

CHEYENNE RIVER BASIN

06401500 CHEYENNE RIVER BELOW ANGOSTURA DAM, SD

LOCATION.--Lat 43°20'42", long 103°26'12", in NE¼ NW¼ sec.20, T.8 S., R.6 E., Fall River County, Hydrologic Unit 10120109, on right bank 800 ft downstream from Angostura Dam, 4.8 mi upstream from Fall River, and 6.5 mi southeast of Hot Springs.

DRAINAGE AREA.--9,100 mi², approximately.

PERIOD OF RECORD.--October 1945 to current year, seasonal records only beginning October 1978. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1946(M). WDR SD-78-1: 1962(M), 1967(M), 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 3,058.02 ft above NGVD of 1929 (Bureau of Reclamation bench mark). Prior to Oct. 17, 1946, nonrecording gage and Oct. 17, 1946, to July 7, 1953, water-stage recorder at site 4.8 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Angostura Dam 800 ft upstream since October 1949. Bureau of Reclamation 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, 30,300 ft³/s, May 20, 1978, gage height, 15.97 ft, from rating curve extended above 12,000 ft³/s; no flow Oct. 9, 1949, to Feb. 5, 1950, Apr. 28, Aug. 26, 30, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.5 ft³/s, June 13, gage height, 2.98 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	---	---	---	---	0.47	0.46	0.46	0.47	0.45	0.44	---	---
2	---	---	---	---	0.41	0.47	0.46	0.46	0.44	0.44	---	---
3	---	---	---	---	0.41	0.47	0.46	0.47	0.44	0.44	---	---
4	---	---	---	---	0.41	0.47	0.46	0.47	0.46	0.43	---	---
5	---	---	---	---	0.41	0.47	0.51	0.47	0.45	0.45	---	---
6	---	---	---	---	e0.41	0.48	0.47	0.47	0.45	0.44	---	---
7	---	---	---	---	e0.41	0.48	0.46	0.47	0.50	0.44	---	---
8	---	---	---	---	e0.41	0.48	0.47	0.50	0.43	0.44	---	---
9	---	---	---	---	e0.41	0.48	0.47	0.46	0.47	0.43	---	---
10	---	---	---	---	0.41	0.49	0.48	0.52	0.45	0.43	---	---
11	---	---	---	---	0.41	0.46	0.47	0.74	0.55	0.45	---	---
12	---	---	---	---	e0.41	0.47	0.46	0.66	0.73	0.44	---	---
13	---	---	---	---	e0.41	0.47	0.46	0.50	1.0	0.43	---	---
14	---	---	---	---	e0.41	0.52	0.46	0.46	0.46	0.46	---	---
15	---	---	---	---	e0.41	0.53	0.46	0.46	0.46	0.47	---	---
16	---	---	---	---	e0.41	0.52	0.46	0.46	0.45	0.47	---	---
17	---	---	---	---	e0.41	0.57	0.46	0.46	0.46	0.46	---	---
18	---	---	---	---	e0.41	0.60	0.46	0.46	0.45	0.51	---	---
19	---	---	---	---	e0.41	0.58	0.51	0.46	0.46	0.60	---	---
20	---	---	---	---	e0.42	0.53	0.50	0.46	0.46	0.61	---	---
21	---	---	---	---	e0.42	0.61	0.97	0.46	0.44	0.61	---	---
22	---	---	---	---	0.42	0.52	0.54	0.46	0.44	0.62	---	---
23	---	---	---	---	0.42	0.46	0.49	0.45	0.43	0.64	---	---
24	---	---	---	---	0.42	0.56	0.48	0.46	0.49	0.78	---	---
25	---	---	---	---	0.47	0.48	0.48	0.51	0.46	0.69	---	---
26	---	---	---	---	0.47	0.46	0.48	0.45	0.44	0.77	---	---
27	---	---	---	---	0.47	0.46	0.54	0.44	0.45	0.68	---	---
28	---	---	---	---	0.47	0.46	0.52	0.45	0.44	0.68	---	---
29	---	---	---	---	---	0.46	0.49	0.46	0.44	0.68	---	---
30	---	---	---	---	---	0.47	0.48	0.51	0.43	0.67	---	---
31	---	---	---	---	---	0.46	---	0.61	---	0.68	---	---
TOTAL	---	---	---	---	11.83	15.40	14.87	15.14	14.48	16.78	---	---
MEAN	---	---	---	---	0.42	0.50	0.50	0.49	0.48	0.54	---	---
MAX	---	---	---	---	0.47	0.61	0.97	0.74	1.0	0.78	---	---
MIN	---	---	---	---	0.41	0.46	0.46	0.44	0.43	0.43	---	---
AC-FT	---	---	---	---	23	31	29	30	29	33	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1978, BY WATER YEAR (WY)

MEAN	9.65	11.2	14.1	18.1	27.7	31.7	30.5	205	314	108	25.2	10.9
MAX	104	103	108	118	211	174	188	2,203	2,802	1,210	201	158
(WY)	(1953)	(1953)	(1953)	(1953)	(1974)	(1967)	(1952)	(1978)	(1962)	(1962)	(1958)	(1952)
MIN	0.81	0.79	0.75	0.84	0.66	0.82	0.87	0.42	0.78	0.89	0.70	0.70
(WY)	(1961)	(1961)	(1961)	(1961)	(1970)	(1970)	(1962)	(1951)	(1977)	(1961)	(1961)	(1960)

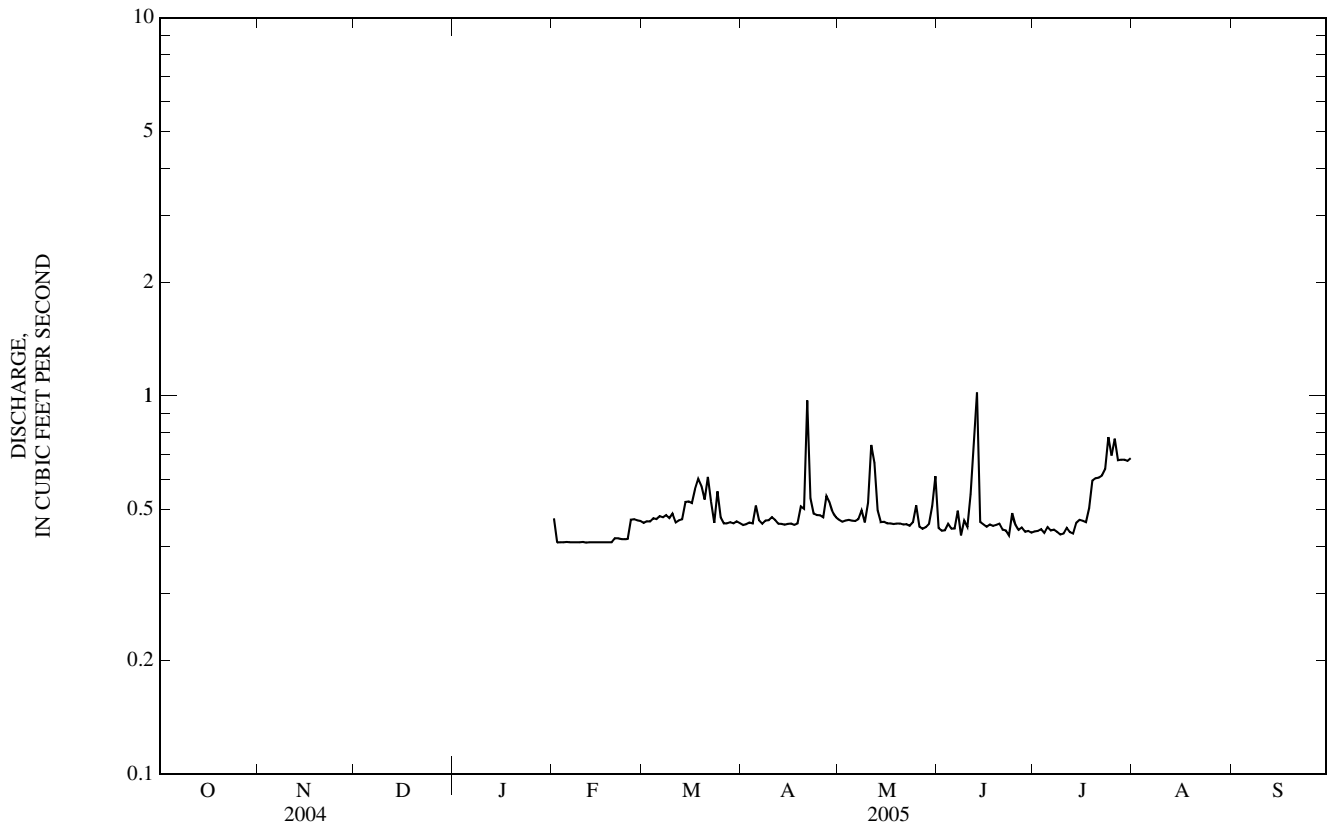
06401500 CHEYENNE RIVER BELOW ANGOSTURA DAM, SD—Continued

SUMMARY STATISTICS

WATER YEARS 1951 - 1978*

ANNUAL MEAN	67.1	
HIGHEST ANNUAL MEAN	404	1962
LOWEST ANNUAL MEAN	0.83	1961
HIGHEST DAILY MEAN	20,600	Jun 18, 1962
LOWEST DAILY MEAN	0.00	Apr 28, 1951
ANNUAL SEVEN-DAY MINIMUM	0.20	Apr 26, 1951
MAXIMUM PEAK FLOW	30,300	May 20, 1978
MAXIMUM PEAK STAGE	15.97	May 20, 1978
ANNUAL RUNOFF (AC-FT)	48,630	
10 PERCENT EXCEEDS	107	
50 PERCENT EXCEEDS	1.4	
90 PERCENT EXCEEDS	0.91	

* Period reflects regulated and complete water years.
 e Estimated.



CHEYENNE RIVER BASIN

06402000 FALL RIVER AT HOT SPRINGS, SD

LOCATION.--Lat 43°25'50", long 103°28'33", in NW ¼ NW ¼ sec.24, T.7 S., R.5 E., Fall River County, Hydrologic Unit 10120109, on left bank at intersection of River Street and University Avenue in Hot Springs, and 6.0 mi upstream from mouth.

DRAINAGE AREA.--137 mi².

PERIOD OF RECORD.--October 1937 to current year (monthly discharge only for October 1937, published in WSP 1309). Daily discharge November 1937 to current year. Stage records October 2001 to September 2003.

REVISED RECORDS.--WSP 1279: 1938, 1941(M), 1947(M). WSP 1729: 1959(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 3,413.20 ft above NGVD of 1929. Prior to June 2, 1939, nonrecording gage at site 300 ft upstream at datum 3.00 ft higher.

REMARKS.--Records good. Flow regulated by dam forming Coldbrook Reservoir, capacity, 7,200 acre-ft, since September 1952, and dam forming Cottonwood Springs Lake, capacity, 8,385 acre-ft since June 1969. Some diversions above station for municipal supply of Hot Springs. 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	29	28	27	27	29	30	31	31	34	25	26	27
2	29	27	27	27	29	30	31	31	33	25	25	27
3	28	27	27	27	29	30	30	31	34	25	25	26
4	29	27	27	27	29	31	31	31	34	25	26	26
5	29	27	27	27	29	31	31	30	35	27	26	26
6	29	28	27	27	29	31	30	30	35	27	27	26
7	29	27	27	27	29	31	30	30	35	27	27	26
8	28	27	27	27	29	30	30	31	34	26	26	26
9	28	27	27	27	29	31	30	30	35	26	26	26
10	28	27	27	27	30	31	30	30	35	26	27	27
11	28	27	27	28	30	31	30	31	37	27	27	26
12	28	27	27	28	30	31	31	33	47	27	64	26
13	28	27	27	28	29	31	30	31	36	26	28	26
14	28	27	27	28	29	30	30	30	32	26	28	26
15	28	27	27	28	29	30	30	30	30	26	27	25
16	27	27	27	28	29	31	31	30	29	26	28	26
17	27	27	27	28	29	31	30	30	28	26	27	26
18	27	27	27	28	29	30	31	30	29	26	27	26
19	27	27	27	29	29	30	31	30	28	26	26	25
20	27	27	27	28	29	30	31	30	28	26	27	26
21	27	27	27	28	29	31	38	30	27	26	27	26
22	32	27	27	28	29	30	31	30	27	26	27	26
23	28	27	27	28	30	30	31	30	27	52	27	27
24	27	27	27	28	29	31	31	30	28	45	27	27
25	27	27	27	28	29	30	31	32	27	27	27	27
26	27	27	27	28	30	31	31	31	26	27	27	26
27	27	27	27	29	30	31	32	30	25	27	27	27
28	27	27	27	29	30	31	31	31	25	26	27	27
29	28	27	27	29	---	31	31	32	26	25	27	28
30	28	27	27	29	---	31	31	33	25	26	27	27
31	28	---	27	29	---	31	---	34	---	25	27	---
TOTAL	867	812	837	864	819	949	927	953	931	853	867	789
MEAN	28.0	27.1	27.0	27.9	29.2	30.6	30.9	30.7	31.0	27.5	28.0	26.3
MAX	32	28	27	29	30	31	38	34	47	52	64	28
MIN	27	27	27	27	29	30	30	30	25	25	25	25
AC-FT	1,720	1,610	1,660	1,710	1,620	1,880	1,840	1,890	1,850	1,690	1,720	1,560

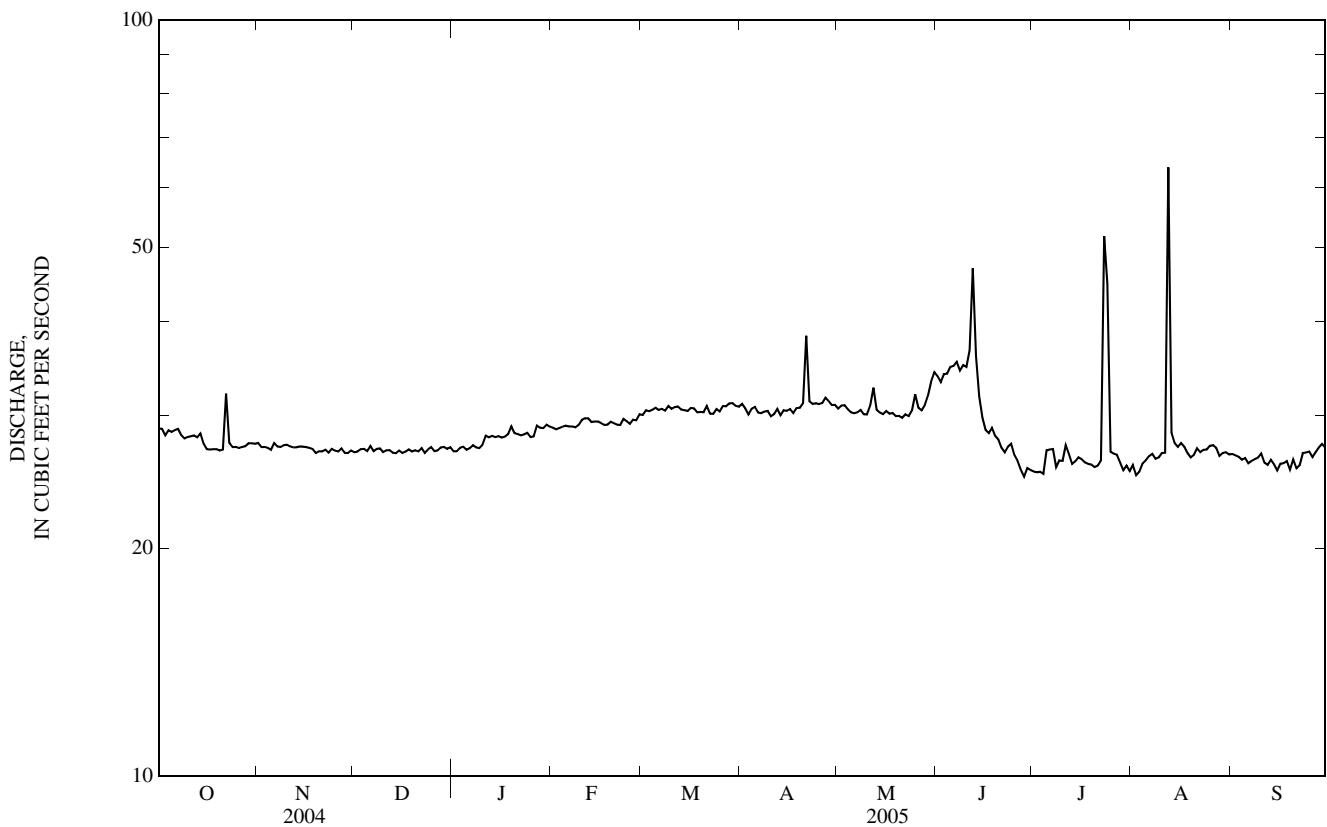
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2005, BY WATER YEAR (WY)

MEAN	23.4	23.4	23.9	23.4	23.8	24.2	23.6	23.7	23.6	22.6	22.7	23.1
MAX	31.8	31.8	31.1	31.0	32.7	32.6	31.7	34.9	41.3	38.8	33.6	32.4
(WY)	(2000)	(2000)	(2002)	(2002)	(2002)	(2002)	(2000)	(1999)	(1999)	(1999)	(1999)	(1999)
MIN	18.8	18.3	19.0	19.4	19.8	20.0	19.5	19.0	17.9	18.0	18.6	17.7
(WY)	(1973)	(1987)	(1987)	(1984)	(1977)	(1982)	(1970)	(1976)	(1981)	(1980)	(1972)	(1983)

06402000 FALL RIVER AT HOT SPRINGS, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1970 - 2005*	
ANNUAL TOTAL	10,373		10,468		23.4	
ANNUAL MEAN	28.3		28.7		30.6	
HIGHEST ANNUAL MEAN					20.9	1999
LOWEST ANNUAL MEAN					20.9	1981
HIGHEST DAILY MEAN	39	Jun 20	64	Aug 12	75	Mar 19, 1978
LOWEST DAILY MEAN	26	Aug 30	25	Jun 27	^a 14	May 2, 1982
ANNUAL SEVEN-DAY MINIMUM	27	Aug 28	25	Jun 27	15	Sep 23, 1983
MAXIMUM PEAK FLOW			1,590	Aug 12	1,590	Aug 12, 2005
MAXIMUM PEAK STAGE			4.99	Aug 12	4.99	Aug 12, 2005
ANNUAL RUNOFF (AC-FT)	20,570		20,760		16,990	
10 PERCENT EXCEEDS	30		31		29	
50 PERCENT EXCEEDS	28		28		22	
90 PERCENT EXCEEDS	27		26		20	

* Regulated period only (1970-2005). See REMARKS.
 a For some days in 1982, 1983, and 1985.



CHEYENNE RIVER BASIN

06402430 BEAVER CREEK NEAR PRINGLE, SD

LOCATION.--Lat 43°34'53", long 103°28'34", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.25, T.5 S., R.5 E., Custer County, Hydrologic Unit 10120109, on right bank 2.0 mi north of Wind Cave National Park Headquarters.

DRAINAGE AREA.--45.8 mi².

PERIOD OF RECORD.--October 1990 to current year. Partial monthly discharge October 1990.

