06109500 MISSOURI RIVER AT VIRGELLE, MT

LOCATION.--Lat 48°00'18", long 110°15'25" (NAD 27), in SW¼SW¼SE¼ sec.13, T.26 N., R.11 E., Chouteau County, Hydrologic Unit 10040101, on left bank 0.2 mi upstream from Virgelle ferry, 0.6 mi southwest of Virgelle, 1.8 mi downstream from Spring Coulee, and at river mile 2,034.2.

DRAINAGE AREA.--34,379 mi^2.

PERIOD OF RECORD.--February 1935 to current year. Prior to October 1953, published as "at Loma."

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,507.50 ft (NGVD 29). Prior to Sept. 30, 1953, water-stage recorder at Loma, 18 mi upstream, 2,543.40 ft.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by 23 smaller irrigation reservoirs and powerplants, Clark Canyon Reservoir (station number 06015300), Canyon Ferry Lake (station number 06058500), and Lake Elwell (station number 06101300). Diversions for irrigation of about 850,400 acres upstream from station. U.S. Army Corps of Engineers satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1908 reached a stage about 2 ft higher than that of June 5, 1953, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,990	4,330	5,110	e2,890	e5,050	e5,390	5,450	5,450	9,420	5,510	4,280	4,300
2	4,090	4,450	4,800	e3,210	e5,520	5,310	5,580	5,840	8,990	5,390	4,170	4,580
3	4,060	4,480	4,800	e4,380	e5,550	5,250	5,640	5,570	8,220	5,340	4,000	4,560
4	3,910	4,600	4,740	e4,310	e5,520	5,160	5,840	5,260	7,690	5,380	4,110	4,390
5	3,870	4,710	4,650	e4,060	e5,450	5,230	5,850	5,310	7,020	5,530	4,360	4,450
6	3,900	4,650	4,490	e4,030	e5,520	5,240	5,920	5,350	6,400	5,450	4,580	4,430
7	4,210	4,810	4,590	e4,220	e5,470	5,460	5,820	5,380	6,610	5,640	4,490	4,330
8	4,720	4,960	4,740	e4,470	e5,540	5,520	5,700	5,490	7,690	5,600	4,510	4,410
9	4,030	4,820	4,610	e4,640	e5,600	5,570	5,740	5,540	7,680	5,260	4,420	4,310
10	3,600	5,080	4,510	e5,010	e5,570	5,760	5,620	5,450	7,290	5,200	4,350	4,990
11	3,560	4,790	e4,650	e5,340	e5,550	5,530	5,390	5,480	7,510	5,230	4,500	4,670
12	3,660	4,690	e4,530	e5,490	e5,460	5,620	5,250	6,690	8,720	5,070	4,320	4,550
13	4,120	4,850	e4,460	e5,640	e5,340	5,600	5,180	6,990	9,330	4,910	4,300	4,970
14	4,100	4,770	4,830	e5,750	e5,260	5,500	5,100	6,800	9,640	4,880	4,210	4,880
15	4,070	4,620	5,680	e5,680	e5,180	5,540	5,030	6,120	8,910	5,000	4,290	4,990
16	4,160	4,740	5,940	e5,690	e5,070	5,550	5,050	5,610	8,270	4,710	4,220	4,940
17	4,250	4,830	5,460	e5,800	e5,000	5,530	5,110	5,430	7,540	4,630	4,240	4,630
18	4,300	4,850	5,150	e5,880	e5,140	5,370	5,160	5,480	7,390	4,490	4,150	4,680
19	4,110	4,860	5,190	e5,850	e5,240	5,410	5,140	5,540	7,170	4,650	4,190	4,360
20	3,950	4,850	5,900	e5,680	e5,580	5,470	5,160	5,330	6,860	4,460	4,520	4,280
21	4,240	4,770	5,300	e5,680	e5,840	5,390	5,110	5,410	6,360	4,630	4,570	4,850
22	4,090	4,670	5,280	e5,650	e5,830	5,490	5,020	5,820	6,310	4,560	4,390	4,510
23	3,970	4,400	5,150	e5,340	e5,660	5,520	4,880	6,200	6,370	4,510	4,680	4,740
24	4,230	3,710	5,150	e5,200	e5,610	5,590	4,970	7,560	6,050	4,580	5,570	4,680
25	4,170	3,960	5,020	e5,370	e5,570	5,470	4,830	7,760	5,790	4,630	5,670	4,630
26	3,970	5,000	5,000	e4,870	e5,280	5,510	4,860	8,370	5,820	4,330	5,590	4,560
27	4,370	5,770	5,210	e3,320	e5,130	5,360	4,800	8,360	5,650	4,230	5,470	4,520
28	4,300	5,790	e5,080	e3,140	e5,300	5,380	5,010	9,060	5,460	4,450	5,250	4,400
29	4,430	5,040	e4,690	e4,140	e5,330	5,330	5,080	9,730	5,470	4,300	5,120	4,250
30	4,600	5,120	e3,810	e3,920	---	5,270	5,030	9,690	5,500	4,220	4,970	4,410
31	4,370	---	e3,110	e4,330	---	5,320	---	9,540	---	4,150	4,640	---
TOTAL	127,400	142,970	151,630	148,980	157,160	168,640	158,320	201,610	217,130	150,920	142,130	137,250
MEAN	4,110	4,766	4,891	4,806	5,419	5,440	5,277	6,504	7,238	4,868	4,585	4,575
MAX	4,720	5,790	5,940	5,880	5,840	5,760	5,920	9,730	9,640	5,640	5,670	4,990
MIN	3,560	3,710	3,110	2,890	5,000	5,160	4,800	5,260	5,460	4,150	4,000	4,250
AC-FT	252,700	283,600	300,800	295,500	311,700	334,500	314,000	399,900	430,700	299,300	281,900	272,200

