12352500 BITTERROOT RIVER NEAR MISSOULA, MT

Pend Oreille Basin
Bitterroot Subbasin

LOCATION.--Lat 46°49′55″, long 114°03′11″ referenced to North American Datum of 1927, in SW ¼ NW ¼ NE ¼ sec.1, T.12 N., R.20 W., Missoula County, MT, Hydrologic Unit 17010205, on right bank 40 ft downstream from bridge on U.S. Highway 93, 0.5 mi south of Fort Missoula, and at river mile 5.7.

DRAINAGE AREA.--2,814 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1898 to November 1901, May 1903 to December 1904, July 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,110 ft, referenced to the National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1905, nonrecording gage at site 1.5 mi upstream at different elevation.

REMARKS.--Records are good except those for estimated daily discharges, which are poor. Some regulation occurs by Painted Rocks Lake (station number 12342000). Diversions for irrigation of about 111,000 acres occur upstream from station. U.S. Geological Survey satellite telemeter is located at the station.

12352500 BITTERROOT RIVER NEAR MISSOULA, MT—Continued

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	619	629	1,210	802	687	783	2,320	6,360	5,280	1,660	471	512
2	611	596	1,270	870	e630	751	2,230	6,800	5,700	1,530	471	522
3	609	634	1,180	967	e560	713	2,130	7,600	6,210	1,430	477	528
4	609	720	1,100	1,040	e650	768	2,060	7,460	6,510	1,340	471	525
5	615	773	1,150	1,010	711	790	2,050	6,230	6,910	1,240	474	529
6	627	848	1,170	926	774	806	2,030	5,560	7,040	1,170	490	542
7	635	3,830	1,120	885	802	833	2,100	4,930	6,800	1,110	492	552
8	639	10,400	1,070	893	821	880	2,240	4,620	5,870	1,040	488	539
9	633	8,810	1,040	922	881	950	2,520	4,930	5,290	969	485	533
10	623	4,630	1,050	920	946	984	2,860	6,180	5,150	896	495	530
11	622	3,440	1,060	e770	940	1,000	2,790	7,660	5,890	800	495	535
12	618	2,860	1,060	e650	939	1,100	2,620	8,260	6,140	722	494	534
13	616	2,480	1,100	e520	951	1,910	2,480	8,680	5,550	677	502	528
14	608	2,240	1,200	e550	916	2,830	2,380	8,630	5,190	635	508	525
15	611	2,000	1,320	e580	890	2,750	2,360	7,630	5,020	598	508	544
16	626	1,900	1,410	e670	914	2,460	2,430	7,100	4,670	571	505	548
17	643	2,010	e1,100	e700	968	2,300	2,280	7,230	4,580	574	505	533
18	656	1,810	e900	e730	937	2,370	2,410	7,690	4,390	601	513	551
19	655	1,670	e830	e780	909	2,700	2,610	8,140	3,790	603	513	591
20	704	1,610	e840	e790	890	2,930	2,390	8,140	3,470	581	516	623
21	793	1,760	e900	e800	891	2,990	2,210	8,060	3,380	552	527	637
22	821	1,870	e960	808	874	2,790	2,140	7,750	3,350	535	535	644
23	777	1,840	e990	807	871	2,600	2,130	6,470	3,230	522	532	718
24	746	1,710	1,000	817	872	2,490	2,180	5,700	2,980	523	520	916
25	727	1,650	993	783	846	2,540	2,370	5,400	2,710	529	506	960
26	716	1,530	1,040	745	837	2,800	2,640	5,090	2,420	522	493	890
27	708	1,490	1,090	720	813	2,960	2,850	4,980	2,110	531	482	838
28	700	1,390	1,070	682	800	2,890	2,960	5,860	1,920	517	483	810
29	688	e1,200	998	652	---	2,670	3,720	6,110	1,870	503	491	806
30	682	e1,050	879	665	---	2,490	5,080	5,250	1,800	489	494	804
31	671	---	815	683	---	2,390	---	5,080	---	477	500	---
Total	20,608	69,380	32,915	24,137	23,520	60,218	75,570	205,580	135,220	24,447	15,436	18,847
Mean	665	2,313	1,062	779	840	1,943	2,519	6,632	4,507	789	498	628
Max	821	10,400	1,410	1,040	968	2,990	5,080	8,680	7,040	1,660	535	960
Min	608	596	815	520	560	713	2,030	4,620	1,800	477	471	512
Ac-ft	40,880	137,600	65,290	47,880	46,650	119,400	149,900	407,800	268,200	48,490	30,620	37,380

