e1.5	e1.2	e2.4	11	9.5	22	256	60	32	5.6
28	0.00	4.8	e1.6	e1.4	e2.5	11	8.3	21	211	119	26	5.5
29	0.00	4.6	e1.6	e1.7	---	12	7.6	20	325	112	23	4.5
30	0.00	4.4	e1.7	e1.8	---	13	7.5	21	353	94	21	4.4
31	0.94	---	e1.8	e1.6	---	13	---	21	---	76	18	---
TOTAL	0.94	381.7	94.4	44.7	73.2	434.3	316.2	697.2	22,738	3,301	794	329.9
MEAN	0.03	12.7	3.05	1.44	2.61	14.0	10.5	22.5	758	106	25.6	11.0
MAX	0.94	42	4.7	1.8	3.2	34	13	51	3,550	339	57	24
MIN	0.00	4.4	1.5	1.1	1.7	2.9	7.5	5.3	19	28	16	4.4
AC-FT	1.9	757	187	89	145	861	627	1,380	45,100	6,550	1,570	654

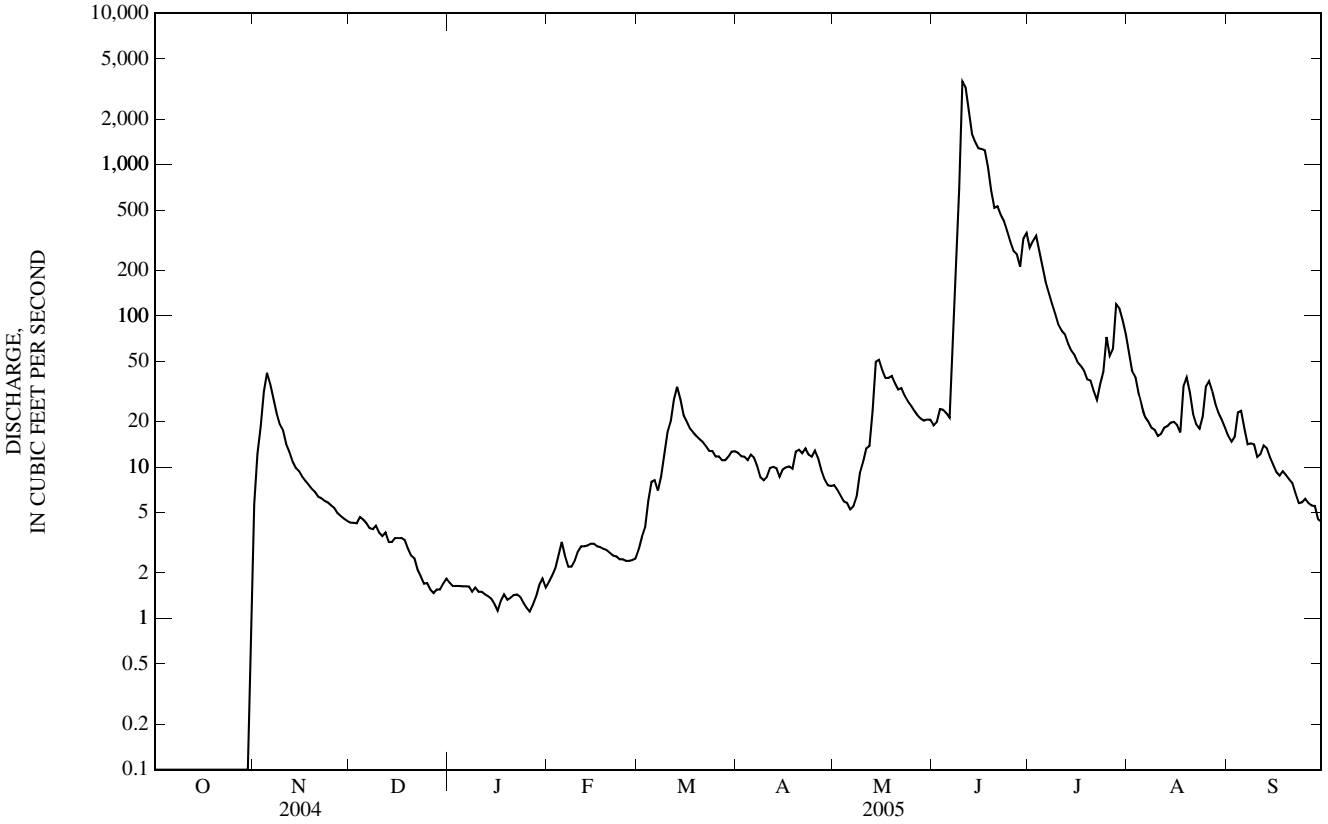
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2005, BY WATER YEAR (WY)

MEAN	2.90	2.25	2.02	0.39	1.00	83.1	109	39.6	34.0	30.9	6.49	3.64
MAX	68.8	50.1	68.1	6.61	12.0	419	840	418	758	446	142	91.1
(WY)	(1999)	(1999)	(1999)	(1999)	(1998)	(1966)	(1997)	(1999)	(2005)	(1962)	(1966)	(1999)
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)	(1957)	(1957)	(1957)	(1957)	(1957)	(1957)	(1959)	(1959)	(1959)	(1959)	(1959)	(1958)

06471200 MAPLE RIVER AT NORTH DAKOTA-SOUTH DAKOTA STATE LINE—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1957 - 2005	
ANNUAL TOTAL	4,366.24		29,205.54			
ANNUAL MEAN	11.9		80.0		[a]26.3	
HIGHEST ANNUAL MEAN					116	1997
LOWEST ANNUAL MEAN					[b]0.00	1959
HIGHEST DAILY MEAN	316	Mar 31	3,550	Jun 10	5,500	Apr 11, 1969
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	[c]0.00	Oct 1, 1956
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1, 1956
MAXIMUM PEAK FLOW			3,960	Jun 10	[d]5,930	Apr 11, 1969
MAXIMUM PEAK STAGE			14.05	Jun 10	[f]16.19	Mar 29, 1997
ANNUAL RUNOFF (AC-FT)	8,660		57,930		19,080	
10 PERCENT EXCEEDS	36		90		37	
50 PERCENT EXCEEDS	2.3		9.9		0.11	
90 PERCENT EXCEEDS	0.00		1.3		0.00	

a Median of annual mean discharges, 16 ft^3/s.
b Also 1988 and 1990.
c No flow for long periods in most years.
d Gage height, 16.05 ft, backwater from ice.
e Estimated.
f Backwater from ice.



06471500 ELM RIVER AT WESTPORT, SD

LOCATION.--Lat 45°39'22", long 98°29'48", in SW¼ NW¼ sec.12, T.125 N., R.64 W., Brown County, Hydrologic Unit 10160004, on upstream side of highway bridge, 0.5 mi north of Westport, 9.3 mi downstream from Willow Creek, and 30.4 mi upstream from mouth.

DRAINAGE AREA.--1,493 mi^2, of which about 444 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1945 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 1,309.3 ft above NGVD of 1929. Prior to Aug. 6, 1951, and Apr. 8 to Sept. 9, 1952, nonrecording gage 12 ft upstream at same datum. Aug. 6, 1951, to Apr. 7, 1952, water-stage recorder at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite data-collection platform at station. Flow regulated for Aberdeen municipal water supply by dam forming Elm Lake and other small reservoirs upstream, combined capacity, about 16,000 acre-ft. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

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	0.50	2.2	7.0	e3.1	2.7	2.6	1.4	11	28	995	164	38
2	0.49	2.3	6.7	e3.2	3.0	2.7	1.1	7.8	24	730	136	31
3	0.44	2.0	6.6	e2.8	3.5	2.5	0.98	8.6	22	657	109	28
4	0.28	1.8	6.5	e2.7	4.2	2.9	1.0	8.5	21	575	92	25
5	0.30	1.5	6.2	e2.4	4.9	e4.0	0.93	7.8	29	460	80	24
6	0.28	23	6.8	e2.2	5.3	e6.0	0.79	6.8	27	380	68	28
7	0.25	43	7.0	e2.1	e5.0	e8.0	0.72	6.6	24	320	55	33
8	0.22	33	7.1	e2.0	e5.0	e10	0.76	7.1	58	279	45	31
9	0.20	28	e6.5	e2.1	e5.0	e11	0.82	10	406	248	42	26
10	0.23	24	e6.1	e2.1	e4.8	e11	0.69	17	2,640	219	38	22
11	0.32	21	e6.2	e2.2	4.8	e12	0.90	18	4,420	185	37	19
12	0.37	18	e5.8	e2.2	4.7	e15	1.1	14	3,970	160	36	46
13	0.33	16	e5.4	e2.0	5.1	e18	1.3	8.3	2,970	143	31	97
14	0.27	15	e5.2	e1.9	5.2	e20	1.3	6.1	2,580	125	29	102
15	0.35	14	e5.3	e1.8	5.4	e25	1.2	4.3	2,390	105	26	83
16	0.41	13	e5.4	e1.8	5.4	e23	1.1	94	2,320	91	26	66
17	0.47	13	e5.6	e1.7	5.3	e18	1.1	140	2,290	77	27	55
18	0.45	12	e5.3	e1.6	5.1	e13	1.1	124	2,020	67	32	45
19	0.56	12	e5.1	e1.6	4.7	e10	0.93	109	1,490	60	55	36
20	0.53	12	e4.9	e1.7	e4.6	e9.0	0.85	101	1,040	55	90	31
21	0.63	10	e4.2	e1.7	4.6	7.7	0.86	91	811	50	77	28
22	0.72	10	e3.7	e1.6	4.4	6.5	0.86	74	749	44	88	24
23	0.91	9.4	e3.2	e1.5	4.1	5.8	0.76	62	630	45	96	20
24	0.88	8.6	e3.0	e1.5	4.0	5.1	0.79	60	553	51	95	17
25	0.69	8.6	e2.8	e2.0	3.7	4.3	0.81	67	489	70	88	17
26	0.70	8.8	e2.9	e2.5	3.7	3.9	0.72	55	433	75	83	15
27	0.73	8.7	e3.2	e3.0	3.4	3.1	3.9	47	473	108	90	13
28	0.88	8.4	e3.1	3.1	3.1	2.5	11	43	417	121	81	12
29	0.98	8.1	e3.2	3.1	---	1.9	11	39	1,400	189	68	12
30	3.0	7.4	e3.5	2.9	---	1.8	10	34	1,740	211	56	11
31	2.1	---	3.2	2.7	---	1.6	---	30	---	191	46	---
TOTAL	19.47	394.8	156.7	68.8	124.7	267.9	60.77	1,311.9	36,464	7,086	2,086	1,035
MEAN	0.63	13.2	5.05	2.22	4.45	8.64	2.03	42.3	1,215	229	67.3	34.5
MAX	3.0	43	7.1	3.2	5.4	25	11	140	4,420	995	164	102
MIN	0.20	1.5	2.8	1.5	2.7	1.6	0.69	4.3	21	44	26	11
AC-FT	39	783	311	136	247	531	121	2,600	72,330	14,060	4,140	2,050

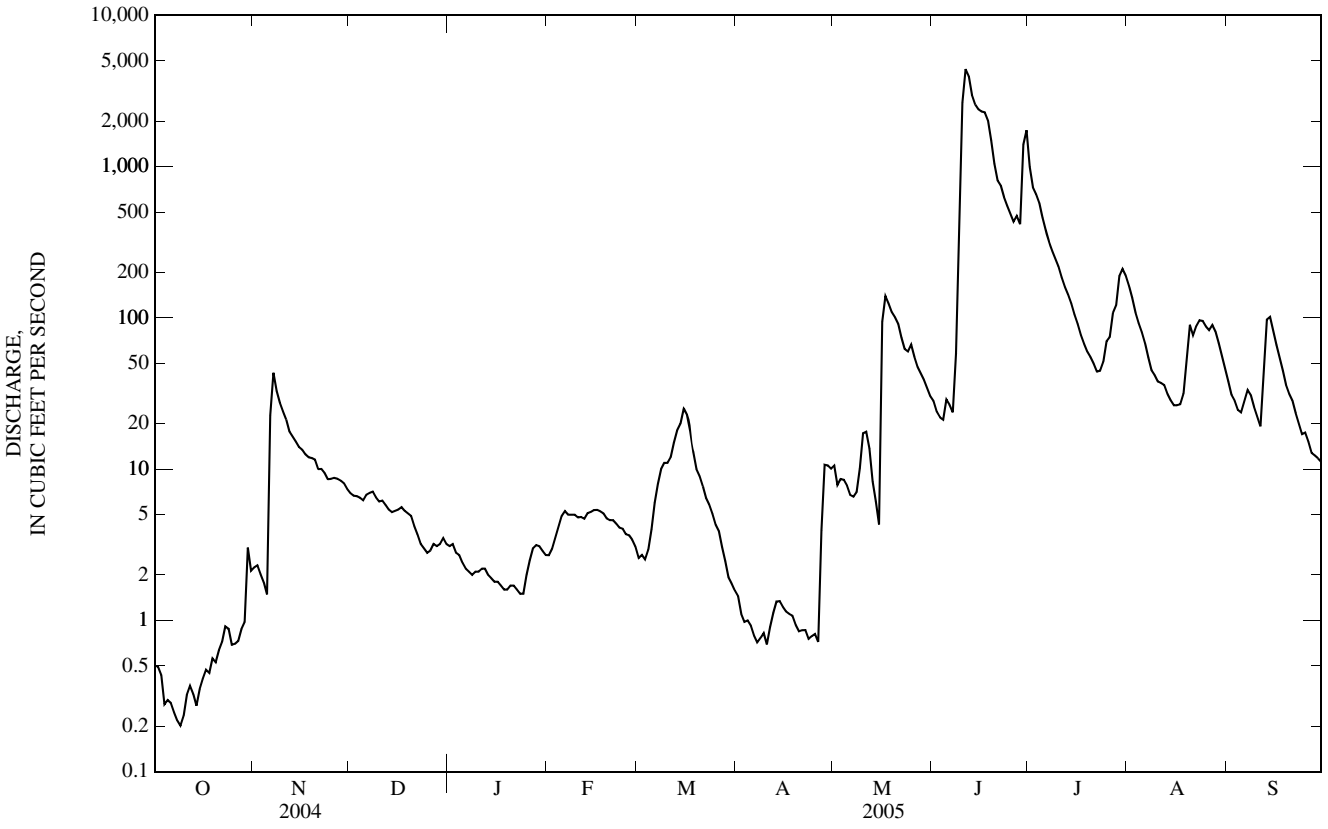
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2005, BY WATER YEAR (WY)

MEAN	8.83	7.63	6.13	3.45	7.06	168	251	84.4	69.6	54.5	15.2	9.62
MAX	138	142	137	19.9	113	1,205	2,399	777	1,215	606	197	173
(WY)	(1999)	(1999)	(1999)	(1946)	(1996)	(1997)	(1969)	(1995)	(2005)	(1962)	(1993)	(1999)
MIN	0.63	0.74	0.20	0.20	0.00	1.03	0.99	0.63	0.61	2.81	0.53	0.19
(WY)	(2005)	(1946)	(1946)	(1950)	(1949)	(1952)	(1957)	(1959)	(1946)	(1949)	(1946)	(2003)

06471500 ELM RIVER AT WESTPORT, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1946 - 2005	
ANNUAL TOTAL	4,985.49		49,076.04			
ANNUAL MEAN	13.6		134		[a]57.2	
HIGHEST ANNUAL MEAN					277	1997
LOWEST ANNUAL MEAN					4.12	2002
HIGHEST DAILY MEAN	263	Apr 2	4,420	Jun 11	11,900	Apr 10, 1969
LOWEST DAILY MEAN	0.20	Oct 9	0.20	Oct 9	[b]0.00	Jan 27, 1946
ANNUAL SEVEN-DAY MINIMUM	0.25	Oct 4	0.25	Oct 4	0.00	Jan 27, 1946
MAXIMUM PEAK FLOW			4,670	Jun 11	12,600	Apr 10, 1969
MAXIMUM PEAK STAGE			17.78	Jun 11	22.11	Apr 10, 1969
ANNUAL RUNOFF (AC-FT)	9,890		97,340		41,420	
10 PERCENT EXCEEDS	36		172		73	
50 PERCENT EXCEEDS	6.6		8.5		5.2	
90 PERCENT EXCEEDS	0.79		0.86		1.2	

a Median of annual mean discharges, 35 ft^3/s.
b No flow for many days in most years prior to 1960.
e Estimated.