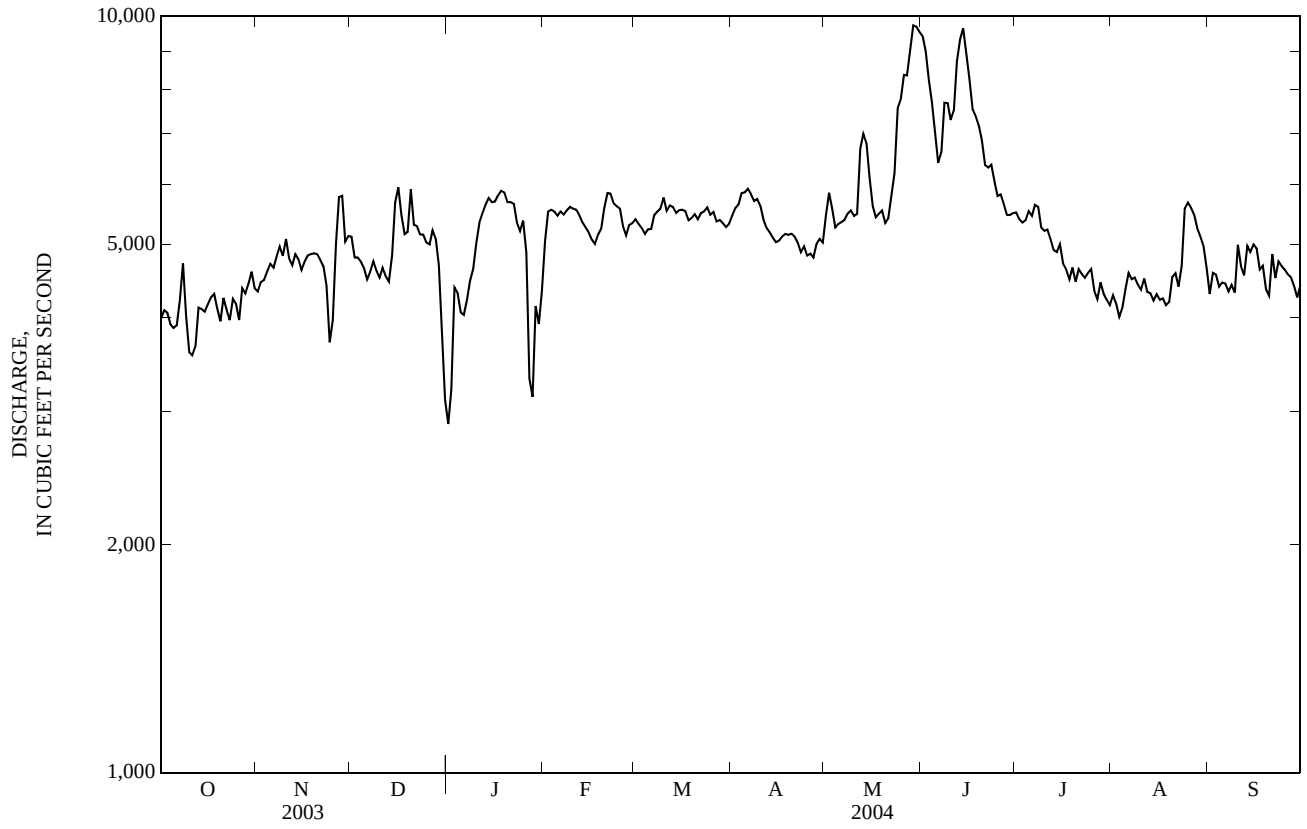
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2004, BY WATER YEAR (WY)