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 2007, BY WATER YEAR (WY) *

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	965	1,093	963	885	961	1,268	2,762	6,689	7,958	2,857	963	870
Max	1,570	2,313	3,141	1,791	3,030	2,021	4,944	13,430	21,880	14,510	3,412	1,623
(WY)	(1904)	(2007)	(1996)	(1997)	(1996)	(1997)	(1996)	(1997)	(1899)	(1899)	(1899)	(1899)
Min	568	614	530	542	477	801	1,336	4,039	2,397	789	498	455
(WY)	(1905)	(1905)	(1905)	(1993)	(1994)	(2002)	(2001)	(1990)	(1992)	(2007)	(2007)	(1904)

* During periods of operation (July 1898 to November 1901, May 1903 to December 1904, and July 1989 to current year.)

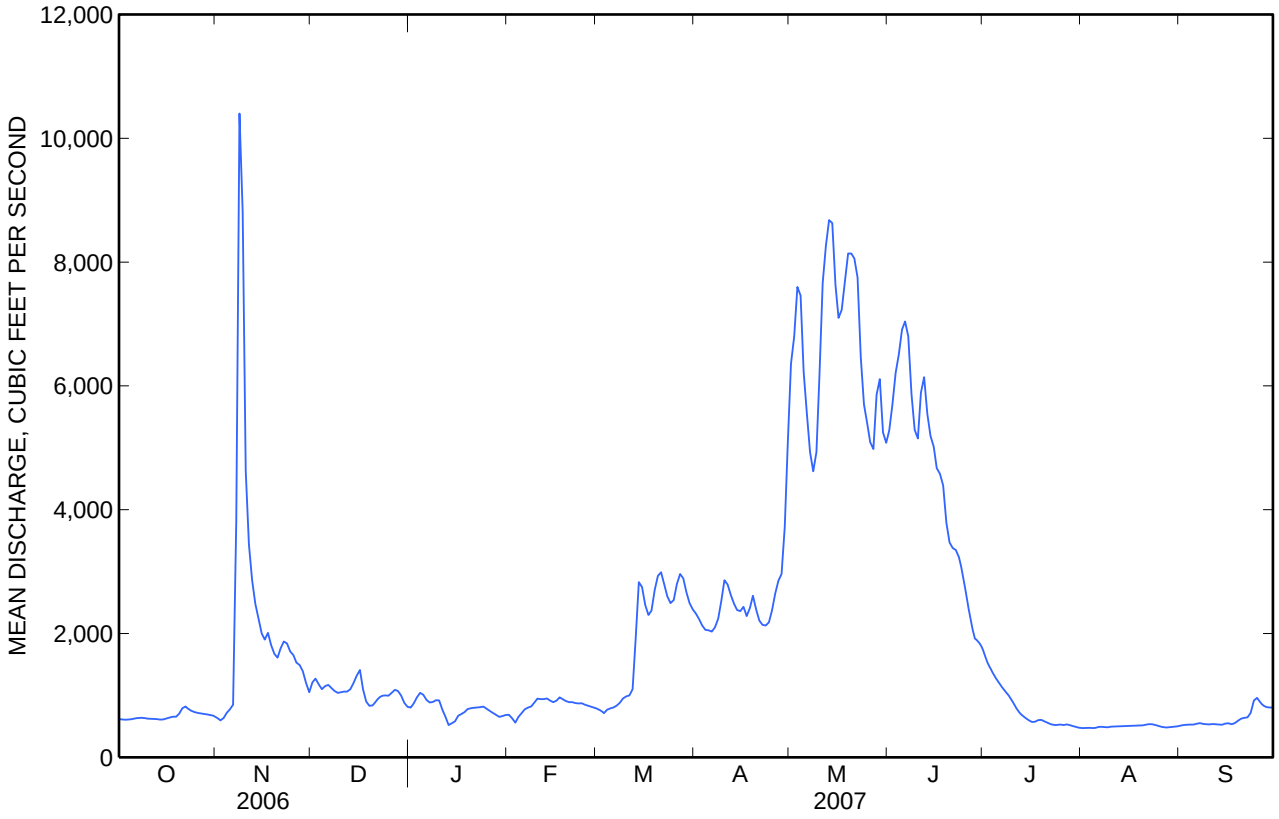
12352500 BITTERROOT RIVER NEAR MISSOULA, MT—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1898 - 2007*	
Annual total	846,047		705,878			
Annual mean	2,318		1,934		2,343	
Highest annual mean					4,864	1899
Lowest annual mean					1,366	1992
Highest daily mean	17,300	May 21	10,400	Nov 8	37,400	Jun 20, 1899
Lowest daily mean	300	Feb 18	471	Aug 1	270	Dec 8, 2005
Annual seven-day minimum	481	Feb 16	476	Jul 30	370	Sep 16, 1904
Maximum peak flow			12,200	Nov 8	[a]38,300	Jun 20, 1899
Maximum peak stage			9.27	Nov 8	13.11	May 18, 1997
Instantaneous low flow			468	Aug 1	300	Feb 9, 1994
Annual runoff (ac-ft)	1,678,000		1,400,000		1,697,000	
10 percent exceeds	6,370		5,330		5,980	
50 percent exceeds	914		926		1,060	
90 percent exceeds	576		522		618	

