

Water-Data Report 2012

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY

Powder Basin
Little Powder Subbasin

LOCATION.--Lat 44°55'37", long 105°21'10" referenced to North American Datum of 1927, in NW ¼ SW ¼ SW ¼ sec.13, T.57 N., R.71 W., Campbell County, WY, Hydrologic Unit 10090208, on left bank 3.1 mi upstream from Dry Creek, 5.0 mi south of the Wyoming-Montana State line, and 20 mi north of Weston.

DRAINAGE AREA.--1,237 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR WY-77-1: Drainage area. WDR WY-78-1: 1976(M).

GAGE.--Water-stage recorder. Elevation of gage is 3,410 ft above NGVD of 1929, from topographic map. U.S. Geological Survey data collection platform with satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversion upstream from station for irrigation downstream from station. Flow occasionally affected by contributions from mine dewatering.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	8.0	7.6	e5.2	e5.0	e10	e70	18	20	17	2.5	0.89	0.11
2	7.9	7.1	e5.0	e5.0	e9.0	e80	18	17	15	2.4	0.82	0.14
3	7.6	6.9	e5.2	e5.4	e8.4	e50	18	18	14	2.6	0.87	0.17
4	8.0	7.4	e5.4	5.8	e7.4	55	18	18	11	2.1	0.93	0.17
5	8.0	7.9	e5.6	5.8	e7.4	e70	18	18	9.8	2.3	0.97	0.22
6	8.1	8.0	5.7	5.9	e7.2	e180	17	19	9.2	12	0.79	0.20
7	8.6	e7.4	5.7	5.9	e6.2	e470	17	17	9.6	7.5	0.63	0.23
8	9.2	e7.0	5.8	e5.4	e6.0	e730	17	16	9.3	4.0	0.48	0.12
9	9.5	e6.6	5.8	e5.6	e6.0	593	16	16	8.2	2.8	0.28	0.11
10	9.6	e6.4	5.8	e5.4	e5.6	415	16	16	8.6	2.6	0.36	0.13
11	9.0	e6.4	5.8	e5.2	e5.2	404	16	16	7.9	2.3	0.34	0.11
12	8.9	e6.8	5.7	e4.8	6.0	428	16	16	7.1	2.2	0.43	0.16
13	9.3	e7.2	5.6	5.4	6.0	340	16	15	7.1	2.2	0.48	0.14
14	9.9	7.6	5.4	5.5	6.0	241	17	14	6.6	1.8	0.43	0.12
15	11	7.8	5.4	5.5	6.0	146	20	13	6.0	1.7	0.42	0.17
16	11	e6.8	5.6	e4.8	6.0	103	19	13	5.5	2.6	0.36	0.18
17	9.7	e6.0	5.6	e4.1	6.0	83	19	12	5.3	3.4	0.33	0.20
18	11	e6.6	5.7	e4.2	6.0	71	19	13	5.2	2.6	0.27	0.21
19	9.4	e6.4	5.8	e4.3	6.1	61	20	12	4.9	2.1	0.25	0.24
20	7.8	e6.2	e5.4	e4.7	6.1	53	20	12	4.9	1.8	0.24	0.28
21	7.1	7.1	5.8	e5.2	6.2	47	19	11	4.8	1.6	0.20	0.30
22	7.1	7.1	e5.2	e9.0	8.8	42	18	11	4.5	1.5	0.20	0.31
23	7.6	7.4	e5.2	e25	29	35	17	11	4.3	1.5	0.16	0.27
24	7.8	7.5	5.4	e40	e150	31	17	11	4.0	1.5	0.10	0.31
25	7.7	7.7	5.4	e50	e250	28	17	11	3.7	2.0	0.05	0.40
26	7.5	7.7	5.5	e45	e145	25	16	11	3.7	1.5	0.04	0.46
27	7.3	e7.2	e5.0	e35	e180	23	16	14	3.2	1.2	0.03	0.51
28	7.2	e7.0	e5.2	e20	e120	21	16	16	3.1	1.1	0.06	0.75
29	7.2	e6.4	e5.6	e16	e90	21	17	38	2.9	1.1	0.09	0.76
30	7.3	e5.6	e5.4	e12	---	20	18	21	2.7	1.0	0.07	0.71
31	7.5	---	e5.2	e11	---	19	---	18	---	0.96	0.08	---
Total	262.8	210.8	170.1	371.9	1,111.6	4,955	526	484	209.1	78.46	11.65	8.19
Mean	8.48	7.03	5.49	12.0	38.3	160	17.5	15.6	6.97	2.53	0.38	0.27
Max	11	8.0	5.8	50	250	730	20	38	17	12	0.97	0.76
Min	7.1	5.6	5.0	4.1	5.2	19	16	11	2.7	0.96	0.03	0.11
Ac-ft	521	418	337	738	2,200	9,830	1,040	960	415	156	23	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	9.33	3.71	2.54	7.13	34.2	58.8	25.9	66.4	34.1	10.1	6.36	3.61
Max	172	25.4	9.97	89.0	336	613	164	703	207	68.8	63.2	60.8
(WY)	(1995)	(1999)	(1995)	(1974)	(1997)	(1978)	(2009)	(1978)	(2007)	(1982)	(2006)	(1986)
Min	0.01	0.01	0.21	0.10	0.46	1.34	0.75	1.04	0.23	0.04	0.00	0.00
(WY)	(1992)	(1982)	(1982)	(1991)	(1989)	(1981)	(1981)	(1992)	(2004)	(1980)	(1991)	(1991)