MEAN	6,131	6,307	6,235	6,232	6,561	7,316	8,623	13,240	17,710	9,679	6,120	5,808
MAX	15,340	12,470	12,220	8,997	10,240	14,490	17,720	28,260	51,960	29,670	11,950	11,590
(WY)	(1966)	(1966)	(1960)	(1976)	(1971)	(1978)	(1943)	(1976)	(1948)	(1975)	(1993)	(1965)
MIN	3,533	3,207	3,221	2,716	2,600	3,784	4,062	4,819	4,646	3,704	2,821	2,818
(WY)	(1938)	(1938)	(1937)	(1936)	(1937)	(1938)	(1961)	(1992)	(1977)	(1940)	(1937)	(1937)

06109500 MISSOURI RIVER AT VIRGELLE, MT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1935 - 2004	
ANNUAL TOTAL	2,166,380		1,904,140			
ANNUAL MEAN	5,935		5,203		8,356	
HIGHEST ANNUAL MEAN					13,660	1975
LOWEST ANNUAL MEAN					4,152	1937
HIGHEST DAILY MEAN	15,100	Jun 1	9,730	May 29	119,000	Jun 5, 1953
LOWEST DAILY MEAN	3,110	Dec 31	2,890	Jan 1	638	Jul 5, 1936
ANNUAL SEVEN-DAY MINIMUM	3,880	Oct 9	3,680	Dec 30	2,020	Feb 2, 1937
MAXIMUM PEAK FLOW			a10,000	May 29	c122,000	Jun 5, 1953
MAXIMUM PEAK STAGE			b7.25	Jan 10	d23.40	Jun 5, 1953
ANNUAL RUNOFF (AC-FT)	4,297,000		3,777,000		6,054,000	
10 PERCENT EXCEEDS	8,920		6,070		14,500	
50 PERCENT EXCEEDS	5,300		5,100		6,700	
90 PERCENT EXCEEDS	4,080		4,170		4,220	

a--Gage height, 4.76 ft.
b--Backwater from ice.
c--From rating curve for former site at Loma, extended above 66,000 ft^3/s.
d--From floodmark.
e--Estimated.



06114700 JUDITH RIVER NEAR MOUTH, NEAR WINIFRED, MT

LOCATION.--Lat 47°40'06", long 109°39'09" (NAD 27), in SW¼NW¼NE¼ sec.22, T.22 N., R.16 E., Fergus County, Hydrologic Unit 10040103, on right bank 0.2 mi downstream from private road bridge, 5.3 mi south of Judith Landing, 15 mi northwest of Winifred, and at river mile 7.7.

DRAINAGE AREA.--2,731 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,490 ft (NGVD 29).