06471510 ELM RIVER NEAR ORDWAY, SD

LOCATION.--Lat 45°33'45", long 98°24'45", in NE¼ SE¼ SE¼ sec.9, T.124 N., R.63 W., Brown County, Hydrologic Unit 10160004, on left bank at upstream side of bridge on Brown County Road 14, 1.1 mi south of Ordway and 1.9 mi upstream of Aberdeen Municipal water treatment plant dam.

DRAINAGE AREA.--1,511 mi^2, of which about 444 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1999 to current year (seasonal mean daily gage height and yearly instantaneous peak gage height and discharge). Prior to October 1999 (March to April 1997), at downstream side of bridge, discharge measurements only.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,300 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Satellite data-collection platform and telemeter at station. Some regulation at low flow for Aberdeen municipal water supply by dam forming Elm Lake and other small reservoirs upstream, combined capacity, about 16,500 acre-ft. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,020 ft^3/s, June 12, 2005, gage height, 14.01 ft.

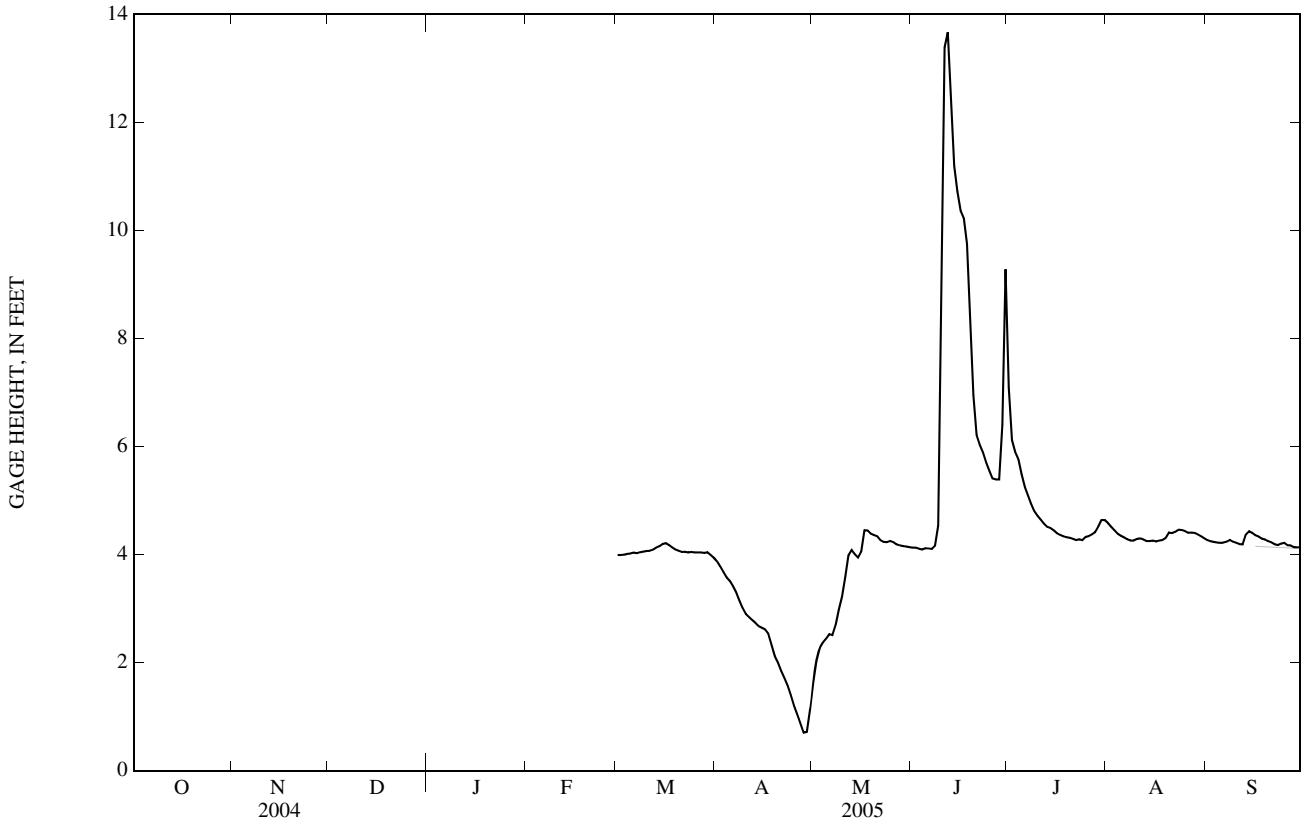
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, observed, 8,680 ft^3/s, Mar. 31, 1997, gage height, 15.10 ft; maximum gage height, observed, 15.55 ft, Mar. 29, 1997, backwater from ice.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,020 ft^3/s, June 12, gage height, 14.01 ft.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	3.99	3.87	1.63	4.13	7.10	4.59	4.27
2	---	---	---	---	---	3.99	3.78	2.03	4.13	6.12	4.52	4.25
3	---	---	---	---	---	4.00	3.68	2.27	4.11	5.90	4.45	4.23
4	---	---	---	---	---	4.01	3.58	2.37	4.09	5.77	4.39	4.22
5	---	---	---	---	---	4.02	3.51	2.44	4.12	5.49	4.35	4.22
6	---	---	---	---	---	4.04	3.42	2.53	4.11	5.26	4.32	4.22
7	---	---	---	---	---	4.03	3.30	2.51	4.10	5.10	4.28	4.24
8	---	---	---	---	---	4.04	3.15	2.69	4.16	4.94	4.26	4.27
9	---	---	---	---	---	4.05	3.01	2.98	4.53	4.80	4.26	4.24
10	---	---	---	---	---	4.07	2.90	3.22	8.31	4.72	4.29	4.22
11	---	---	---	---	---	4.07	2.84	3.58	13.39	4.65	4.30	4.19
12	---	---	---	---	---	4.09	2.79	3.99	13.67	4.57	4.28	4.19
13	---	---	---	---	---	4.13	2.73	4.09	12.30	4.51	4.25	4.37
14	---	---	---	---	---	4.16	2.68	4.01	11.20	4.49	4.25	4.43
15	---	---	---	---	---	4.20	2.64	3.95	10.72	4.45	4.26	4.40
16	---	---	---	---	---	4.21	2.62	4.05	10.37	4.40	4.24	4.36
17	---	---	---	---	---	4.18	2.54	4.45	10.23	4.36	4.26	4.33
18	---	---	---	---	---	4.13	2.34	4.45	9.75	4.34	4.27	4.30
19	---	---	---	---	---	4.09	2.12	4.38	8.35	4.32	4.31	4.28
20	---	---	---	---	---	4.07	2.00	4.36	6.95	4.31	4.41	4.25
21	---	---	---	---	---	4.05	1.85	4.34	6.21	4.29	4.40	4.23
22	---	---	---	---	---	4.05	1.72	4.27	6.03	4.27	4.42	4.19
23	---	---	---	---	---	4.04	1.58	4.24	5.89	4.28	4.46	4.18
24	---	---	---	---	---	4.05	1.40	4.23	5.71	4.27	4.46	4.20
25	---	---	---	---	---	4.04	1.21	4.25	5.55	4.33	4.44	4.22
26	---	---	---	---	---	4.04	1.05	4.23	5.41	4.34	4.40	4.17
27	---	---	---	---	---	4.04	0.87	4.19	5.39	4.38	4.41	4.17
28	---	---	---	---	---	4.03	0.70	4.17	5.39	4.41	4.40	4.14
29	---	---	---	---	---	4.04	0.72	4.16	6.40	4.52	4.37	4.14
30	---	---	---	---	---	3.99	1.13	4.15	9.28	4.64	4.34	4.13
31	---	---	---	---	---	3.94	---	4.14	---	4.64	4.30	---
MEAN	---	---	---	---	---	4.06	2.39	3.62	7.13	4.77	4.35	4.24
MAX	---	---	---	---	---	4.21	3.87	4.45	13.67	7.10	4.59	4.43
MIN	---	---	---	---	---	3.94	0.70	1.63	4.09	4.27	4.24	4.13

06471510 ELM RIVER NEAR ORDWAY, SD—Continued



06471770 MOCCASIN CREEK AT ABERDEEN, SD

LOCATION.--Lat 45°28'13", long 98°27'13", in SW¼ NW¼ NW¼ sec.17, T.123 N., R.63 W., Brown County, Hydrologic Unit 10160003, on left bank at upstream side of bridge on Roosevelt Street, 1.6 mi east of Brown County Courthouse, and 3.4 mi upstream from Foot Creek.

DRAINAGE AREA.--57.6 mi^2.

PERIOD OF RECORD.--October 1999 to current year (seasonal mean daily gage height and yearly instantaneous peak discharge). Prior to October 1999 (March and April 1997), miscellaneous discharge measurements 1.0 mi downstream at U.S. Highway 12 bridge.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,295 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. Satellite data-collection platform and telemeter at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100 ft^3/s, Apr. 10, 2001, gage height, 4.86 ft.

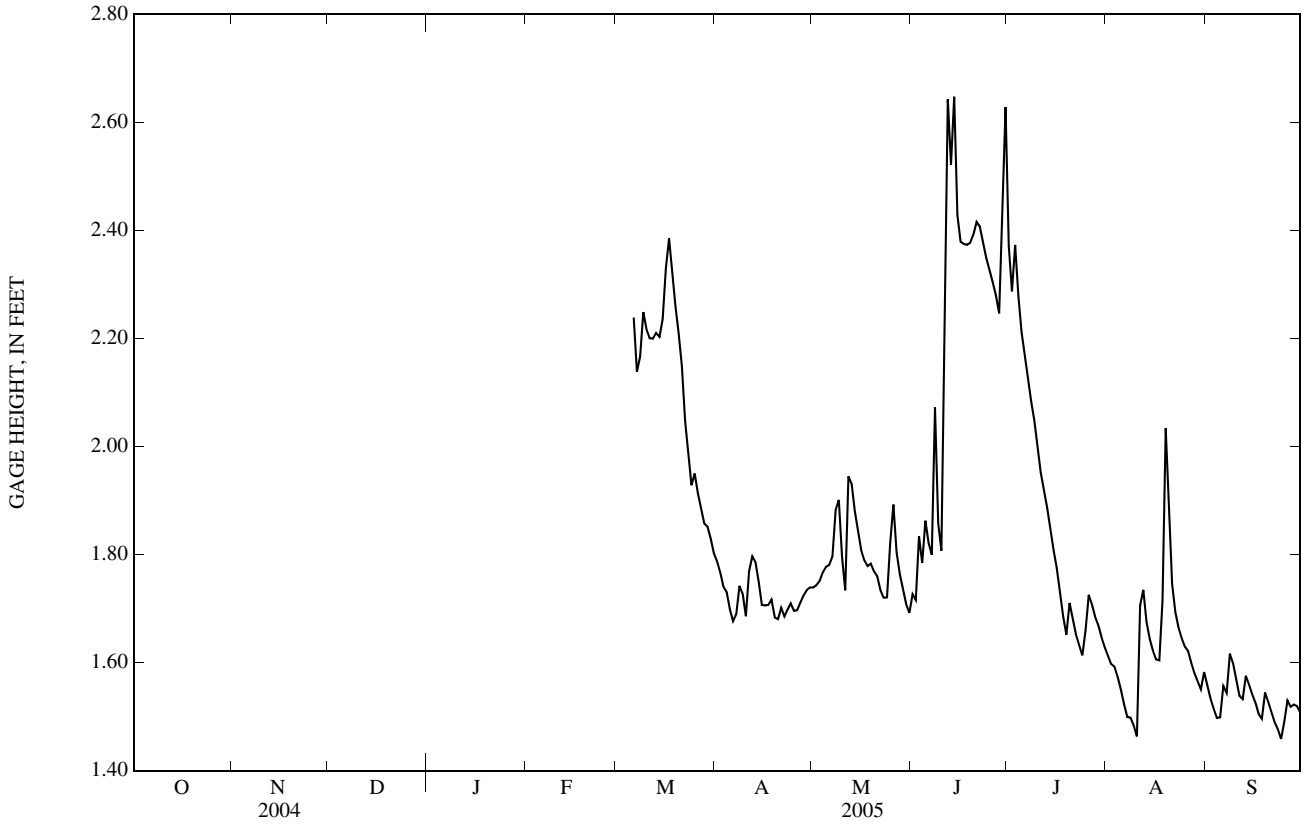
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, observed, 389 ft^3/s, Apr. 5, 1997, gage height, 6.90 ft, at different site and same datum; maximum gage height, observed, 7.27 ft, backwater from ice, Apr. 1, 1997, at different site and same datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33 ft^3/s, June 11, gage height, 3.16 ft.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	1.79	1.74	1.73	2.37	1.61	1.56
2	---	---	---	---	---	---	1.77	1.74	1.72	2.29	1.60	1.53
3	---	---	---	---	---	---	1.74	1.75	1.83	2.37	1.59	1.51
4	---	---	---	---	---	---	1.73	1.77	1.78	2.28	1.57	1.50
5	---	---	---	---	---	---	1.70	1.78	1.86	2.21	1.55	1.50
6	---	---	---	---	---	2.24	1.68	1.78	1.82	2.17	1.52	1.56
7	---	---	---	---	---	2.14	1.69	1.80	1.80	2.13	1.50	1.54
8	---	---	---	---	---	2.17	1.74	1.88	2.07	2.08	1.50	1.62
9	---	---	---	---	---	2.25	1.73	1.90	1.86	2.05	1.48	1.60
10	---	---	---	---	---	2.22	1.69	1.80	1.81	2.00	1.46	1.57
11	---	---	---	---	---	2.20	1.77	1.73	2.41	1.95	1.71	1.54
12	---	---	---	---	---	2.20	1.80	1.94	2.64	1.92	1.73	1.53
13	---	---	---	---	---	2.21	1.79	1.93	2.52	1.89	1.68	1.58
14	---	---	---	---	---	2.20	1.75	1.88	2.65	1.85	1.64	1.56
15	---	---	---	---	---	2.24	1.71	1.84	2.43	1.81	1.62	1.54
16	---	---	---	---	---	2.33	1.71	1.81	2.38	1.77	1.61	1.53
17	---	---	---	---	---	2.39	1.71	1.79	2.38	1.73	1.60	1.50
18	---	---	---	---	---	2.33	1.72	1.78	2.37	1.69	1.72	1.50
19	---	---	---	---	---	2.26	1.68	1.78	2.38	1.65	2.03	1.54
20	---	---	---	---	---	2.21	1.68	1.77	2.39	1.71	1.87	1.53
21	---	---	---	---	---	2.15	1.70	1.76	2.42	1.68	1.75	1.51
22	---	---	---	---	---	2.05	1.69	1.73	2.41	1.65	1.69	1.49
23	---	---	---	---	---	1.99	1.70	1.72	2.38	1.63	1.66	1.48
24	---	---	---	---	---	1.93	1.71	1.72	2.35	1.61	1.65	1.46
25	---	---	---	---	---	1.95	1.70	1.82	2.33	1.66	1.63	1.49
26	---	---	---	---	---	1.91	1.70	1.89	2.31	1.73	1.62	1.53
27	---	---	---	---	---	1.89	1.71	1.80	2.28	1.71	1.60	1.52
28	---	---	---	---	---	1.86	1.72	1.76	2.25	1.69	1.58	1.52
29	---	---	---	---	---	1.85	1.73	1.74	2.48	1.67	1.57	1.52
30	---	---	---	---	---	1.83	1.74	1.71	2.63	1.65	1.55	1.51
31	---	---	---	---	---	1.80	---	1.69	---	1.63	1.58	---
MEAN	---	---	---	---	---	---	1.72	1.79	2.22	1.88	1.63	1.53
MAX	---	---	---	---	---	---	1.80	1.94	2.65	2.37	2.03	1.62
MIN	---	---	---	---	---	---	1.68	1.69	1.72	1.61	1.46	1.46

