06429997 MURRAY DITCH ABOVE HEADGATE AT WYOMING-SOUTH DAKOTA STATE LINE

Belle Fourche Basin
Redwater Subbasin

LOCATION.--Lat 44°34′35″, long 104°03′20″ referenced to North American Datum of 1927, in SW ¼ SW ¼ sec.7, T.7 N., R.1 E., Butte County, SD, Hydrologic Unit 10120203, on right bank at State line and 12 mi southwest of Belle Fourche, SD.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1987 to current year.

REVISED RECORDS.--WDR SD-96-1: September 1995 daily discharges, monthly, and water year statistics.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 3,440 ft above NGVD of 1929, from topographic map. Prior to Apr. 23, 1987, published as 06430000 (below diversion at site 15 ft downstream).

REMARKS.--Records good. Ditch diverts water from left bank of Redwater Creek, 2.0 mi upstream, for irrigation of about 700 acres. Flow maintained during irrigation season and in some years for livestock watering. Satellite data-collection platform at station. Water temperature and specific conductance measured with each discharge measurements.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 06429997, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/06429997.2013.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	9.5	0.00	0.00	0.00	0.00	0.00	0.00	12	11	1.2	10	16
2	6.8	0.00	0.00	0.00	0.00	0.00	0.00	14	0.26	1.4	10	17
3	2.4	0.00	0.00	0.00	0.00	0.00	0.00	11	0.00	2.3	10	14
4	2.6	0.00	0.00	0.00	0.00	0.00	0.00	11	0.00	6.7	11	7.2
5	2.6	0.00	0.00	0.00	0.00	0.00	0.00	11	0.00	6.6	10	7.0
6	2.8	0.00	0.00	0.00	0.00	0.00	0.00	10	0.00	6.6	11	6.8
7	2.8	0.00	0.00	0.00	0.00	0.00	0.00	9.5	0.00	6.4	15	6.6
8	2.8	0.00	0.00	0.00	0.00	0.00	0.00	9.0	0.00	5.7	15	6.4
9	2.7	0.00	0.00	0.00	0.00	0.00	0.00	8.2	0.00	4.8	17	6.6
10	2.7	0.00	0.00	0.00	0.00	0.00	0.00	8.4	2.1	4.4	17	9.4
11	2.7	0.00	0.00	0.00	0.00	0.00	0.00	7.7	4.5	5.2	16	12
12	2.9	0.00	0.00	0.00	0.00	0.00	0.00	7.8	4.7	4.4	15	12
13	2.9	0.00	0.00	0.00	0.00	0.00	0.00	7.5	4.6	5.0	15	13
14	0.36	0.00	0.00	0.00	0.00	0.00	0.00	7.3	4.8	5.1	15	14
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.5	4.5	4.7	15	14
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10	4.0	5.8	14	14
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	3.6	7.5	15	9.6
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14	3.2	11	15	4.6
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15	2.6	9.4	16	4.8
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13	2.3	10	17	6.7
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.7	2.1	12	17	17
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.4	7.9	16	17
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	7.1	16	18
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.7	16	18
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	16	18
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.0	0.00	16	16
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.4	0.00	16	0.04
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.5	0.00	16	0.00
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	1.3	0.00	16	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	1.2	0.00	17	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.03	---	6.0	17	---
Total	46.56	0.00	0.00	0.00	0.00	0.00	0.00	213.63	65.13	150.90	458	305.74
Mean	1.50	0.00	0.00	0.00	0.00	0.00	0.00	6.89	2.17	4.87	14.8	10.2
Max	9.5	0.00	0.00	0.00	0.00	0.00	0.00	15	11	12	17	18
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10	0.00
Ac-ft	92	0.00	0.00	0.00	0.00	0.00	0.00	424	129	299	908	606

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	5.64	0.45	0.00	0.00	0.00	0.00	0.73	2.45	4.92	10.4	8.71	7.55
Max	20.6	3.07	0.00	0.00	0.00	0.00	8.20	8.61	13.9	17.8	18.2	18.8
(WY)	(1991)	(2007)	(1988)	(1988)	(1988)	(1988)	(2005)	(2005)	(1988)	(2005)	(1991)	(1994)
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.84	2.24	0.80
(WY)	(1988)	(1988)	(1988)	(1988)	(1988)	(1988)	(1988)	(1990)	(1991)	(1993)	(1998)	(1993)