* During periods of operation (July 1898 to November 1901, May 1903 to December 1904, and July 1989 to current year.)

[a] Observed gage height, 11.55 ft, site and datum then in use.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1997 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: November 1999 to September 2003 (only seasonal records for 2003), October 2004 to current year.

INSTRUMENTATION.--Water temperature probe installed Nov. 4, 1999.

REMARKS. --Ten samples were collected this year as part of a supplemental sampling program for the lower Clark Fork basin to assess water quality and loads associated with the removal of Milltown Dam. Daily water temperature records are rated good. Several unpublished observations of specific conductance and water temperature were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 26.0°C, July 23, 2006 and July 14, 2007; minimum, 0.0°C, many days during winter months.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 26.0°C, July 14; minimum, 0.0°C, many days in November through February.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 4

[Remark codes: <, less than; E, estimated.]

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf µS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)
Oct													
18...	1530	657	8.2	178	6.5	8.5	78	22.9	5.08	--	--	--	--
Mar													
22...	1515	2,760	6.6	72	10.5	5.5	29	8.68	1.89	.85	.2	3.06	32
Apr													
10...	0830	2,860	7.7	68	3.0	7.0	28	8.41	1.81	--	--	--	--
24...	0830	2,150	7.6	84	9.0	9.5	35	10.2	2.21	--	--	--	--
May													
04...	0730	7,800	7.6	44	4.0	6.5	18	5.45	1.15	--	--	--	--
15...	0730	7,760	7.5	48	6.0	10.0	19	5.78	1.16	--	--	--	--
21...	1600	8,040	7.3	45	11.5	9.0	--	--	--	--	--	--	--
23...	0700	6,600	7.5	59	5.5	8.0	25	7.29	1.53	--	--	--	--
Jun													
01...	0630	5,130	7.6	61	11.0	13.5	24	7.26	1.51	--	--	--	--
07...	0700	6,990	7.5	56	8.5	9.5	23	6.68	1.44	--	--	--	--
13...	0630	5,580	7.8	67	12.0	14.0	27	7.97	1.72	--	--	--	--
13...	0915	5,520	7.5	66	14.5	13.5	27	7.95	1.67	.82	.2	2.49	32
20...	0700	3,480	7.6	81	14.0	15.0	33	9.69	2.12	--	--	--	--
27...	0700	2,150	7.8	91	12.5	15.0	37	10.8	2.47	--	--	--	--
Aug													
10...	0745	490	8.0	175	15.0	18.0	--	--	--	--	--	--	--

12352500 BITTERROOT RIVER NEAR MISSOULA, MT—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
Part 2 of 4
[Remark codes: <, less than; E, estimated.]