06471770 MOCCASIN CREEK AT ABERDEEN, SD—Continued



06471800 FOOT CREEK NEAR ABERDEEN, SD

LOCATION.--Lat 45°31'08", long 98°34'37", in SW¼ SW¼ SW¼ sec.29, T.124 N., R.64 W., Brown County, Hydrologic Unit 10160003, on left bank at downstream side of bridge on county road, 1.9 mi downstream of Richmond Lake Dam, 5.9 mi northwest of Aberdeen, and 16.3 mi upstream from mouth.

DRAINAGE AREA.--173 mi^2.

PERIOD OF RECORD.--October 1999 to current year. Prior to October 1999 (March and April 1997), miscellaneous discharge measurements only made 0.3 mi downstream.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,325 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Richmond Lake is formed by a rolled earth dam with a concrete spillway. The reservoir has no control structure and a total storage of 11,500 acre-ft. Satellite data-collection platform and telemeter at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge observed, 1,670 ft^3/s, Mar. 29, 1997, different site and datum.

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	0.07	0.41	0.33	e0.40	e0.17	e0.26	0.50	0.38	0.37	0.49	0.16	0.14
2	0.05	0.23	0.35	e0.36	e0.18	e0.26	0.35	0.28	0.43	0.30	0.17	0.14
3	0.12	0.37	0.37	e0.35	e0.21	e0.26	0.44	0.19	0.52	0.47	0.18	0.13
4	0.10	0.34	0.40	e0.35	e0.25	e0.26	0.65	0.17	0.34	0.39	0.18	0.13
5	0.10	0.30	0.40	e0.30	e0.29	e0.27	0.77	0.16	0.79	0.29	0.16	0.15
6	0.10	0.34	0.39	e0.28	e0.32	e0.29	0.66	0.15	0.59	0.28	0.15	0.21
7	0.13	0.32	0.43	e0.26	e0.33	e0.31	0.33	0.20	0.42	0.26	0.15	0.20
8	0.11	0.33	0.46	e0.24	e0.30	e0.37	0.27	0.34	0.85	0.25	0.16	0.32
9	0.10	0.32	0.42	e0.26	e0.28	e0.40	0.46	0.97	0.34	0.23	0.16	0.36
10	0.14	0.33	0.41	e0.26	e0.29	e0.38	0.52	0.34	0.37	0.18	0.14	0.26
11	0.14	0.25	0.44	e0.24	e0.32	e0.37	0.60	0.20	1.2	0.16	0.19	0.27
12	0.15	0.26	0.42	e0.23	e0.36	e0.35	0.50	0.70	1.2	0.16	0.18	0.27
13	0.15	0.28	0.37	e0.19	e0.41	e0.36	0.50	0.62	0.90	0.13	0.16	0.40
14	0.17	0.31	0.40	e0.17	e0.40	e0.37	0.41	0.53	1.7	0.10	0.14	0.29
15	0.21	0.32	0.47	e0.16	e0.36	e0.40	0.47	0.28	0.78	0.12	0.15	0.21
16	0.20	0.33	0.47	e0.16	e0.35	0.41	0.37	0.25	0.52	0.11	0.17	0.19
17	0.21	0.36	0.48	e0.17	e0.35	0.43	0.32	0.29	0.38	0.09	0.18	0.18
18	0.18	0.28	0.63	e0.18	e0.35	0.45	0.48	0.41	0.31	0.08	0.24	0.20
19	0.24	0.28	0.44	e0.19	e0.33	0.46	0.34	0.34	0.29	0.07	0.45	0.28
20	0.25	0.38	0.39	e0.18	e0.32	0.50	0.23	0.23	0.34	0.15	0.40	0.22
21	0.20	0.30	e0.36	e0.17	e0.31	0.53	0.27	0.26	0.31	0.16	0.29	0.21
22	0.29	0.33	e0.30	e0.17	e0.31	0.51	0.36	0.28	0.40	0.16	0.22	0.17
23	0.31	0.33	e0.22	e0.16	e0.31	0.54	0.30	0.21	0.35	0.16	0.21	0.18
24	0.29	0.54	e0.17	e0.15	e0.31	0.69	0.25	0.24	0.29	0.15	0.19	0.21
25	0.23	0.39	e0.19	e0.14	e0.30	0.64	0.26	0.47	0.24	0.24	0.21	0.26
26	0.25	0.37	e0.22	e0.15	e0.29	0.64	0.29	0.50	0.27	0.36	0.22	0.26
27	0.24	0.36	e0.24	e0.16	e0.27	0.70	0.29	0.35	0.29	0.31	0.20	0.28
28	0.29	0.34	e0.30	e0.16	e0.27	0.71	0.33	0.32	0.24	0.23	0.18	0.34
29	0.41	0.36	e0.37	e0.15	---	0.86	0.30	0.26	1.5	0.17	0.18	0.36
30	0.64	0.27	e0.45	e0.15	---	0.76	0.32	0.23	0.99	0.15	0.18	0.34
31	0.48	---	e0.46	e0.16	---	0.20	---	0.24	---	0.17	0.15	---
TOTAL	6.55	9.93	11.75	6.65	8.54	13.94	12.14	10.39	17.52	6.57	6.10	7.16
MEAN	0.21	0.33	0.38	0.21	0.30	0.45	0.40	0.34	0.58	0.21	0.20	0.24
MAX	0.64	0.54	0.63	0.40	0.41	0.86	0.77	0.97	1.7	0.49	0.45	0.40
MIN	0.05	0.23	0.17	0.14	0.17	0.20	0.23	0.15	0.24	0.07	0.14	0.13
AC-FT	13	20	23	13	17	28	24	21	35	13	12	14

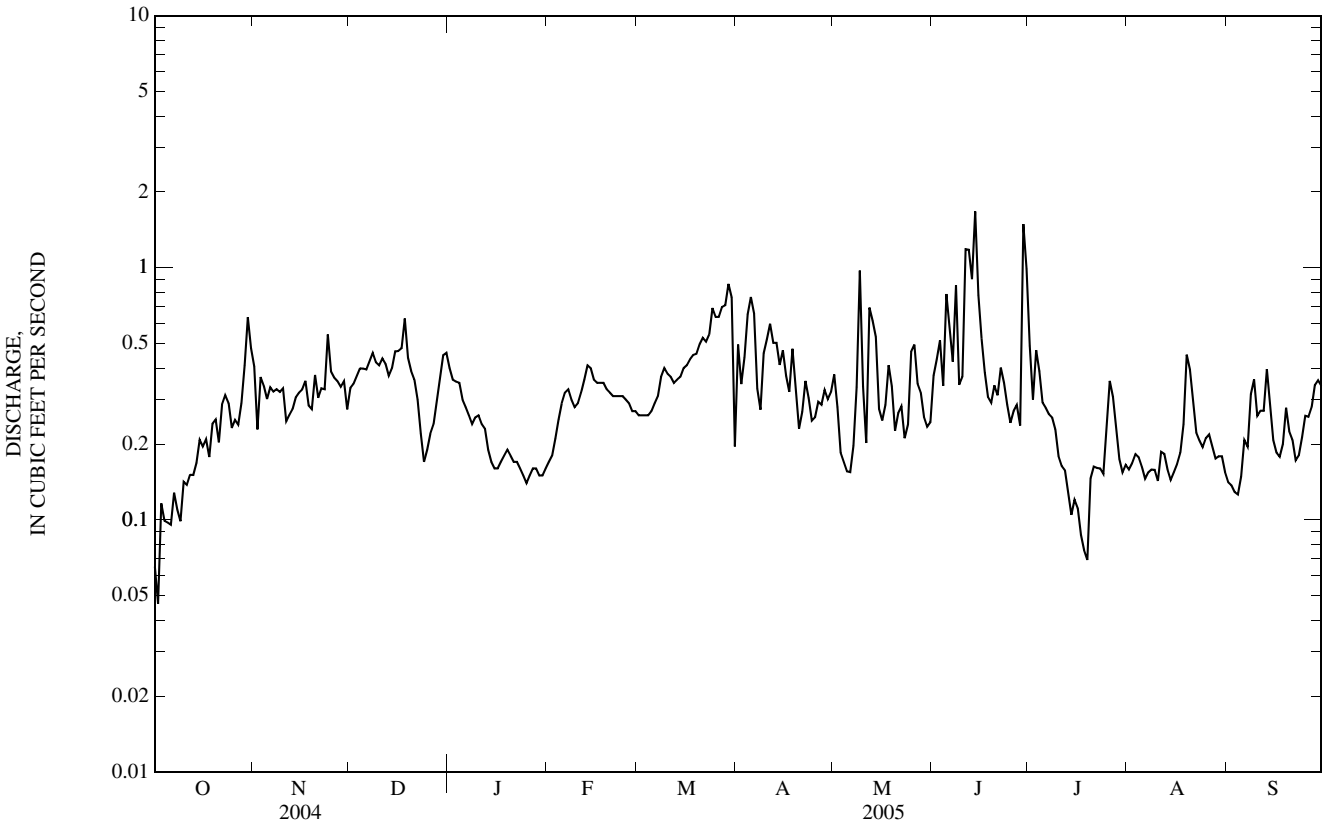
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	2.57	0.42	0.38	0.27	0.35	0.57	23.5	3.09	0.88	0.39	0.29	0.32
MAX	13.7	0.68	0.63	0.50	0.60	0.75	139	16.2	2.53	0.58	0.51	0.63
(WY)	(2000)	(2000)	(2000)	(2001)	(2000)	(2001)	(2001)	(2001)	(2001)	(2000)	(2002)	(2000)
MIN	0.21	0.26	0.19	0.15	0.03	0.26	0.25	0.32	0.16	0.21	0.09	0.10
(WY)	(2005)	(2002)	(2002)	(2002)	(2003)	(2002)	(2004)	(2002)	(2002)	(2005)	(2004)	(2004)

06471800 FOOT CREEK NEAR ABERDEEN, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	124.28		117.24			
ANNUAL MEAN	0.34		0.32		2.73	
HIGHEST ANNUAL MEAN					13.4	2001
LOWEST ANNUAL MEAN					0.28	2002
HIGHEST DAILY MEAN	4.2	May 30	1.7	Jun 14	452	Apr 8, 2001
LOWEST DAILY MEAN	0.00	Sep 3	0.05	Oct 2	[a]0.00	Jun 30, 2002
ANNUAL SEVEN-DAY MINIMUM	0.03	Aug 29	0.10	Oct 1	0.00	Feb 10, 2003
MAXIMUM PEAK FLOW			[b]2.8	Jun 29	469	Apr 8, 2001
MAXIMUM PEAK STAGE			[c]5.23	Feb 24	8.43	Apr 8, 2001
ANNUAL RUNOFF (AC-FT)	247		233		1,980	
10 PERCENT EXCEEDS	0.63		0.50		0.80	
50 PERCENT EXCEEDS	0.28		0.29		0.36	
90 PERCENT EXCEEDS	0.09		0.15		0.14	

a No flow at times in some years.
b Gage height, 4.82 ft.
c Backwater from ice.
e Estimated.



06472000 JAMES RIVER NEAR STRATFORD, SD

LOCATION.--Lat 45°14'30", long 98°23'28", in NE¼ NE¼ NE¼ sec.3, T.120 N., R.63 W., Spink County, 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 is probably noncontributing.

