



Water-Data Report 2011

06307740 OTTER CREEK AT ASHLAND, MT

Tongue Basin
Lower Tongue Subbasin

LOCATION.--Lat 45°35'02", long 106°15'17" referenced to North American Datum of 1927, in NE ¼ NE ¼ SE ¼ sec.11, T.3 S., R.44 E., Rosebud County, MT, Hydrologic Unit 10090102, on left bank 200 ft downstream from bridge on U.S. Highway 212, 0.3 mi southeast of Ashland, and at river mile 2.7.

DRAINAGE AREA.--707 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1972 to November 1985, October 1987 to September 1995, October 2003 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,916.57 ft, referenced to the National Geodetic Vertical Datum of 1929.

REMARKS.--Records are fair except estimated daily discharges, which are poor. Flow is regulated by Tongue River Reservoir (station number 06307000) and many small reservoirs in Wyoming (combined capacity, about 15,000 acre-ft). Numerous diversions for irrigation occur upstream from station. U.S. Geological Survey satellite telemeter is located at the station.

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06307740 OTTER CREEK AT ASHLAND, MT—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.2	2.6	1.9	e1.5	e1.5	e5.0	16	12	115	30	6.8	5.5
2	1.2	2.7	1.7	e2.0	e1.5	e5.0	18	12	129	29	7.7	5.2
3	1.2	2.8	1.8	e2.0	e2.0	e5.5	17	12	96	28	7.2	5.1
4	1.2	2.8	2.0	e2.0	e2.5	e6.0	16	11	73	26	6.8	4.9
5	1.3	2.8	2.1	e2.0	e3.0	e6.5	16	11	61	26	6.7	4.9
6	1.3	2.9	2.1	e2.5	e3.0	e6.5	16	11	51	26	6.6	4.7
7	1.3	2.9	2.1	e2.0	e2.5	e5.5	15	10	46	22	6.2	4.7
8	1.3	3.1	2.1	e2.0	e2.0	e5.5	14	11	41	18	6.8	4.8
9	1.5	3.1	1.9	e2.0	e1.5	e6.0	14	11	39	13	7.1	4.9
10	1.6	3.1	1.9	e2.0	e2.0	e7.0	14	13	37	14	6.6	4.4
11	1.6	3.1	1.9	e1.5	e3.5	e20	13	19	36	13	6.3	4.4
12	1.6	2.8	1.8	e1.5	e6.0	e70	12	25	35	13	6.1	4.6
13	1.5	2.7	1.9	e2.0	e10	e60	12	19	34	12	6.0	4.4
14	1.4	2.7	1.8	e2.0	e25	e50	11	17	33	12	6.2	4.1
15	1.5	2.9	1.8	e2.0	e45	49	11	17	33	12	6.1	4.0
16	1.5	3.0	1.7	e2.0	e25	44	11	16	31	11	5.9	4.0
17	1.5	3.3	1.7	e2.0	e10	38	10	15	32	11	5.9	4.1
18	1.6	3.0	1.7	e2.0	e7.0	37	10	15	42	11	5.9	4.2
19	1.7	2.9	1.7	e2.0	e6.5	34	10	17	37	10	5.4	4.2
20	1.8	2.6	1.8	e2.0	e6.0	26	10	22	37	9.1	4.9	4.3
21	1.8	2.1	2.0	e2.5	e5.0	20	9.8	62	36	9.2	4.8	4.5
22	2.0	2.1	e2.0	e2.0	e6.0	18	11	142	36	9.0	4.6	4.5
23	1.9	1.9	e2.0	e2.0	e7.0	17	12	167	32	8.8	4.5	4.4
24	2.0	1.9	e2.0	e2.0	e6.0	16	12	257	28	8.4	4.7	4.4
25	2.0	1.9	e2.0	e2.0	e4.0	15	12	295	26	8.1	5.3	4.4
26	2.1	2.0	e2.0	e2.0	e4.5	15	12	180	25	7.6	5.6	4.4
27	2.2	2.0	e2.0	e2.0	e5.0	16	12	117	25	8.1	5.5	4.3
28	2.4	2.2	e2.0	e2.5	e5.0	15	12	88	27	7.7	5.5	4.4
29	2.3	2.0	e2.0	e2.0	---	14	13	74	30	7.1	5.6	4.4
30	2.4	1.9	e2.0	e2.0	---	13	12	92	31	6.8	5.8	4.4
31	2.4	---	e1.5	e2.0	---	14	---	96	---	6.7	6.0	---
Total	52.3	77.8	58.9	62.0	208.0	659.5	383.8	1,866	1,334	433.6	185.1	135.5
Mean	1.69	2.59	1.90	2.00	7.43	21.3	12.8	60.2	44.5	14.0	5.97	4.52
Max	2.4	3.3	2.1	2.5	45	70	18	295	129	30	7.7	5.5
Min	1.2	1.9	1.5	1.5	1.5	5.0	9.8	10	25	6.7	4.5	4.0
Ac-ft	104	154	117	123	413	1,310	761	3,700	2,650	860	367	269

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2011, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1.36	2.30	2.18	3.94	5.75	12.9	6.11	8.42	6.44	2.64	1.49	1.03
Max	4.43	6.12	7.03	30.2	34.9	107	28.1	60.2	44.5	14.0	5.97	4.52
(WY)	(1973)	(1980)	(1976)	(1975)	(1974)	(1975)	(1975)	(2011)	(2011)	(2011)	(2011)	(2011)
Min	0.18	0.71	0.44	0.10	0.36	1.26	0.99	0.71	0.36	0.28	0.00	0.00
(WY)	(1993)	(1992)	(2007)	(1991)	(1993)	(1992)	(1992)	(1992)	(1993)	(1977)	(1992)	(1992)

*During periods of operation (1973-85, 1988-95, October 2003 to current year).

06307740 OTTER CREEK AT ASHLAND, MT—Continued**SUMMARY STATISTICS**

	Calendar Year 2010	Water Year 2011	Water Years 1973 – 2011*
Annual total	1,471.00	5,456.5	
Annual mean	4.03	14.9	^a 4.55
Highest annual mean			19.0 1975
Lowest annual mean			0.60 1992
Highest daily mean	35 Mar 7	295 May 25	350 Mar 6, 1994
Lowest daily mean	0.50 Jan 26	1.2 Oct 1	0.00 Oct 14, 1976 ^b
Annual seven-day minimum	0.67 Jan 25	1.2 Oct 1	0.00 Jun 24, 1977
Maximum peak flow		347 May 25	^c 425 Mar 21, 1978
Maximum peak stage		5.51 May 25	^d 9.08 Mar 6, 1994
Annual runoff (ac-ft)	2,920	10,820	3,300
10 percent exceeds	7.2	34	8.0
50 percent exceeds	2.5	5.5	1.9
90 percent exceeds	1.3	1.8	0.40

*During periods of operation (1973-85, 1988-95, October 2003 to current year).

^aMedian of yearly mean discharge, 3.32 ft³/s, 2,400 ac-ft/yr.

^bNo flow at times most years.

^cGage height, 8.65 ft; backwater from ice and beaver dam, previous site and datum.

^dBackwater from ice and beaver dam, previous site and datum.