GAGE.--Water-stage recorder. Datum of gage is 4,180 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. Minor diversions for irrigation of hay meadows and domestic use may occur upstream of the gage. 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	0.25	0.51	0.36	0.22	0.26	0.42	0.59	0.47	0.86	0.29	0.27	0.03
2	0.25	0.50	0.40	0.20	0.27	0.51	0.58	0.40	0.52	0.36	0.26	0.03
3	0.23	0.50	0.40	0.18	0.27	0.47	0.58	0.35	0.38	0.30	0.50	0.03
4	0.24	0.50	0.43	0.24	0.27	0.44	0.58	0.32	0.39	0.29	1.1	0.03
5	0.23	0.52	0.42	0.26	0.28	0.47	0.61	0.28	0.43	0.40	1.4	0.03
6	0.26	0.50	0.42	0.41	0.30	0.47	0.60	0.31	0.32	0.46	0.44	0.03
7	0.23	0.52	0.33	0.29	e0.28	0.44	0.65	0.41	0.34	0.32	0.12	0.03
8	0.27	0.51	0.35	0.23	e0.26	0.45	0.50	0.42	0.25	0.32	0.07	0.03
9	0.23	0.53	0.42	0.23	e0.26	0.47	0.46	0.43	0.29	0.26	0.07	0.03
10	0.25	0.55	0.37	0.23	e0.33	0.52	0.45	0.49	0.27	0.24	0.08	0.03
11	0.30	0.55	0.40	0.27	e0.37	0.54	0.43	1.0	0.75	0.24	0.18	0.04
12	0.38	0.49	0.39	0.28	0.42	0.57	0.42	2.2	1.4	0.29	0.40	0.07
13	0.37	0.59	0.31	0.27	0.44	0.56	0.36	2.1	4.0	0.26	0.77	0.04
14	0.37	0.59	0.49	e0.24	0.39	0.48	0.36	0.98	2.1	0.23	1.0	0.05
15	0.35	0.53	0.40	e0.23	0.38	0.48	0.35	0.75	1.1	0.26	0.38	0.10
16	0.37	0.73	0.40	e0.23	0.32	0.52	0.35	0.75	0.87	0.25	0.31	0.05
17	0.38	0.48	0.38	e0.23	0.37	0.55	0.33	0.75	0.73	0.22	0.30	0.02
18	0.39	0.56	0.41	0.25	0.38	0.57	0.32	0.63	0.66	0.30	0.25	0.02
19	0.40	0.48	0.34	0.28	0.43	0.52	0.33	0.56	0.52	0.23	0.30	0.04
20	0.39	0.44	0.37	0.28	0.44	0.53	0.46	0.47	0.51	0.12	0.52	0.03
21	0.42	0.44	0.32	0.32	0.42	0.58	2.6	0.51	0.49	0.13	0.28	0.03
22	0.72	0.52	0.27	e0.30	0.41	0.57	1.8	0.38	0.33	0.12	0.16	0.06
23	0.82	0.49	e0.25	e0.29	0.41	0.57	0.85	0.37	0.31	0.09	0.10	0.16
24	0.57	0.47	e0.22	0.32	0.44	0.63	0.63	0.37	0.35	0.16	0.17	0.07
25	0.56	0.49	0.20	0.29	0.45	0.62	0.55	0.56	0.34	0.64	0.17	0.13
26	0.57	0.46	0.22	0.25	0.45	0.60	0.44	0.46	0.32	0.92	0.11	0.22
27	0.54	0.36	0.25	0.24	0.44	0.64	0.52	0.35	0.29	0.61	0.07	0.17
28	0.47	0.43	0.28	0.25	0.38	0.65	0.62	0.35	0.27	0.31	0.06	0.08
29	0.49	0.40	0.31	0.24	---	0.65	0.63	0.36	0.25	0.19	0.05	0.07
30	0.48	0.52	0.29	0.25	---	0.65	0.53	0.58	0.25	0.17	0.03	0.09
31	0.48	---	0.25	0.27	---	0.65	---	1.9	---	0.23	0.03	---
TOTAL	12.26	15.16	10.65	8.07	10.12	16.79	18.48	20.26	19.89	9.21	9.95	1.84
MEAN	0.40	0.51	0.34	0.26	0.36	0.54	0.62	0.65	0.66	0.30	0.32	0.06
MAX	0.82	0.73	0.49	0.41	0.45	0.65	2.6	2.2	4.0	0.92	1.4	0.22
MIN	0.23	0.36	0.20	0.18	0.26	0.42	0.32	0.28	0.25	0.09	0.03	0.02
AC-FT	24	30	21	16	20	33	37	40	39	18	20	3.6

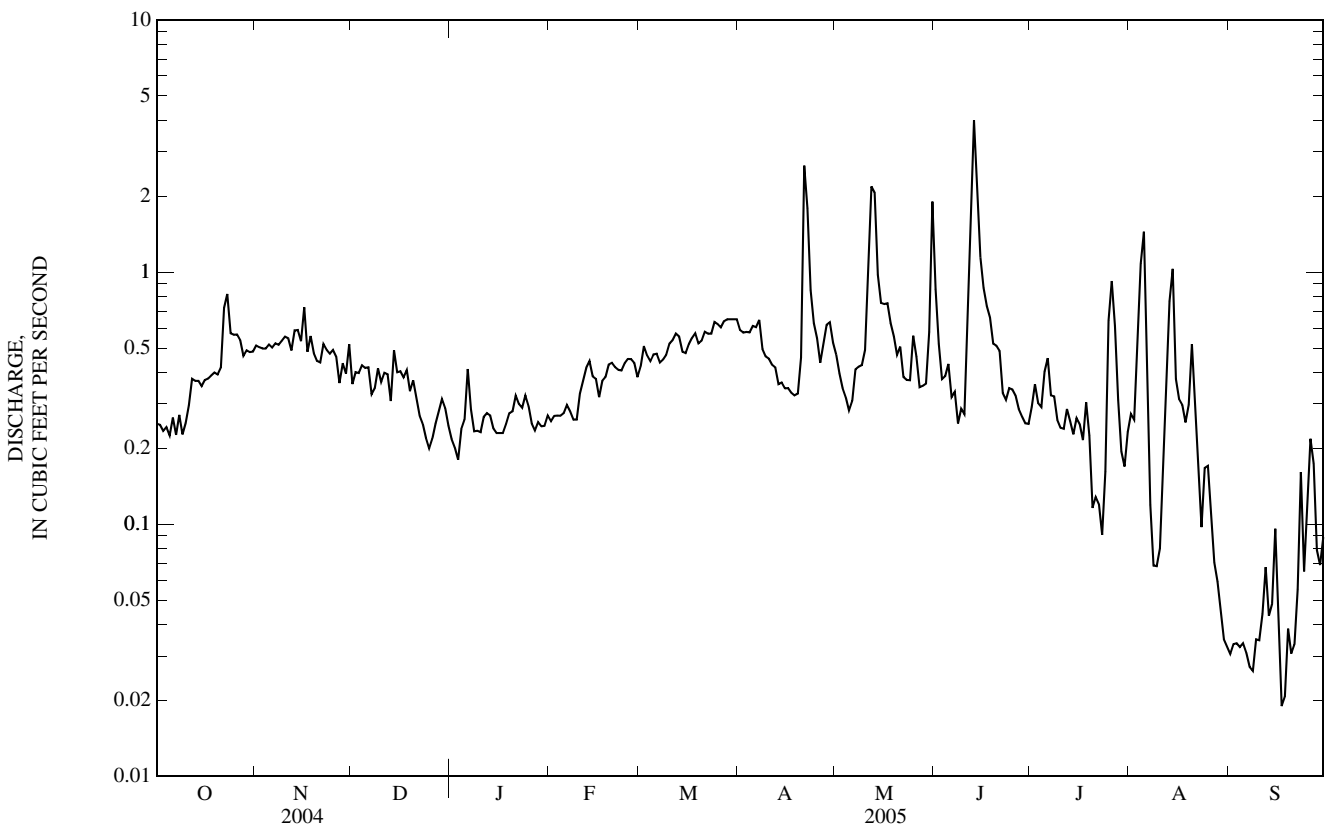
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2005, BY WATER YEAR (WY)

MEAN	2.04	2.17	1.77	1.45	1.48	2.29	2.78	4.31	6.27	4.07	2.76	2.14
MAX	5.78	6.90	5.35	4.19	3.81	4.72	8.24	16.2	35.8	16.8	12.0	7.69
(WY)	(2000)	(1999)	(1999)	(1999)	(1997)	(1997)	(1999)	(1999)	(1995)	(1999)	(1999)	(1999)
MIN	0.10	0.21	0.22	0.14	0.25	0.45	0.39	0.54	0.32	0.30	0.23	0.06
(WY)	(1992)	(1992)	(1993)	(1992)	(1992)	(1992)	(1992)	(1992)	(2004)	(2005)	(1992)	(2005)

06402430 BEAVER CREEK NEAR PRINGLE, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1992 - 2005	
ANNUAL TOTAL	174.99		152.68		^a 2.80	
ANNUAL MEAN	0.48		0.42		8.93 1999	
HIGHEST ANNUAL MEAN					0.32 1992	
LOWEST ANNUAL MEAN					85 Jun 10, 1995	
HIGHEST DAILY MEAN	1.4	Sep 5	4.0	Jun 13	0.02	Sep 17, 2005
LOWEST DAILY MEAN	0.14	Jul 16	0.02	Sep 17	0.03	Aug 30, 2005
ANNUAL SEVEN-DAY MINIMUM	0.15	Jul 15	0.03	Aug 30	90	Jun 10, 1995
MAXIMUM PEAK FLOW			4.6	Jun 13	9.17	Jun 10, 1995
MAXIMUM PEAK STAGE			8.17	Jun 13	2,030	
ANNUAL RUNOFF (AC-FT)	347		303		6.3	
10 PERCENT EXCEEDS	0.73		0.63		1.3	
50 PERCENT EXCEEDS	0.46		0.37		0.29	
90 PERCENT EXCEEDS	0.22		0.11			

a Median of annual mean discharges, 1.4 ft³/s.
 e Estimated.



CHEYENNE RIVER BASIN

06402500 BEAVER CREEK NEAR BUFFALO GAP, SD

LOCATION.--Lat 43°28'00", long 103°18'20", in NE¼ SE¼ sec.5, T.7 S., R.7 E., Fall River County, Hydrologic Unit 10120109, on left bank 1.5 mi south of Buffalo Gap and 4.5 mi upstream from mouth.

DRAINAGE AREA.--130 mi², approximately.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for October, November, 1957, published in WSP 1309.

REVISED RECORDS.--WSP 956: 1941. WSP 1309: 1939-40(M), 1947(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 3,150 ft above NGVD of 1929, from topographic map. Prior to June 20, 1939, nonrecording gage at site 0.8 mi downstream at different datum.

REMARKS.--Records good. Nearly all flow is diverted above station during irrigation season. 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 in 1927 reached a stage of 18.0 ft, former site and 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	8.9	9.5	9.3	e7.4	7.7	7.5	8.2	7.0	5.8	10	3.8	12
2	9.2	9.5	9.4	e7.0	7.8	6.0	5.7	4.7	5.9	10	2.9	12
3	9.1	9.6	9.3	e8.7	7.6	6.1	5.0	4.2	7.0	8.3	2.6	12
4	9.0	9.5	9.2	e8.0	7.6	6.2	3.7	3.9	7.8	7.9	3.0	12
5	9.1	9.5	9.3	e7.5	7.6	6.4	4.4	6.2	7.8	10	2.9	12
6	9.1	9.5	9.3	e11	7.6	6.5	5.2	6.6	6.9	10	3.8	11
7	9.2	9.5	9.2	e11	e7.6	6.2	3.2	41	7.0	7.1	2.8	11
8	8.9	9.7	9.3	e12	e7.5	6.3	4.5	9.7	7.3	6.5	4.2	11
9	8.9	9.7	9.2	10	e7.6	6.3	4.6	8.2	7.1	4.9	3.2	11
10	9.0	9.5	8.7	8.2	e7.8	6.3	3.2	8.3	7.2	3.7	3.1	10
11	9.1	9.4	8.9	7.9	e8.0	6.6	2.9	11	8.2	3.5	3.9	7.3
12	8.9	9.4	8.6	7.5	8.0	6.6	3.6	15	8.8	3.3	4.0	7.0
13	8.7	9.3	8.6	e7.6	7.9	6.6	2.7	13	16	2.7	7.3	7.2
14	8.9	9.2	8.7	e7.3	7.7	6.3	2.5	10	9.4	2.3	6.7	6.6
15	9.0	9.0	8.9	e7.0	7.7	6.2	2.7	9.9	11	1.8	6.8	5.6
16	9.0	9.0	9.0	e7.0	7.6	6.4	2.8	9.0	12	2.8	4.8	4.9
17	9.0	9.0	9.0	e7.5	7.9	6.4	3.8	9.5	13	2.6	4.5	4.1
18	9.0	9.1	9.0	e8.0	8.0	6.5	3.6	8.7	12	1.9	3.7	6.7
19	9.0	9.1	9.1	e8.8	8.0	6.6	2.7	8.3	12	2.1	1.5	5.9
20	9.1	9.1	8.9	8.3	7.9	6.5	2.7	9.4	12	2.1	2.4	4.2
21	8.9	9.1	8.8	8.0	7.8	7.0	4.0	8.1	11	1.6	2.9	5.5
22	11	9.1	e8.7	7.5	7.9	6.7	3.2	9.5	11	0.93	1.5	3.4
23	11	9.4	e8.6	8.0	8.1	6.9	3.0	7.8	10	1.6	2.0	2.4
24	9.4	9.4	e8.5	8.2	8.0	7.7	4.0	7.1	10	2.1	2.6	3.0
25	9.4	9.4	e8.5	7.8	7.8	8.9	4.8	5.8	11	3.3	4.1	2.5
26	9.4	9.3	8.5	7.7	7.8	8.9	3.9	9.4	10	4.0	9.3	5.9
27	9.6	9.2	8.0	7.7	7.8	8.8	2.8	8.3	7.1	4.5	12	3.3
28	9.5	9.2	7.9	7.9	7.9	8.9	3.8	5.0	6.0	2.8	12	3.6
29	9.6	9.2	8.0	7.8	---	9.1	5.8	3.8	6.6	2.0	12	4.0
30	9.5	e9.2	7.8	7.8	---	9.1	6.1	5.7	6.5	2.0	12	5.6
31	9.5	---	7.5	7.7	---	9.2	---	9.0	---	2.2	12	---
TOTAL	286.9	279.6	271.7	253.8	218.2	219.7	119.1	283.1	273.4	130.53	160.3	212.7
MEAN	9.25	9.32	8.76	8.19	7.79	7.09	3.97	9.13	9.11	4.21	5.17	7.09
MAX	11	9.7	9.4	12	8.1	9.2	8.2	41	16	10	12	12
MIN	8.7	9.0	7.5	7.0	7.5	6.0	2.5	3.8	5.8	0.93	1.5	2.4
AC-FT	569	555	539	503	433	436	236	562	542	259	318	422

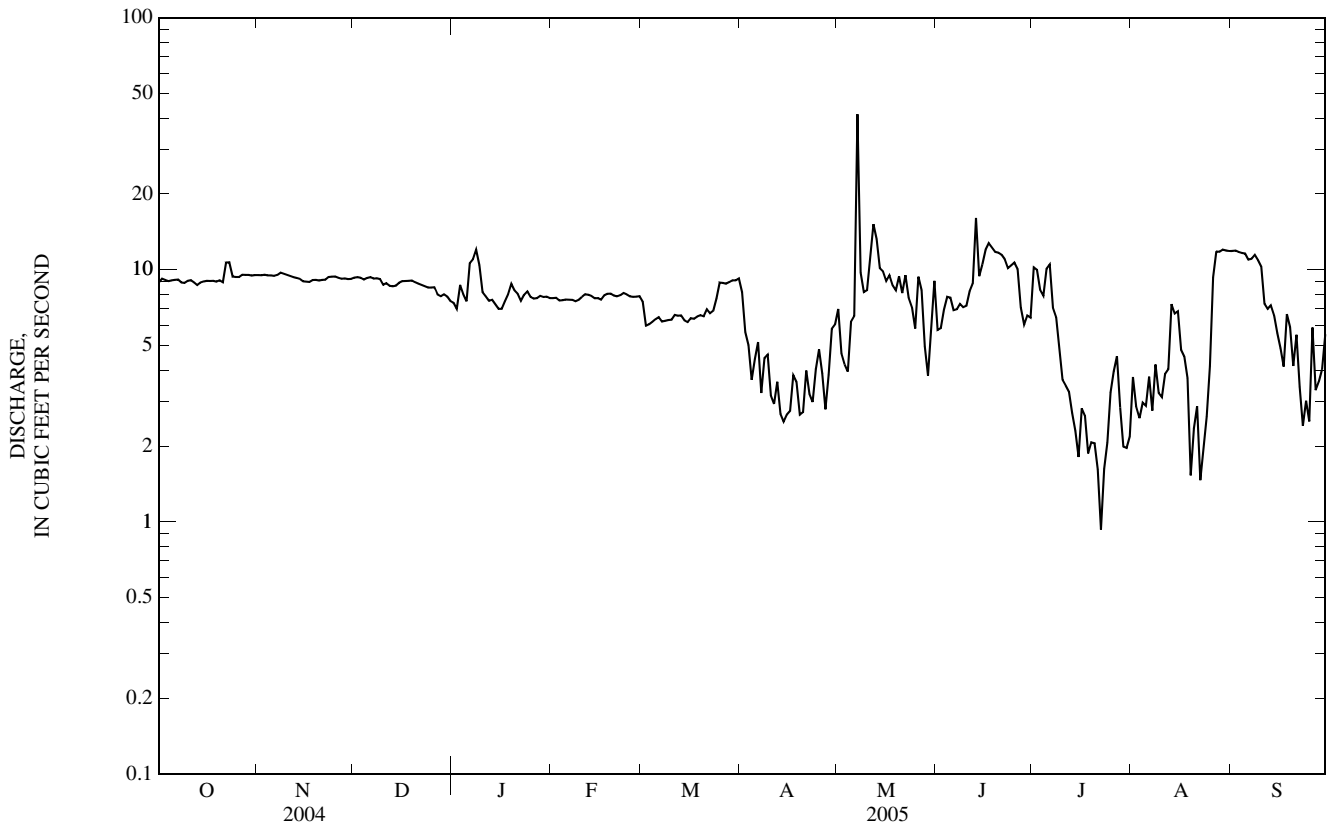
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

MEAN	7.43	9.08	9.63	9.83	9.84	9.20	6.79	5.19	7.63	5.53	4.19	5.59
MAX	16.0	19.9	19.3	18.4	15.1	16.1	16.9	21.7	43.4	32.4	22.3	15.4
(WY)	(1999)	(1999)	(1999)	(1999)	(1999)	(1978)	(1941)	(1999)	(1999)	(1999)	(1999)	(1999)
MIN	0.67	3.40	5.96	6.82	7.00	4.34	0.79	0.61	0.39	0.24	0.25	0.37
(WY)	(1961)	(1950)	(1991)	(2004)	(1942)	(1961)	(1967)	(1960)	(1974)	(1953)	(1961)	(1960)

06402500 BEAVER CREEK NEAR BUFFALO GAP, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 2005	
ANNUAL TOTAL	2,368.99		2,709.03			
ANNUAL MEAN	6.47		7.42		7.48	
HIGHEST ANNUAL MEAN					21.2	1999
LOWEST ANNUAL MEAN					3.78	1961
HIGHEST DAILY MEAN	11	Oct 22	41	May 7	313	Aug 10, 1955
LOWEST DAILY MEAN	0.69	Aug 9	0.93	Jul 22	^a 0.00	Jul 29, 1952
ANNUAL SEVEN-DAY MINIMUM	1.6	Jul 14	1.8	Jul 18	0.06	Jul 28, 1952
MAXIMUM PEAK FLOW			211	May 7	^b 11,700	Sep 4, 1938
MAXIMUM PEAK STAGE			7.66	May 7	^c 16.46	Sep 4, 1938
ANNUAL RUNOFF (AC-FT)	4,700		5,370		5,420	
10 PERCENT EXCEEDS	9.2		10		12	
50 PERCENT EXCEEDS	7.1		7.8		8.0	
90 PERCENT EXCEEDS	2.8		3.0		0.79	

- a No flow at times in some years.
- b From rating curve extended above 11 ft³/s on basis of slope-area measurement.
- c Site and datum then in use.
- e Estimated.



CHEYENNE RIVER BASIN

06403300 FRENCH CREEK ABOVE FAIRBURN, SD

LOCATION.--Lat 43°43'02", long 103°22'03", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.11, T.4 S., R.6 E., Custer County, Hydrologic Unit 10120109, on right bank 500 ft upstream from concrete diversion dam, 1.0 mi southwest of landing strip in Custer State Park, 1.5 mi west of east boundary of Custer State Park, 2.6 mi southwest of abandoned Fairview School, and 3.5 mi southeast of Custer State Park Headquarters.

DRAINAGE AREA.--105 mi², approximately.