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 forJune 14 to July 8, 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. Occasional backwater from Mud Creek. Satellite data-collection platform at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

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	237	243	96	e57	e41	e45	171	130	284	1,080	1,290	743
2	241	246	e91	e55	e42	e47	168	130	281	1,120	1,270	733
3	240	246	e90	e53	e42	e50	166	129	281	1,170	1,250	723
4	238	242	e87	e52	e43	e53	168	127	283	1,220	1,230	713
5	238	238	e82	e51	e43	e57	170	125	281	1,290	1,210	702
6	239	233	e75	e51	e42	e60	172	124	279	1,360	1,190	690
7	240	226	e78	e50	e40	e63	171	124	278	1,440	1,170	677
8	243	222	e74	e51	e44	e63	169	125	289	1,500	1,150	667
9	248	221	e72	e52	e48	e64	163	132	294	1,530	1,130	657
10	248	216	e69	e53	e50	e64	162	137	303	1,540	1,110	644
11	247	215	e67	e55	e51	e62	176	142	332	1,550	1,110	636
12	251	208	e69	e56	e50	e58	181	152	386	1,550	1,100	632
13	251	188	e70	e56	e48	e57	182	163	451	1,550	1,070	631
14	249	159	e72	e53	e47	e55	181	177	534	1,550	1,050	628
15	248	133	e73	e50	e46	e56	177	194	596	1,540	1,030	623
16	247	116	e74	e49	e45	e58	178	210	640	1,540	1,000	615
17	248	103	e74	e48	e44	e59	180	221	675	1,530	981	606
18	250	96	e74	e47	e44	e61	177	224	703	1,510	963	599
19	252	95	e72	e47	e43	e63	173	226	729	1,500	957	601
20	252	94	e70	e47	e43	e66	175	242	758	1,510	935	595
21	253	95	e68	e47	e43	e71	173	262	791	1,490	911	588
22	251	96	e66	e46	e43	e78	162	271	827	1,470	889	581
23	251	97	e63	e45	e43	e91	153	281	861	1,450	869	573
24	246	93	e61	e44	e44	e105	144	285	901	1,430	851	565
25	236	87	e61	e43	e46	e117	138	284	937	1,420	835	560
26	227	93	e60	e42	e46	e127	136	282	968	1,400	821	557
27	218	90	e60	e42	e46	139	136	280	994	1,390	804	550
28	218	84	e60	e41	e44	155	133	280	1,010	1,370	790	540
29	217	80	e59	e40	---	167	131	283	1,040	1,350	777	533
30	225	86	e59	e39	---	172	131	284	1,050	1,330	765	523
31	236	---	e58	e41	---	174	---	283	---	1,310	753	---
TOTAL	7,485	4,641	2,204	1,503	1,251	2,557	4,897	6,309	18,036	43,990	31,261	18,685
MEAN	241	155	71.1	48.5	44.7	82.5	163	204	601	1,419	1,008	623
MAX	253	246	96	57	51	174	182	285	1,050	1,550	1,290	743
MIN	217	80	58	39	40	45	131	124	278	1,080	753	523
AC-FT	14,850	9,210	4,370	2,980	2,480	5,070	9,710	12,510	35,770	87,250	62,010	37,060

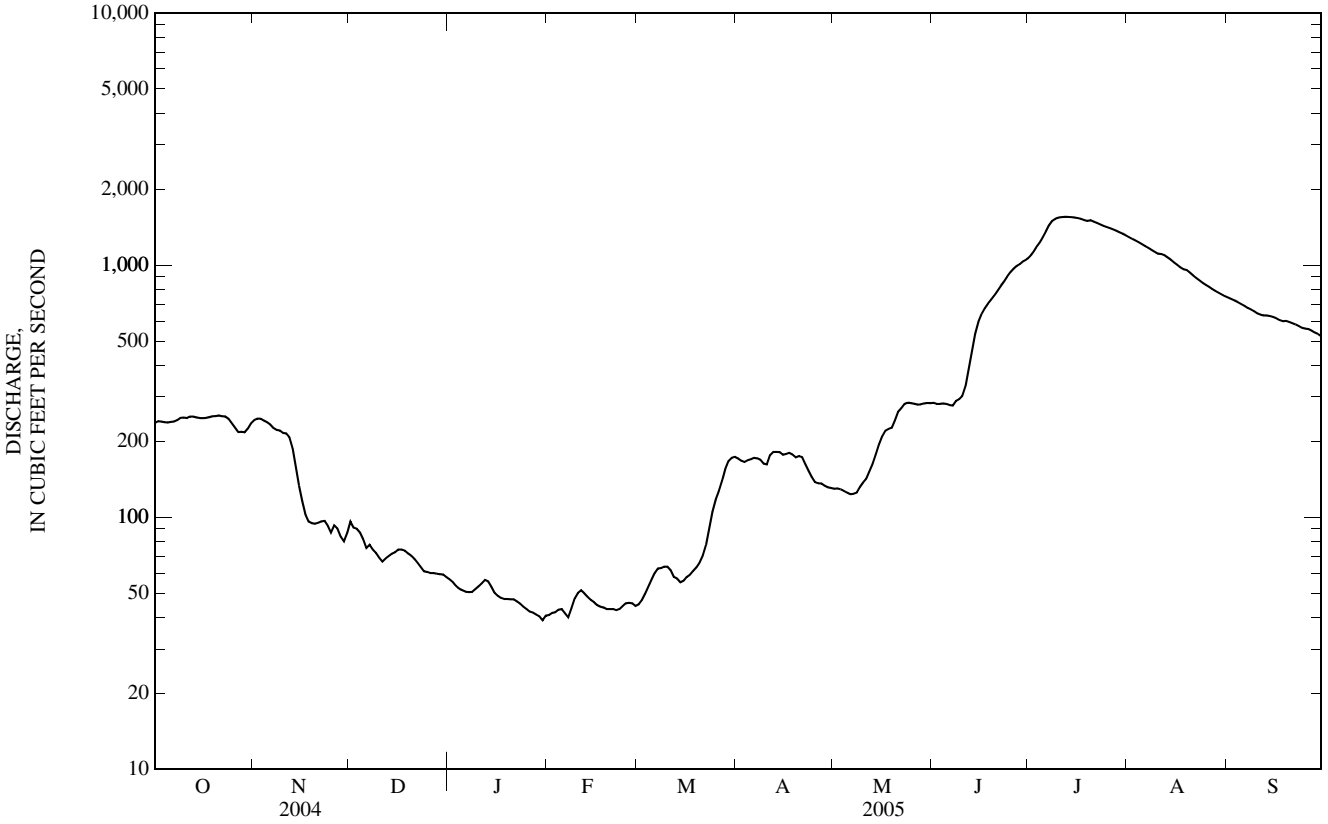
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951-1972,1977,2000 - 2005, BY WATER YEAR (WY)

MEAN	95.6	74.8	47.3	21.8	12.8	59.3	428	451	306	312	211	111
MAX	1,135	792	421	198	83.2	453	2,036	2,283	1,714	1,419	1,254	844
(WY)	(2000)	(2000)	(2001)	(2001)	(2000)	(2000)	(1969)	(2001)	(2001)	(2005)	(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)

06472000 JAMES RIVER NEAR STRATFORD, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951-1972,1977,2000-2005	
ANNUAL TOTAL	106,088		142,819			
ANNUAL MEAN	290		391		[a]178	
HIGHEST ANNUAL MEAN					929	2001
LOWEST ANNUAL MEAN					0.00	1959
HIGHEST DAILY MEAN	837	Jul 8	1,550	Jul 11	4,940	Apr 20, 1952
LOWEST DAILY MEAN	15	Jan 25	39	Jan 30	[b]0.00	Nov 28, 1950
ANNUAL SEVEN-DAY MINIMUM	15	Jan 24	41	Jan 26	0.00	Nov 28, 1950
MAXIMUM PEAK FLOW			1,560	Jul 12	[c]8,400	Apr 6, 1997
MAXIMUM PEAK STAGE			16.95	Jul 12	[d]19.48	Apr 6, 1997
ANNUAL RUNOFF (AC-FT)	210,400		283,300		129,100	
10 PERCENT EXCEEDS	752		1,160		553	
50 PERCENT EXCEEDS	226		188		30	
90 PERCENT EXCEEDS	21		47		0.00	

a Median of annual mean discharges, 110 ft^3/s.
b No flow for many days in some years.
c Also reflects 1997 partial record year.
d From floodmark.
e Estimated.



06473000 JAMES RIVER AT ASHTON, SD

LOCATION.--Lat 44°59'54", long 98°28'50", in NW¼ NW¼ NE¼ sec.36, T.118 N., R.64 W., Spink County, Hydrologic Unit 10160006, on right bank near downstream side of highway bridge, 0.9 mi east of Ashton, 6.1 mi upstream from Snake Creek, and 14.2 mi upstream from Turtle Creek.

DRAINAGE AREA.--9,742 mi^2, of which 4,069 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1209: 1947. WDR SD-84-1: Drainage area. WDR SD-86-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,244.4 ft above NGVD of 1929. Prior to Nov. 26, 1957, nonrecording gage at present site and Nov. 26, 1957, to Oct. 7, 1974, water-stage recorder at site 900 ft upstream, all 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 and reverse flow caused by Snake Creek during most years. Satellite data-collection platform at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

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	245	237	e80	e67	e49	e47	191	152	310	1,180	1,640	806
2	239	249	e83	e66	e50	e48	192	151	307	1,200	1,610	784
3	238	256	e87	e65	e51	e49	191	149	305	1,230	1,590	767
4	239	258	e90	e64	e52	e51	189	148	302	1,250	1,560	752
5	239	258	e89	e63	e52	e53	189	145	303	1,260	1,530	736
6	241	254	e87	e62	e50	e55	192	143	305	1,290	1,500	727
7	242	250	e85	e60	e49	e56	194	140	302	1,330	1,470	712
8	241	246	e84	e60	e53	e56	199	138	301	1,370	1,450	701
9	245	244	e82	e60	e57	e55	190	140	298	1,430	1,420	689
10	248	240	e81	e60	e59	e54	184	144	302	1,510	1,390	674
11	250	236	e80	e62	e60	e53	185	147	349	1,610	1,370	661
12	250	234	e78	e63	e58	e53	192	155	389	1,730	1,360	659
13	248	230	e77	e64	e55	e53	200	163	426	1,840	1,330	658
14	249	215	e76	e60	e53	e54	204	169	513	1,920	1,310	651
15	248	192	e77	e57	e51	e56	201	180	570	1,980	1,280	643
16	248	166	e78	e55	e48	e57	201	197	619	2,010	1,260	638
17	247	146	e80	e53	e47	e59	202	216	659	2,000	1,230	627
18	248	128	e83	e53	e47	e62	203	226	695	2,000	1,210	621
19	249	117	e83	e53	e47	e67	201	234	724	1,980	1,180	620
20	251	111	e83	e54	e47	e71	199	240	753	1,970	1,150	614
21	251	108	e82	e54	e47	e82	200	249	794	1,950	1,130	606
22	250	107	e80	e54	e47	e99	201	264	846	1,930	1,090	597
23	265	107	e75	e52	e47	124	196	283	881	1,910	1,060	589
24	260	106	e71	e50	e49	151	187	294	937	1,880	1,020	580
25	251	103	e68	e50	e50	148	175	305	999	1,850	989	575
26	242	99	e67	e49	e50	154	167	307	1,050	1,830	963	569
27	233	100	e66	e48	e48	151	162	302	1,090	1,790	935	564
28	235	93	e67	e47	e46	147	160	300	1,110	1,750	908	557
29	227	e90	e69	e47	---	162	157	299	1,130	1,720	882	550
30	228	e75	e70	e47	---	176	154	302	1,160	1,690	857	543
31	231	---	e68	e49	---	185	---	306	---	1,660	830	---
TOTAL	7,578	5,255	2,426	1,748	1,419	2,688	5,658	6,588	18,729	52,050	38,504	19,470
MEAN	244	175	78.3	56.4	50.7	86.7	189	213	624	1,679	1,242	649
MAX	265	258	90	67	60	185	204	307	1,160	2,010	1,640	806
MIN	227	75	66	47	46	47	154	138	298	1,180	830	543
AC-FT	15,030	10,420	4,810	3,470	2,810	5,330	11,220	13,070	37,150	103,200	76,370	38,620

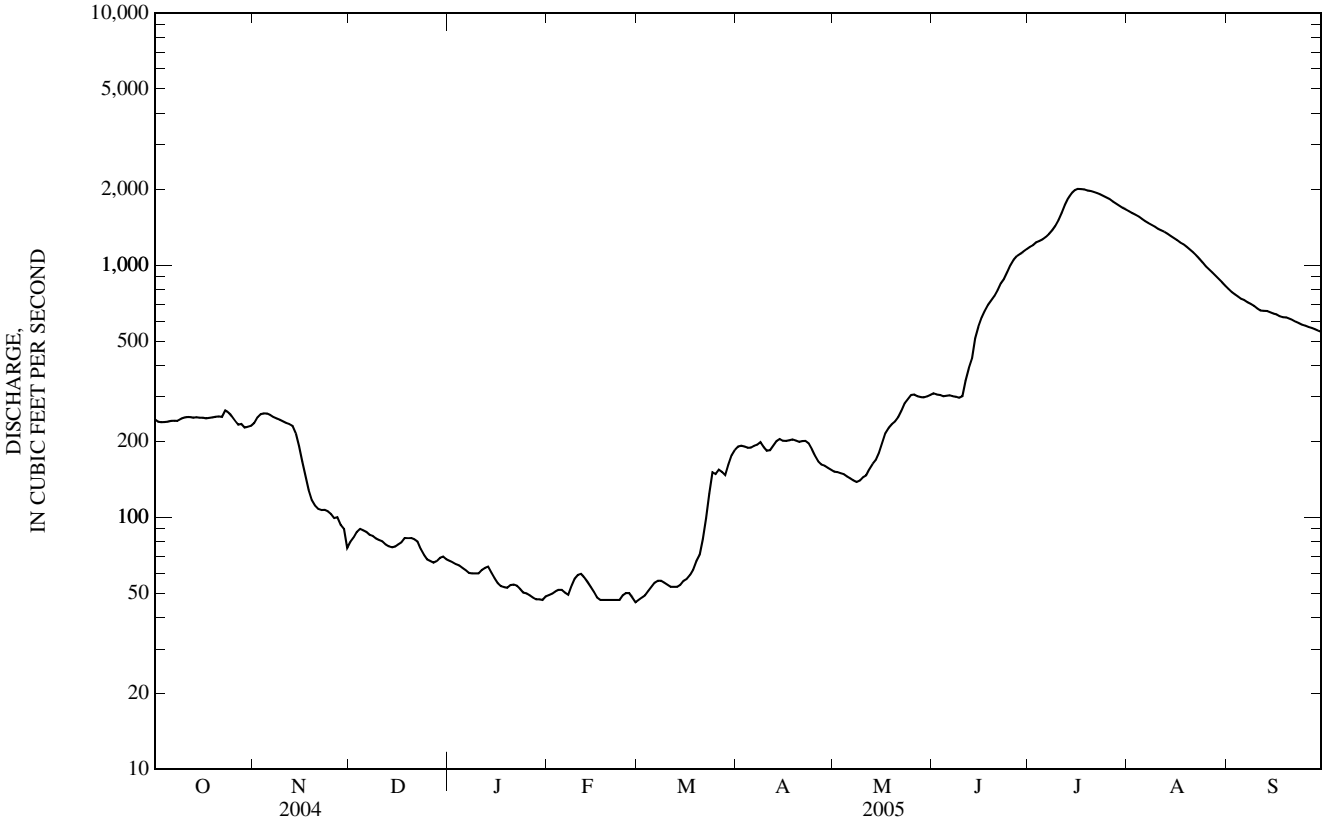
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2005, BY WATER YEAR (WY)

MEAN	134	126	77.4	30.2	19.3	109	625	717	495	390	299	183
MAX	1,289	1,026	735	303	190	879	7,153	4,133	2,440	1,746	1,422	1,331
(WY)	(2000)	(2000)	(1994)	(1999)	(1999)	(1995)	(1997)	(1997)	(1950)	(1997)	(1997)	(1999)
MIN	0.00	0.00	0.00	0.00	0.00	-338	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1950)	(1950)	(1946)	(1950)	(1948)	(1997)	(1959)	(1959)	(1959)	(1959)	(1959)	(1958)

06473000 JAMES RIVER AT ASHTON, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1946 - 2005	
ANNUAL TOTAL	109,189		162,113			
ANNUAL MEAN	298		444		[a]268	
HIGHEST ANNUAL MEAN					1,530	1997
LOWEST ANNUAL MEAN					0.00	1959
HIGHEST DAILY MEAN	827	Jul 12	2,010	Jul 16	9,100	Apr 23, 1997
LOWEST DAILY MEAN	14	Jan 28	46	Feb 28	[b]-8,400	Mar 31, 1997
ANNUAL SEVEN-DAY MINIMUM	15	Jan 26	47	Feb 17	-1,960	Mar 26, 1997
MAXIMUM PEAK FLOW			2,010	Jul 16	[c]9,150	Apr 23, 1997
MAXIMUM PEAK STAGE			13.84	Jul 16	[d]26.64	Apr 6, 1997
ANNUAL RUNOFF (AC-FT)	216,600		321,600		194,200	
10 PERCENT EXCEEDS	761		1,340		819	
50 PERCENT EXCEEDS	238		204		43	
90 PERCENT EXCEEDS	26		53		0.00	

a Median of annual mean discharges, 150 ft^3/s.
b Backwater from Snake Creek.
c Gage height, 25.03 ft.
d Backwater from Snake Creek, from floodmark.
e Estimated.