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Numerous diversions for irrigation upstream from station. U. S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	e200	e260	e200	e160	e400	302	230	364	319	116	175
2	218	e210	e260	e180	e170	e370	304	220	337	339	109	175
3	219	e210	268	e180	e170	e350	305	222	306	339	127	177
4	222	e190	264	e170	e190	324	305	203	281	320	133	176
5	224	e200	e240	e150	e190	318	302	211	275	330	143	173
6	220	e210	246	e170	e210	316	298	185	290	336	150	157
7	221	e210	262	e170	e210	377	292	174	311	330	162	163
8	220	e220	271	e180	e210	1,060	290	168	312	305	145	163
9	221	e220	e240	e180	e210	1,190	285	160	321	291	163	164
10	222	e220	e220	e190	e210	1,190	278	156	339	268	172	165
11	223	e230	e210	e190	e190	766	274	170	507	254	179	167
12	227	e250	e210	e200	e190	580	272	208	834	253	154	167
13	232	266	e220	e200	e210	557	268	219	1,180	240	148	168
14	233	262	e220	e200	e210	508	263	221	907	229	145	189
15	236	261	e220	e200	e240	449	263	217	748	207	143	189
16	249	260	e230	e200	e270	434	283	210	665	182	149	186
17	243	261	e230	e200	e300	430	277	214	577	150	134	184
18	236	259	e230	e200	e300	423	271	213	526	160	134	190
19	238	260	e230	e200	e280	427	268	215	490	163	136	217
20	236	266	e240	e210	e280	405	265	202	489	155	141	244
21	238	266	e240	e210	e270	382	260	206	468	150	145	259
22	236	e250	e240	e230	e270	361	258	257	426	119	152	250
23	238	e240	e240	e230	e260	350	250	364	398	103	192	242
24	237	e240	e250	e210	e280	345	240	405	357	84	187	233
25	232	e240	e260	e200	e310	342	228	390	345	98	189	228
26	238	e250	e250	e190	e400	347	218	357	360	93	182	227
27	240	e250	e220	e180	e460	347	216	336	354	98	187	224
28	246	e250	e220	e180	e500	335	234	332	334	119	184	225
29	e230	e270	e200	e190	e460	321	251	351	319	122	179	224
30	e210	e260	e200	e190	---	311	248	364	316	112	177	225
31	e200	---	e200	e170	---	305	---	380	---	118	175	---
TOTAL	7,103	7,181	7,291	5,950	7,610	14,620	8,068	7,760	13,736	6,386	4,832	5,926
MEAN	229	239	235	192	262	472	269	250	458	206	156	198
MAX	249	270	271	230	500	1,190	305	405	1,180	339	192	259
MIN	200	190	200	150	160	305	216	156	275	84	109	157
AC-FT	14,090	14,240	14,460	11,800	15,090	29,000	16,000	15,390	27,250	12,670	9,580	11,750

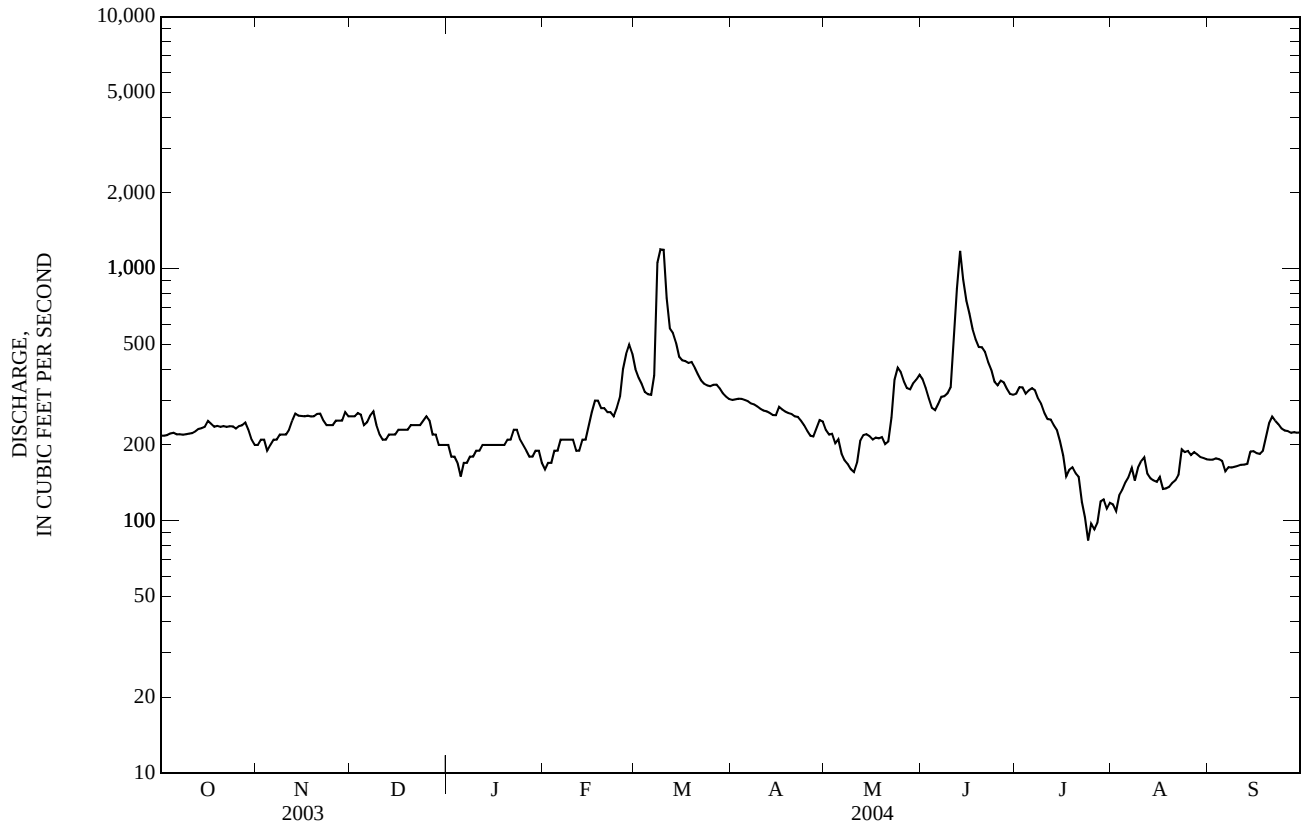
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	243	253	231	243	259	487	309	311	404	184	174	200
MAX	272	268	242	278	287	867	380	599	511	226	236	217
(WY)	(2001)	(2001)	(2003)	(2002)	(2002)	(2003)	(2003)	(2003)	(2003)	(2001)	(2002)	(2002)
MIN	229	239	223	192	234	293	269	157	318	112	143	192
(WY)	(2004)	(2004)	(2001)	(2004)	(2001)	(2002)	(2004)	(2001)	(2001)	(2003)	(2003)	(2003)