PERIOD OF RECORD.--April 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,850 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Stockade Reservoir, capacity, 1,820 acre-ft, 12 mi upstream. 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	0.82	1.6	1.6	e1.5	e1.3	e1.5	2.3	1.8	4.4	1.5	2.2	1.2
2	0.80	1.6	1.5	e1.5	e1.3	e1.6	2.4	1.7	6.5	1.8	1.9	1.2
3	0.82	1.6	1.5	e1.1	e1.2	e1.7	2.6	1.5	4.9	1.5	1.8	1.1
4	0.84	1.5	1.5	e1.3	e1.2	e1.9	2.2	1.5	3.8	1.3	1.6	1.0
5	0.87	1.5	1.5	e1.4	e1.3	1.9	2.1	1.4	3.1	2.3	1.3	0.94
6	0.89	1.5	1.5	e1.4	e1.3	2.0	2.1	1.4	2.8	3.0	1.1	0.87
7	0.85	1.5	e1.4	e1.3	e1.4	2.0	2.0	1.7	2.6	2.5	1.0	0.89
8	0.83	1.5	1.4	e1.2	e1.6	2.0	2.4	1.5	2.6	3.6	0.95	0.91
9	0.82	1.5	1.4	e1.2	e1.2	2.0	2.5	1.4	2.5	3.1	0.96	0.87
10	0.85	1.5	1.4	e1.1	e1.2	2.1	2.3	1.6	2.8	2.7	1.1	0.85
11	0.88	1.5	1.4	e1.1	e1.2	2.1	2.1	2.7	3.9	2.6	1.5	0.77
12	0.91	1.5	e1.4	e1.1	e1.3	2.1	2.2	7.3	6.5	2.3	2.3	0.80
13	0.93	1.4	e1.4	e1.2	e1.4	2.0	2.2	13	19	2.0	7.8	0.89
14	0.96	1.4	e1.4	e1.2	e1.5	e2.2	2.2	13	20	1.6	8.8	0.85
15	0.99	1.5	1.4	e1.3	e1.3	e2.0	1.8	9.4	13	1.4	6.7	0.81
16	1.0	1.5	1.4	e1.3	e1.3	e1.9	1.7	6.9	9.8	1.2	5.1	0.80
17	1.1	1.5	e1.3	e1.4	e1.2	1.8	1.6	5.6	7.9	1.0	4.1	0.78
18	1.1	1.5	e1.3	e1.4	e1.2	1.9	1.4	4.6	6.3	0.88	3.6	0.87
19	1.1	1.6	e1.3	e1.5	e1.2	e1.9	1.4	4.1	5.4	0.79	3.2	0.96
20	1.2	1.5	e1.3	e1.5	e1.3	e1.9	1.5	3.4	4.5	0.71	2.8	0.90
21	1.2	1.5	e1.2	e1.6	e1.3	1.9	2.7	2.9	4.1	0.68	2.5	0.85
22	1.9	1.4	e1.2	e1.9	e1.3	2.0	4.6	2.5	3.3	0.64	2.6	0.90
23	2.0	1.5	e1.2	e1.9	e1.7	1.9	6.6	2.2	2.9	0.57	2.4	0.95
24	1.9	1.5	e1.1	e1.5	e2.0	2.1	4.9	2.0	2.5	0.66	2.3	0.99
25	1.9	1.5	e1.5	e1.5	e2.0	2.1	3.6	2.1	2.3	1.7	2.2	1.2
26	1.8	1.6	1.7	e1.5	e1.7	2.3	2.9	2.0	2.1	1.8	2.2	1.2
27	1.7	1.6	1.2	e1.4	e1.6	2.7	2.7	1.8	1.8	2.1	1.9	1.2
28	1.7	1.5	1.2	e1.5	e1.6	2.6	2.9	1.8	1.6	2.1	1.6	1.3
29	1.7	e1.4	1.2	e1.5	---	2.6	2.6	1.9	1.5	2.5	1.5	1.2
30	1.6	1.6	1.5	e1.5	---	2.5	2.2	2.0	1.3	2.7	1.4	1.2
31	1.6	---	e1.4	e1.5	---	2.5	---	3.4	---	2.4	1.3	---
TOTAL	37.56	45.3	42.7	43.3	39.1	63.7	76.7	110.1	155.7	55.63	81.71	29.25
MEAN	1.21	1.51	1.38	1.40	1.40	2.05	2.56	3.55	5.19	1.79	2.64	0.97
MAX	2.0	1.6	1.7	1.9	2.0	2.7	6.6	13	20	3.6	8.8	1.3
MIN	0.80	1.4	1.1	1.1	1.2	1.5	1.4	1.4	1.3	0.57	0.95	0.77
AC-FT	75	90	85	86	78	126	152	218	309	110	162	58

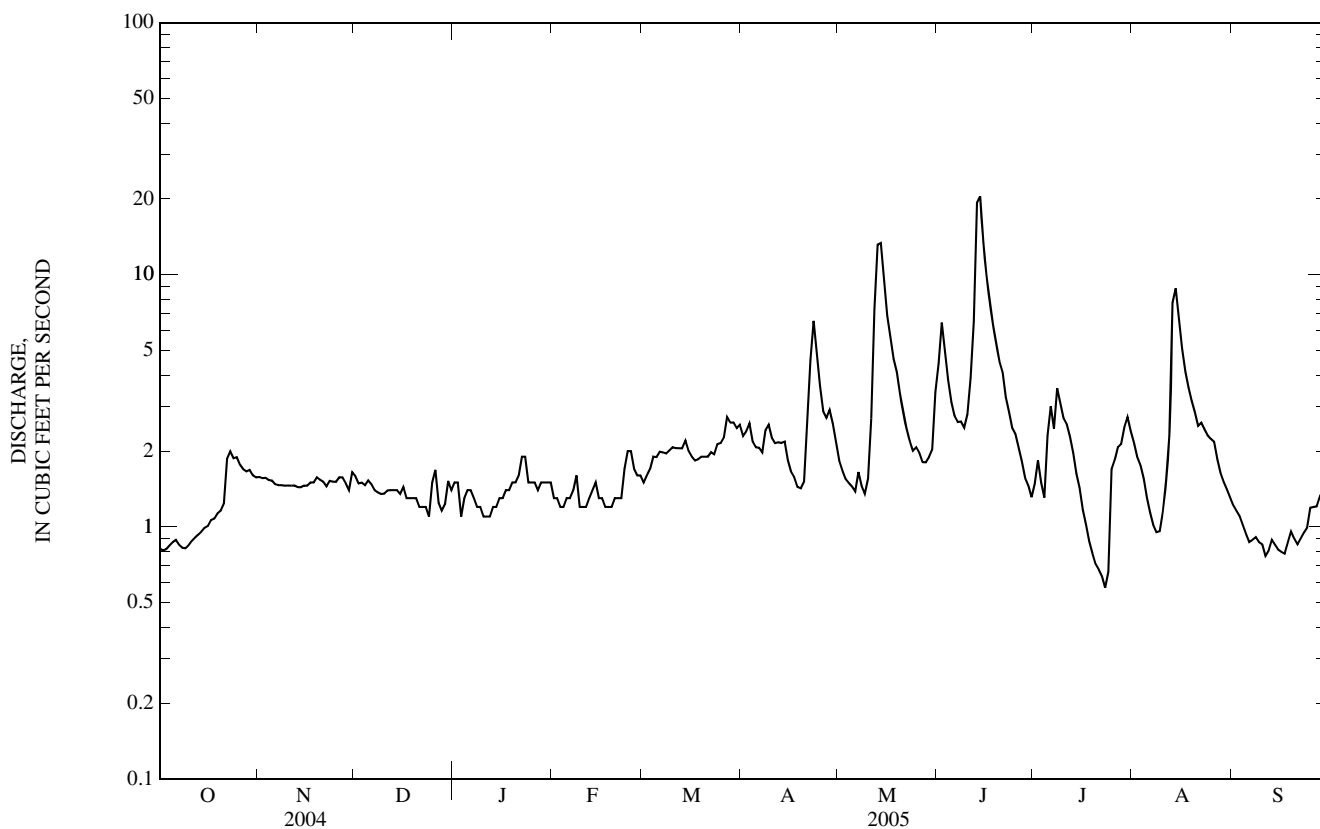
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005, BY WATER YEAR (WY)

MEAN	6.49	6.86	4.16	3.78	4.32	10.2	12.5	25.5	27.4	12.1	8.79	5.02
MAX	24.8	46.0	24.5	15.0	17.8	24.8	45.4	147	143	46.4	42.7	17.3
(WY)	(1999)	(1999)	(1999)	(1999)	(1999)	(1987)	(1999)	(1995)	(1995)	(1995)	(1997)	(1999)
MIN	0.84	1.07	0.69	0.39	0.19	1.55	1.63	1.00	0.46	0.44	0.53	0.65
(WY)	(1988)	(1986)	(1990)	(1989)	(1989)	(2002)	(1989)	(1989)	(1989)	(1985)	(1985)	(1987)

06403300 FRENCH CREEK ABOVE FAIRBURN, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	796.70		780.75			
ANNUAL MEAN	2.18		2.14		^a 10.6	
HIGHEST ANNUAL MEAN					34.7	1995
LOWEST ANNUAL MEAN					1.01	1989
HIGHEST DAILY MEAN	12	Mar 12	20	Jun 14	536	May 8, 1995
LOWEST DAILY MEAN	0.38	Aug 25	0.57	Jul 23	^b 0.02	Feb 3, 1989
ANNUAL SEVEN-DAY MINIMUM	0.46	Aug 20	0.70	Jul 18	0.03	Feb 2, 1989
MAXIMUM PEAK FLOW			^c 25	Jun 13	^d 1,060	May 8, 1995
MAXIMUM PEAK STAGE			^f 1.92	Jan 17	^g 4.08	May 8, 1995
ANNUAL RUNOFF (AC-FT)	1,580		1,550		7,690	
10 PERCENT EXCEEDS	4.4		3.3		24	
50 PERCENT EXCEEDS	1.6		1.5		4.1	
90 PERCENT EXCEEDS	0.79		0.94		0.90	

- a Median of annual mean discharges, 7.1 ft³/s.
- b Also Feb. 4, 5, 1989.
- c Gage height, 1.22 ft.
- d Peak flow determined from slope-area measurement.
- e Estimated.
- f Backwater from ice.
- g From floodmarks.



CHEYENNE RIVER BASIN

06403700 CHEYENNE RIVER AT REDSHIRT, SD

LOCATION.--Lat 43°40'23", long 102°53'36", in SW¼ SE¼ NW¼ sec.26, T.4 S., R.10 E., Custer County, Hydrologic Unit 10120109, 0.8 mi northeast of Redshirt, approximately 22 mi southeast of Hermosa on State Highway 40, on right stream bank.

DRAINAGE AREA.--10,220 mi², approximately.

PERIOD OF RECORD.--October 1998 to current year.

REVISED RECORDS.--WDR SD-99-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,670 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Angostura Dam, conservation capacity, 82,400 acre-ft, 45 mi upstream since October 1949. 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	78	81	e74	69	88	68	67	60	88	35	43	50
2	79	81	e75	e67	82	68	65	62	76	33	38	49
3	79	80	e77	e65	90	68	64	62	72	38	35	51
4	78	80	e80	e60	113	67	63	58	66	35	35	48
5	78	79	e81	e55	72	67	61	54	65	36	40	57
6	78	78	e79	e60	71	67	65	53	61	39	38	56
7	79	77	e77	e75	70	68	65	293	59	47	39	57
8	78	78	e75	e85	e48	66	61	150	69	46	42	57
9	77	78	e74	e80	e48	66	60	83	67	39	36	60
10	77	78	74	e75	e100	66	60	75	67	34	33	63
11	77	78	73	e75	e142	65	59	112	71	31	37	64
12	78	78	73	e75	81	65	59	341	77	30	86	65
13	78	78	79	e70	76	65	59	391	136	30	221	68
14	79	78	79	e65	75	65	57	143	190	30	142	71
15	80	79	e80	e60	73	64	52	101	114	23	86	61
16	81	78	e84	e60	73	64	50	86	87	19	78	61
17	80	77	e85	e65	72	63	49	80	78	21	66	61
18	81	76	e81	e70	72	65	49	75	76	22	62	61
19	80	77	e78	e80	71	65	46	73	71	21	61	65
20	80	76	77	e110	71	64	51	70	64	23	56	67
21	80	77	77	120	71	67	73	66	61	23	58	57
22	82	81	48	178	71	73	125	63	60	20	57	50
23	116	79	59	144	70	72	93	59	56	21	50	53
24	104	81	63	135	70	73	75	59	53	28	43	59
25	86	81	68	124	70	76	67	74	56	92	46	62
26	83	82	73	118	70	78	62	76	57	59	54	65
27	83	81	66	106	70	74	61	75	51	59	59	66
28	82	78	70	105	69	69	61	66	47	53	57	63
29	81	e75	70	103	---	68	63	59	57	46	54	63
30	81	e72	75	100	---	68	63	59	45	44	53	64
31	80	---	69	95	---	67	---	95	---	39	51	---
TOTAL	2,533	2,352	2,293	2,749	2,149	2,101	1,905	3,173	2,197	1,116	1,856	1,794
MEAN	81.7	78.4	74.0	88.7	76.8	67.8	63.5	102	73.2	36.0	59.9	59.8
MAX	116	82	85	178	142	78	125	391	190	92	221	71
MIN	77	72	48	55	48	63	46	53	45	19	33	48
AC-FT	5,020	4,670	4,550	5,450	4,260	4,170	3,780	6,290	4,360	2,210	3,680	3,560

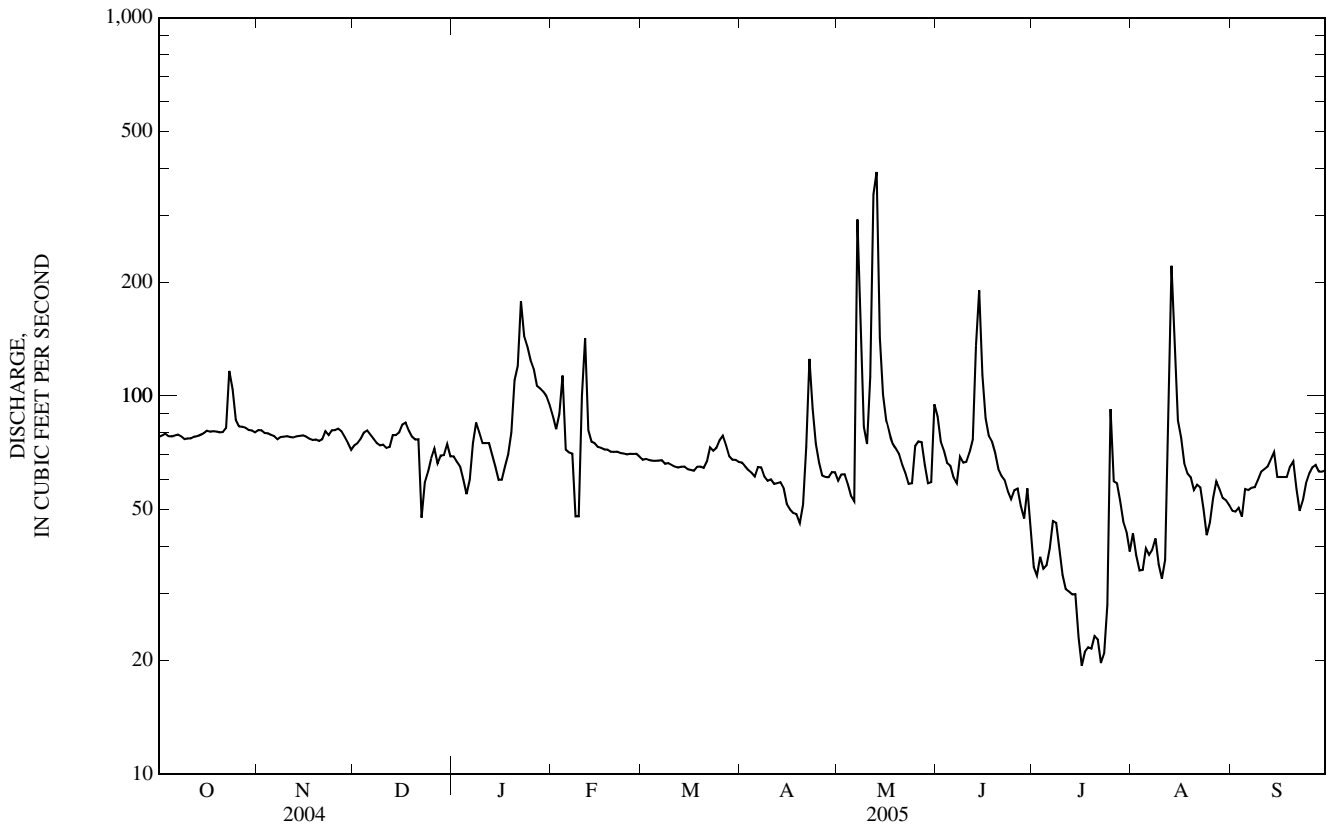
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	117	207	87.1	78.6	82.5	132	308	188	257	82.5	79.8	87.4
MAX	277	926	147	116	139	287	1,215	441	1,344	262	185	132
(WY)	(1999)	(1999)	(1999)	(1999)	(1999)	(2001)	(2000)	(2000)	(1999)	(1999)	(1999)	(1999)
MIN	75.6	75.3	59.4	59.0	61.9	67.8	63.5	60.5	53.7	35.2	53.3	59.8
(WY)	(2004)	(2003)	(2001)	(2004)	(2001)	(2005)	(2005)	(2004)	(2004)	(2002)	(2003)	(2005)

06403700 CHEYENNE RIVER AT REDSHIRT, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	24,889		26,218		142	
ANNUAL MEAN	68.0		71.8		67.8	
HIGHEST ANNUAL MEAN					395	1999
LOWEST ANNUAL MEAN					67.8	2004
HIGHEST DAILY MEAN	246	Sep 5	391	May 13	7,320	Apr 24, 2000
LOWEST DAILY MEAN	30	Jun 8	19	Jul 16	19	Jul 16, 2005
ANNUAL SEVEN-DAY MINIMUM	40	Jul 13	21	Jul 16	21	Jul 16, 2005
MAXIMUM PEAK FLOW			722	May 7	9,070	Apr 23, 2000
MAXIMUM PEAK STAGE			12.16	May 7	17.48	Apr 23, 2000
ANNUAL RUNOFF (AC-FT)	49,370		52,000		102,800	
10 PERCENT EXCEEDS	83		87		200	
50 PERCENT EXCEEDS	70		69		78	
90 PERCENT EXCEEDS	45		45		49	

e Estimated.



06404000 BATTLE CREEK NEAR KEYSTONE, SD

LOCATION.--Lat 43°52'21", long 103°20'10", in SW¹/₄ SW¹/₄ sec.18, T.2 S., R.7 E., Pennington County, Hydrologic Unit 10120109, at right downstream end county highway bridge, 0.6 mi downstream from Iron Creek, and 4.5 mi southeast of Keystone.

DRAINAGE AREA.--58.5 mi².

PERIOD OF RECORD.--July 1945 to July 1947, October 1961 to current year.

REVISED RECORDS.--WDR SD-03-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,800 ft above NGVD of 1929, from topographic map. Prior to Nov. 13, 1961, nonrecording gage at site 250 ft downstream at different datum and Nov. 13 to Dec. 5, 1961, at same site at present datum. Dec. 6, 1961, to June 9, 1972, water-stage recorder at site 210 ft downstream at present datum (destroyed by flood); June 10 to Nov. 20, 1972, nonrecording gage 180 ft downstream at present datum; Nov. 21, 1972, to Nov. 27, 1973, water-stage recorder at present site and datum; Nov. 28, 1973, to Nov. 7, 1974, nonrecording gage 180 ft downstream at present datum.

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.

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	0.26	0.59	0.33	e0.31	e1.3	1.1	2.6	1.7	13	1.4	3.6	0.20
2	0.28	0.61	0.38	e0.31	1.2	1.6	2.5	1.4	11	8.2	2.8	0.12
3	0.18	0.57	0.46	e0.13	0.68	1.5	2.3	1.3	9.4	6.0	2.9	0.06
4	0.16	0.53	0.62	e0.05	0.69	1.7	2.1	1.3	8.1	3.7	3.3	0.03
5	0.14	0.53	0.61	e0.03	0.72	1.3	1.8	1.3	6.4	16	2.2	0.02
6	0.14	0.48	0.63	e0.05	e0.61	1.2	2.4	1.1	5.8	20	1.9	0.00
7	0.12	0.48	0.56	e0.08	e0.51	1.4	2.0	1.1	5.5	13	1.8	0.00
8	0.11	0.49	0.53	e0.12	e0.45	1.7	2.2	1.2	6.8	9.9	1.2	0.00
9	0.14	0.49	0.56	e0.20	e0.51	1.7	1.5	1.3	6.2	7.2	1.1	0.00
10	0.11	0.46	0.57	e0.32	e0.61	1.8	1.3	2.0	6.1	5.6	1.3	0.00
11	0.12	0.38	0.60	e0.29	0.71	1.6	1.3	7.7	7.0	4.7	1.4	0.00
12	0.12	0.36	0.62	e0.27	0.63	1.4	1.3	17	6.6	4.3	2.7	0.00
13	0.15	0.39	0.52	e0.23	0.85	0.86	1.2	27	10	3.8	5.7	0.00
14	0.18	0.46	0.39	e0.20	0.84	0.80	1.3	24	13	3.2	5.5	0.00
15	0.17	0.43	0.28	e0.18	0.67	0.77	1.2	18	11	2.9	5.0	0.00
16	0.16	0.40	0.38	e0.17	0.67	0.83	1.2	15	8.5	2.6	5.6	0.00
17	0.16	0.45	0.40	e0.17	0.67	0.81	1.1	14	7.3	2.3	3.2	0.00
18	0.15	0.49	0.44	e0.20	0.61	0.79	0.98	12	6.5	2.3	2.4	0.00
19	0.13	0.46	0.53	e0.37	0.55	0.72	0.94	9.8	5.2	2.6	2.2	0.00
20	0.15	0.44	0.62	e0.51	0.57	0.81	2.2	10	4.6	2.7	2.0	0.00
21	0.15	0.48	0.61	e0.50	0.56	1.1	6.5	8.1	6.6	3.1	1.7	0.00
22	0.24	0.44	e0.36	e0.51	0.66	1.3	11	6.6	4.3	3.6	1.5	0.00
23	0.46	0.59	e0.24	e0.54	0.74	1.2	8.5	6.6	3.6	3.5	1.2	0.00
24	0.41	0.57	e0.15	e0.65	0.80	1.4	5.9	5.8	3.1	3.7	0.91	0.00
25	0.34	0.69	0.06	e0.78	0.90	1.5	4.0	9.9	2.8	7.8	0.78	0.00
26	0.38	0.74	0.11	e0.80	1.0	1.5	2.9	8.2	2.3	13	0.92	0.08
27	0.40	0.58	0.15	e0.80	1.1	1.9	2.6	6.6	1.8	14	0.72	0.04
28	0.37	0.60	0.30	e0.80	1.0	2.4	2.1	5.6	1.6	9.9	0.54	0.07
29	0.39	0.52	0.27	e0.85	---	2.6	1.9	4.6	1.4	6.6	0.55	0.11
30	0.42	0.39	0.37	e0.95	---	3.0	1.8	4.7	1.3	5.0	0.42	0.06
31	0.46	---	e0.31	e1.1	---	3.5	---	11	---	4.6	0.27	---
TOTAL	7.15	15.09	12.96	12.47	20.81	45.79	80.62	245.9	186.8	197.2	67.31	0.79
MEAN	0.23	0.50	0.42	0.40	0.74	1.48	2.69	7.93	6.23	6.36	2.17	0.03
MAX	0.46	0.74	0.63	1.1	1.3	3.5	11	27	13	20	5.7	0.20
MIN	0.11	0.36	0.06	0.03	0.45	0.72	0.94	1.1	1.3	1.4	0.27	0.00
AC-FT	14	30	26	25	41	91	160	488	371	391	134	1.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2005, BY WATER YEAR (WY)