06475000 JAMES RIVER NEAR REDFIELD, SD

LOCATION.--Lat 44°54'38", long 98°28'18", in NW¼ NW¼ NW¼ sec.31, T.117 N., R.63 W., Spink County, Hydrologic Unit 10160006, on left bank near downstream side of county highway bridge, 2.8 mi northeast of Redfield, and 0.7 mi downstream from Turtle Creek.

DRAINAGE AREA.--13,911 mi^2, of which about 4,118 mi^2 are probably noncontributing.

PERIOD OF RECORD.--March 1950 to current year. Crest-stage partial record, October 1990 to September 1997.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,239.50 ft above NGVD of 1929. From March 1950 to July 25, 1951, nonrecording gage. Daily discharge from July 26, 1951, to Sept. 30, 1981, water-stage recorder. Both gages described above at site 4.5 mi downstream from present site and at different datum. Daily discharge from Oct. 1, 1981, to Oct. 8, 1986, water-stage recorder at site 0.6 mi downstream at same datum.

REMARKS.--Records fair 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. Flow below 100 ft^3/s for water years 1964-79 may be unreliable because of wind effect. Satellite data-collection platform at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

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	245	226	e83	e69	e50	e48	184	145	304	1,180	1,630	830
2	233	233	e86	e67	e51	e52	187	145	308	1,200	1,600	812
3	232	242	e90	e66	e52	e55	189	142	303	1,220	1,570	794
4	230	246	e93	e63	e52	e59	185	140	299	1,230	1,540	777
5	230	247	e93	e60	e52	e63	185	140	297	1,250	1,510	762
6	231	244	e91	e59	e51	e67	186	140	299	1,280	1,480	755
7	233	241	e89	e58	e50	e72	187	138	298	1,310	1,450	737
8	233	238	e88	e58	e51	e75	191	134	286	1,340	1,430	734
9	233	236	e87	e58	e54	e76	193	136	287	1,390	1,400	720
10	237	234	e86	e58	e56	e76	184	138	290	1,450	1,380	701
11	240	226	e84	e60	e58	e75	184	146	386	1,530	1,360	687
12	241	225	e82	e63	e60	e75	185	155	486	1,630	1,340	688
13	241	221	e80	e65	e61	e74	193	154	488	1,740	1,320	683
14	238	213	e79	e62	e58	e75	196	159	627	1,840	1,310	673
15	239	194	e79	e58	e54	e76	197	167	680	1,910	1,290	664
16	238	171	e82	e55	e52	e75	195	181	704	1,950	1,270	655
17	240	150	e84	e54	e50	e75	195	201	725	1,960	1,240	646
18	239	134	e85	e54	e50	e76	195	213	743	1,960	1,230	642
19	238	123	e85	e54	e50	e78	199	220	763	1,950	1,200	637
20	240	115	e86	e55	e50	e82	196	227	784	1,950	1,170	630
21	241	110	e85	e55	e50	e90	194	239	840	1,930	1,150	624
22	243	108	e83	e55	e50	e106	196	243	913	1,910	1,120	613
23	261	108	e81	e54	e50	121	190	263	914	1,890	1,090	600
24	260	108	e77	e53	e50	144	182	281	944	1,870	1,060	597
25	248	108	e75	e51	e50	159	176	294	1,000	1,850	1,020	592
26	240	106	e74	e50	e51	143	166	297	1,050	1,820	992	581
27	229	103	e73	e49	e51	153	157	293	1,090	1,790	961	576
28	234	103	e73	e49	e48	143	154	292	1,110	1,760	933	569
29	224	e90	e72	e48	---	151	152	292	1,130	1,720	907	558
30	222	e79	e72	e49	---	168	148	295	1,150	1,690	884	554
31	223	---	e70	e50	---	177	---	299	---	1,660	855	---
TOTAL	7,356	5,182	2,547	1,759	1,462	2,959	5,521	6,309	19,498	51,160	38,692	20,091
MEAN	237	173	82.2	56.7	52.2	95.5	184	204	650	1,650	1,248	670
MAX	261	247	93	69	61	177	199	299	1,150	1,960	1,630	830
MIN	222	79	70	48	48	48	148	134	286	1,180	855	554
AC-FT	14,590	10,280	5,050	3,490	2,900	5,870	10,950	12,510	38,670	101,500	76,750	39,850

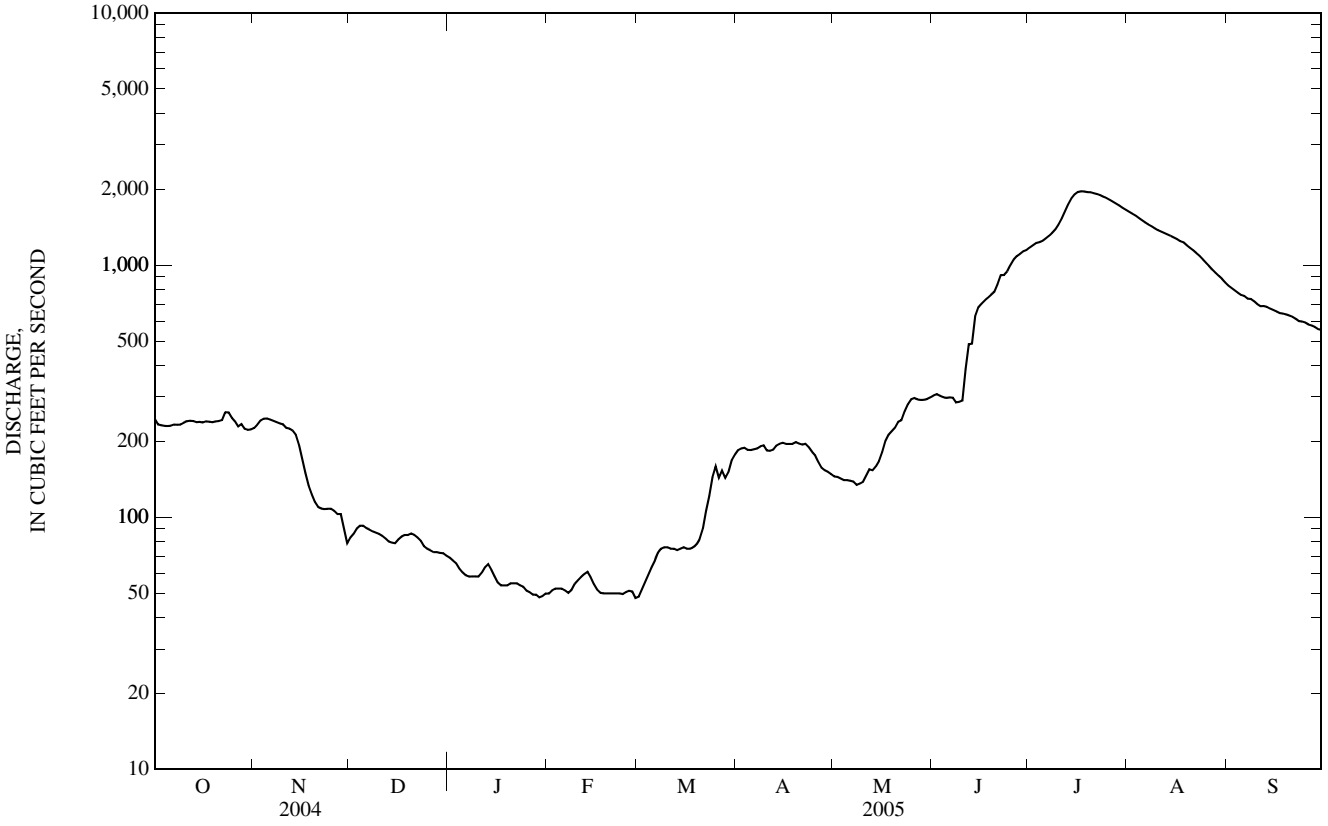
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951-1990,1998 - 2005, BY WATER YEAR (WY)

MEAN	124	124	78.1	33.5	24.2	200	752	690	439	361	273	151
MAX	1,368	1,353	971	411	272	1,151	4,812	3,408	2,311	1,736	1,481	1,606
(WY)	(2000)	(1999)	(1999)	(1999)	(1999)	(1986)	(1969)	(2001)	(1999)	(1999)	(1999)	(1999)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	1.36	0.46	0.08	0.00	0.00	0.00
(WY)	(1955)	(1956)	(1956)	(1956)	(1956)	(1975)	(1959)	(1959)	(1977)	(1959)	(1959)	(1958)

06475000 JAMES RIVER NEAR REDFIELD, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951-1990,1998- 2005	
ANNUAL TOTAL	109,472		162,536			
ANNUAL MEAN	299		445		[a]272	
HIGHEST ANNUAL MEAN					1,294	1999
LOWEST ANNUAL MEAN					0.45	1959
HIGHEST DAILY MEAN	838	Jul 15	1,960	Jul 17	7,280	Apr 13, 1969
LOWEST DAILY MEAN	17	Jan 28	48	Jan 29	[b]0.00	Nov 8, 1950
ANNUAL SEVEN-DAY MINIMUM	17	Jan 28	49	Jan 26	0.00	Jan 25, 1951
MAXIMUM PEAK FLOW			1,970	Jul 17	[c]17,000	Apr 3, 1997
MAXIMUM PEAK STAGE			11.67	Jul 17	[d]31.10	Apr 6, 1997
ANNUAL RUNOFF (AC-FT)	217,100		322,400		196,700	
10 PERCENT EXCEEDS	761		1,330		828	
50 PERCENT EXCEEDS	230		199		46	
90 PERCENT EXCEEDS	31		54		0.00	

a Median of annual mean discharges, 160 ft^3/s.
b No flow for many days in some years.
c Gage height, 29.92 ft. Reflects 1997 partial-record year.
d Backwater from ice, from floodmark.
e Estimated.



06476000 JAMES RIVER AT HURON, SD

LOCATION.--Lat 44°21'49", long 98°11'56", in SW¼ SE¼ NE¼ sec.6, T.110 N., R.61 W., Beadle County, Hydrologic Unit 10160006, on right bank 15 ft upstream from city dam at Huron, 135 ft downstream from Dakota Minnesota and Eastern Railroad bridge, and 165 ft upstream from bridge on 3rd Street SE.

DRAINAGE AREA.--15,869 mi^2, of which 4,148 mi^2 is probably noncontributing.

PERIOD OF RECORD.--August 1928 to September 1932, August 1943 to current year. Monthly discharge only for some periods from August 1928 to September 1932, published in WSP 1309. Gage-height records collected at site about 100 ft downstream for period of open water each year July 1902 to June 1914 and for period March to June 1915-23 are in reports of the National Weather Service.

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

GAGE.--Water-stage recorder, wire-weight gage, and concrete dam. Datum of gage is 1,223.44 ft above NGVD of 1929. Aug. 29, 1928, to Mar. 15, 1929, nonrecording gage at site 100 ft downstream at about same datum. Mar. 16, 1929, to June 30, 1932, nonrecording gage 165 ft downstream at present datum. Aug. 3, 1943, to Oct. 17, 1951, nonrecording gage at site 15 ft downstream 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 May 1974. Satellite data-collection platform at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood between Apr. 11 and 13, 1881, reached a stage of 19.8 ft, from U.S. Weather Bureau publication. Flood of Mar. 22, 1922, reached a stage of 16.5 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	325	320	57	81	e70	60	148	167	224	1,220	1,680	899
2	265	294	59	81	e75	58	136	161	223	1,200	1,620	852
3	262	253	65	81	e80	62	145	146	278	1,290	1,620	802
4	250	284	74	77	e80	62	146	132	288	1,310	1,600	780
5	221	282	82	e75	e80	62	181	136	313	1,290	1,470	751
6	219	288	89	e73	e75	63	197	135	308	1,290	1,410	862
7	226	288	94	e70	e70	66	165	111	360	1,290	1,400	855
8	260	255	100	e70	e70	61	130	128	385	1,300	1,380	953
9	242	250	109	e65	e70	59	115	152	344	1,350	1,350	954
10	218	303	121	e65	e70	77	167	167	333	1,350	1,350	814
11	232	272	117	e65	e70	64	201	166	402	1,470	1,300	823
12	250	240	138	e65	e70	64	203	147	540	1,540	1,290	869
13	286	225	70	e65	e70	64	192	149	680	1,590	1,280	869
14	247	224	120	e65	e74	62	158	181	936	1,660	1,270	818
15	258	233	121	e60	e71	64	177	162	874	1,790	1,260	789
16	248	234	118	e60	e68	68	198	137	868	1,840	1,240	731
17	233	238	107	e65	e68	69	182	110	908	1,910	1,200	691
18	224	225	102	e70	e68	72	167	138	890	1,960	1,250	782
19	228	227	99	e65	e65	63	203	183	903	1,900	1,280	775
20	236	481	96	e65	e67	68	206	184	980	2,070	1,220	728
21	217	406	e91	e65	e68	69	193	157	969	1,990	1,190	722
22	252	274	e89	e65	e67	73	234	216	976	1,940	1,180	715
23	375	187	e88	e65	e68	81	185	208	1,030	1,890	1,120	639
24	313	130	e86	e65	e68	93	160	200	1,120	1,880	1,060	693
25	297	100	e85	e65	e69	95	183	247	1,080	1,850	1,080	748
26	279	94	e84	e65	e72	99	187	263	1,080	1,850	1,130	690
27	263	76	85	e65	e65	106	168	269	1,150	1,800	1,060	670
28	423	64	85	e65	60	117	158	259	1,180	1,750	1,020	708
29	557	57	85	e65	---	129	154	250	1,170	1,720	970	591
30	489	57	85	e65	---	146	157	246	1,250	1,700	920	622
31	347	---	82	e65	---	146	---	243	---	1,700	895	---
TOTAL	8,742	6,861	2,883	2,098	1,968	2,442	5,196	5,550	22,042	50,690	39,095	23,195
MEAN	282	229	93.0	67.7	70.3	78.8	173	179	735	1,635	1,261	773
MAX	557	481	138	81	80	146	234	269	1,250	2,070	1,680	954
MIN	217	57	57	60	60	58	115	110	223	1,200	895	591
AC-FT	17,340	13,610	5,720	4,160	3,900	4,840	10,310	11,010	43,720	100,500	77,540	46,010