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SUMMARY STATISTICS

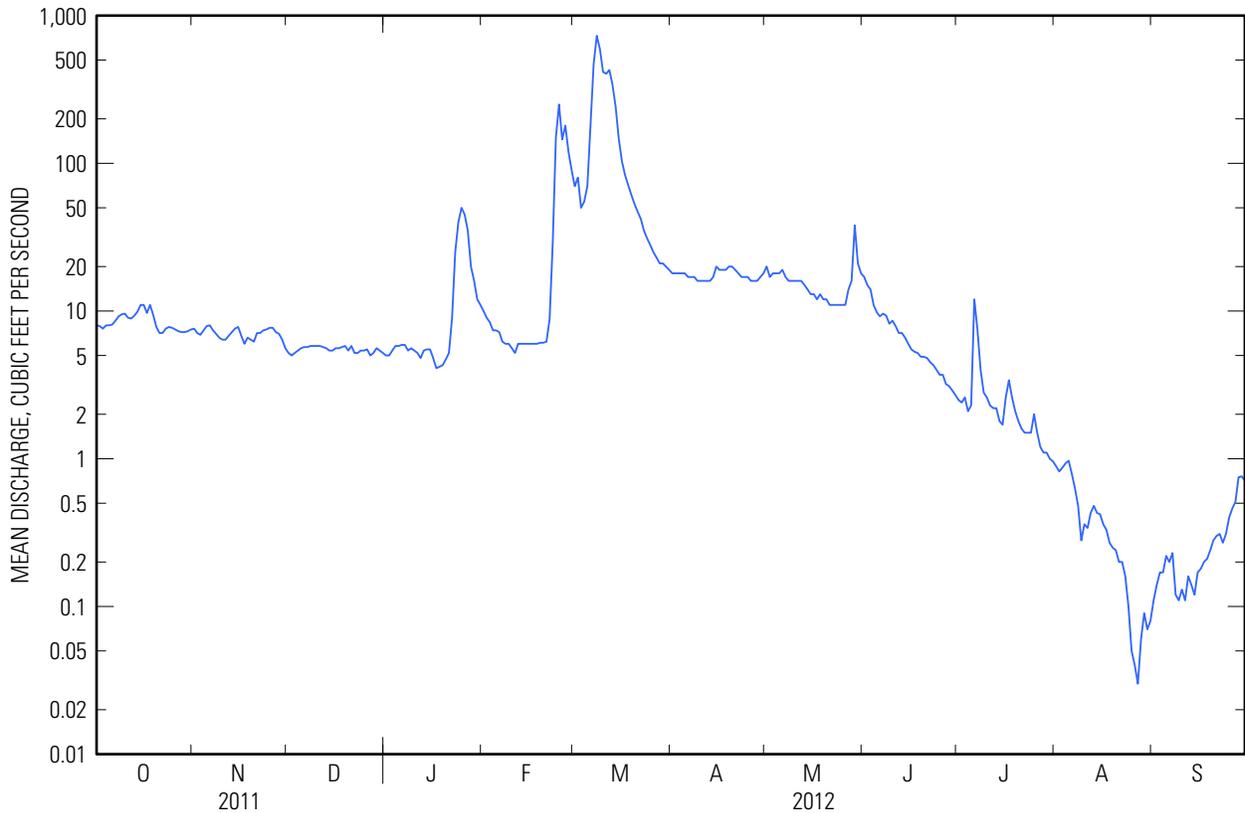
	Calendar Year 2011		Water Year 2012		Water Years 1973 - 2012	
Annual total	19,664.2		8,399.60			
Annual mean	53.9		22.9		21.8	
Highest annual mean					127	1978
Lowest annual mean					1.49	1992
Highest daily mean	1,560	May 23	730	Mar 8	5,000	May 19, 1978
Lowest daily mean	2.0	Aug 31	0.03	Aug 27	0.00	Jul 18, 1973 ^a
Annual seven-day minimum	2.4	Aug 22	0.06	Aug 25	0.00	Jul 27, 1975 ^b
Maximum peak flow			^c 730 Mar 8		5,300	May 19, 1978
Maximum peak stage			^d 8.03 Mar 8		^d 11.63	Mar 20, 1978
Annual runoff (ac-ft)	39,000		16,660		15,800	
10 percent exceeds	111		28		36	
50 percent exceeds	7.9		6.7		3.1	
90 percent exceeds	3.2		0.29		0.04	

