Water-Data Report 2007

12323240 BLACKTAIL CREEK AT BUTTE, MT

Pend Oreille Basin
Upper Clark Fork Subbasin

LOCATION.--Lat 45°59′41″, long 112°32′09″ referenced to North American Datum of 1927, in SW ¼ NE ¼ SE ¼ sec.24, T.3 N., R.8 W., Silver Bow County, MT, Hydrologic Unit 17010201, on left bank, 70 feet upstream from George Street culvert in Butte, and 0.2 mi upstream from Silver Bow Creek.

DRAINAGE AREA.--95.4 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1988 to current year.

REVISED RECORDS.-- Water Data Report MT-93-1: 1989-92, maximum discharge.

GAGE.--Water-stage recorder. Elevation of gage is 5,430 ft, referenced to the National Geodetic Vertical Datum of 1929.

REMARKS.--Records are good except those for August 2-6, August 10-14, and estimated daily discharges, which are fair. Slight regulation occurs by Basin Creek Reservoir. Diversions for irrigation inlcude about 1,400 acres upstream from station. U.S.Geological Survey satellite telemeter is located at the station. Several unpublished observations of water temperature and specific conductance were made during the year.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	8.2	11	10	8.4	8.7	9.6	16	16	23	11	7.7	7.4
2	8.3	11	10	8.7	9.3	9.6	16	16	21	11	8.1	6.8
3	8.6	11	10	9.2	8.5	9.5	15	29	21	11	8.4	7.0
4	8.1	12	10	8.8	8.7	11	15	23	21	10	8.4	7.6
5	8.4	12	10	8.6	11	12	15	20	26	9.7	8.7	23
6	11	12	10	8.6	9.4	20	15	18	54	9.1	9.0	16
7	13	13	10	8.4	9.3	20	15	16	51	9.1	8.2	11
8	11	14	10	8.3	11	37	16	15	54	9.4	7.7	10
9	11	14	10	8.4	11	24	15	14	49	9.5	11	9.4
10	9.8	12	10	8.1	12	22	14	15	46	8.8	7.7	8.9
11	9.6	12	10	e7.8	11	28	13	15	44	8.4	7.2	8.2
12	9.5	11	11	e7.5	11	61	13	15	40	8.1	6.9	8.2
13	9.5	11	11	e7.5	10	65	12	16	36	7.8	7.7	7.9
14	9.6	11	11	e7.5	9.9	38	13	16	34	7.6	7.2	8.0
15	9.8	11	11	e7.5	10	23	13	16	32	7.9	7.1	7.9
16	17	11	11	7.6	11	22	14	14	29	8.1	7.7	8.0
17	13	11	e9.5	7.6	11	21	14	12	28	8.1	7.4	7.9
18	12	11	e9.0	7.7	10	25	18	12	27	16	7.9	10
19	11	10	8.8	7.8	10	25	17	12	24	11	10	14
20	19	11	8.6	7.9	11	23	15	12	22	9.4	8.4	11
21	15	11	8.6	7.9	10	20	15	22	22	9.4	8.5	11
22	14	12	8.7	8.0	10	17	16	24	20	8.5	8.2	11
23	13	11	8.3	8.0	11	17	17	22	18	8.1	7.6	20
24	12	11	8.1	8.1	10	17	19	26	15	8.1	7.8	18
25	12	11	8.2	8.1	10	18	18	33	14	8.9	7.5	15
26	12	11	8.5	8.3	10	17	17	28	14	8.8	7.4	14
27	12	11	8.9	8.5	9.9	20	16	27	13	8.6	7.2	12
28	12	11	8.7	8.5	9.8	18	16	30	12	8.3	7.1	11
29	12	10	8.6	8.3	---	14	15	32	12	8.1	6.9	15
30	12	10	8.4	8.6	---	14	16	30	12	7.9	6.8	12
31	11	---	8.4	8.7	---	15	---	26	---	7.9	7.1	---
Total	354.4	341	294.3	252.9	284.5	692.7	459	622	834	283.6	244.5	337.2
Mean	11.4	11.4	9.49	8.16	10.2	22.3	15.3	20.1	27.8	9.15	7.89	11.2
Max	19	14	11	9.2	12	65	19	33	54	16	11	23
Min	8.1	10	8.1	7.5	8.5	9.5	12	12	12	7.6	6.8	6.8
Ac-ft	703	676	584	502	564	1,370	910	1,230	1,650	563	485	669

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	9.79	9.72	8.84	8.63	10.2	14.6	17.2	19.5	20.2	11.1	9.19	8.84
Max	15.0	13.9	12.6	12.6	25.5	29.9	39.1	41.9	61.5	26.0	17.7	13.6
(WY)	(1998)	(1999)	(1999)	(1999)	(1995)	(1997)	(2006)	(1995)	(1995)	(1997)	(1997)	(1995)
Min	6.76	6.79	6.68	6.49	6.33	7.03	9.36	7.31	8.11	6.07	5.28	5.98
(WY)	(2005)	(2005)	(2004)	(2004)	(1993)	(2005)	(1992)	(1992)	(2000)	(2003)	(2000)	(1992)

