

**06265337 COTTONWOOD CREEK AT HIGH ISLAND RANCH, NEAR HAMILTON DOME, WY**

Big Horn Basin  
Upper Bighorn Subbasin

LOCATION.--Lat 43°45'45.5", long 108°40'40.4" referenced to North American Datum of 1983, in SW ¼ NE ¼ SE ¼ sec.24, T.44 N., R.99 W., Hot Springs County, WY, Hydrologic Unit 10080007, on right bank 200 ft upstream from stream crossing on Upper Cottonwood Creek Road, 5.2 miles west of Hamilton Dome, and 12 miles south of Grass Creek.

DRAINAGE AREA.--81.4 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--May 1977 to September 1978 (discharge measurements and water quality only), April 1993 to September 30, 2008. April 1, 2009 to September 2011(no winter records) (discontinued). Prior to April 1993, published as Cottonwood Creek at county bridge, near Hamilton Dome.

GAGE.--Water-stage recorder. Elevation of gage is 5,677 ft above NGVD of 1929, from topographic map. April 1993 to October 2004 at various sites 240 to 250 ft downstream at different datum; October 2004 to April 2009 at site 250 ft downstream at present datum. U.S. Geological Survey data collection platform with satellite telemetry at station.

REMARKS.--Records good. Results of discharge measurements made during the period when the station was not in operation are listed in the following table:

Additional Discharge Measurements	
Date	Discharge, in ft <sup>3</sup> /sec
Oct. 5	1.61
Mar. 31	3.03

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,410 ft<sup>3</sup>/s, July 10, 2001, gage height, 10.76 ft, from floodmarks, from slope-area determination of peak flow; minimum daily discharge, 0 ft<sup>3</sup>/s, many days, most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 174 ft<sup>3</sup>/s, June 9, gage height, 5.59 ft; minimum daily discharge, 1.1 ft<sup>3</sup>/s, Sept. 10-13, 24-26.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	---	---	5.1	4.2	83	48	5.5	1.3
2	---	---	---	---	---	---	5.5	4.2	91	44	6.2	1.6
3	---	---	---	---	---	---	7.0	4.5	89	42	5.1	1.5
4	---	---	---	---	---	---	4.3	4.6	85	39	4.6	1.6
5	---	---	---	---	---	---	4.0	3.9	89	37	5.3	1.4
6	---	---	---	---	---	---	4.9	5.4	100	35	4.9	1.7
7	---	---	---	---	---	---	4.1	6.1	112	43	4.5	2.4
8	---	---	---	---	---	---	4.5	10	106	35	4.4	1.6
9	---	---	---	---	---	---	4.8	17	126	30	5.5	1.4
10	---	---	---	---	---	---	11	29	118	27	6.1	1.1
11	---	---	---	---	---	---	12	24	108	25	4.1	1.1
12	---	---	---	---	---	---	12	19	99	24	3.6	1.1
13	---	---	---	---	---	---	8.2	20	95	23	3.2	1.1
14	---	---	---	---	---	---	18	24	94	20	2.8	1.4
15	---	---	---	---	---	---	8.8	19	91	17	2.9	1.9
16	---	---	---	---	---	---	7.4	22	92	15	4.7	1.6
17	---	---	---	---	---	---	7.9	25	86	13	3.3	1.5
18	---	---	---	---	---	---	7.9	24	77	12	2.6	1.6
19	---	---	---	---	---	---	7.6	57	76	12	2.5	1.5
20	---	---	---	---	---	---	6.6	59	76	10	2.5	1.3
21	---	---	---	---	---	---	6.5	57	70	9.2	2.5	1.5
22	---	---	---	---	---	---	5.4	50	70	8.2	2.2	1.5
23	---	---	---	---	---	---	4.4	94	69	8.0	2.0	1.3
24	---	---	---	---	---	---	4.3	97	72	7.7	1.6	1.1
25	---	---	---	---	---	---	4.8	103	69	7.0	2.0	1.1
26	---	---	---	---	---	---	4.8	94	63	6.4	2.9	1.1
27	---	---	---	---	---	---	3.9	91	59	5.9	2.5	1.2
28	---	---	---	---	---	---	3.9	82	54	6.0	2.3	1.2
29	---	---	---	---	---	---	5.2	89	53	5.6	2.6	1.2
30	---	---	---	---	---	---	4.1	107	52	5.0	2.0	1.3
31	---	---	---	---	---	---	---	92	---	4.9	1.4	---
<b>Total</b>	---	---	---	---	---	---	198.9	1,337.9	2,524	624.9	108.3	42.2
<b>Mean</b>	---	---	---	---	---	---	6.63	43.2	84.1	20.2	3.49	1.41
<b>Max</b>	---	---	---	---	---	---	18	107	126	48	6.2	2.4
<b>Min</b>	---	---	---	---	---	---	3.9	3.9	52	4.9	1.4	1.1
<b>Ac-ft</b>	---	---	---	---	---	---	395	2,650	5,010	1,240	215	84

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