MEAN	2.93	3.37	2.43	1.75	2.00	3.87	9.64	28.1	36.1	11.7	4.80	2.13
MAX	22.5	36.0	25.8	12.7	9.57	12.8	38.8	153	199	46.3	20.5	7.20
(WY)	(1999)	(1999)	(1999)	(1997)	(1996)	(1987)	(1971)	(1995)	(1972)	(1962)	(1999)	(1997)
MIN	0.00	0.00	0.00	0.00	0.00	0.46	1.49	1.24	0.22	0.04	0.00	0.00
(WY)	(1962)	(1989)	(1989)	(1962)	(1989)	(1962)	(1981)	(1985)	(1985)	(1989)	(1989)	(1975)

06404000 BATTLE CREEK NEAR KEYSTONE, SD—Continued

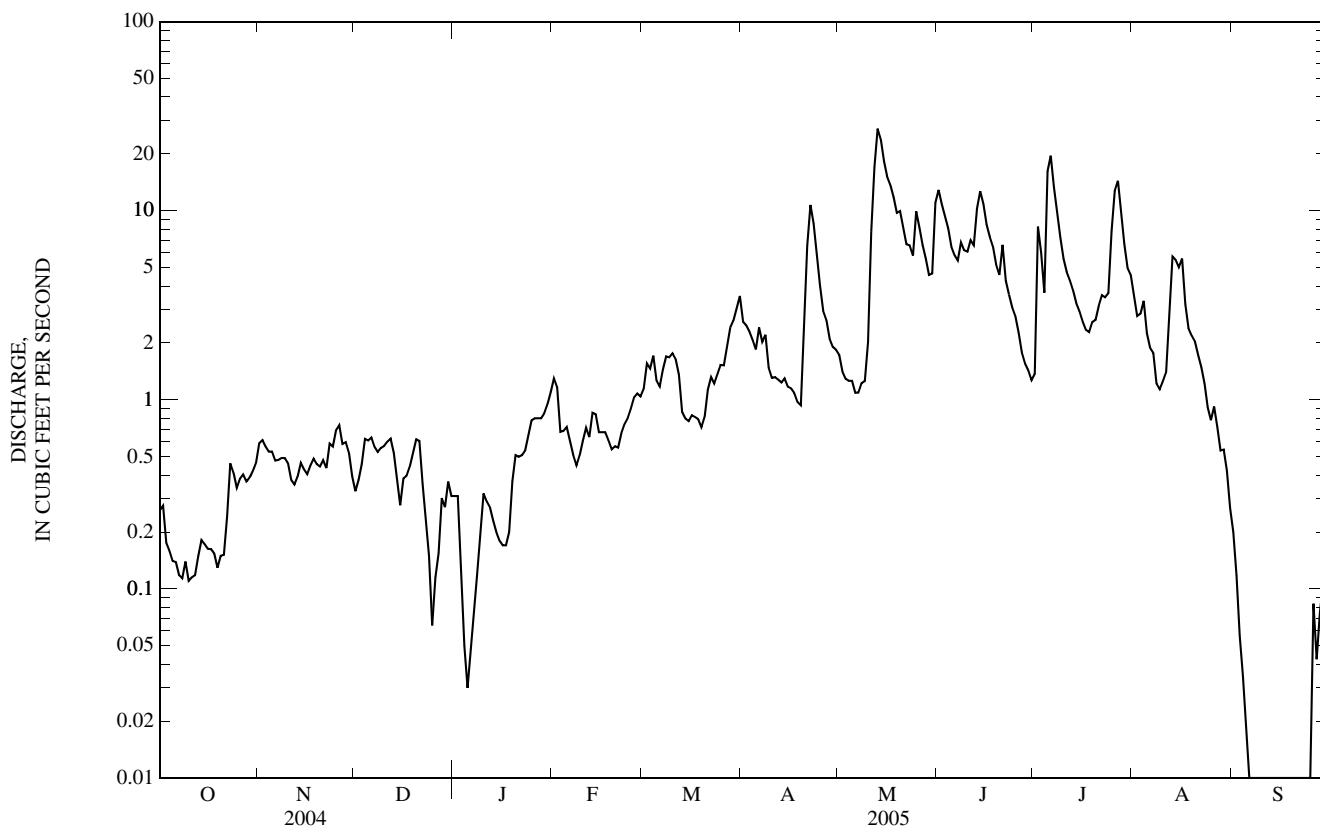
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1962 - 2005	
ANNUAL TOTAL	375.39		892.89			
ANNUAL MEAN	1.03		2.45		^a 9.08	
HIGHEST ANNUAL MEAN					27.7	1995
LOWEST ANNUAL MEAN					0.69	1988
HIGHEST DAILY MEAN	8.2	May 23	27	May 13	2,400	Jun 10, 1972
LOWEST DAILY MEAN	0.00	Aug 16	0.00	Sep 6	^b 0.00	Oct 1, 1961
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 16	0.00	Sep 6	0.00	Oct 1, 1961
MAXIMUM PEAK FLOW			65	Jul 5	^c 26,200	Jun 9, 1972
MAXIMUM PEAK STAGE			4.23	Jul 5	^c 14.50	Jun 9, 1972
ANNUAL RUNOFF (AC-FT)	745		1,770		6,580	
10 PERCENT EXCEEDS	2.3		6.9		17	
50 PERCENT EXCEEDS	0.61		0.83		2.5	
90 PERCENT EXCEEDS	0.12		0.12		0.25	

a Median of annual mean discharges, 6.8 ft³/s.

b No flow at times in some years.

c From floodmarks, site then in use, from rating curve extended above 5.5 ft³/s on basis of slope-area measurement of peak flow.

e Estimated.



06404998 GRACE COOLIDGE CREEK NEAR GAME LODGE, NEAR CUSTER, SD

LOCATION.--Lat 43°45'40", long 103°21'49", in SW¼ NE¼ sec.26, T.3 S., R.6 E., Custer County, Hydrologic Unit 10120109, on right bank 0.3 mi downstream from bridge on U.S. Highway 16A, 0.9 mi east of Game Lodge, 1.5 mi southwest of junction of State Highway 36 and U.S. Highway 16A, and 11.5 mi east of Custer.

DRAINAGE AREA.--26.8 mi² (revised).

PERIOD OF RECORD.--October 1976 to current year.

REVISED RECORDS.--WDR SD-88-1: 1988(M).

GAGE.--Water-stage recorder. Elevation of gage is 4,100 ft above NGVD of 1929, from topographic map. From July 17, 1945, to July 31, 1947, nonrecording gage at site 1,800 ft upstream and different datum. June 1967 to June 13, 1976, at site 500 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Considerable loss occurs to sinkholes downstream from gage. 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 June 10, 1972, reached a stage of 10.35 ft, from floodmarks, discharge, 709 ft³/s from slope-area measurement of peak flow. Flood of June 15, 1976, reached a stage of 10.90 ft, from floodmarks, discharge, 980 ft³/s on basis of slope-area measurement of 10.35 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	0.52	1.4	e0.90	e0.95	0.87	1.1	0.79	0.69	1.2	0.99	1.7	1.0
2	0.51	1.4	e0.90	e0.90	0.80	0.79	0.76	0.68	1.1	1.5	1.5	0.89
3	0.49	1.4	e0.90	e0.85	0.72	0.78	0.74	0.69	0.91	1.3	1.5	0.82
4	0.49	1.4	e0.80	e0.85	0.73	0.77	0.72	0.69	0.89	0.98	1.6	0.79
5	0.50	1.2	e0.90	e0.85	0.76	0.77	0.74	0.68	0.88	4.9	1.4	0.77
6	0.51	1.0	e0.80	e0.80	e0.77	0.77	0.77	0.67	0.84	3.6	1.2	0.72
7	0.53	0.96	e0.80	e0.80	e0.72	0.77	0.71	0.69	0.90	2.3	1.1	0.75
8	0.52	0.90	e0.80	e0.78	e0.70	0.78	0.70	0.66	0.87	1.8	1.1	0.74
9	0.52	0.91	e0.96	e0.75	e0.80	0.79	0.68	0.64	0.93	1.6	1.1	0.65
10	0.57	0.94	e1.1	e0.70	e0.90	0.83	0.66	0.85	0.91	1.5	1.2	0.62
11	0.60	0.87	e0.88	e0.70	e0.90	0.81	0.71	1.4	1.3	1.4	1.3	0.56
12	0.62	0.88	e0.70	e0.68	e0.88	0.85	0.74	1.7	1.4	1.4	3.9	0.58
13	0.67	0.86	e0.60	e0.65	e0.86	0.83	0.70	1.9	2.7	1.3	5.0	0.64
14	0.71	0.86	e0.60	e0.60	e0.85	e0.79	0.69	1.5	3.6	1.2	3.4	0.62
15	0.77	0.88	e0.91	e0.60	e0.84	e0.79	0.67	1.2	3.3	1.2	2.8	0.57
16	0.80	0.83	e0.92	e0.60	e0.84	e0.79	0.66	1.0	2.7	1.1	2.4	0.55
17	0.83	0.82	e0.95	e0.70	e0.83	e0.82	0.66	0.99	2.4	0.96	2.1	0.54
18	0.85	0.82	e0.96	e0.90	e1.0	e0.85	0.65	0.92	2.1	1.0	2.0	0.57
19	0.85	0.84	e0.96	e1.2	e1.1	e0.87	0.67	0.86	1.8	0.86	2.0	0.67
20	0.88	0.86	e0.97	e1.4	e1.0	e0.89	0.79	0.81	1.6	0.77	2.0	0.62
21	0.87	0.82	e0.90	1.2	e1.0	e0.91	1.4	0.74	1.5	0.75	1.7	0.56
22	1.2	0.83	e0.80	1.0	e0.90	e0.90	1.3	0.70	1.4	0.73	1.6	0.57
23	1.2	0.86	e0.70	0.89	e0.90	e0.83	0.82	0.70	1.3	0.70	1.5	0.60
24	1.0	0.94	e0.70	0.90	e1.0	e0.89	0.73	0.71	1.2	1.5	1.4	0.65
25	0.95	0.97	e0.90	0.86	e1.0	e0.92	0.69	0.94	1.1	5.2	1.3	0.89
26	0.94	0.94	e0.85	0.79	e0.91	0.90	0.64	0.84	1.0	3.0	1.6	0.79
27	0.94	0.91	e0.80	0.85	0.82	0.93	0.66	0.78	0.96	3.1	1.3	0.66
28	0.94	e0.90	e0.90	0.76	1.1	0.91	0.69	0.74	0.90	2.5	1.2	0.68
29	1.1	e0.87	e1.1	0.74	---	0.88	0.72	0.77	0.86	2.1	1.1	0.67
30	1.4	e0.83	e1.0	0.81	---	0.84	0.70	0.91	0.88	1.9	1.0	0.63
31	1.4	---	e0.99	0.86	---	0.89	---	1.8	---	1.8	1.0	---
TOTAL	24.68	28.90	26.95	25.92	24.50	26.24	22.56	28.85	43.43	54.94	55.00	20.37
MEAN	0.80	0.96	0.87	0.84	0.88	0.85	0.75	0.93	1.45	1.77	1.77	0.68
MAX	1.4	1.4	1.1	1.4	1.1	1.1	1.4	1.9	3.6	5.2	5.0	1.0
MIN	0.49	0.82	0.60	0.60	0.70	0.77	0.64	0.64	0.84	0.70	1.0	0.54
AC-FT	49	57	53	51	49	52	45	57	86	109	109	40

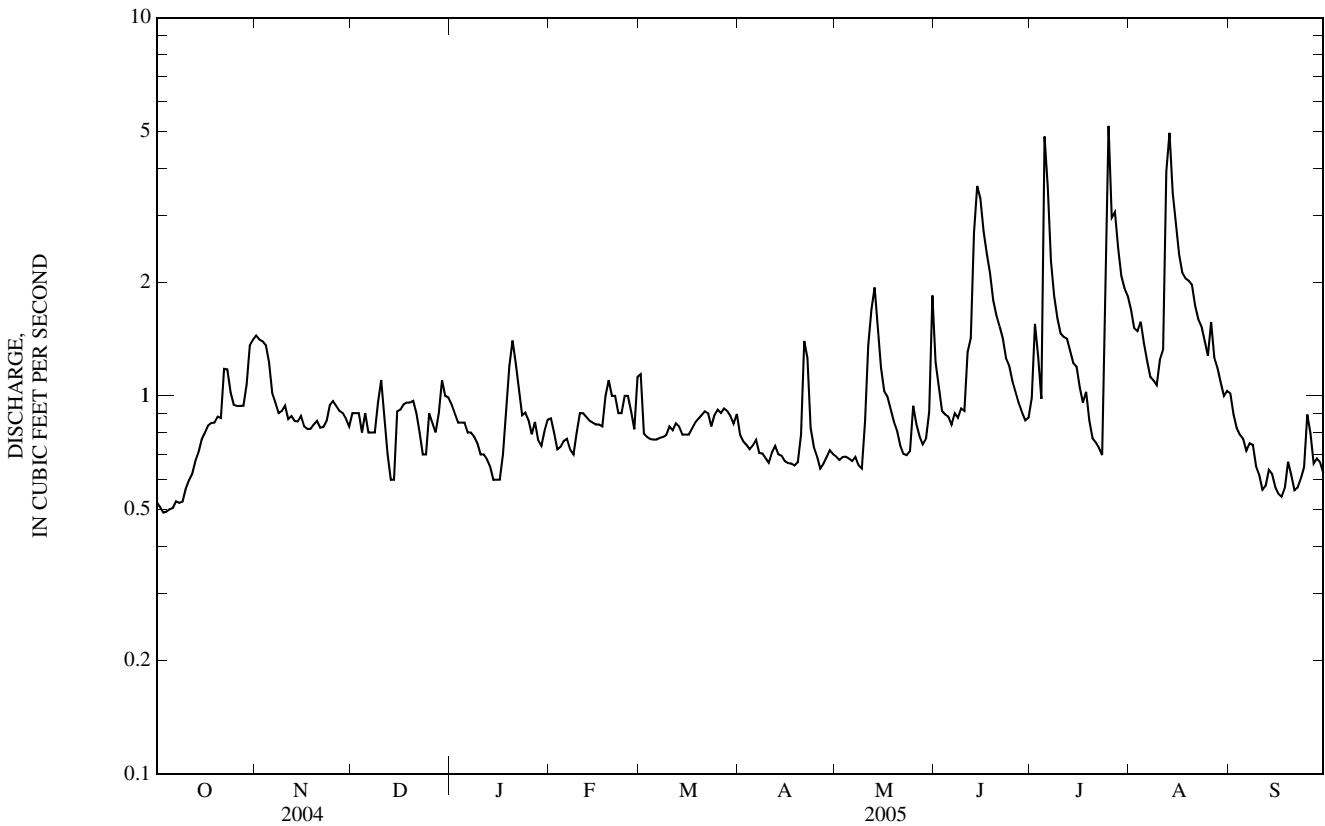
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005, BY WATER YEAR (WY)

MEAN	3.06	3.19	2.17	1.88	1.70	2.34	4.34	15.8	12.3	5.25	3.78	2.50
MAX	14.7	25.2	11.9	8.13	6.44	6.41	25.3	115	66.8	22.3	14.3	7.51
(WY)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1995)	(1995)	(1979)	(1997)	(1997)
MIN	0.36	0.41	0.32	0.45	0.00	0.61	0.63	0.67	0.25	0.10	0.26	0.13
(WY)	(1989)	(1986)	(1986)	(1988)	(1989)	(1981)	(1981)	(1977)	(1988)	(1988)	(1985)	(1988)

06404998 GRACE COOLIDGE CREEK NEAR GAME LODGE, NEAR CUSTER, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1977 - 2005	
ANNUAL TOTAL	331.07		382.34		4.87	
ANNUAL MEAN	0.90		1.05		19.1	
HIGHEST ANNUAL MEAN					0.61	1995
LOWEST ANNUAL MEAN					505	1988
HIGHEST DAILY MEAN	2.2	Jan 10	5.2	Jul 25	1995	May 8, 1995
LOWEST DAILY MEAN	0.38	Jul 19	0.49	Oct 3	^a 0.00	Jun 5, 1977
ANNUAL SEVEN-DAY MINIMUM	0.43	Sep 8	0.51	Oct 1	0.00	Sep 1, 1988
MAXIMUM PEAK FLOW			47	Jul 5	^b 1,030	Sep 7, 1989
MAXIMUM PEAK STAGE			7.83	Jul 5	^c 12.76	Feb 9, 1979
ANNUAL RUNOFF (AC-FT)	657		758		3,530	
10 PERCENT EXCEEDS	1.4		1.6		9.5	
50 PERCENT EXCEEDS	0.88		0.87		1.9	
90 PERCENT EXCEEDS	0.49		0.65		0.58	

- a No flow for some days in 1977, part of June 14, 1979, 1985, 1988, and 1989.
- b Gage height, 10.84 ft, from floodmarks, from rating curve extended above 709 ft³/s on basis of slope-area measurement of peak flow.
- c Backwater from ice.
- e Estimated.



CHEYENNE RIVER BASIN

06406000 BATTLE CREEK AT HERMOSA, SD

LOCATION.--Lat 43°49'41", long 103°11'44", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.32, T.2 S., R.8 E., Custer County, Hydrologic Unit 10120109, on right bank 50 ft downstream from Chicago and North Western Transportation Company bridge, 0.8 mi south of Hermosa, and 2.9 mi downstream from Grace Coolidge Creek.

DRAINAGE AREA.--178 mi².

PERIOD OF RECORD.--August to December 1903 (gage heights only), July 1949 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,290 ft above NGVD of 1929, from topographic map. Nonrecording gage, August to December 1903, at site 50 ft upstream, July 7, 1949, to Nov. 2, 1950, at site 0.5 mi upstream, Nov. 3, 1950, to Dec. 6, 1961, at site 170 ft downstream, all at different datum. Dec. 7, 1961, to June 10, 1972, water-stage recorder (destroyed by flood), and June 11, 1972, to Aug. 28, 1972, nonrecording gage at site 80 ft downstream at present datum.

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.