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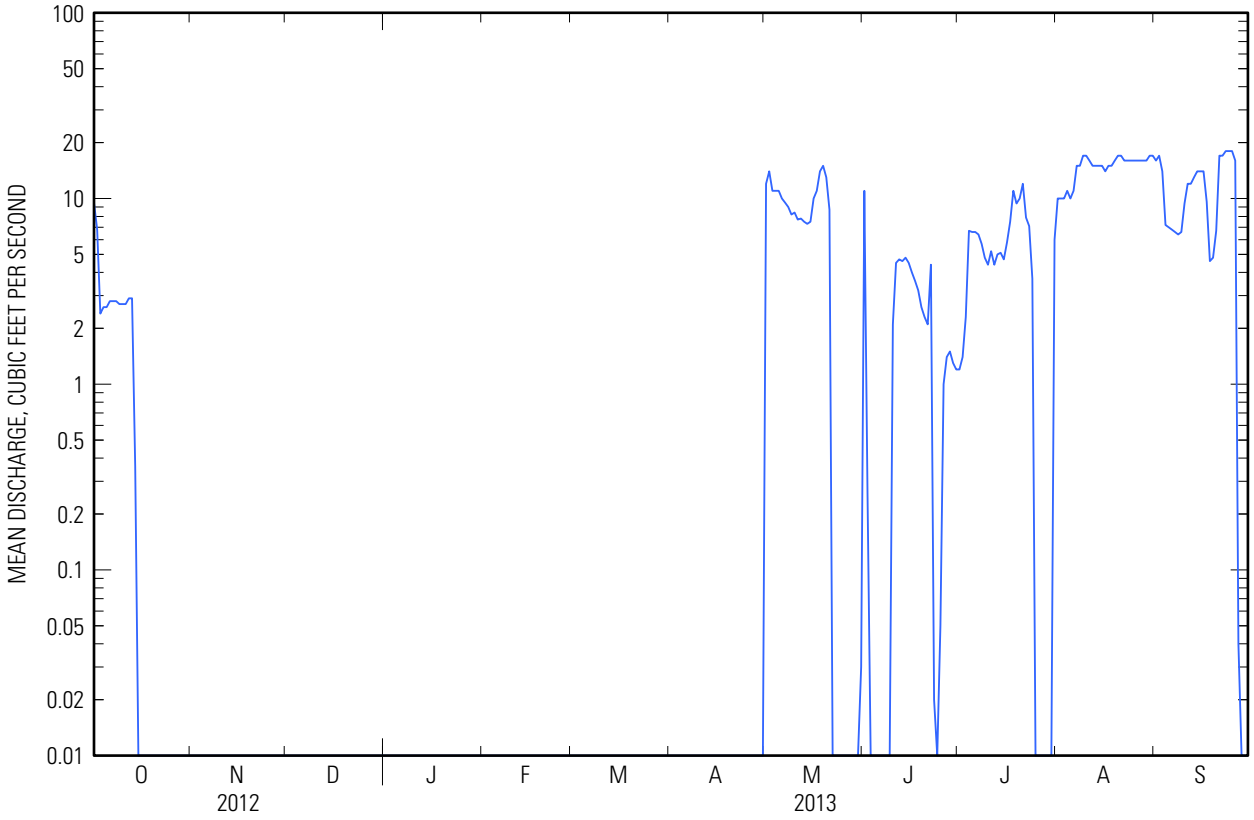
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1988 - 2013	
Annual total	1,467.95		1,239.96			
Annual mean	4.01		3.40		3.43	
Highest annual mean					5.94	2005
Lowest annual mean					0.92	1993
Highest daily mean	19	Jul 4	18	Sep 23	46	Oct 8, 1990
Lowest daily mean	0.00	Jan 1	0.00	Oct 15	[a]0.00	Oct 1, 1987
Annual seven-day minimum	0.00	Jan 1	0.00	Oct 15	0.00	Oct 1, 1987
Annual runoff (ac-ft)	2,910		2,460		2,480	
10 percent exceeds	14		14		12	
50 percent exceeds	0.23		0.00		0.00	
90 percent exceeds	0.00		0.00		0.00	

[a] No flow for many days in each year.



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WATER-QUALITY RECORDS

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

[ft^3/s, cubic feet per second; °C, degrees Celsius; µS/cm, microsiemens per centimeter]

Date	Sample start time	Discharge, instantaneous, ft^3/s (00061)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, air, °C (00020)	Temperature, water, °C (00010)
05-03-2013	**0848**	11	1,480	12.0	9.3
06-17-2013	**1201**	3.7	846	23.5	21.7
09-04-2013	**1231**	7.1	1,420	36.0	18.6