Date	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Dissolved solids, sum of constituents mg/L (70301)	Dissolved solids, tons/acre-ft (70303)	Dissolved solids, tons/d (70302)	Nitrate + nitrite water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, water, unfltrd, mg/L (62855)	Orthophosphate, water, fltrd, mg/L as P (00671)	Total phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)
Oct													
18...	--	--	--	--	--	--	--	--	--	.18	--	E.008	--
Mar													
22...	1.21	.10	11.1	2.38	49	.07	363	.030	.002	.18	E.005	.019	.3
Apr													
10...	--	--	--	--	--	--	--	--	--	.27	--	.025	--
24...	--	--	--	--	--	--	--	--	--	.21	--	.020	--
May													
04...	--	--	--	--	--	--	--	--	--	.36	--	.050	--
15...	--	--	--	--	--	--	--	--	--	.21	--	.034	--
21...	--	--	--	--	--	--	--	E.012	<.002	.17	E.004	.032	1.1
23...	--	--	--	--	--	--	--	--	--	.20	--	.024	--
Jun													
01...	--	--	--	--	--	--	--	--	--	.17	--	.018	--
07...	--	--	--	--	--	--	--	--	--	.21	--	.025	--
13...	--	--	--	--	--	--	--	--	--	.15	--	.020	--
13...	.83	E.07	9.5	1.52	44	.06	658	E.014	E.002	.18	.006	.023	.9
20...	--	--	--	--	--	--	--	--	--	.15	--	.016	--
27...	--	--	--	--	--	--	--	--	--	.18	--	.014	--
Aug													
10...	--	--	--	--	--	--	--	E.014	<.002	.18	.008	.013	.6

12352500 BITTERROOT RIVER NEAR MISSOULA, MT—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
Part 3 of 4
[Remark codes: <, less than; E, estimated.]

Date	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Arsenic water, fltrd, µg/L (01000)	Arsenic water, unfltrd µg/L (01002)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Chromium, water, fltrd, µg/L (01030)	Chromium, water, unfltrd recoverable, µg/L (01034)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recoverable, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)
Oct													
18...	--	--	--	.49	.58	<.04	<.02	--	--	.66	E1.0	23	63
Mar													
22...	<.1	.3	2.4	.25	.29	<.04	E.01	<.12	<.60	.42	E.9	--	--
Apr													
10...	--	--	--	.24	.31	<.04	E.01	--	--	.50	E.93	29	359
24...	--	--	--	.27	.31	<.04	E.01	--	--	.61	E.83	30	196
May													
04...	--	--	--	.27	.39	<.04	E.01	--	--	.87	1.6	32	785
15...	--	--	--	.27	.32	<.04	E.01	--	--	.66	1.3	28	442
21...	<.1	1.1	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	.31	.34	<.04	<.02	--	--	.62	E.92	36	304
Jun													
01...	--	--	--	.26	.32	<.04	<.02	--	--	<.40	E.67	26	214
07...	--	--	--	.28	.34	<.04	E.01	--	--	E.24	E.83	43	362
13...	--	--	--	.33	.42	<.04	<.02	--	--	<.40	E.79	32	290
13...	<.1	.9	2.7	.33	.37	<.04	<.02	<.12	<.60	.58	1.2	--	--
20...	--	--	--	.35	.37	<.04	E.01	--	--	.47	E1.0	40	191
27...	--	--	--	.36	.44	E.02	<.02	--	--	E.34	E.62	31	121
Aug													
10...	<.1	.5	1.9	--	--	--	--	--	--	--	--	--	--

12352500 BITTERROOT RIVER NEAR MISSOULA, MT—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
Part 4 of 4
[Remark codes: <, less than; E, estimated.]

Date	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover-able, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover-able, µg/L (01092)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
Oct											
18...	<.12	<.06	2.5	8.5	--	--	.91	<2	80	1	1.8
Mar											
22...	<.12	.16	--	--	.11	.27	E.59	E1	51	13	97
Apr											
10...	<.12	.30	4.5	20.4	--	--	.90	E1.6	52	21	162
24...	<.12	.16	5.1	14.0	--	--	.76	E1.1	73	9	52
May											
04...	<.12	.70	3.8	33.5	--	--	1.3	3.3	36	96	2,020
15...	<.12	.42	4.4	17.8	--	--	1.6	2.9	32	68	1,420
21...	--	--	--	--	--	--	--	--	46	38	825
23...	<.12	.25	6.9	15.6	--	--	.97	2.0	32	36	642
Jun											
01...	<.12	.16	3.9	10.3	--	--	E.41	E1.2	48	16	222
07...	<.12	.28	5.2	15.8	--	--	.83	2.2	39	32	604
13...	<.12	.22	3.9	12.3	--	--	E.31	E1.4	39	20	301
13...	E.10	.29	--	--	.23	.26	1.4	2.4	50	17	253
20...	<.12	.15	4.3	11.2	--	--	.74	2.1	68	7	66
27...	<.12	.08	3.4	8.4	--	--	.98	E1.1	80	4	23
Aug											
10...	--	--	--	--	--	--	--	--	82	2	2.6