06114700 JUDITH RIVER NEAR MOUTH, NEAR WINIFRED, MT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	122,170		96,463			
ANNUAL MEAN	335		264		275	
HIGHEST ANNUAL MEAN					336	2003
LOWEST ANNUAL MEAN					243	2001
HIGHEST DAILY MEAN	6,860	Mar 14	1,190	Mar 9	6,860	Mar 14, 2003
LOWEST DAILY MEAN	58	Jul 24	84	Jul 24	58	Jul 24, 2003
ANNUAL SEVEN-DAY MINIMUM	64	Jul 19	102	Jul 22	64	Jul 19, 2003
MAXIMUM PEAK FLOW			a1,550	Mar 8	c7,600	Mar 14, 2003
MAXIMUM PEAK STAGE			Unknown		d11.00	Mar 13, 2003
INSTANTANEOUS LOW FLOW			b79	Jul 24	f54	Jul 24, 2003
ANNUAL RUNOFF (AC-FT)	242,300		191,300		199,200	
10 PERCENT EXCEEDS	572		372		366	
50 PERCENT EXCEEDS	249		230		250	
90 PERCENT EXCEEDS	137		160		151	

a--Gage height, 4.32 ft.
b--Gage height, 2.39 ft.
c--Gage height, 9.06 ft.
d--From floodmarks, backwater from ice.
e--Estimated.
f--Gage height, 2.26 ft.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 2001 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE (seasonal records): April 2002 to current year.

INSTRUMENTATION.--Temperature recorder installed Sept. 9, 2000.

REMARKS.--Seasonal daily water temperature record rated good.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE (seasonal records): Maximum, 32.0°C, July 13, 2002; minimum, 0.0°C, many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: During period of seasonal operation, maximum 30.5°C, July 17, minimum, 0.0°C, many days October through March.