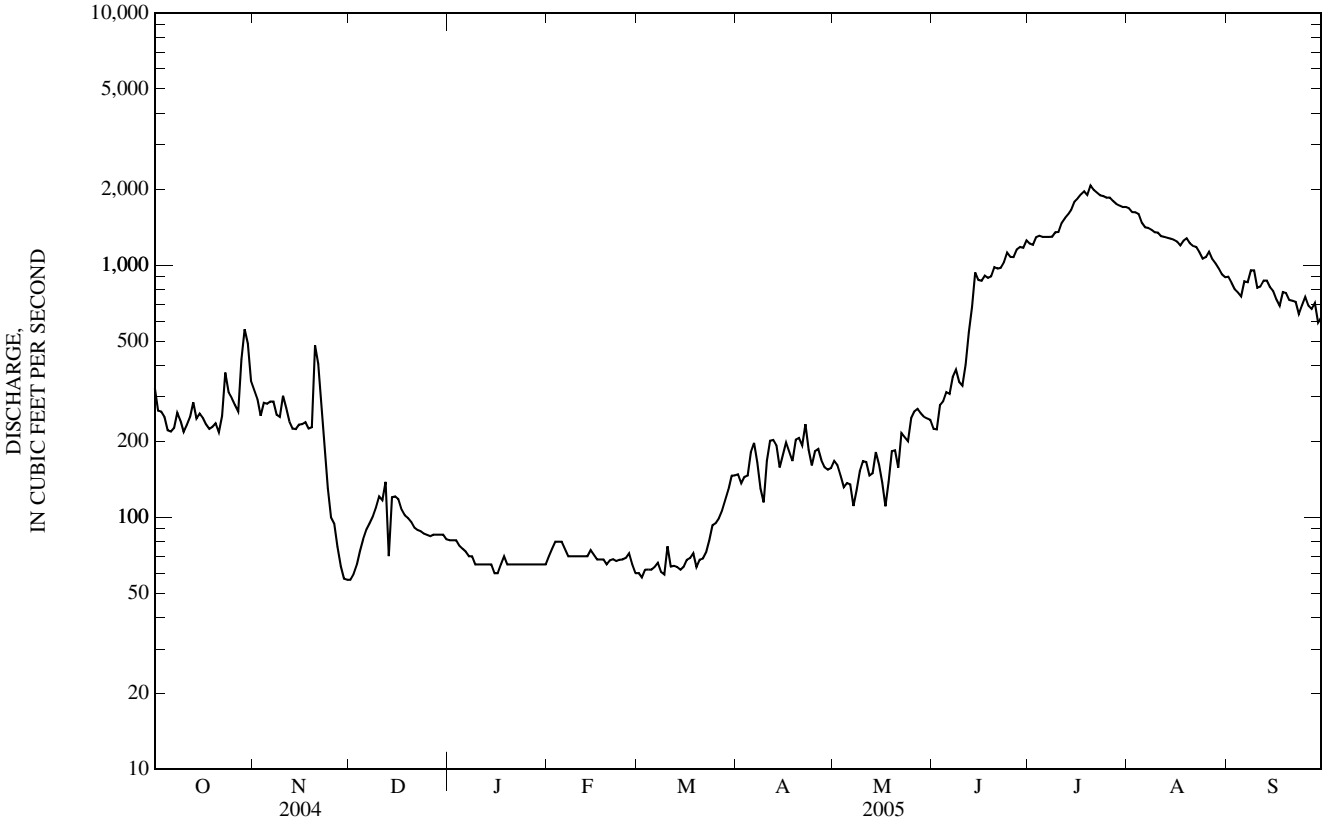
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2005, BY WATER YEAR (WY)

MEAN	155	145	96.2	47.5	45.3	450	1,281	1,031	681	475	367	217
MAX	1,488	1,565	1,150	447	328	3,421	16,590	7,185	3,883	2,328	2,221	1,782
(WY)	(2000)	(1999)	(1999)	(1999)	(1996)	(1994)	(1997)	(1997)	(1995)	(1997)	(1997)	(1999)
MIN	0.00	0.00	0.00	0.00	0.00	3.29	1.37	0.00	0.00	0.00	0.00	0.00
(WY)	(1946)	(1946)	(1946)	(1946)	(1956)	(1965)	(1959)	(1959)	(1959)	(1959)	(1959)	(1949)

06476000 JAMES RIVER AT HURON, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1929-1932,1944 - 2005	
ANNUAL TOTAL	116,636		170,762			
ANNUAL MEAN	319		468		[a]400	
HIGHEST ANNUAL MEAN					2,915	1997
LOWEST ANNUAL MEAN					0.51	1959
HIGHEST DAILY MEAN	1,030	Jul 11	2,070	Jul 20	22,800	Apr 6, 1997
LOWEST DAILY MEAN	30	Feb 8	57	Nov 29	[b]0.00	Oct 12, 1944
ANNUAL SEVEN-DAY MINIMUM	33	Feb 5	61	Feb 28	[c]0.00	Sep 29, 1945
MAXIMUM PEAK FLOW			2,100	Jul 20	23,400	Apr 6, 1997
MAXIMUM PEAK STAGE			10.79	Jul 20	[d]21.28	Apr 6, 1997
ANNUAL RUNOFF (AC-FT)	231,300		338,700		289,800	
10 PERCENT EXCEEDS	777		1,290		[c]1,140	
50 PERCENT EXCEEDS	236		217		[c]66	
90 PERCENT EXCEEDS	62		65		[c]0.00	

a Median of annual mean discharges, 210 ft^3/s.
b No flow for long periods in most years.
c For water years 1944-2005 only.
d Backwater from floodmark.
e Estimated.



06477000 JAMES RIVER NEAR FORESTBURG, SD

LOCATION.--Lat 43°58'26", long 98°04'14", in SW¼ SW¼ NW¼ sec.20, T.106 N., R.60 W., Sanborn County, 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 about 4,148 mi^2 is probably noncontributing.

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 June 15 to Aug. 4, 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. U.S. Army Corps of Engineers satellite data-collection platform at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

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

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	197	447	74	e90	e90	e90	160	154	315	1,320	1,700	875
2	241	380	75	e85	e95	90	163	155	302	1,320	1,670	859
3	271	336	75	e85	e105	87	162	156	299	1,310	1,640	824
4	240	345	78	e80	e110	87	160	150	341	1,360	1,620	791
5	218	361	78	e75	118	88	167	139	371	1,410	1,600	769
6	202	368	82	e75	116	80	183	133	385	1,420	1,530	798
7	190	361	91	e75	e114	78	204	127	390	1,430	1,470	858
8	190	347	96	e75	e112	77	210	123	414	1,430	1,440	830
9	199	327	101	e75	e111	71	180	123	445	1,450	1,410	860
10	210	308	110	e75	e110	71	175	135	471	1,480	1,380	875
11	201	312	100	e75	109	80	174	161	526	1,510	1,350	822
12	195	314	129	e75	107	78	202	199	616	1,540	1,320	800
13	208	290	e130	e70	109	78	232	202	723	1,570	1,290	828
14	226	267	131	e70	108	73	230	198	861	1,600	1,270	827
15	233	256	135	e70	108	77	213	188	1,030	1,630	1,250	790
16	222	256	147	e70	107	85	206	190	1,050	1,670	1,230	758
17	221	261	144	e70	e103	84	207	187	1,060	1,720	1,210	718
18	214	264	135	e75	e99	82	209	165	1,060	1,790	1,190	700
19	206	263	e130	e80	94	85	207	164	1,040	1,820	1,220	771
20	206	254	e125	e80	87	87	210	174	1,050	1,840	1,220	773
21	208	343	e115	e80	94	84	226	201	1,130	1,860	1,180	736
22	211	442	e110	e80	92	85	234	212	1,120	1,870	1,150	716
23	233	396	e100	e80	98	85	233	220	1,090	1,880	1,110	702
24	309	304	e95	e80	98	88	232	246	1,030	1,880	1,070	679
25	346	214	e90	e85	92	97	211	258	1,180	1,880	1,030	712
26	318	149	e90	e85	94	102	197	273	1,180	1,870	1,050	733
27	291	120	e85	e85	93	102	195	304	1,170	1,860	1,060	706
28	274	102	e85	e85	e91	107	191	319	1,210	1,840	1,010	685
29	368	82	e85	e85	---	118	177	322	1,260	1,820	964	671
30	549	73	e90	e85	---	133	163	318	1,270	1,790	925	643
31	532	---	e90	e85	---	147	---	316	---	1,750	886	---
TOTAL	7,929	8,542	3,201	2,440	2,864	2,776	5,913	6,212	24,389	50,920	39,445	23,109
MEAN	256	285	103	78.7	102	89.5	197	200	813	1,643	1,272	770
MAX	549	447	147	90	118	147	234	322	1,270	1,880	1,700	875
MIN	190	73	74	70	87	71	160	123	299	1,310	886	643
AC-FT	15,730	16,940	6,350	4,840	5,680	5,510	11,730	12,320	48,380	101,000	78,240	45,840

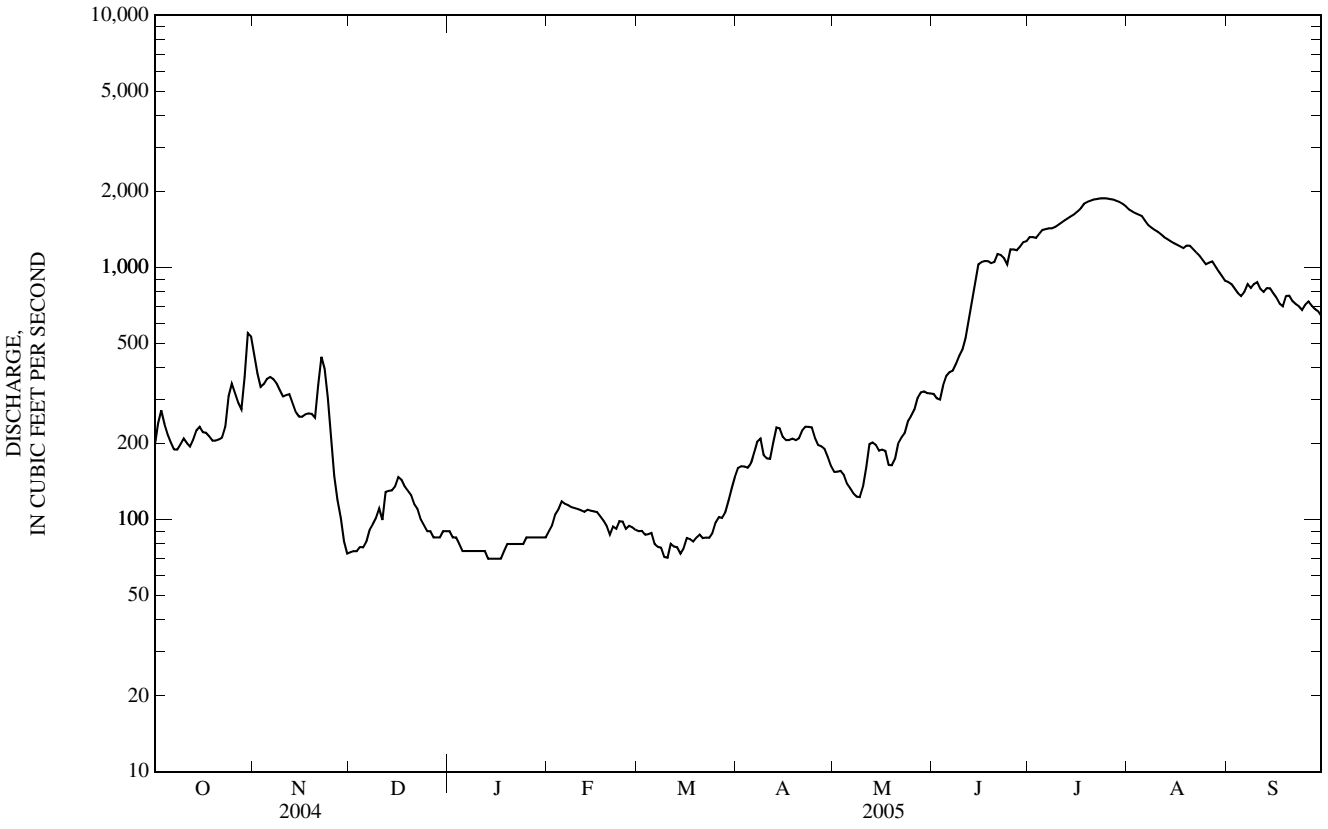
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2005, BY WATER YEAR (WY)

MEAN	184	177	120	61.5	64.5	558	1,601	1,223	828	539	413	252
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)

06477000 JAMES RIVER NEAR FORESTBURG, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 2005	
ANNUAL TOTAL	118,383		177,740			
ANNUAL MEAN	323		487		[a]503	
HIGHEST ANNUAL MEAN					3,054	1997
LOWEST ANNUAL MEAN					4.75	1959
HIGHEST DAILY MEAN	916	Jul 12	1,880	Jul 23	25,100	Apr 6, 1997
LOWEST DAILY MEAN	34	Jan 29	70	Jan 13	[b]0.00	Jul 10, 1959
ANNUAL SEVEN-DAY MINIMUM	34	Jan 29	71	Jan 11	0.00	Aug 9, 1959
MAXIMUM PEAK FLOW			1,920	Jul 23	25,600	Apr 6, 1997
MAXIMUM PEAK STAGE			13.47	Jul 23	20.61	Apr 6, 1997
ANNUAL RUNOFF (AC-FT)	234,800		352,500		364,300	
10 PERCENT EXCEEDS	797		1,390		1,320	
50 PERCENT EXCEEDS	220		211		89	
90 PERCENT EXCEEDS	40		80		2.7	

a Median of annual mean discharges, 260 ft^3/s.
b No flow at times in some years.
e Estimated.



06477500 FIRESTEEL CREEK NEAR MOUNT VERNON, SD

LOCATION.--Lat 43°46'35", long 98°14'44", in SW¼ SW¼ sec.26, T.104 N., R.62 W., Davison County, Hydrologic Unit 10160011, on left bank 50 ft west of county road, 4.5 mi north of Mount Vernon, 5.2 mi downstream from West Firesteel Creek, and 12 mi northwest of Mitchell.

DRAINAGE AREA.--521 mi^2.