12352500 BITTERROOT RIVER NEAR MISSOULA, MT—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	15.0	12.0	13.5	4.5	2.5	3.5	2.0	0.5	1.5	1.0	0.0	0.5
2	14.5	12.0	13.0	4.5	3.0	4.0	2.0	1.0	1.5	2.5	1.0	1.5
3	15.0	12.0	13.5	6.0	4.5	5.5	1.5	0.5	1.0	3.5	2.5	3.0
4	15.0	12.0	13.5	7.5	6.0	6.5	1.5	0.5	1.0	3.5	2.5	3.0
5	15.0	12.5	13.5	8.5	7.0	8.0	3.0	1.5	2.0	2.5	1.5	2.0
6	16.0	13.5	14.5	9.5	8.5	9.0	2.5	1.5	2.0	1.5	0.5	1.0
7	14.5	12.5	14.0	10.0	8.5	9.0	2.0	1.0	1.5	1.5	0.5	1.0
8	12.5	11.0	11.5	8.5	7.0	7.5	1.5	1.0	1.0	3.0	1.5	2.5
9	11.0	9.5	10.5	7.0	5.5	6.0	1.5	0.5	1.0	3.5	2.5	3.0
10	10.0	7.5	9.0	5.5	5.0	5.5	1.5	0.5	1.0	3.0	1.5	2.5
11	11.5	8.0	9.5	6.0	5.5	6.0	3.0	1.5	2.0	1.5	0.0	0.5
12	11.5	8.5	10.0	6.0	5.0	5.5	4.0	2.5	3.0	1.0	0.0	0.5
13	11.5	9.0	10.5	5.5	5.0	5.0	4.0	3.5	3.5	0.5	0.0	0.0
14	12.0	9.0	10.5	5.5	4.5	5.0	3.5	3.0	3.5	1.0	0.0	0.5
15	11.0	10.0	10.0	5.0	4.0	4.5	4.0	3.0	3.5	0.5	0.0	0.5
16	10.5	9.5	10.0	6.5	4.5	5.5	3.0	1.0	2.0	0.5	0.0	0.5
17	11.0	8.5	9.5	5.5	4.0	4.5	1.5	0.0	0.5	0.5	0.0	0.0
18	9.5	8.5	9.0	4.5	3.5	4.0	0.5	0.0	0.5	0.5	0.0	0.0
19	9.5	8.5	9.0	4.5	3.5	4.0	0.5	0.5	0.5	0.5	0.0	0.0
20	10.0	9.0	9.5	5.5	4.5	5.0	0.5	0.5	0.5	0.5	0.0	0.0
21	10.5	8.5	9.5	6.5	5.5	6.0	0.5	0.5	0.5	0.5	0.0	0.5
22	10.0	7.5	9.0	6.0	5.0	5.5	1.0	0.0	0.5	1.0	0.0	0.5
23	9.0	7.5	8.0	5.0	4.0	4.5	1.0	0.5	0.5	1.0	0.5	1.0
24	9.0	7.0	8.0	4.5	3.5	4.0	1.5	0.5	1.0	1.5	0.0	0.5
25	9.5	7.5	8.5	4.0	3.0	3.5	2.0	1.0	1.5	2.0	0.5	1.0
26	8.5	7.0	8.0	3.5	2.0	2.5	3.0	2.0	2.5	2.0	0.5	1.0
27	9.0	7.0	8.0	3.0	2.5	2.5	3.0	2.5	3.0	1.5	0.0	1.0
28	8.5	6.5	7.5	2.5	1.0	1.5	2.5	2.0	2.5	1.5	0.0	0.5
29	8.5	6.0	7.5	1.0	0.0	0.5	2.0	1.0	1.5	0.5	0.0	0.5
30	7.5	4.0	6.0	1.0	0.0	0.5	1.0	0.5	1.0	1.0	0.0	0.5
31	5.0	3.0	4.0	---	---	---	1.0	0.0	0.5	1.0	0.0	0.5
Month	16.0	3.0	10.0	10.0	0.0	5.0	4.0	0.0	1.5	3.5	0.0	1.0