06114700 JUDITH RIVER NEAR MOUTH, NEAR WINIFRED, MT—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.5	9.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	14.0	9.0	12.0	0.5	0.0	0.0	2.0	0.0	0.5	0.0	0.0	0.0
3	14.5	9.5	12.0	0.5	0.0	0.0	4.0	2.0	3.0	0.0	0.0	0.0
4	14.5	9.5	12.0	0.0	0.0	0.0	3.0	0.5	1.5	0.0	0.0	0.0
5	15.0	10.0	12.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
6	15.0	10.5	13.0	0.0	0.0	0.0	3.5	0.0	1.5	0.0	0.0	0.0
7	16.0	12.0	14.0	0.0	0.0	0.0	4.0	3.0	3.5	0.0	0.0	0.0
8	16.5	12.0	14.5	0.0	0.0	0.0	3.0	0.5	1.5	0.0	0.0	0.0
9	15.5	12.5	14.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
10	13.5	10.5	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	11.5	8.5	10.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	11.5	9.0	10.5	3.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
13	10.5	8.0	9.5	3.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
14	10.0	7.0	8.5	3.5	1.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
15	10.5	7.5	9.0	3.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
16	11.0	7.5	9.0	3.5	1.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
17	14.5	10.5	12.0	4.0	3.0	3.5	1.0	0.0	0.5	0.0	0.0	0.0
18	14.0	10.0	12.0	5.0	3.0	4.0	0.5	0.0	0.0	0.0	0.0	0.0
19	13.5	10.0	12.0	6.0	3.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0
20	13.5	10.5	12.0	5.5	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
21	16.5	11.5	14.0	3.0	0.0	0.5	1.0	0.0	0.5	0.0	0.0	0.0
22	15.0	12.0	14.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
23	14.0	10.0	12.0	2.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
24	10.0	7.5	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	8.5	5.0	7.0	0.0	0.0	0.0	2.0	0.0	1.0	0.0	0.0	0.0
26	11.0	8.0	9.5	0.0	0.0	0.0	2.0	0.0	1.0	0.0	0.0	0.0
27	11.0	9.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	9.0	8.5	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	8.5	3.5	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	3.5	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	2.0	0.0	0.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
MONTH	16.5	0.0	10.5	6.0	0.0	0.9	4.0	0.0	0.5	0.0	0.0	0.0
	FEBRUARY			MARCH			APRIL			MAY		
1	0.0	0.0	0.0	0.0	0.0	0.0	12.5	9.5	11.0	17.0	9.0	13.0
2	0.0	0.0	0.0	2.0	0.0	1.0	12.5	8.5	10.0	18.5	11.5	15.0
3	0.0	0.0	0.0	3.5	0.0	2.0	13.0	6.5	10.0	18.5	14.0	16.0
4	0.0	0.0	0.0	5.0	2.0	3.5	13.5	9.0	11.5	19.0	12.5	16.0
5	0.0	0.0	0.0	5.0	2.0	3.5	15.5	9.0	12.5	18.5	14.5	16.5
6	0.0	0.0	0.0	4.5	2.0	3.5	16.0	11.5	14.0	19.0	13.0	16.0
7	0.0	0.0	0.0	4.5	0.5	2.5	15.5	9.5	12.5	21.0	13.5	17.5
8	0.0	0.0	0.0	4.5	2.5	3.5	15.0	10.5	12.5	20.0	15.0	17.5
9	0.0	0.0	0.0	7.5	3.5	5.0	14.0	8.5	11.5	17.5	12.5	15.5
10	0.0	0.0	0.0	6.5	4.0	5.0	12.5	7.5	10.0	15.0	11.0	12.0
11	0.0	0.0	0.0	6.5	2.5	4.5	12.5	7.0	9.5	11.0	7.0	8.5
12	0.0	0.0	0.0	7.5	3.5	5.5	15.0	7.5	11.0	9.5	5.5	7.5
13	0.0	0.0	0.0	7.0	4.5	5.5	16.5	10.5	13.5	12.5	6.0	9.5
14	0.0	0.0	0.0	5.5	3.0	4.5	14.5	10.5	13.0	14.5	8.0	11.0
15	0.0	0.0	0.0	6.5	3.5	5.0	14.5	11.0	12.5	16.5	9.0	12.5
16	0.0	0.0	0.0	7.5	5.0	6.5	15.5	9.5	12.0	14.5	10.5	12.5
17	0.0	0.0	0.0	7.0	5.5	6.5	13.0	9.5	11.0	18.5	9.5	14.0
18	0.0	0.0	0.0	10.0	5.0	7.0	14.0	9.0	11.0	16.0	12.0	13.5
19	0.0	0.0	0.0	9.5	6.5	8.0	13.0	9.5	11.5	17.5	12.0	14.0
20	1.5	0.0	0.0	9.0	4.5	6.5	15.0	9.5	12.0	19.0	13.0	16.5
21	0.0	0.0	0.0	8.5	4.0	6.5	15.0	10.0	12.5	16.5	14.0	15.0
22	0.0	0.0	0.0	10.0	5.0	7.5	15.5	9.0	12.5	14.0	11.0	12.5
23	0.0	0.0	0.0	11.5	6.0	9.0	17.0	9.5	13.5	11.0	8.5	9.5
24	0.0	0.0	0.0	12.0	8.5	10.5	16.0	10.5	13.5	11.0	7.0	8.5
25	0.0	0.0	0.0	11.0	8.0	9.5	16.5	10.0	13.0	16.0	7.5	11.5
26	0.0	0.0	0.0	10.0	8.0	9.0	18.0	10.5	14.5	15.5	12.0	13.5
27	0.0	0.0	0.0	11.5	6.5	9.0	18.5	12.5	15.5	18.5	12.0	15.0
28	0.0	0.0	0.0	11.0	6.5	8.5	15.5	9.5	11.5	18.0	14.5	16.0
29	0.0	0.0	0.0	12.0	5.5	9.0	14.5	7.0	11.0	18.0	13.0	15.5
30	---	---	---	14.0	7.5	11.0	15.0	9.5	12.0	18.0	13.5	15.5
31	---	---	---	13.5	9.5	11.5	---	---	---	17.0	12.5	14.5
MONTH	1.5	0.0	0.0	14.0	0.0	6.1	18.5	6.5	12.1	21.0	5.5	13.6