PERIOD OF RECORD.--September 1955 to current year.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,297.22 ft above NGVD of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Satellite data-collection platform at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

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	21	2.8	1.4	0.70	e0.70	e1.3	1.9	6.2	4.2	33	1.1	0.07
2	15	2.9	1.4	0.64	e0.80	1.3	1.7	4.6	4.1	28	0.98	0.05
3	13	2.8	1.4	0.60	e0.90	1.3	1.5	4.4	4.2	24	1.2	0.06
4	12	2.5	1.4	0.57	e0.90	1.4	1.5	3.7	5.4	20	1.7	0.06
5	9.5	2.4	1.4	e0.70	e0.90	1.5	1.4	2.9	11	17	1.2	0.03
6	8.8	2.3	1.4	e0.65	e0.85	1.6	1.3	3.0	14	14	0.98	0.01
7	9.9	2.9	1.5	e0.60	e0.75	2.0	1.3	2.9	25	12	0.78	0.05
8	11	3.4	1.5	e0.60	e0.65	1.6	1.3	2.8	24	11	0.64	0.04
9	10	3.3	1.5	e0.65	e0.55	1.5	1.1	2.8	21	10	0.60	0.08
10	8.3	3.1	1.4	e0.65	e0.50	1.4	1.2	6.0	49	8.5	0.57	0.07
11	7.0	3.0	1.5	e0.70	e0.50	2.1	1.7	4.6	195	6.9	0.49	0.06
12	5.5	2.9	1.4	e0.70	e0.60	2.2	1.8	4.3	621	7.2	0.45	0.07
13	4.5	2.7	e1.4	e0.65	e0.80	1.9	1.9	4.3	692	6.7	0.39	0.09
14	3.7	2.5	1.2	e0.60	e1.2	1.9	2.0	7.5	676	5.5	0.38	0.08
15	3.2	2.6	1.0	e0.55	e1.4	2.1	2.1	35	701	4.5	0.40	0.07
16	2.8	2.6	1.1	e0.50	e1.7	1.9	2.5	62	550	3.8	0.38	0.08
17	2.2	2.4	1.1	e0.55	e1.6	2.1	2.8	56	463	3.4	0.34	0.07
18	2.1	2.2	1.2	e0.65	1.3	2.4	2.5	42	364	3.1	0.34	0.08
19	2.1	2.3	e1.2	e0.75	1.2	2.3	2.6	35	271	2.9	0.34	0.26
20	2.2	2.6	1.1	e0.80	1.2	2.2	2.6	31	194	2.5	0.32	0.16
21	2.1	2.5	e1.0	e0.70	1.0	2.1	2.9	25	147	2.4	0.33	0.12
22	1.9	2.6	0.96	e0.60	0.98	1.4	8.8	21	119	2.3	0.31	0.08
23	2.9	2.0	0.76	e0.55	0.96	1.2	16	16	99	2.2	0.35	0.07
24	3.2	1.8	0.69	e0.60	0.97	1.4	29	12	88	2.0	0.28	0.14
25	3.3	2.7	0.68	e0.65	1.0	2.1	27	11	76	2.0	0.30	0.87
26	3.7	2.7	0.69	e0.60	1.1	1.8	17	9.2	67	1.9	0.35	0.42
27	3.3	2.2	0.60	e0.55	e1.3	2.1	13	8.1	59	1.7	0.25	0.27
28	3.3	2.0	0.60	e0.55	e1.3	1.9	10	6.4	52	1.6	0.21	0.22
29	3.0	1.7	0.63	e0.60	---	1.9	9.0	5.4	45	1.5	0.18	0.16
30	2.9	1.5	0.81	e0.60	---	1.8	7.5	4.6	39	1.4	0.15	0.13
31	2.8	---	e0.95	e0.60	---	1.9	---	4.4	---	1.3	0.10	---
TOTAL	186.2	75.9	34.87	19.41	27.61	55.6	176.9	444.1	5,679.9	244.3	16.39	4.02
MEAN	6.01	2.53	1.12	0.63	0.99	1.79	5.90	14.3	189	7.88	0.53	0.13
MAX	21	3.4	1.5	0.80	1.7	2.4	29	62	701	33	1.7	0.87
MIN	1.9	1.5	0.60	0.50	0.50	1.2	1.1	2.8	4.1	1.3	0.10	0.01
AC-FT	369	151	69	38	55	110	351	881	11,270	485	33	8.0

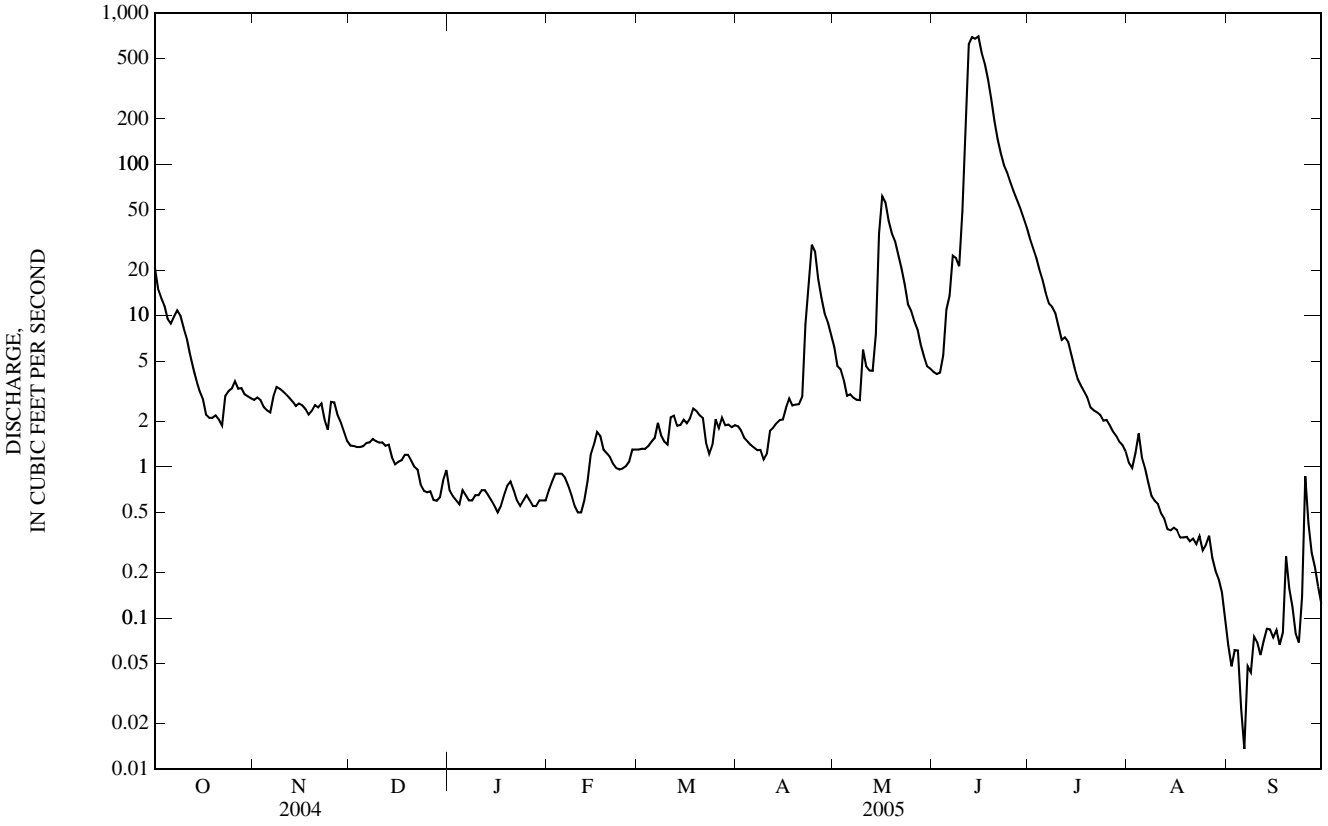
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2005, BY WATER YEAR (WY)

MEAN	1.83	3.52	1.07	1.06	8.58	82.5	93.4	82.8	74.8	24.4	7.13	1.10
MAX	39.2	119	22.7	23.3	175	759	829	1,135	1,097	623	124	13.8
(WY)	(1983)	(1999)	(1999)	(1973)	(1996)	(1997)	(2001)	(1995)	(1962)	(1993)	(1992)	(1992)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
(WY)	(1959)	(1960)	(1956)	(1956)	(1956)	(1965)	(1980)	(1980)	(1968)	(1959)	(1958)	(1958)

06477500 FIRESTEEL CREEK NEAR MOUNT VERNON, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1956 - 2005	
ANNUAL TOTAL	6,549.80		6,965.20			
ANNUAL MEAN	17.9		19.1		[a]31.9	
HIGHEST ANNUAL MEAN					203	1962
LOWEST ANNUAL MEAN					0.03	1980
HIGHEST DAILY MEAN	744	Jun 12	701	Jun 15	5,820	Apr 4, 1969
LOWEST DAILY MEAN	0.00	Apr 18	0.01	Sep 6	[b]0.00	Oct 1, 1955
ANNUAL SEVEN-DAY MINIMUM	0.00	May 5	0.04	Sep 2	0.00	Oct 8, 1955
MAXIMUM PEAK FLOW			795	Jun 14	[c]6,610	Apr 4, 1969
MAXIMUM PEAK STAGE			8.64	Jun 14	[d]17.12	Apr 3, 1969
ANNUAL RUNOFF (AC-FT)	12,990		13,820		23,110	
10 PERCENT EXCEEDS	24		21		29	
50 PERCENT EXCEEDS	1.4		1.8		0.29	
90 PERCENT EXCEEDS	0.11		0.32		0.00	

a Median of annual mean discharges, 12 ft^3/s.
b No flow for many days in most years.
c Gage height, 15.34 ft.
d Backwater from ice.
e Estimated.



06478000 JAMES RIVER NEAR MITCHELL, SD

LOCATION.--Lat 43°39'32", long 97°55'08", in NW¼ NE¼ NW¼ sec.9, T.102 N., R.59 W., Hanson County, Hydrologic Unit 10160011, on right bank at downstream side of bridge on county road, 6.5 mi southeast of Mitchell, 6.9 mi downstream of Firesteel Creek, and 2.3 mi upstream of Enemy Creek.

DRAINAGE AREA.--19,100 mi^2 approximately, of which about 4,148 mi^2 is probably noncontributing(OFR-87-572).

PERIOD OF RECORD.--July 1953 to September 1958 (published as "near Alexandria") and August 1965 to September 1972. Miscellaneous peak discharge measurement in 1995, partial-record crest-stage gage in 1997, and miscellaneous discharge measurements in 2001. October 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,217 ft above NGVD of 1929, from topographic map. Miscellaneous discharge measurements made in 2001 at present site and datum. Miscellaneous discharge measurements made in 1995 and 1997 at datum 1,197.93 ft above NGVD of 1929 at site 7.2 mi upstream (SD Hwy 38). August 1965 to September 1972 at datum 1,198.00 ft above NGVD of 1929 (South Dakota Department of Transportation bench mark) at site 6.7 mi upstream (Interstate I-90), and was nonrecording gage Aug. 17 to Dec. 7, 1965. July 1953 to September 1958 nonrecording gage at datum 1,195.03 ft above NGVD of 1929 at site 3.8 mi downstream.

REMARKS.--Gage height records good. Mean daily discharges fair. Only daily discharges above 500 ft^3/s published because flows below are unreliable due to wind effect. 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 measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft^3/s, Apr. 7, 1997, gage height, 23.14 ft, site and datum then in use.

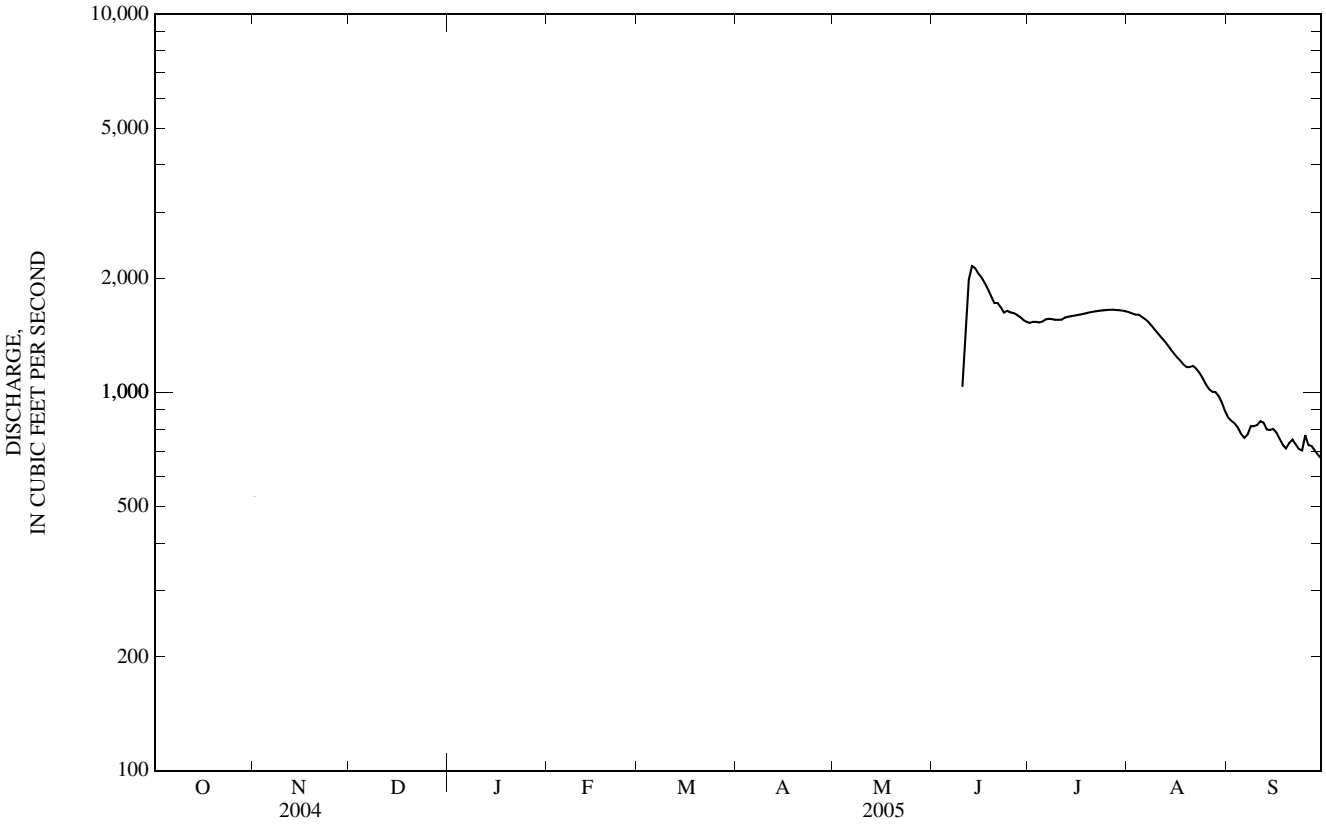
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge at current site, 24,700 ft^3/s, Apr. 11, 2001, from rating curve extended above 20,100 ft^3/s, gage height, 25.33 ft, from high-water mark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,170 ft^3/s, June 13, gage height, 17.09 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	---	531	---	---	---	---	---	---	---	1,530	1,630	858
2	---	---	---	---	---	---	---	---	---	1,540	1,620	841
3	---	---	---	---	---	---	---	---	---	1,540	1,610	828
4	---	---	---	---	---	---	---	---	---	1,530	1,610	808
5	---	---	---	---	---	---	---	---	---	1,540	1,580	777
6	---	---	---	---	---	---	---	---	---	1,560	1,560	758
7	---	---	---	---	---	---	---	---	---	1,570	1,540	774
8	---	---	---	---	---	---	---	---	---	1,560	1,500	815
9	---	---	---	---	---	---	---	---	---	1,560	1,470	815
10	---	---	---	---	---	---	---	---	1,030	1,560	1,430	820
11	---	---	---	---	---	---	---	---	1,500	1,560	1,400	840
12	---	---	---	---	---	---	---	---	1,990	1,580	1,370	832
13	---	---	---	---	---	---	---	---	2,160	1,590	1,340	798
14	---	---	---	---	---	---	---	---	2,130	1,590	1,300	796
15	---	---	---	---	---	---	---	---	2,060	1,600	1,270	801
16	---	---	---	---	---	---	---	---	2,010	1,600	1,240	784
17	---	---	---	---	---	---	---	---	1,950	1,610	1,210	754
18	---	---	---	---	---	---	---	---	1,880	1,620	1,190	727
19	---	---	---	---	---	---	---	---	1,800	1,620	1,170	712
20	---	---	---	---	---	---	---	---	1,730	1,630	1,170	736
21	---	---	---	---	---	---	---	---	1,720	1,640	1,180	751
22	---	---	---	---	---	---	---	---	1,680	1,640	1,160	730
23	---	---	---	---	---	---	---	---	1,630	1,650	1,130	709
24	---	---	---	---	---	---	---	---	1,650	1,650	1,090	703
25	---	---	---	---	---	---	---	---	1,630	1,650	1,050	772
26	---	---	---	---	---	---	---	---	1,620	1,660	1,020	726
27	---	---	---	---	---	---	---	---	1,610	1,660	1,000	721
28	---	---	---	---	---	---	---	---	1,580	1,650	1,000	702
29	---	---	---	---	---	---	---	---	1,560	1,650	978	684
30	---	---	---	---	---	---	---	---	1,540	1,650	941	670
31	---	---	---	---	---	---	---	---	---	1,640	892	---
TOTAL	---	---	---	---	---	---	---	---	---	49,630	39,651	23,042
MEAN	---	---	---	---	---	---	---	---	---	1,601	1,279	768
MAX	---	---	---	---	---	---	---	---	---	1,660	1,630	858
MIN	---	---	---	---	---	---	---	---	---	1,530	892	670
AC-FT	---	---	---	---	---	---	---	---	---	98,440	78,650	45,700