^a Many days, some years.

^b Some years.

^c Maximum daily discharge, gage height not determined.

^d Backwater from ice.



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975-82, 1985 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April to September 2012.

INSTRUMENTATION.--Water thermistor.

REMARKS.--Water temperature records are rated excellent except for August 8 to September 30, which are fair. Water-temperature records represent water temperature at sensor within 0.2°C. Maximum and minimum recorded values in the EXTREMES paragraphs may have occurred during days of partial record and may not appear in the daily values tables. Quality of water data were collected and are available at <http://waterdata.usgs.gov/usa/nwis/qw>.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum recorded, 30.0°C, July 23, 2012; minimum recorded, 6.5°C, April 8, 2012.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 30.0°C, July 23; minimum recorded, 6.5°C.

**TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	16.1	11.8	13.9	16.7	11.3	13.8
2	---	---	---	---	---	---	13.3	10.2	11.6	17.8	12.0	14.8
3	---	---	---	---	---	---	12.8	8.2	10.5	15.1	12.7	13.9
4	---	---	---	---	---	---	13.2	8.1	10.6	15.9	12.7	14.2
5	---	---	---	---	---	---	14.2	9.8	11.9	14.9	12.2	13.8
6	---	---	---	---	---	---	12.5	9.8	11.2	15.5	10.3	12.8
7	---	---	---	---	---	---	11.2	7.5	9.4	15.5	11.0	13.2
8	---	---	---	---	---	---	12.0	6.5	9.3	17.0	10.6	13.8
9	---	---	---	---	---	---	12.8	7.7	10.3	18.9	12.6	15.6
10	---	---	---	---	---	---	13.3	8.1	10.6	18.2	14.6	16.2
11	---	---	---	---	---	---	15.1	8.4	11.8	16.8	12.0	14.5
12	---	---	---	---	---	---	14.7	10.9	12.8	18.2	12.1	15.1
13	---	---	---	---	---	---	14.8	10.7	12.7	19.4	13.2	16.3
14	---	---	---	---	---	---	12.6	9.0	10.4	20.0	14.5	17.4
15	---	---	---	---	---	---	9.6	8.2	8.8	21.0	15.1	18.0
16	---	---	---	---	---	---	10.6	7.4	8.9	20.4	15.4	18.2
17	---	---	---	---	---	---	10.1	7.7	9.0	20.2	16.8	18.6
18	---	---	---	---	---	---	10.9	7.4	8.9	19.1	16.8	18.0
19	---	---	---	---	---	---	12.0	8.5	10.4	20.1	14.9	17.4
20	---	---	---	---	---	---	12.9	8.6	10.7	20.8	15.1	18.0
21	---	---	---	---	---	---	15.8	10.9	13.1	22.5	16.3	19.5
22	---	---	---	---	---	---	17.0	10.9	13.9	21.5	17.8	19.6
23	---	---	---	---	---	---	19.0	12.6	15.9	19.0	16.7	17.7
24	---	---	---	---	---	---	20.6	15.3	17.8	17.1	15.1	16.0
25	---	---	---	---	---	---	21.4	16.5	18.8	15.1	11.6	13.2
26	---	---	---	---	---	---	19.6	16.1	17.8	13.6	10.9	12.0
27	---	---	---	---	---	---	17.2	12.2	14.6	17.1	11.6	14.2
28	---	---	---	---	---	---	12.2	8.5	10.1	15.9	13.0	14.5
29	---	---	---	---	---	---	11.1	7.6	9.2	18.5	12.6	15.4
30	---	---	---	---	---	---	13.4	8.5	11.1	18.6	15.2	16.8
31	---	---	---	15.8	10.6	13.2	---	---	---	19.4	14.6	17.1
Month	---	---	---	---	---	---	21.4	6.5	11.9	22.5	10.3	15.8