06114700 JUDITH RIVER NEAR MOUTH, NEAR WINIFRED, MT—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.5	12.5	16.0	25.5	19.5	22.5	28.0	21.5	24.5	23.0	18.5	20.5
2	22.0	14.0	18.0	26.0	20.0	23.0	26.5	22.0	24.5	20.5	17.0	19.0
3	23.5	16.0	20.0	26.0	20.5	23.0	25.0	21.0	23.0	18.0	13.5	15.5
4	24.0	18.0	21.0	23.5	20.5	21.5	27.0	20.5	23.5	19.5	13.5	16.5
5	25.0	18.0	21.5	21.0	17.5	19.5	26.5	21.5	23.5	18.5	15.5	17.0
6	22.0	17.5	20.0	23.0	17.0	20.0	26.5	20.5	23.5	19.0	14.5	16.5
7	17.5	14.5	15.5	23.0	19.5	21.0	22.5	19.5	21.0	17.5	14.5	16.0
8	15.0	13.0	14.0	21.5	16.5	19.0	22.0	18.0	20.0	19.5	13.5	16.5
9	16.5	12.0	14.0	24.0	15.5	19.5	23.0	17.5	20.0	19.0	15.0	17.5
10	15.0	14.0	14.5	26.5	19.5	22.5	23.0	17.5	20.5	20.0	15.5	18.0
11	14.5	13.0	13.5	25.0	20.0	22.5	23.5	17.5	20.5	19.5	15.0	17.5
12	15.5	11.5	13.5	25.0	18.0	21.5	24.5	18.0	21.5	18.5	16.0	17.5
13	17.0	13.0	15.0	25.5	19.0	22.5	25.5	19.0	22.5	16.0	14.5	15.5
14	17.5	13.5	15.5	27.5	20.5	24.0	26.0	19.5	23.0	15.0	12.5	14.0
15	18.0	14.0	16.0	28.5	22.0	25.0	25.5	19.5	23.0	16.5	12.5	14.5
16	18.0	13.5	16.0	29.5	22.0	25.5	24.0	20.5	22.0	17.0	13.0	15.0
17	17.5	14.5	16.0	30.5	23.0	27.0	25.0	19.0	21.5	17.0	13.0	15.5
18	17.0	13.5	15.5	28.0	23.0	26.0	23.5	20.0	22.0	18.0	14.0	16.0
19	15.5	12.5	14.0	28.0	23.5	26.0	23.0	17.5	20.5	16.5	13.5	15.0
20	17.5	11.5	14.5	27.0	22.0	24.5	24.5	20.0	22.0	13.5	11.5	12.5
21	19.5	14.0	17.0	25.0	20.0	22.5	24.0	20.5	22.5	13.5	9.5	11.5
22	20.0	15.5	17.5	25.0	19.5	22.5	22.5	19.0	20.5	13.0	9.5	11.5
23	22.0	15.5	18.5	24.5	19.0	22.0	20.0	16.5	18.5	15.5	11.0	13.0
24	22.5	17.0	19.5	26.0	18.0	22.0	20.5	15.5	18.0	17.0	12.5	15.0
25	23.5	16.5	20.0	27.5	19.5	23.5	19.5	16.5	18.0	17.5	13.0	15.5
26	20.5	17.5	19.0	27.0	21.0	24.0	18.0	16.0	16.5	17.0	14.0	15.5
27	22.0	15.5	19.0	24.5	21.0	22.5	20.0	15.0	17.5	17.0	14.0	15.5
28	24.0	16.5	20.5	24.5	18.0	21.0	19.0	15.5	17.5	17.0	13.0	15.0
29	26.0	19.0	22.5	25.5	20.0	22.5	19.5	16.0	17.5	16.5	13.0	15.0
30	24.5	21.5	23.0	25.0	20.0	23.0	22.0	16.0	19.0	15.5	13.0	14.0
31	---	---	---	27.0	20.0	23.5	23.0	17.0	20.0	---	---	---
MONTH	26.0	11.5	17.4	30.5	15.5	22.7	28.0	15.0	20.9	23.0	9.5	15.6