06478000 JAMES RIVER NEAR MITCHELL, SD—Continued

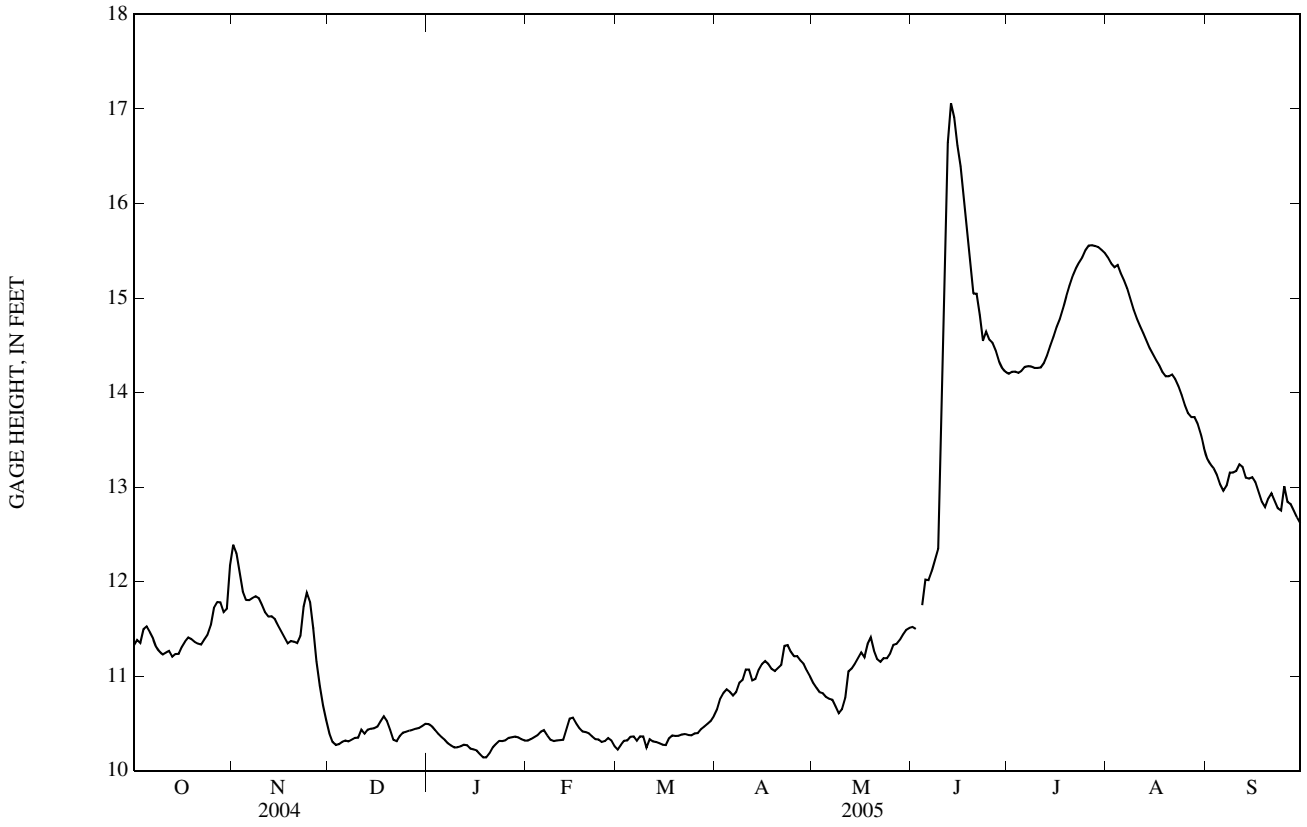


06478000 JAMES RIVER NEAR MITCHELL, SD—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.32	12.39	10.39	10.49	10.32	10.22	10.65	10.93	11.52	14.20	15.43	13.30
2	11.38	12.30	10.30	10.47	10.34	10.27	10.76	10.88	11.50	14.22	15.37	13.24
3	11.35	12.11	10.27	10.43	10.35	10.32	10.82	10.83	---	14.22	15.33	13.20
4	11.50	11.90	10.28	10.39	10.38	10.32	10.86	10.82	11.75	14.21	15.35	13.13
5	11.52	11.81	10.30	10.36	10.41	10.36	10.83	10.78	12.02	14.23	15.26	13.03
6	11.47	11.80	10.32	10.33	10.43	10.36	10.80	10.76	12.02	14.27	15.19	12.96
7	11.40	11.83	10.31	10.29	10.37	10.32	10.83	10.75	12.11	14.28	15.10	13.02
8	11.31	11.85	10.33	10.27	10.33	10.36	10.93	10.68	12.23	14.27	14.98	13.15
9	11.26	11.82	10.35	10.25	10.31	10.36	10.96	10.61	12.34	14.26	14.88	13.15
10	11.23	11.75	10.35	10.25	10.32	10.24	11.07	10.65	13.92	14.26	14.78	13.17
11	11.25	11.67	10.43	10.26	10.32	10.33	11.07	10.77	15.20	14.26	14.70	13.24
12	11.27	11.63	10.39	10.27	10.33	10.31	10.95	11.05	16.64	14.31	14.63	13.21
13	11.21	11.63	10.43	10.27	10.44	10.30	10.97	11.08	17.06	14.39	14.55	13.10
14	11.23	11.60	10.44	10.23	10.55	10.29	11.07	11.13	16.91	14.50	14.47	13.09
15	11.23	11.54	10.45	10.22	10.56	10.27	11.13	11.19	16.62	14.59	14.41	13.10
16	11.31	11.47	10.47	10.21	10.50	10.27	11.16	11.25	16.39	14.70	14.34	13.05
17	11.37	11.41	10.52	10.17	10.45	10.34	11.13	11.20	16.10	14.78	14.29	12.95
18	11.41	11.35	10.58	10.14	10.42	10.37	11.08	11.34	15.77	14.89	14.22	12.84
19	11.39	11.37	10.52	10.14	10.41	10.37	11.05	11.41	15.41	15.02	14.17	12.79
20	11.36	11.36	10.43	10.18	10.39	10.37	11.09	11.27	15.05	15.13	14.17	12.88
21	11.34	11.35	10.33	10.25	10.36	10.38	11.12	11.18	15.04	15.23	14.19	12.94
22	11.33	11.43	10.31	10.28	10.33	10.39	11.32	11.15	14.82	15.31	14.14	12.86
23	11.39	11.74	10.37	10.31	10.33	10.38	11.33	11.19	14.55	15.38	14.07	12.78
24	11.44	11.88	10.40	10.31	10.30	10.37	11.26	11.19	14.64	15.43	13.97	12.75
25	11.54	11.79	10.41	10.32	10.31	10.39	11.21	11.24	14.56	15.51	13.87	13.01
26	11.72	11.50	10.42	10.35	10.35	10.40	11.21	11.33	14.53	15.55	13.78	12.84
27	11.78	11.16	10.43	10.35	10.32	10.44	11.17	11.34	14.44	15.56	13.74	12.82
28	11.78	10.90	10.44	10.36	10.26	10.47	11.13	11.38	14.33	15.55	13.74	12.75
29	11.68	10.69	10.45	10.35	---	10.49	11.06	11.44	14.26	15.54	13.67	12.68
30	11.71	10.54	10.47	10.33	---	10.53	11.00	11.49	14.22	15.51	13.56	12.62
31	12.17	---	10.50	10.32	---	10.58	---	11.51	---	15.48	13.41	---
MEAN	11.44	11.59	10.40	10.30	10.37	10.36	11.03	11.09	---	14.81	14.44	12.99
MAX	12.17	12.39	10.58	10.49	10.56	10.58	11.33	11.51	---	15.56	15.43	13.30
MIN	11.21	10.54	10.27	10.14	10.26	10.22	10.65	10.61	---	14.20	13.41	12.62

06478000 JAMES RIVER NEAR MITCHELL, SD—Continued



06478500 JAMES RIVER NEAR SCOTLAND, SD

LOCATION.--Lat 43°11'09", long 97°38'07", in SW¼ SW¼ sec.30, T.97 N., R.57 W., Hutchinson County, Hydrologic Unit 10160011, on right bank 5.0 ft downstream from highway bridge, 0.3 mi upstream from Dawson Creek, and 5.2 mi northeast of Scotland.

DRAINAGE AREA.--20,653 mi^2, of which 4,148 mi^2 is probably noncontributing.

PERIOD OF RECORD.--September 1928 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 786: Drainage area. WSP 956: 1937-38. WSP 1279: 1932, 1948. WDR SD-84-1: Drainage area. WDR SD-86-1: Drainage area. WDR SD-88-1: Datum.

GAGE.--Water-stage recorder, crest-stage gage, and rock and earth control. Datum of gage is 1,168.02 ft above NGVD of 1929. Prior to Nov. 28, 1972, at site 0.25 mi downstream 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 caused by Dawson Creek; reverse flow occurred for part of May 15, 1961, from information by local residents. U.S. Army Corps of Engineers satellite data-collection platform at station. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section.

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	272	389	198	134	122	113	183	274	370	1,470	1,890	962
2	267	485	190	130	128	124	175	261	367	1,420	1,880	902
3	258	532	171	126	132	129	171	245	510	1,400	1,860	857
4	261	514	151	125	137	133	179	229	800	1,390	1,850	820
5	258	472	136	124	145	134	201	215	e1,300	1,370	1,850	788
6	268	427	136	123	148	136	223	210	e1,600	1,360	1,820	752
7	281	402	139	123	122	143	228	207	e1,550	1,360	1,780	736
8	286	390	138	118	109	150	209	197	e1,400	1,360	1,760	722
9	275	386	139	114	132	141	182	189	e1,400	1,360	1,720	738
10	254	398	147	108	134	144	232	196	e1,600	1,350	1,680	744
11	242	404	147	106	129	152	294	195	e2,100	1,320	1,640	737
12	238	385	147	107	128	145	323	225	2,690	1,350	1,600	777
13	242	364	133	e106	160	136	316	273	3,130	1,370	1,570	824
14	249	350	97	e106	208	133	281	302	3,310	1,390	1,530	794
15	250	349	133	e106	212	129	259	318	3,410	1,410	1,480	752
16	248	347	158	106	187	127	290	316	3,380	1,450	1,430	745
17	245	339	148	103	167	120	312	296	3,270	1,480	1,400	748
18	248	335	145	102	166	128	309	307	3,120	1,530	1,360	736
19	261	336	87	98	169	140	292	314	2,910	1,580	1,340	717
20	273	328	104	97	159	136	283	327	2,660	1,620	1,300	677
21	275	318	150	97	152	129	277	329	2,410	1,680	1,280	668
22	273	310	145	96	138	133	300	314	2,250	1,730	1,270	696
23	290	309	131	92	134	139	332	296	2,220	1,780	1,260	700
24	290	328	111	95	144	141	352	276	2,130	1,800	1,230	700
25	291	374	109	103	129	148	351	324	1,980	1,890	1,180	721
26	297	416	116	113	131	153	345	395	1,870	1,920	1,170	734
27	314	417	120	118	130	149	324	403	1,770	1,920	1,130	727
28	344	364	124	118	137	146	307	373	1,710	1,910	1,070	703
29	371	305	127	118	---	150	293	351	1,630	1,910	1,070	679
30	386	244	133	118	---	172	283	347	1,540	1,900	1,070	637
31	364	---	136	120	---	186	---	356	---	1,890	1,030	---
TOTAL	8,671	11,317	4,246	3,450	4,089	4,339	8,106	8,860	60,387	48,670	45,500	22,493
MEAN	280	377	137	111	146	140	270	286	2,013	1,570	1,468	750
MAX	386	532	198	134	212	186	352	403	3,410	1,920	1,890	962
MIN	238	244	87	92	109	113	171	189	367	1,320	1,030	637
AC-FT	17,200	22,450	8,420	6,840	8,110	8,610	16,080	17,570	119,800	96,540	90,250	44,610

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2005, BY WATER YEAR (WY)

MEAN	178	174	128	71.3	119	779	1,899	1,383	1,162	719	417	250
MAX	1,613	2,050	1,885	716	800	4,118	20,950	13,180	7,585	8,582	4,154	2,048
(WY)	(2000)	(1999)	(1999)	(1999)	(1994)	(1994)	(1997)	(1995)	(1984)	(1993)	(1993)	(1999)
MIN	0.00	0.00	2.72	1.52	2.14	16.8	18.5	8.52	5.14	0.79	0.00	0.27
(WY)	(1940)	(1940)	(1940)	(1940)	(1940)	(1940)	(1934)	(1934)	(1981)	(1936)	(1934)	(1941)

06478500 JAMES RIVER NEAR SCOTLAND, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1929 - 2005	
ANNUAL TOTAL	152,765		230,128			
ANNUAL MEAN	417		630		[a]607	
HIGHEST ANNUAL MEAN					3,996	1997
LOWEST ANNUAL MEAN					13.8	1934
HIGHEST DAILY MEAN	2,180	Jun 17	3,410	Jun 15	27,800	Apr 9, 1997
LOWEST DAILY MEAN	55	Feb 2	87	Dec 19	[b]0.00	Jul 28, 1934
ANNUAL SEVEN-DAY MINIMUM	55	Feb 1	97	Jan 18	0.00	Jul 28, 1934
MAXIMUM PEAK FLOW			3,420	Jun 15	29,400	Jun 23, 1984
MAXIMUM PEAK STAGE			12.60	Jun 15	20.45	Jun 23, 1984
ANNUAL RUNOFF (AC-FT)	303,000		456,500		440,000	
10 PERCENT EXCEEDS	913		1,710		1,550	
50 PERCENT EXCEEDS	275		297		104	
90 PERCENT EXCEEDS	82		123		9.0	

a Median of annual mean discharges, 310 ft^3/s.
b No flow for many days in some years.
e Estimated.