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	20.5	16.5	18.5	26.2	22.0	24.3	27.2	22.6	24.9	23.9	19.0	21.1
2	22.2	17.1	19.6	26.9	21.1	24.1	24.9	21.2	23.3	23.1	19.8	21.4
3	24.0	18.8	21.3	28.7	22.2	25.4	22.9	18.4	20.3	22.2	18.8	20.4
4	25.5	20.0	22.8	27.0	22.2	24.6	21.7	16.0	18.9	20.1	17.1	18.6
5	23.8	20.8	22.4	23.7	21.1	22.4	24.0	17.2	20.5	19.9	15.4	17.6
6	23.8	18.5	21.1	23.0	20.3	21.4	25.2	19.2	21.8	18.3	15.4	17.0
7	21.6	18.6	20.0	24.8	19.5	22.1	25.5	21.0	23.0	18.9	15.9	17.3
8	23.2	17.6	20.3	27.3	20.8	24.1	26.3	19.7	23.0	18.6	15.1	16.9
9	23.4	19.1	21.1	28.1	22.1	25.1	24.1	21.2	22.5	18.8	15.0	17.0
10	21.0	17.4	19.2	28.9	22.7	25.8	22.4	20.6	21.5	19.0	15.5	17.3
11	19.3	15.7	17.5	28.8	23.0	25.8	21.7	19.9	20.8	18.2	15.9	16.9
12	21.8	16.5	19.0	28.6	22.9	25.8	24.2	18.1	20.9	16.3	13.9	15.2
13	23.0	17.3	20.2	28.8	23.2	25.9	23.5	19.9	21.6	16.1	12.6	14.4
14	23.6	18.9	21.3	27.5	22.5	24.8	23.6	19.4	21.4	16.5	12.4	14.5
15	24.2	19.3	21.7	27.6	22.1	24.8	21.4	17.7	19.1	17.1	13.3	15.0
16	23.6	18.5	21.3	27.8	23.1	25.5	21.8	16.5	18.9	16.4	13.3	14.8
17	23.8	19.4	21.8	28.4	23.1	25.7	22.0	17.2	19.5	16.4	13.1	14.7
18	25.8	20.0	22.9	28.9	22.6	25.9	21.6	17.5	19.7	16.7	12.7	14.8
19	23.0	18.7	20.9	29.2	23.6	26.5	22.6	17.1	19.9	16.3	13.2	14.7
20	20.5	18.0	19.0	26.8	23.4	24.8	22.1	18.1	20.0	15.7	12.2	13.9
21	23.4	15.6	19.4	26.0	21.9	23.9	22.7	17.7	20.1	16.1	12.1	14.1
22	23.0	17.2	20.4	28.6	22.1	25.3	22.1	18.6	20.4	16.1	12.1	14.2
23	26.8	19.2	22.9	30.0	23.4	26.7	23.7	18.9	21.2	15.9	12.3	14.1
24	27.8	21.6	24.7	27.9	24.1	25.9	22.7	19.0	20.6	15.5	12.1	13.7
25	28.2	22.8	25.2	27.6	23.2	25.3	21.5	17.1	19.4	15.2	11.8	13.7
26	27.1	21.8	24.6	26.8	21.5	24.3	21.1	17.0	19.1	16.0	12.1	14.1
27	25.5	20.5	23.1	25.6	21.1	23.2	22.3	17.1	19.6	16.8	13.0	14.8
28	26.7	20.1	23.4	27.8	20.7	24.2	23.7	18.5	20.7	17.1	13.4	15.4
29	27.0	21.5	24.4	29.1	22.5	25.4	24.0	19.7	21.4	17.4	13.6	15.6
30	26.9	21.3	24.2	29.1	22.4	25.5	21.4	18.6	20.1	16.6	13.7	15.2
31	---	---	---	28.1	22.5	25.3	22.9	18.3	20.3	---	---	---
Month	28.2	15.6	21.5	30.0	19.5	24.8	27.2	16.0	20.8	23.9	11.8	15.9