12352500 BITTERROOT RIVER NEAR MISSOULA, MT—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	1.0	0.0	0.5	3.5	2.0	2.5	8.5	6.5	7.5	11.5	9.5	10.5
2	1.0	0.0	0.5	4.0	1.5	2.5	8.5	7.0	7.5	11.0	10.0	10.5
3	0.5	0.0	0.5	4.0	2.0	3.0	8.5	5.5	7.0	10.5	7.5	8.5
4	1.5	0.0	1.0	5.5	2.5	4.0	7.5	5.5	6.0	7.5	6.0	6.5
5	3.5	1.5	2.5	6.5	4.0	5.0	9.5	6.0	7.5	8.5	6.0	7.5
6	4.0	2.5	3.0	8.5	5.0	6.5	10.0	7.5	9.0	10.5	7.5	9.0
7	3.0	2.0	3.0	7.5	5.5	6.5	11.0	7.5	9.0	12.0	9.5	10.5
8	3.5	2.5	3.0	7.5	6.0	6.5	11.0	8.0	9.5	13.5	11.0	12.0
9	3.5	3.0	3.5	7.5	5.5	6.5	10.5	8.5	9.5	14.0	12.0	13.0
10	4.0	3.0	3.5	7.5	5.5	6.5	8.5	7.0	7.5	13.5	11.5	12.5
11	4.0	3.0	3.5	7.5	6.0	7.0	8.0	6.0	7.0	12.0	10.0	11.5
12	3.5	2.5	3.5	9.0	6.5	7.5	8.0	6.0	7.0	12.0	10.5	11.5
13	3.5	2.0	3.0	8.5	6.0	7.0	9.5	6.0	7.5	12.0	10.0	11.0
14	4.0	3.0	3.5	6.5	5.5	6.0	10.0	7.5	9.0	11.5	9.5	10.5
15	4.0	3.0	3.5	6.5	5.0	5.5	10.5	9.0	9.5	12.0	9.5	11.0
16	4.0	3.0	3.5	6.0	5.5	5.5	10.0	7.5	8.5	12.5	10.5	11.5
17	5.0	3.0	4.0	8.0	5.0	6.5	9.5	8.5	9.0	13.0	11.0	12.0
18	4.0	3.0	3.5	9.0	6.5	8.0	8.5	6.5	7.5	13.5	11.5	12.5
19	4.0	2.5	3.0	9.0	7.0	7.5	7.5	6.0	6.5	13.5	11.0	12.5
20	4.5	3.0	3.5	8.0	6.5	7.0	8.5	6.0	7.0	13.0	10.5	11.5
21	4.0	2.0	3.0	7.0	5.0	6.0	10.0	6.0	8.0	10.5	8.0	9.0
22	4.0	3.0	3.5	6.5	5.5	5.5	11.5	8.5	9.5	9.0	7.0	8.0
23	4.0	3.0	3.5	8.5	5.5	6.5	12.5	9.5	11.0	10.5	8.5	9.5
24	4.5	2.0	3.5	9.0	7.0	8.0	13.0	10.0	11.5	11.0	9.0	10.0
25	4.5	3.0	3.5	8.5	7.5	8.5	11.5	9.5	10.5	13.0	9.5	11.0
26	4.0	3.0	3.5	7.5	6.0	7.0	12.0	9.0	10.0	13.5	11.0	12.5
27	4.0	2.0	2.5	7.0	6.0	6.0	12.5	9.5	11.0	13.5	11.5	12.5
28	4.5	2.0	3.0	7.0	5.0	6.0	13.5	10.5	12.0	11.5	10.0	11.0
29	---	---	---	7.5	5.0	6.0	13.0	11.0	12.0	13.0	10.0	11.5
30	---	---	---	7.0	5.0	6.0	12.0	10.5	11.5	14.0	11.0	12.5
31	---	---	---	7.0	5.5	6.5	---	---	---	14.5	12.0	13.5
Month	5.0	0.0	3.0	9.0	1.5	6.0	13.5	5.5	9.0	14.5	6.0	11.0