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	2.9	7.0	3.3	e3.5	3.2	3.1	3.5	3.5	3.9	2.6	7.6	1.6
2	3.1	6.1	3.2	e3.6	3.3	3.2	3.5	3.3	3.5	3.2	5.2	1.5
3	3.1	6.1	3.3	e3.8	3.4	3.2	3.4	3.3	3.5	2.7	5.5	1.5
4	3.0	5.7	3.3	e3.3	3.1	3.1	3.5	3.3	3.4	2.6	7.0	1.3
5	3.2	5.6	3.1	e3.1	3.1	3.0	3.5	3.3	3.5	3.0	6.0	1.4
6	3.2	5.4	3.1	e3.1	3.0	3.1	3.5	3.1	3.3	2.9	4.6	1.5
7	3.1	4.9	2.8	e3.6	3.1	3.1	3.4	3.2	3.3	3.5	2.7	1.5
8	2.8	4.8	3.4	e3.7	3.3	3.1	3.4	3.3	3.4	4.0	1.9	1.6
9	3.0	4.5	3.3	e3.8	3.2	3.2	3.3	3.3	3.6	3.7	1.6	1.6
10	3.1	4.2	2.9	e3.8	3.5	3.2	3.4	3.6	3.6	3.5	1.8	1.5
11	3.1	4.0	3.1	2.5	3.9	3.1	3.5	4.5	4.2	3.8	1.8	1.4
12	3.4	4.3	3.0	2.4	3.8	3.2	3.6	5.5	3.8	4.4	2.2	1.5
13	3.7	4.1	2.2	2.2	3.5	3.3	3.5	3.3	4.1	4.0	2.8	1.6
14	3.8	3.9	2.1	2.1	3.3	3.4	3.4	2.3	3.9	3.9	3.6	1.8
15	3.6	4.2	3.6	2.0	3.2	3.3	3.3	1.9	3.5	3.5	3.1	1.7
16	3.7	3.9	3.3	1.6	3.1	3.3	3.3	2.4	3.5	4.3	3.4	1.6
17	3.8	4.0	3.1	2.0	3.1	3.4	3.1	3.8	3.5	4.7	2.4	1.6
18	3.7	4.5	3.3	2.2	3.3	3.5	2.9	3.9	3.6	4.8	2.4	1.7
19	3.4	5.6	3.7	2.3	3.4	3.5	3.0	3.8	3.5	5.4	2.4	1.9
20	4.4	5.4	e3.7	1.9	1.0	3.5	3.9	3.5	3.5	4.3	2.5	1.8
21	6.1	5.2	e3.8	1.8	2.1	3.8	4.1	3.3	3.3	3.9	2.3	1.7
22	7.0	4.3	e3.6	1.7	3.7	3.9	2.2	3.2	3.3	3.6	2.2	1.8
23	8.8	4.2	e3.4	1.4	3.7	3.7	1.8	3.1	3.3	3.6	2.1	1.8
24	7.4	3.8	e3.2	1.6	3.5	3.9	3.2	3.1	3.3	3.1	2.1	1.9
25	7.3	4.0	e3.2	1.4	3.3	3.8	3.1	3.6	3.3	7.1	2.0	1.8
26	7.3	3.8	e3.6	1.5	3.2	3.7	3.2	3.5	3.3	4.6	2.1	1.4
27	6.8	3.4	e3.9	1.6	3.2	3.6	3.3	3.3	3.3	3.6	2.0	0.90
28	6.4	3.5	e3.9	1.8	3.1	3.5	3.3	3.1	3.3	3.7	2.0	0.63
29	6.7	3.0	e3.8	1.8	---	3.6	3.4	3.1	3.3	2.5	1.8	0.51
30	7.0	2.7	e3.7	1.6	---	3.6	3.4	3.4	3.2	4.7	1.8	0.29
31	6.8	---	e3.7	3.0	---	3.7	---	4.6	---	6.4	1.7	---
TOTAL	144.7	136.1	102.6	75.7	89.6	105.6	98.9	105.4	105.0	121.6	92.6	44.33
MEAN	4.67	4.54	3.31	2.44	3.20	3.41	3.30	3.40	3.50	3.92	2.99	1.48
MAX	8.8	7.0	3.9	3.8	3.9	3.9	4.1	5.5	4.2	7.1	7.6	1.9
MIN	2.8	2.7	2.1	1.4	1.0	3.0	1.8	1.9	3.2	2.5	1.6	0.29
AC-FT	287	270	204	150	178	209	196	209	208	241	184	88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2005, BY WATER YEAR (WY)

MEAN	7.70	8.28	7.07	6.37	6.01	6.45	9.12	31.8	41.5	16.1	9.11	7.09
MAX	39.5	62.4	48.3	41.6	38.0	34.8	68.7	234	231	75.5	53.1	41.7
(WY)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1995)	(1995)	(1962)	(1999)	(1999)
MIN	0.10	0.10	0.10	0.19	0.31	0.41	0.34	0.74	0.78	0.23	0.17	0.05
(WY)	(1956)	(1962)	(1962)	(1962)	(1962)	(1962)	(1962)	(1955)	(1954)	(1989)	(1961)	(1955)

06406000 BATTLE CREEK AT HERMOSA, SD—Continued

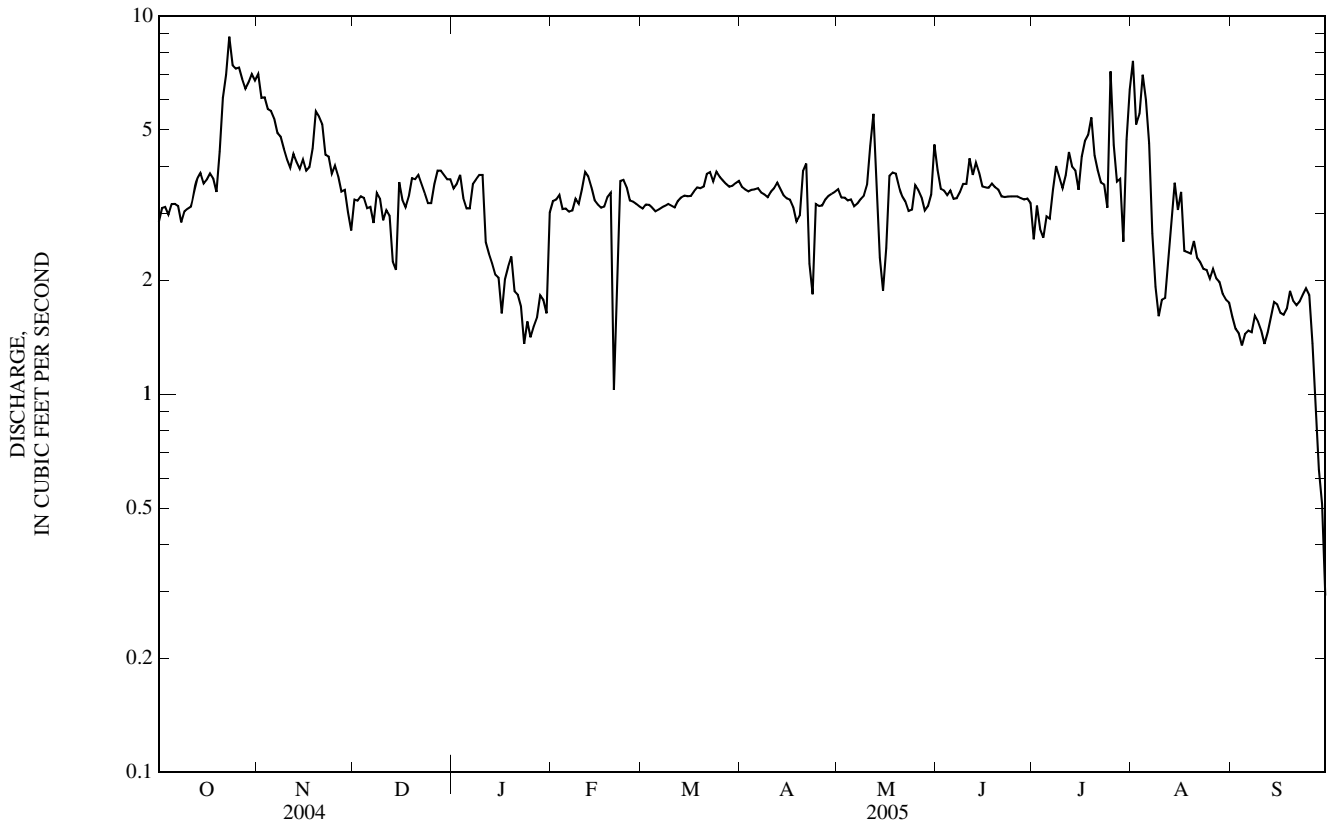
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1950 - 2005	
ANNUAL TOTAL	1,864.3		1,222.13			
ANNUAL MEAN	5.09		3.35		^a 13.1	
HIGHEST ANNUAL MEAN					59.8	1999
LOWEST ANNUAL MEAN					0.99	1955
HIGHEST DAILY MEAN	9.2	Apr 22	8.8	Oct 23	1,750	Jun 10, 1972
LOWEST DAILY MEAN	1.9	Sep 3	0.29	Sep 30	^b 0.00	Oct 6, 1954
ANNUAL SEVEN-DAY MINIMUM	2.2	Sep 13	1.1	Sep 24	0.00	Oct 9, 1954
MAXIMUM PEAK FLOW			20	Jul 25	^c 21,400	Jun 10, 1972
MAXIMUM PEAK STAGE			2.85	Jul 25	17.72	Jun 10, 1972
ANNUAL RUNOFF (AC-FT)	3,700		2,420		9,460	
10 PERCENT EXCEEDS	7.3		4.6		28	
50 PERCENT EXCEEDS	5.0		3.3		4.5	
90 PERCENT EXCEEDS	2.9		1.8		1.2	

a Median of annual mean discharges, 6.9 ft³/s.

b No flow at times in 1954-57, 1959, and 1989.

c From floodmarks, from rating curve extended above 2,800 ft³/s on basis of contracted-opening and flow-over-railroad embankment measurement of peak flow.

e Estimated.



CHEYENNE RIVER BASIN

06406500 BATTLE CREEK BELOW HERMOSA, SD

LOCATION.--Lat 43°43'32", long 102°54'22" (revised), in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.3, T.4 S., R.10 E., Pennington County, Hydrologic Unit 10120109, at left downstream side of bridge on State Highway 40, approximately 9 mi upstream from mouth, and 18.0 mi southeast of Hermosa.

DRAINAGE AREA.--285 mi².

PERIOD OF RECORD.--October 1950 to September 1953, October 1988 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,810 ft above NGVD of 1929, from topographic map. Oct. 1, 1950, to Sept. 30, 1953, nonrecording gage at same site and different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Most of the flow is diverted, except after large storm events, for irrigation of about 1,000 acres upstream from station during irrigation season. Satellite data-collection platform at site. 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 in June 1972 reached a stage of about 4 ft (present datum) higher than that of May 23, 1952, from information by local resident.

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	1.3	2.9	e2.2	e4.5	e7.0	4.5	3.2	3.5	3.0	0.37	0.00	0.00
2	1.2	2.8	e2.3	e5.0	e7.5	3.0	3.2	3.5	3.0	0.23	0.00	0.00
3	1.3	3.0	e2.3	e4.0	e8.0	3.0	3.3	3.8	2.7	0.08	0.00	0.00
4	1.3	3.1	e2.3	e3.5	e7.0	3.1	3.3	3.3	2.1	0.07	0.00	0.00
5	1.3	3.1	e2.1	e3.5	e6.7	3.0	2.9	2.7	1.9	0.04	0.00	0.00
6	1.4	3.2	e2.1	e4.0	e5.4	3.2	1.9	2.4	2.4	0.02	0.00	0.00
7	1.4	3.1	e1.9	e3.8	e5.0	3.2	1.7	2.0	2.4	0.02	0.00	0.00
8	1.3	3.2	e2.4	e4.3	e4.5	3.1	1.6	1.6	2.3	0.01	0.00	0.00
9	1.4	3.4	e2.3	e4.0	e4.0	3.3	0.48	1.9	2.4	0.00	0.00	0.00
10	1.4	3.3	e1.9	e3.2	e5.0	3.1	0.61	3.6	2.3	0.00	0.00	0.00
11	1.2	3.2	e2.1	e3.2	e5.1	2.8	0.69	6.1	2.4	0.00	0.00	0.00
12	1.3	3.1	e2.0	e3.1	e5.9	2.9	0.56	14	2.5	0.00	0.87	0.00
13	1.3	3.1	e0.95	e2.9	e6.2	3.2	1.4	11	3.2	0.00	0.06	0.00
14	1.3	2.2	e0.94	e2.6	e6.8	3.3	2.5	8.5	3.1	0.00	0.00	0.00
15	1.2	3.0	e2.6	e2.2	e6.8	3.2	2.8	7.0	2.7	0.00	0.00	0.00
16	1.3	1.4	e2.3	e2.0	e6.7	3.2	2.5	4.0	2.5	0.00	0.00	0.00
17	1.4	2.2	e2.1	e2.6	e6.4	3.3	2.5	3.3	2.6	0.00	0.00	0.00
18	1.6	2.3	e2.3	e3.0	e6.0	3.4	2.8	2.6	2.2	0.00	0.00	0.00
19	1.7	2.5	e2.5	e4.0	e6.0	3.3	3.2	2.2	1.9	0.00	0.00	0.00
20	1.9	2.7	e2.1	e5.0	e5.9	3.4	3.1	1.9	1.6	0.00	0.00	0.00
21	2.1	4.3	e2.0	e5.5	e5.5	3.8	4.5	2.5	1.6	0.00	0.00	0.00
22	2.5	e4.5	e1.8	e4.6	e5.2	4.2	4.9	2.6	1.4	0.00	0.00	0.00
23	2.9	4.5	e2.9	e5.5	e4.9	4.1	5.4	2.5	1.2	0.00	0.00	0.00
24	2.6	3.9	e3.3	e6.0	e2.5	e3.6	5.8	2.4	0.85	0.00	0.00	0.00
25	2.7	3.8	e3.8	e5.5	3.3	e3.6	5.1	2.0	0.84	0.00	0.00	0.00
26	2.8	4.0	e3.7	e5.0	3.3	e3.5	3.9	2.3	0.61	0.00	0.00	0.00
27	2.8	3.9	e3.6	e5.0	3.4	e3.4	3.0	2.5	0.49	0.00	0.00	0.00
28	2.8	3.8	e3.6	e6.2	3.4	3.8	2.6	2.4	0.21	0.00	0.00	0.00
29	2.9	e2.0	e4.0	e5.7	---	3.7	3.1	2.4	0.27	0.00	0.00	0.00
30	2.8	e1.7	e4.3	e6.0	---	3.8	3.5	2.2	0.48	0.00	0.00	0.00
31	2.7	---	e4.2	e6.6	---	3.4	---	3.6	---	0.00	0.00	---
TOTAL	57.1	93.2	78.89	132.0	153.4	105.4	86.04	116.3	57.15	0.84	0.93	0.00
MEAN	1.84	3.11	2.54	4.26	5.48	3.40	2.87	3.75	1.91	0.03	0.03	0.00
MAX	2.9	4.5	4.3	6.6	8.0	4.5	5.8	14	3.2	0.37	0.87	0.00
MIN	1.2	1.4	0.94	2.0	2.5	2.8	0.48	1.6	0.21	0.00	0.00	0.00
AC-FT	113	185	156	262	304	209	171	231	113	1.7	1.8	0.00

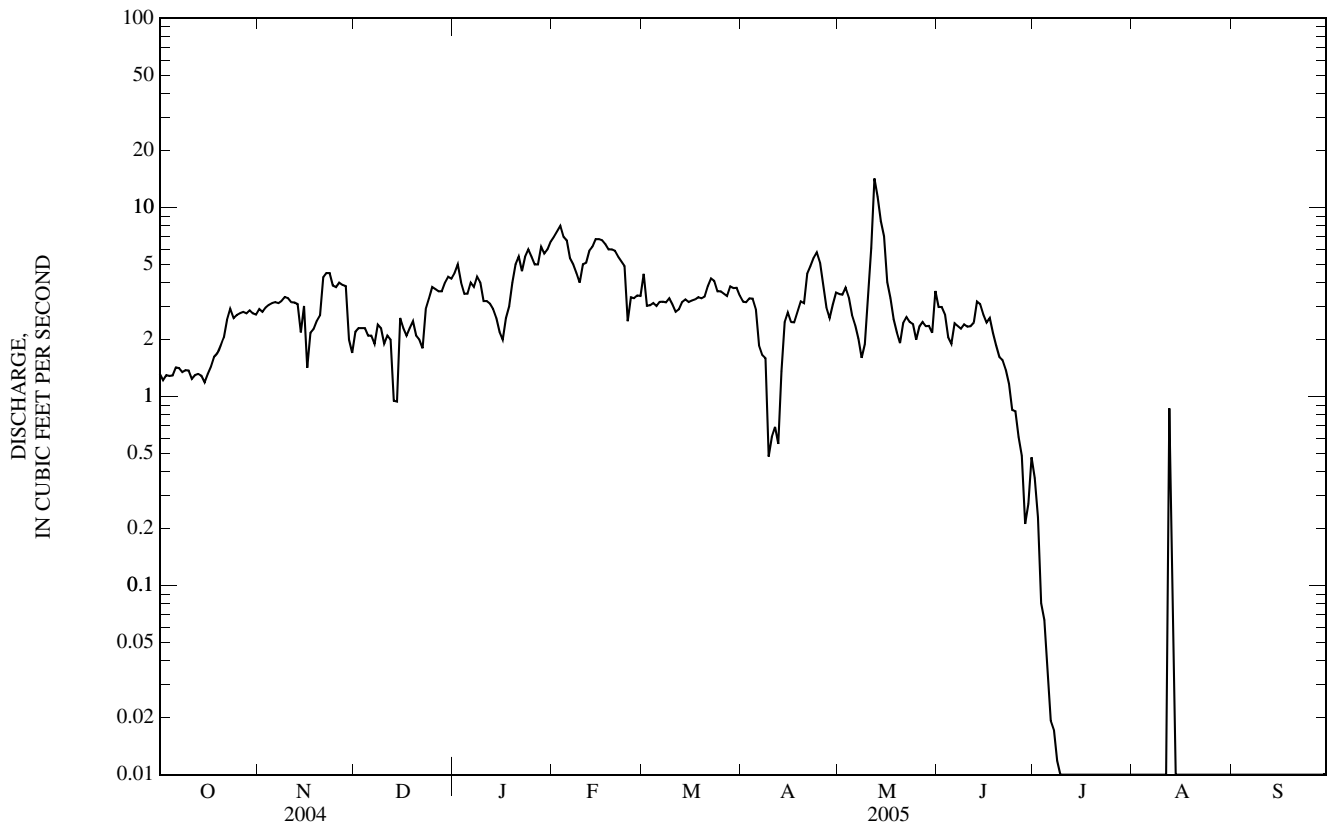
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951-1953,1989 - 2005, BY WATER YEAR (WY)

MEAN	12.8	15.2	12.3	11.6	13.9	14.0	17.8	57.5	63.6	21.0	14.8	11.8
MAX	41.5	59.7	39.4	37.4	68.9	41.5	78.9	233	266	72.1	57.9	44.4
(WY)	(2000)	(1999)	(1999)	(1997)	(1997)	(1999)	(1999)	(1995)	(1995)	(1999)	(1999)	(1999)
MIN	0.00	0.00	0.00	0.00	0.00	0.44	0.59	0.71	0.03	0.00	0.00	0.00
(WY)	(1953)	(1989)	(1989)	(1989)	(1989)	(1990)	(1990)	(1989)	(1989)	(1989)	(1989)	(1952)

06406500 BATTLE CREEK BELOW HERMOSA, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951-1953,1989 - 2005	
ANNUAL TOTAL	1,431.25		881.25			
ANNUAL MEAN	3.91		2.41		^a 22.2	
HIGHEST ANNUAL MEAN					63.3	1999
LOWEST ANNUAL MEAN					0.40	1989
HIGHEST DAILY MEAN	16	Mar 13	14	May 12	1,760	May 23, 1952
LOWEST DAILY MEAN	0.01	Sep 3	0.00	Jul 9	^b 0.00	Oct 1, 1950
ANNUAL SEVEN-DAY MINIMUM	0.17	Aug 28	0.00	Jul 9	0.00	Oct 1, 1950
MAXIMUM PEAK FLOW			^c 21	May 12	^d 2,060	May 23, 1952
MAXIMUM PEAK STAGE			^e 3.15	Feb 19	9.30	May 9, 1995
ANNUAL RUNOFF (AC-FT)	2,840		1,750		16,080	
10 PERCENT EXCEEDS	8.9		5.0		43	
50 PERCENT EXCEEDS	3.2		2.5		8.3	
90 PERCENT EXCEEDS	0.48		0.00		0.00	

- a Median of annual mean discharges, 17 ft³/s.
- b No flow for many days in most years.
- c Gage height, 2.59 ft.
- d From rating curve extended above 110 ft³/s, gage height, 8.13 ft, different datum.
- e Estimated.
- f Backwater from ice.



CHEYENNE RIVER BASIN

06407500 SPRING CREEK NEAR KEYSTONE, SD
(Formerly published as 06407900 Spring Creek near Rockerville)

LOCATION.--Lat 43°58'43", long 103°20'48", in SW¹/₄ NE¹/₄ sec.12, T.1 S., R.6 E., Pennington County, Hydrologic Unit 10120109, on right bank 0.5 mi upstream from Deadman Creek tributary at bottom of Stratosphere Bowl.

DRAINAGE AREA.--163 mi².