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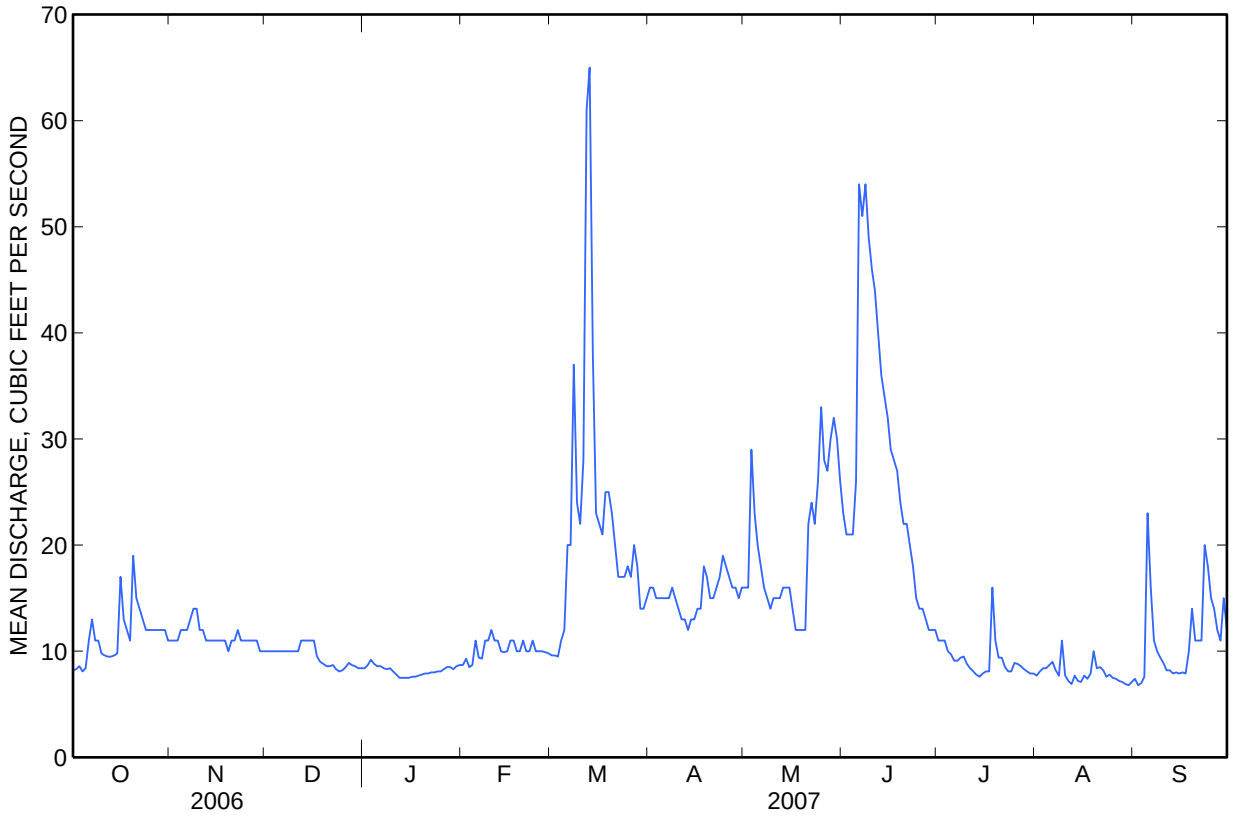
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1989 - 2007	
Annual total	5,483.3		5,000.1			
Annual mean	15.0		13.7		12.3	
Highest annual mean					19.9	1995
Lowest annual mean					7.57	2004
Highest daily mean	90	Apr 6	65	Mar 13	211	Feb 20, 1995
Lowest daily mean	6.2	Feb 18	6.8	Aug 30	4.2	Aug 22, 2000
Annual seven-day minimum	6.3	Feb 17	7.0	Aug 28	4.4	Aug 19, 2000
Maximum peak flow			140	Sep 5	[b]303	Feb 19, 1995
Maximum peak stage			3.35	Sep 5	5.28	Feb 19, 1995
Instantaneous low flow			[a]5.2	Aug 29	4.1	Jul 28, 2004
Annual runoff (ac-ft)	10,880		9,920		8,920	
10 percent exceeds	31		23		21	
50 percent exceeds	10		11		9.6	
90 percent exceeds	7.3		7.9		6.7	

[a] Gage height, 0.74 ft.
[b] From indirect measurement.