12352500 BITTERROOT RIVER NEAR MISSOULA, MT—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	15.5	13.0	14.0	20.5	17.0	19.0	23.5	19.0	21.5	20.0	16.5	18.0
2	16.0	13.5	15.0	20.5	17.5	19.0	23.5	19.0	21.0	21.5	17.0	19.0
3	16.0	14.0	15.0	22.0	17.5	19.5	24.0	19.5	21.5	21.5	17.5	19.5
4	15.5	13.5	14.5	23.0	18.5	20.5	23.0	18.5	20.5	20.0	17.5	19.0
5	15.0	13.0	14.0	23.5	19.0	21.5	21.0	18.0	19.5	21.0	17.0	18.5
6	13.0	10.0	11.5	24.5	20.0	22.0	20.5	16.0	18.5	20.5	17.5	18.5
7	11.5	9.0	10.0	24.5	21.0	22.5	20.0	16.5	18.5	19.5	16.0	17.5
8	13.0	10.5	12.0	23.5	19.5	21.5	21.5	16.5	19.0	18.5	15.0	16.5
9	13.5	12.0	13.0	23.5	19.0	21.5	21.0	17.0	19.5	18.0	14.0	16.0
10	13.5	12.5	13.0	23.5	19.0	21.0	22.0	18.0	19.5	18.0	13.5	15.5
11	14.0	11.5	12.5	24.0	19.0	21.5	21.5	16.5	19.0	18.5	14.0	16.0
12	15.0	12.5	14.0	25.0	19.5	22.0	20.0	17.0	18.5	18.5	14.5	16.0
13	15.0	13.0	13.5	25.5	20.5	23.0	21.0	16.5	18.5	18.0	14.0	16.0
14	15.5	12.5	14.0	26.0	21.0	23.5	21.5	16.5	19.0	17.5	13.5	15.5
15	15.5	14.0	14.5	25.0	21.0	23.0	22.0	17.0	19.0	18.0	14.5	16.0
16	16.0	14.0	15.0	25.5	21.0	23.0	19.5	17.5	18.5	17.5	15.0	16.0
17	15.5	13.0	14.0	24.0	21.0	22.5	20.0	16.0	18.0	16.5	14.0	15.0
18	14.5	12.0	13.0	25.5	19.5	22.5	20.5	16.5	18.5	15.0	13.0	14.0
19	16.0	12.5	14.0	24.0	21.0	22.5	19.0	16.5	17.5	14.0	13.0	13.5
20	17.0	15.0	16.0	25.0	20.5	22.5	16.5	15.0	16.0	13.5	11.5	12.5
21	18.5	15.5	17.0	24.0	20.0	22.0	17.5	15.0	16.0	15.5	11.5	13.0
22	19.5	16.5	18.0	25.0	20.5	22.5	20.0	15.0	17.0	14.5	12.0	13.5
23	19.5	17.0	18.0	24.0	21.0	22.5	18.5	16.0	17.0	14.0	12.5	13.0
24	18.5	16.0	17.5	24.5	20.5	22.5	19.5	15.0	17.5	13.5	11.5	12.5
25	17.5	15.0	16.5	25.0	20.5	22.5	20.5	16.0	18.0	13.5	11.0	12.5
26	17.5	13.5	15.5	23.5	20.0	22.0	21.0	16.5	18.5	15.5	11.5	13.5
27	19.0	15.0	17.0	24.0	19.0	21.5	20.0	16.5	18.0	15.0	12.5	14.0
28	20.0	16.5	18.5	25.5	20.0	22.5	20.0	15.0	17.5	14.5	12.0	13.5
29	19.5	17.5	18.5	25.0	20.0	22.0	21.0	15.5	18.0	13.5	11.5	12.5
30	20.0	16.5	18.0	24.5	20.5	22.5	19.5	16.5	18.0	12.5	10.0	11.5
31	---	---	---	24.5	20.0	22.0	18.5	16.5	17.5	---	---	---
Month	20.0	9.0	15.0	26.0	17.0	22.0	24.0	15.0	18.5	21.5	10.0	15.5