PERIOD OF RECORD.--July 1945 to July 1947, October 1986 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 3,885 ft above NGVD of 1929, from topographic map. Prior to October 1986, nonrecording gage 0.2 mi downstream at different datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Sheridan Lake, capacity, 12,657 acre-ft, 11.2 mi upstream from station. 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 June 10, 1972, reached a stage of about 14 ft, present 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	0.02	0.05	0.05	e0.38	e2.0	e1.7	4.4	3.6	12	2.6	3.3	0.14
2	0.01	0.05	0.05	e0.36	e1.7	e2.3	4.1	2.9	12	2.9	2.9	0.10
3	0.01	0.06	0.05	e0.25	e1.4	e3.0	3.8	2.4	10	3.9	2.7	0.07
4	0.01	0.06	0.07	e0.13	e1.5	e2.6	3.7	2.2	8.3	4.0	2.7	0.07
5	0.01	0.06	e0.30	e0.09	e1.5	e3.7	4.0	2.1	7.5	5.4	2.4	0.06
6	0.01	0.06	e0.40	e0.09	e1.4	e2.4	4.6	2.0	6.6	4.7	1.8	0.06
7	0.01	0.06	e0.30	e0.09	e1.4	e1.4	4.8	1.9	6.1	4.0	1.8	0.05
8	0.01	0.05	e0.38	e0.09	e1.4	e1.6	5.1	2.7	6.2	3.9	1.4	0.05
9	0.01	0.05	e0.47	e0.10	e1.6	e2.0	4.8	3.1	6.3	3.5	1.1	0.05
10	0.02	0.05	e0.58	e0.11	e1.7	e2.1	4.7	3.7	6.8	3.1	0.82	0.04
11	0.02	0.05	e0.60	e0.11	e1.8	e2.2	4.2	9.6	7.1	2.7	0.75	0.04
12	0.02	0.05	e0.40	e0.12	e1.8	e2.1	3.8	21	7.8	2.5	2.3	0.04
13	0.03	0.05	e0.34	e0.10	e1.8	e1.5	3.4	23	11	2.2	5.4	0.04
14	0.03	0.05	e0.30	e0.09	e1.6	e1.3	3.0	24	15	1.8	5.3	0.04
15	0.04	0.05	e0.28	e0.09	e1.9	e1.3	3.3	22	14	1.7	4.8	0.03
16	0.03	0.06	e0.26	e0.07	e2.3	e1.3	2.4	20	13	1.2	4.4	0.03
17	0.03	0.06	e0.26	e0.08	e1.7	e1.3	2.2	17	12	0.82	3.9	0.03
18	0.03	0.05	e0.28	e0.09	e1.3	e1.3	2.4	17	11	0.78	3.7	0.03
19	0.03	0.06	e0.29	e0.20	e1.3	e1.5	2.2	13	9.5	0.62	3.5	0.02
20	0.03	0.06	e0.30	e1.1	e1.3	e1.6	3.1	10	8.5	0.50	3.2	0.02
21	0.03	0.06	e0.30	e0.90	e1.3	e1.8	6.8	8.5	7.6	0.36	2.8	0.02
22	0.03	0.06	e0.30	e0.80	e1.3	e2.0	11	7.3	7.2	0.28	2.4	0.02
23	0.04	0.06	e0.26	e0.80	e1.3	2.4	11	5.6	15	0.25	1.9	0.02
24	0.04	0.06	e0.18	e0.90	e1.8	3.1	10	4.7	12	0.22	1.6	0.02
25	0.04	0.06	e0.13	e0.90	e2.1	4.0	8.9	9.0	9.4	0.28	1.3	0.01
26	0.04	0.07	e0.17	e0.80	e2.0	5.0	7.5	10	7.8	0.45	1.0	0.01
27	0.04	0.07	e0.26	e0.80	e1.1	4.4	6.1	9.5	6.1	2.0	0.69	0.01
28	0.03	0.07	e0.28	e0.90	e1.3	4.1	5.2	8.0	4.7	4.1	0.56	0.01
29	0.04	0.06	e0.31	e1.0	---	4.6	4.5	6.1	4.1	4.3	0.45	0.01
30	0.05	0.06	e0.37	e1.2	---	3.8	4.1	5.5	3.5	4.0	0.29	0.01
31	0.05	---	e0.40	e1.6	---	4.3	---	9.7	---	3.7	0.20	---
TOTAL	0.84	1.72	8.92	14.34	44.6	77.7	149.1	287.1	268.1	72.76	71.36	1.15
MEAN	0.03	0.06	0.29	0.46	1.59	2.51	4.97	9.26	8.94	2.35	2.30	0.04
MAX	0.05	0.07	0.60	1.6	2.3	5.0	11	24	15	5.4	5.4	0.14
MIN	0.01	0.05	0.05	0.07	1.1	1.3	2.2	1.9	3.5	0.22	0.20	0.01
AC-FT	1.7	3.4	18	28	88	154	296	569	532	144	142	2.3

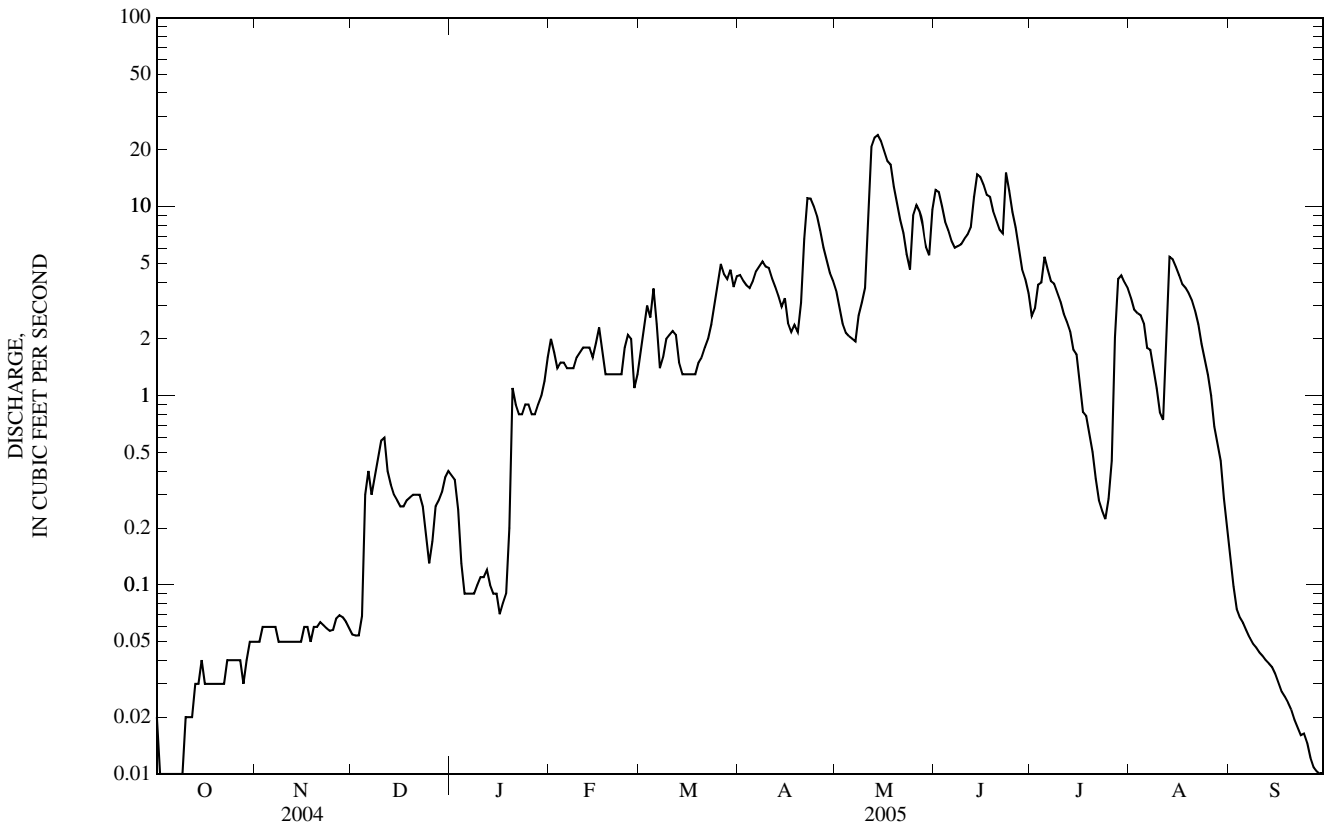
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2005, BY WATER YEAR (WY)*

MEAN	10.4	10.6	7.53	5.87	6.05	12.6	21.3	57.9	76.0	30.4	16.6	8.89
MAX	42.1	63.8	43.6	29.7	22.6	25.2	76.9	211	292	95.8	67.0	32.5
(WY)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1995)	(1995)	(1995)	(1997)	(1997)
MIN	0.00	0.01	0.08	0.10	0.01	0.74	3.47	5.10	1.58	0.05	0.00	0.00
(WY)	(1989)	(1989)	(1989)	(1989)	(1989)	(1989)	(1989)	(2004)	(1988)	(1988)	(1989)	(1988)

06407500 SPRING CREEK NEAR KEYSTONE, SD—Continued

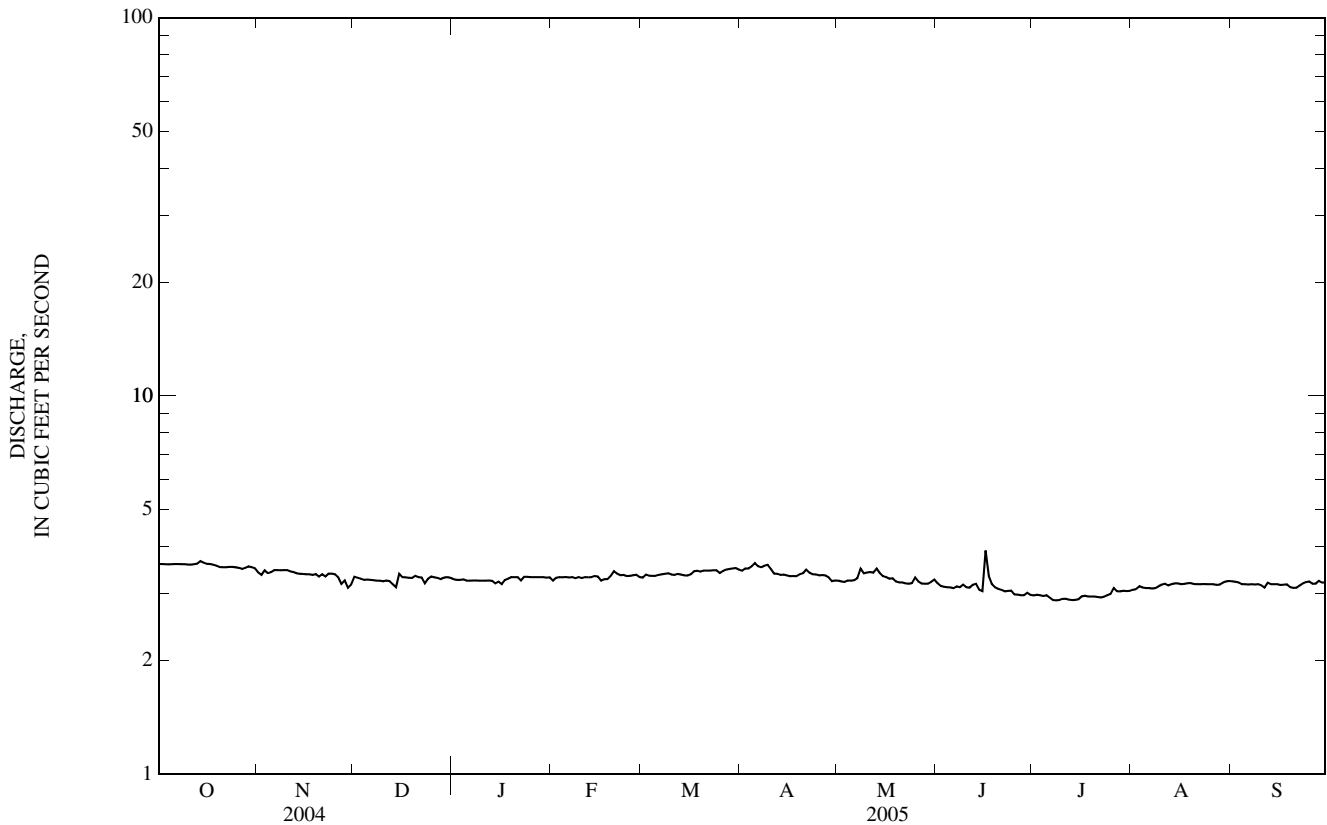
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1987 - 2005*	
ANNUAL TOTAL	873.45		997.69		^a 22.0	
ANNUAL MEAN	2.39		2.73		64.7 1999	
HIGHEST ANNUAL MEAN					0.98 1989	
LOWEST ANNUAL MEAN					771 May 9, 1995	
HIGHEST DAILY MEAN	12	Mar 27	24	May 14	^b 0.00 Jul 27, 1988	
LOWEST DAILY MEAN	0.00	Aug 22	0.01	Oct 2	0.00 Jul 27, 1988	
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 22	0.01	Oct 2	913 May 9, 1995	
MAXIMUM PEAK FLOW			27	May 13	7.96 May 9, 1995	
MAXIMUM PEAK STAGE			4.88	May 13		
ANNUAL RUNOFF (AC-FT)	1,730		1,980		15,970	
10 PERCENT EXCEEDS	6.6		7.8		50	
50 PERCENT EXCEEDS	1.6		1.3		7.5	
90 PERCENT EXCEEDS	0.02		0.03		0.37	

* Period using present site and datum only. See GAGE.
 a Median of annual mean discharges, 14 ft³/s.
 b No flow for many days in 1988-89, 2004.
 c Estimated.



06408700 RHOADS FORK NEAR ROCHFORD, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	1,393.0		1,196.5		5.73	
ANNUAL MEAN	3.81		3.28		3.28	
HIGHEST ANNUAL MEAN					9.55	2000
LOWEST ANNUAL MEAN					3.28	2005
HIGHEST DAILY MEAN	4.3	Jan 1	3.9	Jun 16	12	Jun 18, 1998
LOWEST DAILY MEAN	3.1	Nov 29	2.9	Jul 6	2.9	Jul 6, 2005
ANNUAL SEVEN-DAY MINIMUM	3.2	Dec 8	2.9	Jul 6	2.9	Jul 6, 2005
MAXIMUM PEAK FLOW			12	Jun 16	17	Jul 9, 2001
MAXIMUM PEAK STAGE			4.00	Jun 16	4.13	Jul 9, 2001
ANNUAL RUNOFF (AC-FT)	2,760		2,370		4,150	
10 PERCENT EXCEEDS	4.2		3.5		8.6	
50 PERCENT EXCEEDS	3.8		3.3		5.3	
90 PERCENT EXCEEDS	3.3		3.0		3.7	



06409000 CASTLE CREEK ABOVE DEERFIELD RESERVOIR, NEAR HILL CITY, SD
(Hydrologic bench-mark station)

LOCATION.--Lat 44°00'49", long 103°49'48", in NE¹/₄ SW¹/₄ sec.25, T.1 N., R.2 E., Pennington County, Hydrologic Unit 10120110, at downstream end of highway culvert, 330 ft downstream from South Fork Castle Creek, 500 ft upstream from high-water line of Deerfield Reservoir, 2.5 mi southwest of Deerfield Dam, and 14 mi northwest of Hill City.

DRAINAGE AREA.--79.2 mi².

PERIOD OF RECORD.--June 1948 to current year. Prior to October 1953, published as "above Deerfield Reservoir, near Deerfield."

REVISED RECORDS.--WSP 1917: 1952(M). WDR SD-84-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 5,920 ft above NGVD of 1929, from Highway Department bench mark. Prior to Aug. 31, 1948, nonrecording gage at site 130 ft upstream at datum 2.05 ft higher. Sept. 1, 1948, to May 17, 1983, at same location and datum. May 18, 1983, to Oct. 11, 1985, at site 300 ft upstream at same datum.

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.

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	8.3	e8.7	e8.0	e7.3	e7.9	e5.0	8.9	9.3	10	6.7	7.8	7.0
2	8.4	e8.9	e8.6	e7.4	e8.0	e5.0	9.6	9.4	9.2	6.9	7.0	7.0
3	8.3	e8.9	e8.8	e8.3	e8.2	e5.1	9.9	8.7	8.9	6.8	7.5	6.9
4	8.3	8.9	e8.9	e7.5	e8.4	e5.7	10	8.8	8.7	6.5	7.3	7.0
5	8.3	8.8	e9.0	e6.9	e8.2	e6.0	12	8.7	8.5	6.8	7.0	6.9
6	8.3	8.8	e9.0	e6.5	e7.9	e6.5	11	8.7	8.2	6.8	6.9	6.9
7	8.4	8.7	e9.0	e6.4	e7.8	e7.0	11	9.9	9.2	6.4	7.0	7.0
8	8.3	8.7	e9.0	e6.8	e7.4	e7.6	11	12	9.0	8.4	6.9	6.7
9	8.2	8.7	e9.0	e7.0	e7.1	9.0	13	11	11	7.6	9.0	6.6
10	8.1	8.6	e8.8	e7.5	e7.0	8.1	11	13	9.4	6.5	9.0	6.4
11	8.1	e8.8	e8.6	e7.8	e7.7	8.5	10	12	8.9	6.6	8.1	6.4
12	8.3	e8.7	e8.4	7.8	e8.0	8.4	10	14	10	6.5	7.9	7.1
13	8.4	e8.6	e8.4	7.6	e8.0	e7.9	10	16	13	6.3	9.4	7.8
14	8.9	e8.5	e8.3	7.8	e7.0	e7.4	10	13	9.9	6.1	8.3	7.3
15	8.7	e8.5	e8.5	7.8	e6.0	e7.0	10	12	8.8	6.2	7.8	7.3
16	8.7	e8.5	e9.0	7.5	e5.8	e7.5	9.9	11	8.8	6.1	7.6	7.2
17	8.6	e8.5	e8.8	8.3	e5.6	e8.4	9.8	11	8.7	6.2	7.5	7.1
18	8.5	e8.5	e8.5	8.7	e5.4	e8.0	9.8	12	8.0	6.4	7.6	7.6
19	8.7	e8.6	e8.1	8.8	e5.2	e8.2	10	10	7.7	6.4	7.8	7.8
20	8.9	e8.6	e7.3	8.6	e5.0	e8.5	11	9.8	7.4	6.2	7.5	7.2
21	8.6	e8.7	e6.6	e8.5	e5.0	8.4	13	9.5	7.3	6.3	7.5	7.4
22	8.7	e8.8	e6.0	e8.4	e5.0	8.5	13	9.2	7.2	6.3	7.4	8.0
23	8.7	e9.2	e6.2	e8.6	e4.7	8.4	11	9.0	7.2	6.1	7.4	7.6
24	9.2	e9.0	e7.0	e8.8	e5.0	8.3	11	9.1	7.7	6.7	7.4	8.2
25	8.9	e8.7	e8.8	8.0	e5.9	e9.0	10	13	7.5	8.9	7.4	9.0
26	9.2	e8.5	e9.0	7.9	e6.5	e9.8	10	10	7.0	11	7.3	8.0
27	8.7	e8.5	e9.0	8.1	e6.0	9.2	9.6	9.3	6.7	8.0	7.2	7.5
28	8.7	e8.5	e8.4	8.2	e5.0	9.4	9.2	8.8	6.6	7.1	7.2	8.2
29	8.8	e8.1	e7.8	8.0	---	9.4	10	8.8	7.0	7.1	7.1	7.5
30	8.6	e8.0	e7.2	7.8	---	9.0	10	9.4	7.0	7.1	7.0	7.3
31	9.0	---	e7.1	e7.7	---	8.9	---	12	---	7.6	7.0	---
TOTAL	265.8	259.5	255.1	242.3	184.7	243.1	314.7	328.4	254.5	214.6	234.8	219.9
MEAN	8.57	8.65	8.23	7.82	6.60	7.84	10.5	10.6	8.48	6.92	7.57	7.33
MAX	9.2	9.2	9.0	8.8	8.4	9.8	13	16	13	11	9.4	9.0
MIN	8.1	8.0	6.0	6.4	4.7	5.0	8.9	8.7	6.6	6.1	6.9	6.4
AC-FT	527	515	506	481	366	482	624	651	505	426	466	436

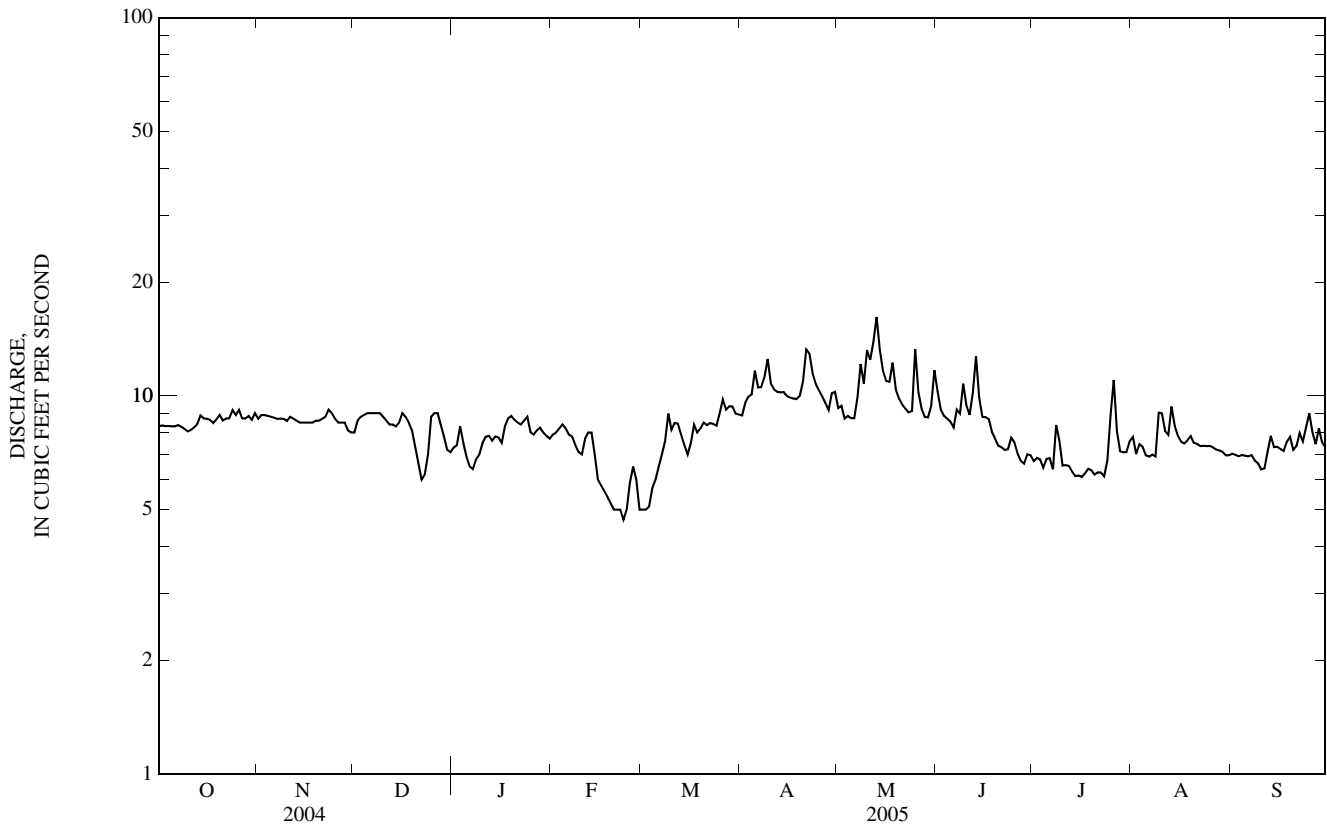
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2005, BY WATER YEAR (WY)

MEAN	11.2	10.5	9.82	9.38	9.47	11.9	16.8	17.9	16.1	12.9	11.4	10.9
MAX	26.5	25.8	22.7	21.9	23.6	34.7	36.2	45.2	50.5	42.0	34.1	30.8
(WY)	(1998)	(1999)	(2000)	(1999)	(2000)	(1999)	(1999)	(1997)	(1999)	(1999)	(1999)	(1999)
MIN	3.93	3.85	2.74	3.98	5.06	5.81	6.83	6.56	4.69	4.05	4.63	4.36
(WY)	(1961)	(1962)	(1962)	(1962)	(1962)	(1961)	(1961)	(1961)	(1961)	(1961)	(1960)	(1961)

06409000 CASTLE CREEK ABOVE DEERFIELD RESERVOIR, NEAR HILL CITY, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1949 - 2005	
ANNUAL TOTAL	3,454.0		3,017.4			
ANNUAL MEAN	9.44		8.27		12.4	
HIGHEST ANNUAL MEAN					32.1	1999
LOWEST ANNUAL MEAN					5.13	1961
HIGHEST DAILY MEAN	20	Mar 27	16	May 13	232	May 22, 1952
LOWEST DAILY MEAN	6.0	Dec 22	4.7	Feb 23	2.0	Dec 10, 1961
ANNUAL SEVEN-DAY MINIMUM	7.1	Dec 18	5.0	Feb 18	2.2	Dec 15, 1961
MAXIMUM PEAK FLOW			^a 22	May 12	^b 1,120	May 22, 1952
MAXIMUM PEAK STAGE			^c 4.23	Mar 1	5.81	May 22, 1952
ANNUAL RUNOFF (AC-FT)	6,850		5,990		8,950	
10 PERCENT EXCEEDS	12		10		21	
50 PERCENT EXCEEDS	8.8		8.3		10	
90 PERCENT EXCEEDS	8.0		6.5		6.4	

- a Gage height, 2.86 ft.
- b From rating curve extended on basis of slope-area measurement.
- c Backwater from ice.
- e Estimated.



CHEYENNE RIVER BASIN

06409500 DEERFIELD RESERVOIR NEAR HILL CITY, SD

LOCATION.--Lat 44°01'41", long 103°47'09", in NE¹/₄ SW¹/₄ sec.20, T.1 N., R.3 E., at dam on Castle Creek, Hydrologic Unit 10120110, 0.4 mi upstream from Dutchman Creek and 12.5 mi northwest of Hill City.

DRAINAGE AREA.--95 mi², approximately.

PERIOD OF RECORD.--May 1947 to current year (monthend contents only). Some elevations obtained during period of initial filling, December 1945 to May 1947, are available in Bureau of Reclamation files. Prior to October 1953, published as "near Deerfield."

GAGE.--Water-stage recorder. Elevations listed to NGVD of 1929 (levels by Bureau of Reclamation). Prior to July 20, 1964, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam. Storage began Dec. 3, 1945; dam completed in 1947. Conservation capacity, 15,504 acre-ft between elevations 5,839.0 ft (lowest outlet) and 5,908.0 ft (crest of spillway). Dead storage below elevation 5,839.0 ft, 151 acre-ft. Surcharge capacity, 26,700 acre-ft between elevations 5,908.0 ft and 5,953.0 ft. Figures given herein represent conservation and surcharge contents above elevation 5,839.0 ft. Water is used to supplement Rapid City water supply and for irrigation in Rapid Creek basin downstream from Rapid City.

COOPERATION.--Records of elevation and contents provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 16,006 acre-ft Feb. 25, 1985 (elevation, 5,909.05 ft); minimum observed, 429 acre-ft, Oct. 2, 1959 (elevation, 5,839.10 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,000 acre-ft, Oct. 1, elevation, 5,904.25 ft; minimum, 13,000 acre-ft, Sept. 30, elevation, 5,901.69 ft.

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	5,904.27	14,000	--
Oct. 31	5,903.82	13,800	-200
Nov. 30	5,903.34	13,600	-200
Dec. 31	5,902.89	13,400	-200
CAL YR 2004	--	--	-1,600
Jan. 31	5,902.55	13,300	-100
Feb. 28	5,902.18	13,200	-100
Mar. 31	5,901.94	13,100	-100
Apr. 30	5,902.18	13,200	+100
May 31	5,902.78	13,400	+200
June 30	5,902.94	13,400	0
July 31	5,902.70	13,400	-100
Aug. 31	5,902.21	13,200	-200
Sept. 30	5,901.69	13,000	-200
WTR YR 2005	--	--	-1,100

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06410000 CASTLE CREEK BELOW DEERFIELD DAM, SD

LOCATION.--Lat 44°01'45", long 103°46'53", in NW¹/₄ SE¹/₄ sec.20, T.1 N., R.3 E., Pennington County, Hydrologic Unit 10120110, on left bank 200 ft upstream from Dutchman Creek, 1,100 ft downstream from Deerfield Dam, and 12.5 mi northwest of Hill City.

DRAINAGE AREA.--96 mi², approximately.

PERIOD OF RECORD.--July 1946 to current year, seasonal records only beginning October 1983.

GAGE.--Water-stage recorder. Datum of gage is 5,784.52 ft above NGVD of 1929 (Bureau of Reclamation bench mark). Prior to Oct. 15, 1947, at site 400 ft downstream at datum 0.23 ft higher. Oct. 15, 1947, to Sept. 1, 1948, at site 550 ft downstream at datum 1.77 ft lower, and Sept. 2, 1948, to Nov. 2, 1971, at site 300 ft upstream at datum 4.0 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow completely regulated by Deerfield Dam, 1,100 ft upstream. 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 daily discharge, 200 ft³/s, May 22, 1952; maximum gage height, 5.08 ft, present datum, June 5, 1991; no flow at times in 1948, 1950-60.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 39 ft³/s, May 18, gage height, 4.01 ft; minimum daily discharge, 5.3 ft³/s, July 7-8.

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	---	---	---	---	---	10	9.5	9.0	8.0	5.8	7.2	8.9
2	---	---	---	---	---	10	9.5	9.1	8.0	5.6	7.2	8.7
3	---	---	---	---	---	10	10	9.1	8.0	5.7	7.5	8.9
4	---	---	---	---	---	e10	9.9	9.0	8.1	5.5	7.5	9.0
5	---	---	---	---	---	e9.9	9.5	8.9	8.1	5.5	7.6	9.2
6	---	---	---	---	---	e10	9.3	8.9	8.1	5.4	7.6	9.1
7	---	---	---	---	---	e10	9.4	8.9	8.1	5.3	7.8	9.2
8	---	---	---	---	---	e10	9.3	8.9	8.1	5.3	8.2	9.4
9	---	---	---	---	---	e10	9.3	8.9	7.9	5.4	8.4	9.6
10	---	---	---	---	---	e10	9.0	8.9	7.8	5.6	8.7	9.8
11	---	---	---	---	---	e10	8.9	9.0	7.8	5.6	9.2	9.8
12	---	---	---	---	---	10	9.5	9.0	7.6	5.6	8.6	9.9
13	---	---	---	---	---	10	9.0	8.9	7.7	5.6	8.1	9.8
14	---	---	---	---	---	10	9.0	8.9	7.5	5.7	8.5	9.8
15	---	---	---	---	---	10	9.0	8.9	7.4	5.9	8.4	9.9
16	---	---	---	---	---	e10	9.1	8.9	7.0	6.0	8.3	9.9
17	---	---	---	---	---	e10	9.0	8.9	7.0	6.0	8.4	9.8
18	---	---	---	---	---	e10	9.0	7.3	6.9	6.0	8.4	10
19	---	---	---	---	---	e10	9.0	7.8	6.8	6.3	8.3	10
20	---	---	---	---	---	e10	9.0	7.8	6.8	6.4	8.4	9.9
21	---	---	---	---	---	e10	9.0	7.9	6.7	6.4	8.5	9.9
22	---	---	---	---	---	e10	8.9	7.8	6.7	6.5	8.4	10
23	---	---	---	---	---	e10	8.9	7.9	6.5	6.7	8.4	9.8
24	---	---	---	---	---	e10	8.9	8.0	6.5	6.8	8.6	9.7
25	---	---	---	---	---	e10	8.9	8.0	6.4	6.9	8.8	10
26	---	---	---	---	---	e10	8.9	7.9	6.4	7.0	8.7	10
27	---	---	---	---	---	10	9.1	7.9	6.2	6.9	8.6	9.9
28	---	---	---	---	---	10	9.1	7.9	6.2	6.8	8.6	9.7
29	---	---	---	---	---	9.8	9.1	7.9	6.1	7.0	8.5	9.5
30	---	---	---	---	---	9.9	9.1	8.0	5.8	7.0	8.6	9.2
31	---	---	---	---	---	9.8	---	8.0	---	7.1	8.7	---
TOTAL	---	---	---	---	---	309.4	275.1	262.2	216.2	189.3	256.7	288.3
MEAN	---	---	---	---	---	9.98	9.17	8.46	7.21	6.11	8.28	9.61
MAX	---	---	---	---	---	10	10	9.1	8.1	7.1	9.2	10
MIN	---	---	---	---	---	9.8	8.9	7.3	5.8	5.3	7.2	8.7
AC-FT	---	---	---	---	---	614	546	520	429	375	509	572

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1983, BY WATER YEAR (WY)

MEAN	11.2	2.43	2.08	2.22	2.85	5.25	14.1	19.0	16.9	16.7	18.8	21.1
MAX	40.0	7.69	2.72	3.48	12.6	15.5	44.1	46.8	50.0	81.1	72.7	64.2
(WY)	(1966)	(1949)	(1948)	(1978)	(1979)	(1979)	(1982)	(1978)	(1965)	(1982)	(1982)	(1959)
MIN	0.20	0.02	0.22	1.53	1.26	1.56	1.59	1.59	2.39	2.13	3.78	4.05
(WY)	(1947)	(1960)	(1947)	(1983)	(1971)	(1960)	(1960)	(1960)	(1962)	(1962)	(1962)	(1983)

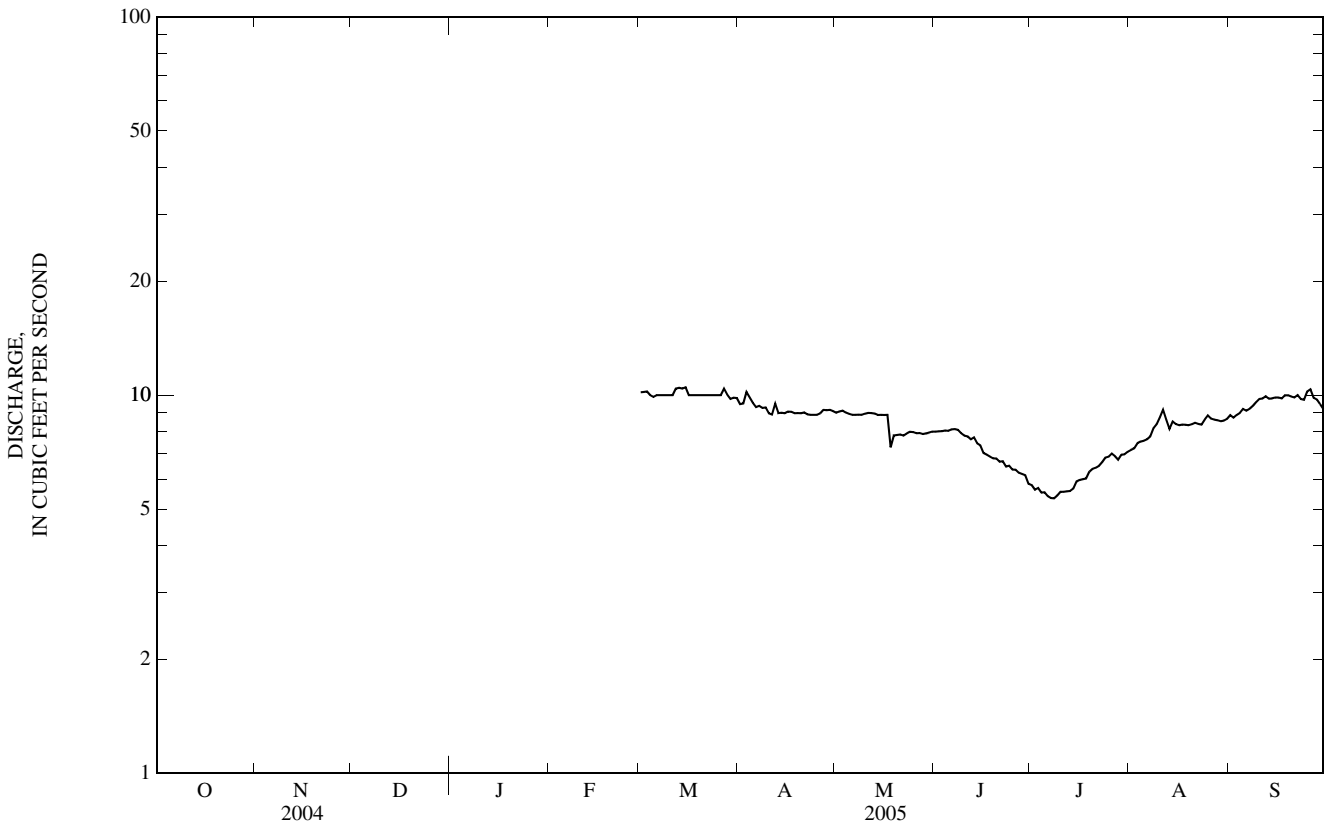
06410000 CASTLE CREEK BELOW DEERFIELD DAM, SD—Continued

SUMMARY STATISTICS

WATER YEARS 1947 - 1983

ANNUAL MEAN	11.1	
HIGHEST ANNUAL MEAN	30.9	1982
LOWEST ANNUAL MEAN	2.62	1960
HIGHEST DAILY MEAN	200	May 22, 1952
LOWEST DAILY MEAN	0.00	Sep 9, 1948
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 15, 1959
ANNUAL RUNOFF (AC-FT)	8,030	
10 PERCENT EXCEEDS	26	
50 PERCENT EXCEEDS	4.9	
90 PERCENT EXCEEDS	1.9	

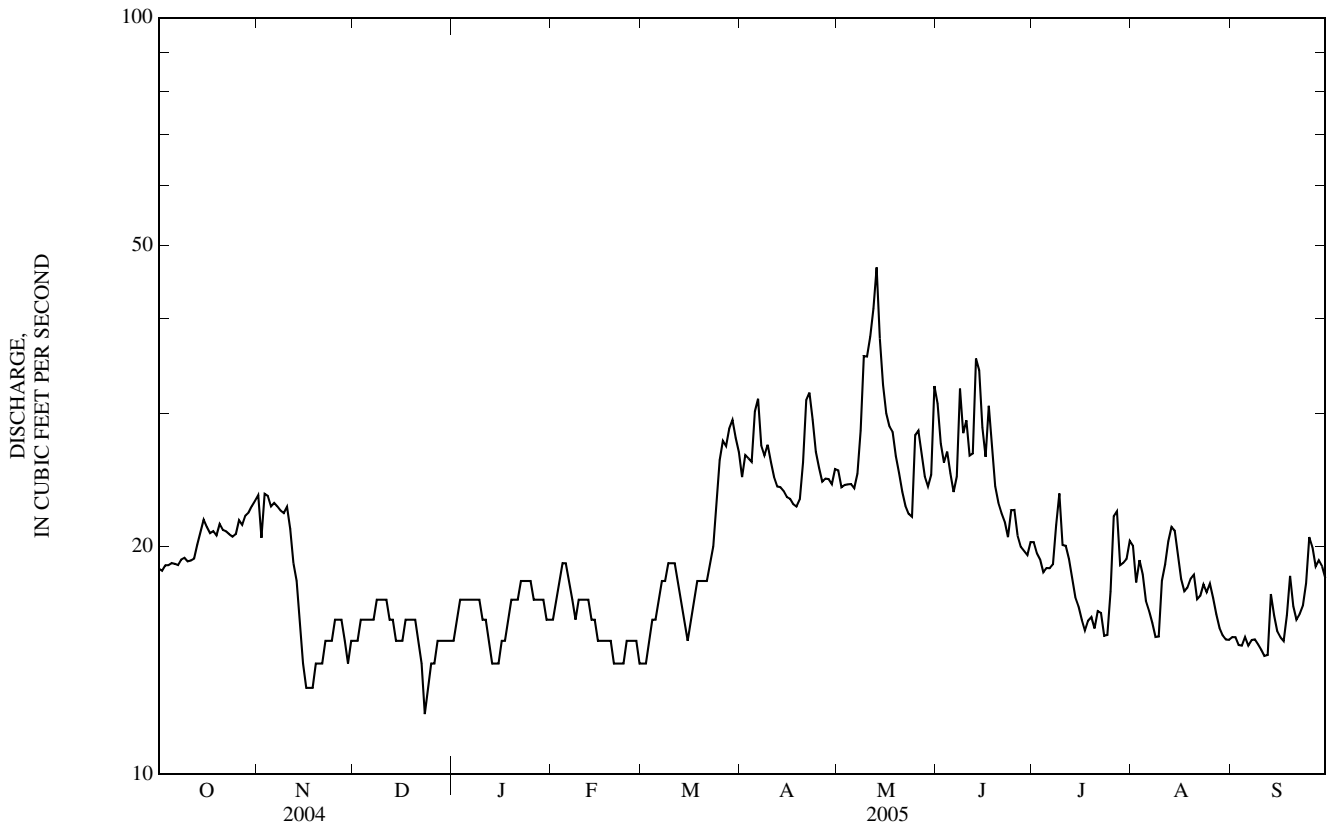
* Period reflects complete water years.
 e Estimated.



06410500 RAPID CREEK ABOVE PACTOLA RESERVOIR, AT SILVER CITY, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1954 - 2005	
ANNUAL TOTAL	8,275		7,233		46.8	
ANNUAL MEAN	22.6		19.8		142	
HIGHEST ANNUAL MEAN					1999	
LOWEST ANNUAL MEAN					15.1	
HIGHEST DAILY MEAN	51	Mar 27	47	May 13	1,330	May 15, 1965
LOWEST DAILY MEAN	12	Feb 12	12	Dec 23	2.5	Dec 2, 1985
ANNUAL SEVEN-DAY MINIMUM	14	Feb 9	14	Nov 15	3.6	Nov 27, 1985
MAXIMUM PEAK FLOW			^a 53	May 13	^b 2,060	May 15, 1965
MAXIMUM PEAK STAGE			^c 5.74	Feb 22	10.44	May 15, 1965
ANNUAL RUNOFF (AC-FT)	16,410		14,350		33,900	
10 PERCENT EXCEEDS	36		27		93	
50 PERCENT EXCEEDS	20		18		30	
90 PERCENT EXCEEDS	15		15		13	

- a Gage height, 4.85 ft.
- b From rating curve extended above 1,000 ft³/s on basis of slope-area measurement of peak flow.
- c Backwater from ice.
- e Estimated.



06411000 PACTOLA RESERVOIR NEAR SILVER CITY, SD

LOCATION.--Lat 44°04'20", long 103°29'17", in NE¹/₄ SW¹/₄ sec.2, T.1 N., R.5 E., Pennington County, Hydrologic Unit 10120110, in outlet works of dam on Rapid Creek, 3.8 mi east of Silver City.

DRAINAGE AREA.--319 mi².

PERIOD OF RECORD.--August 1956 to current year (monthend contents only).

GAGE.--Water-stage recorder. Elevations listed to NGVD of 1929 (Bureau of Reclamation datum). Prior to Feb. 18, 1970, nonrecording gage at same site and datum.

REMARKS.--Reservoir formed by an earthfill dam completed August 1956. Storage began Aug. 22, 1956. Conservation capacity, 54,955 acre-ft between elevations 4,456.1 ft and 4,580.2 ft. Combined dead and inactive storage below elevation 4,456.1 ft is 1,017 acre-ft. Flood storage capacity, 43,057 acre-ft between elevations 4,580.2 ft and 4,621.5 ft (crest of spillway). Surcharge capacity, 41,892 acre-ft between elevations 4,621.5 ft and 4,651.7 ft (maximum pool elevation). Figures given herein represent contents above elevation 4,456.1 ft. Reservoir provides flood control and water for municipal and irrigation uses.

COOPERATION.--Records of elevation and contents provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 60,088 acre-ft, May 19, 1965, elevation, 4,585.87 ft; minimum observed, 23,000 acre-ft, Jan. 24, 1991, elevation, 4,531.53 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 42,800 acre-ft, June 22, elevation, 4,564.72 ft; minimum, 35,100 acre-ft, Sept. 30, elevation, 4,553.28 ft.

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	4,562.99	41,600	--
Oct. 31	4,562.75	41,400	-200
Nov. 30	4,562.42	41,200	-200
Dec. 31	4,562.12	41,000	-200
CAL YR 2004	--	--	-6,200
Jan. 31	4,562.21	41,100	+100
Feb. 28	4,562.15	41,000	-100
Mar. 31	4,562.44	41,200	+200
Apr. 30	4,562.91	41,500	+300
May 31	4,564.02	42,300	+800
June 30	4,564.36	42,600	+300
July 31	4,558.72	38,900	-3,700
Aug. 31	4,556.32	37,100	-1,800
Sept. 30	4,553.28	35,100	-2,000
WTR YR 2005	--	--	-6,500

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06411500 RAPID CREEK BELOW PACTOLA DAM, SD

LOCATION.--Lat 44°04'36", long 103°28'54", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.2, T.1 N., R.5 E., Pennington County, Hydrologic Unit 10120110, on right bank 2,000 ft downstream from Pactola Dam, 3.9 mi upstream from Deer Creek, and 13.0 mi west of Rapid City.

DRAINAGE AREA.--320 mi², approximately.

PERIOD OF RECORD.--October 1928 to September 1932 (combined records of Creek and Dakota Power and Light Co. flume), July 1946 to current year. Prior to October 1953, published as "near Pactola." Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1931(M).

GAGE.--Water-stage recorder and concrete control since Oct. 16, 1962. Datum of gage is 4,406.00 ft above NGVD of 1929 (Bureau of Reclamation bench mark). Apr. 19, 1929, to June 30, 1932, nonrecording gage at site 3,500 ft upstream at different datum. July 24, 1946, to Aug. 24, 1947, nonrecording gage and Aug. 25, 1947, to Nov. 18, 1953, water-stage recorder, at site 2.0 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by dam on Castle Creek since Dec. 3, 1945, and completely regulated by Pactola Dam 2,000 ft upstream since Aug. 22, 1956 (reservoir filled from August 1956 to June 1963). Maximum discharge prior to Sept. 30, 1963, 2,170 ft³/s, May 22, 1952, gage height, 6.74 ft, site and datum then in use; minimum daily discharge, 0.0 ft³/s, Oct. 11-17, 1962. 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	20	20	20	20	21	22	20	20	20	75	36	52
2	20	20	20	20	21	22	20	20	20	75	47	51
3	20	20	20	20	21	22	20	20	20	71	59	52
4	20	20	20	20	21	21	20	20	20	71	60	52
5	20	20	20	20	21	21	20	20	20	71	63	52
6	19	20	20	20	21	21	20	20	20	71	65	48
7	19	20	20	20	21	21	20	20	20	89	65	50
8	19	20	20	20	21	21	20	20	20	102	65	52
9	20	20	20	20	21	21	20	20	20	100	59	53
10	20	20	20	20	21	21	20	20	20	100	56	55
11	20	20	20	20	21	21	20	20	20	101	52	55
12	20	20	20	20	21	21	20	20	20	101	33	53
13	19	20	20	20	21	21	20	20	20	95	23	48
14	19	20	20	20	21	21	20	20	20	90	23	46
15	19	20	20	20	21	21	20	20	20	89	23	43
16	19	20	20	20	21	21	20	20	20	89	22	41
17	19	20	20	20	21	21	19	20	20	89	22	40
18	19	20	20	20	21	21	19	20	20	90	22	39
19	19	20	20	20	21	21	20	20	20	91	23	38
20	19	20	20	20	21	21	20	20	21	92	23	35
21	19	20	20	20	21	21	20	20	21	90	23	35
22	19	20	20	20	21	21	20	20	21	83	23	35
23	19	20	20	20	21	21	20	20	21	78	24	35
24	19	20	20	20	21	21	20	20	21	76	23	35
25	19	20	20	20	21	21	20	20	21	62	23	35
26	19	20	20	20	22	21	20	20	21	49	23	35
27	19	20	20	20	22	20	20	20	33	44	23	35
28	19	20	20	20	22	21	20	20	42	44	23	35
29	20	20	20	20	---	21	20	20	44	40	30	35
30	20	20	20	20	---	21	20	20	54	38	47	36
31	20	---	20	20	---	20	---	20	---	38	55	---
TOTAL	601	600	620	620	591	652	598	620	700	2,394	1,158	1,306
MEAN	19.4	20.0	20.0	20.0	21.1	21.0	19.9	20.0	23.3	77.2	37.4	43.5
MAX	20	20	20	20	22	22	20	20	54	102	65	55
MIN	19	20	20	20	21	20	19	20	20	38	22	35
AC-FT	1,190	1,190	1,230	1,230	1,170	1,290	1,190	1,230	1,390	4,750	2,300	2,590

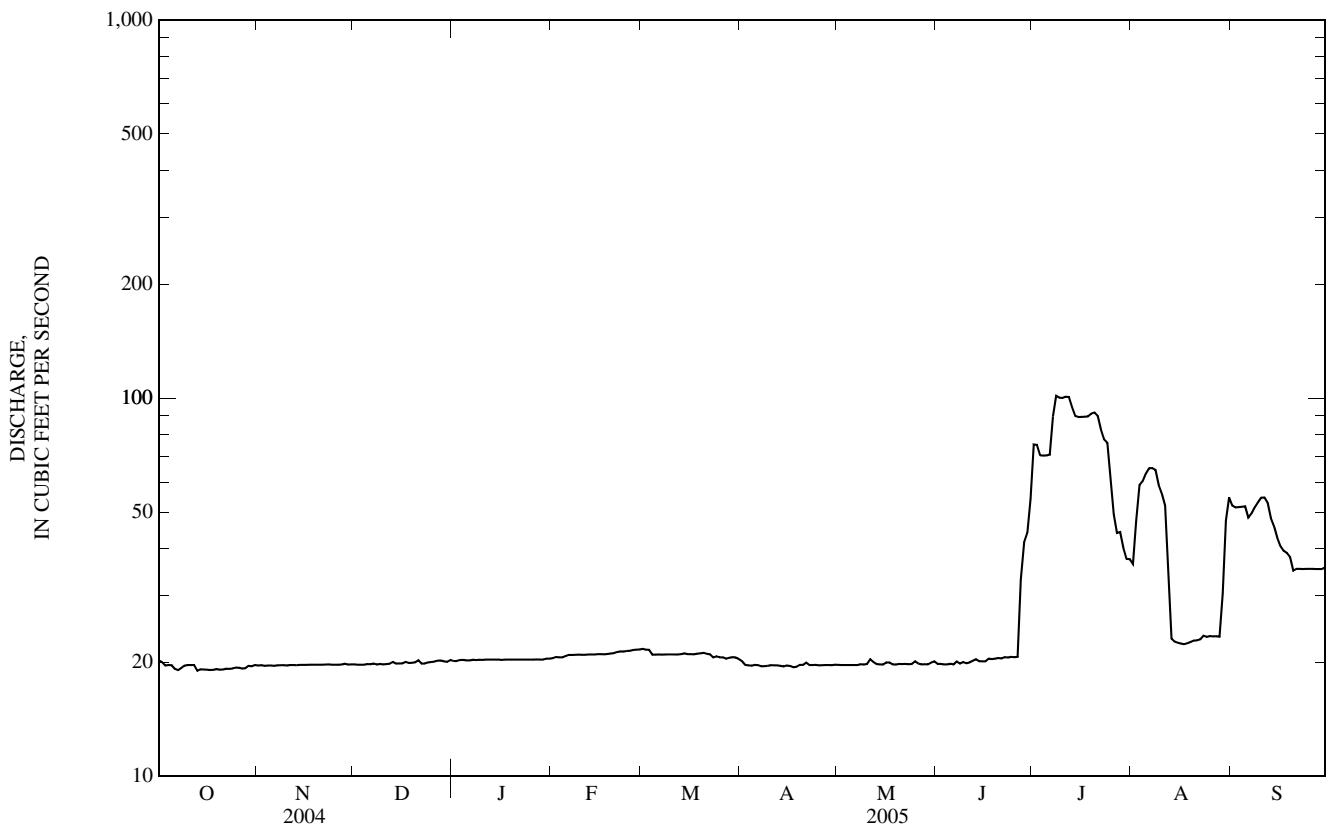
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2005, BY WATER YEAR (WY)*

MEAN	28.6	25.0	25.1	23.2	23.5	32.0	53.1	97.8	112	91.0	70.9	47.5
MAX	127	150	130	71.4	73.8	125	182	324	415	227	213	120
(WY)	(1999)	(1999)	(1999)	(1997)	(1997)	(1996)	(1999)	(1997)	(1965)	(1998)	(1998)	(1997)
MIN	11.1	9.07	12.3	10.6	10.9	11.2	11.3	11.1	17.7	30.5	29.5	21.5
(WY)	(1991)	(1982)	(1991)	(1991)	(1991)	(1991)	(1991)	(1991)	(1991)	(1992)	(1966)	(1989)

06411500 RAPID CREEK BELOW PACTOLA DAM, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1964 - 2005*	
ANNUAL TOTAL	11,537		10,460		52.6	
ANNUAL MEAN	31.5		28.7		20.7	
HIGHEST ANNUAL MEAN					149	1999
LOWEST ANNUAL MEAN					20.7	1991
HIGHEST DAILY MEAN	89	Aug 20	102	Jul 8	^a 515	May 20, 1965
LOWEST DAILY MEAN	19	Oct 6	19	Oct 6	1.4	Oct 9, 1971
ANNUAL SEVEN-DAY MINIMUM	19	Oct 13	19	Oct 13	6.7	Oct 6, 1971
MAXIMUM PEAK FLOW			105	Jul 7	547	May 19, 1965
MAXIMUM PEAK STAGE			7.91	Jul 7	9.00	May 19, 1965
ANNUAL RUNOFF (AC-FT)	22,880		20,750		38,110	
10 PERCENT EXCEEDS	60		54		105	
50 PERCENT EXCEEDS	22		20		31	
90 PERCENT EXCEEDS	20		20		15	

* Regulated period only (1964-2005). See REMARKS.
 a Also May 28, 29, 1965.



06412500 RAPID CREEK ABOVE CANYON LAKE, NEAR RAPID CITY, SD

LOCATION.--Lat 44°03'10", long 103°18'41", in NW¹/₄ NW¹/₄ NW¹/₄ sec.17, T.1 N., R.7 E., Pennington County, Hydrologic Unit 10120110, on left bank between bridges on State Highway 44, at city limits of Rapid City, and 2.9 mi downstream from Victoria Creek.

DRAINAGE AREA.--371 mi².

PERIOD OF RECORD.--July 1946 to current year.

GAGE.--Water-stage recorder and concrete broad-crested, V-notch weir. Datum of gage is 3,398.17 ft above NGVD of 1929. Prior to Oct. 6, 1947, nonrecording gage, Oct. 6, 1947, to Nov. 2, 1967, and Oct. 1, 1968, to Sept. 30, 1976, water-stage recorder all at datum 9.25 ft higher. Nov. 3, 1967, to Sept. 30, 1968, nonrecording gage at site 0.1 mi downstream at datum 6.13 ft higher. Oct. 1, 1968, to Oct. 1, 1989, at datum 7.22 ft higher. Prior to Oct. 1, 1991, at site 0.1 mi upstream at datum 7.25 ft higher.

REMARKS.--Records good. Flow regulated by Deerfield Reservoir since December 1945 and by Pactola Dam 21.0 mi upstream since August 1956 (reservoir filled from August 1956 to June 1963). Maximum discharge prior to Sept. 30, 1963, 2,600 ft³/s, May 23, 1952, gage height, 10.08 ft, site and datum then in use; minimum daily discharge, no flow Jan. 6-8, 1959, Apr. 4-5, 1960. Gage located in loss zone and analysis of low-flow data would be unreliable due to differences in respective gage locations. Water temperature and specific conductance measured during the year are compiled in the Miscellaneous Temperature Measurements and Field Determinations section. Satellite data-collection platform and National Weather Service telemeter at station.

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	10	10	11	e4.5	10	13	11	11	13	45	25	36
2	11	11	10	e1.5	12	15	11	10	11	64	23	34
3	11	9.8	11	e2.2	11	14	11	10	11	55	41	34
4	11	10	11	e5.0	11	14	10	9.9	11	56	44	34
5	11	10	9.8	e8.0	11	13	11	9.8	10	63	44	34
6	11	10	9.4	e6.0	e10	13	11	9.4	10	62	49	34
7	10	10	8.3	e6.0	e6.6	13	10	9.6	10	62	49	31
8	9.1	10	9.8	e6.0	e5.9	13	10	11	12	89	49	34
9	9.1	10	9.2	e5.5	e9.7	13	10	10	11	90	49	34
10	9.0	9.9	8.8	e5.0	12	12	9.9	12	11	91	41	36
11	8.9	9.9	9.2	e4.0	13	12	10	15	11	92	42	36
12	8.7	10	8.2	e3.5	14	13	10	18	11	92	38	39
13	9.3	10	e2.6	e3.2	12	13	10	16	13	90	19	35
14	8.7	9.9	e3.5	e3.0	11	13	9.7	17	12	78	16	31
15	8.7	9.9	17	e3.5	10	12	9.4	15	11	78	14	30
16	8.8	10	13	e4.6	e4.8	13	9.5	13	11	77	13	27
17	9.0	10	12	e8.0	e7.4	12	9.2	13	10	75	12	25
18	8.7	10	10	e18	e11	12	8.9	12	10	76	13	25
19	8.7	10	9.7	e26	e13	12	9.1	11	9.7	76	13	26
20	8.8	9.9	10	e17	13	12	12	11	9.4	79	13	22
21	8.3	10	4.0	14	12	13	15	11	9.4	78	12	21
22	8.6	9.9	e2.0	11	12	13	14	10	9.4	75	12	21
23	8.9	9.9	e1.0	11	11	12	11	10	9.6	64	11	21
24	8.7	9.9	e2.0	14	11	14	10	10	11	67	11	22
25	8.8	9.7	e15	13	13	13	9.4	15	9.4	61	11	23
26	9.2	9.1	e17	12	15	12	9.4	12	8.7	49	11	22
27	9.1	9.1	e16	11	14	12	9.9	11	8.5	36	11	22
28	8.2	e7.0	15	12	13	12	10	11	20	33	11	22
29	8.8	e4.0	13	12	---	12	11	11	25	32	10	22
30	9.4	e4.5	15	11	---	11	10	11	27	27	17	22
31	9.4	---	9.8	11	---	11	---	15	---	26	35	---
TOTAL	287.9	283.4	303.3	272.5	309.4	392	312.4	370.7	356.1	2,038	759	855
MEAN	9.29	9.45	9.78	8.79	11.1	12.6	10.4	12.0	11.9	65.7	24.5	28.5
MAX	11	11	17	26	15	15	15	18	27	92	49	39
MIN	8.2	4.0	1.0	1.5	4.8	11	8.9	9.4	8.5	26	10	21
AC-FT	571	562	602	541	614	778	620	735	706	4,040	1,510	1,700

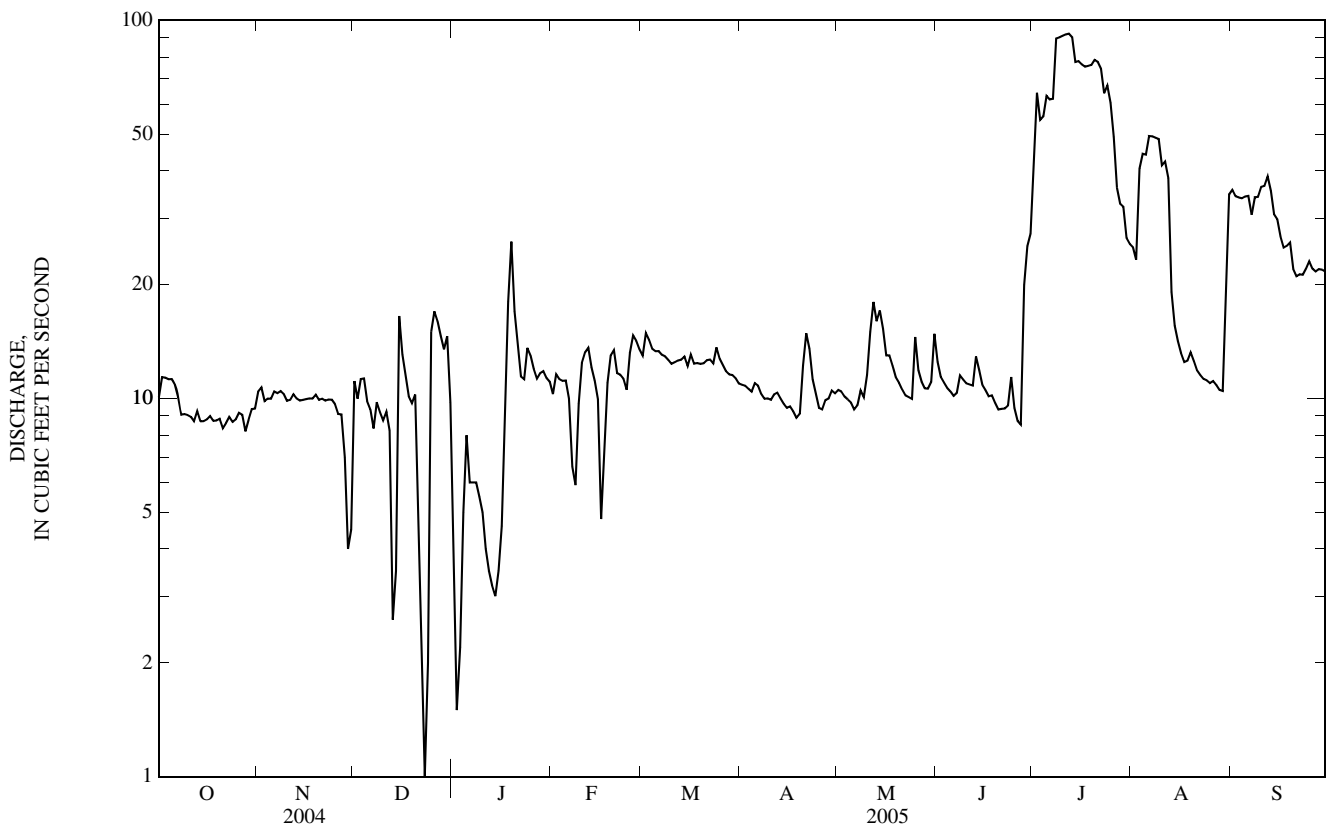
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2005, BY WATER YEAR (WY)*

MEAN	25.0	20.5	19.1	17.9	18.8	28.3	51.9	106	134	94.3	67.5	41.6
MAX	135	154	135	80.4	84.1	133	217	449	466	275	239	123
(WY)	(1999)	(1999)	(1999)	(1997)	(1997)	(1996)	(1997)	(1997)	(1999)	(1998)	(1997)	(1997)
MIN	1.38	0.71	0.12	0.09	0.09	0.29	3.55	12.0	11.9	23.2	24.5	14.1
(WY)	(1991)	(1982)	(1991)	(1991)	(1991)	(1991)	(1991)	(2005)	(2005)	(1992)	(2005)	(1989)

06412500 RAPID CREEK ABOVE CANYON LAKE, NEAR RAPID CITY, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1964 - 2005*	
ANNUAL TOTAL	7,905.7		6,539.7		52.3	
ANNUAL MEAN	21.6		17.9		173	
HIGHEST ANNUAL MEAN					17.5	1997
LOWEST ANNUAL MEAN					2,600	1991
HIGHEST DAILY MEAN	80	Jul 3	92	Jul 11	0.00	Jun 10, 1972
LOWEST DAILY MEAN	1.0	Dec 23	1.0	Dec 23	0.00	Dec 12, 1990
ANNUAL SEVEN-DAY MINIMUM	5.5	Dec 18	3.8	Jan 10	0.00	Dec 20, 1990
MAXIMUM PEAK FLOW			104	Jul 10	31,200	Jun 9, 1972
MAXIMUM PEAK STAGE			2.61	Jul 10	17.77	Jun 9, 1972
ANNUAL RUNOFF (AC-FT)	15,680		12,970		37,860	
10 PERCENT EXCEEDS	47		38		109	
50 PERCENT EXCEEDS	15		11		28	
90 PERCENT EXCEEDS	9.0		8.7		7.0	

* Regulated period only (1964-2005). See REMARKS.
 a No flow for many days in 1991 water year.
 e Estimated.



06412810 CLEGHORN SPRINGS AT RAPID CITY, SD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1993 - 2005	
ANNUAL TOTAL	3,505.6		3,294.6			
ANNUAL MEAN	9.58		9.03		11.4	
HIGHEST ANNUAL MEAN					13.3	1999
LOWEST ANNUAL MEAN					9.03	2005
HIGHEST DAILY MEAN	12	Jul 12	11	Oct 18	17	Jun 2, 1997
LOWEST DAILY MEAN	7.7	Aug 12	6.5	Aug 29	6.5	Aug 29, 2005
ANNUAL SEVEN-DAY MINIMUM	7.8	Sep 14	6.6	Aug 24	6.6	Aug 24, 2005
MAXIMUM PEAK FLOW			^a 15	Nov 1	59	Jun 2, 1997
MAXIMUM PEAK STAGE			^a 2.85	Nov 1	3.76	Jun 2, 1997
ANNUAL RUNOFF (AC-FT)	6,950		6,530		8,240	
10 PERCENT EXCEEDS	11		10		13	
50 PERCENT EXCEEDS	9.8		9.4		11	
90 PERCENT EXCEEDS	8.1		7.5		9.5	

a Also July 24.
e Estimated.