06115200 MISSOURI RIVER NEAR LANDUSKY, MT

LOCATION.--Lat 47°37'51", long 108°41'13" (NAD 27), in NW¼NE¼ sec.31, T.22 N., R.24 E., Fergus County, Hydrologic Unit 10040104, C.M. Russel National Wildlife Refuge, on right bank 380 ft upstream from bridge on U.S. Highway 191, 0.9 mi upstream from Armells Creek, 20 mi south of Landusky, and at river mile 1,921.61.

DRAINAGE AREA.--40,987 mi^2. Area at site used prior to Dec. 13, 1968, 40,763 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1934 to current year. Prior to October 1968, published as "at powerplant ferry, near Zortman."

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,239.96 ft (NGVD 29) (State Highway bench mark). Prior to Feb. 7, 1935, nonrecording gage, and Feb. 7, 1935, to Dec. 12, 1968, water-stage recorder, at site 16.5 mi upstream at elevation 33.06 ft higher.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair. Flow regulated by 24 smaller irrigation reservoirs and powerplants, Clark Canyon Reservoir (station number 06015300), Canyon Ferry Lake (station number 06058500), and Lake Elwell (station number 06101300). Diversions for irrigation of about 870,400 acres upstream from station. U. S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,700	e4,500	e5,200	e3,800	e5,200	e5,600	5,590	4,890	9,770	5,860	4,110	5,000
2	4,130	e4,600	e4,900	e3,400	e5,600	e5,400	5,640	5,110	9,640	5,840	4,230	4,690
3	4,070	e4,600	e4,900	e4,600	e5,600	e5,400	5,700	5,640	9,190	5,810	4,200	4,520
4	4,200	e4,700	e4,800	e4,500	e5,600	e5,200	5,730	5,640	8,610	5,950	4,170	4,760
5	4,090	e4,700	e4,700	e4,200	e5,600	e5,200	5,920	5,320	7,550	5,820	4,120	4,660
6	4,050	e4,800	e4,600	e4,200	e5,600	e5,200	5,930	5,270	6,580	5,730	4,310	4,630
7	4,020	e5,000	e4,700	e4,400	e5,600	e5,400	5,990	5,280	6,560	5,610	4,630	4,640
8	4,130	e5,000	e4,800	e4,700	e5,600	e5,500	5,970	5,300	6,460	5,560	4,590	4,560
9	4,350	e4,900	e4,700	e4,900	e5,800	e5,600	5,770	5,390	7,170	5,660	4,640	4,570
10	5,450	e5,200	e4,600	e5,200	e5,800	e5,600	5,790	5,430	7,630	5,300	4,540	4,510
11	4,030	e4,900	e5,200	e5,600	e5,700	e5,600	5,660	5,260	9,120	5,230	4,580	4,640
12	3,880	e4,800	e5,000	e5,600	e5,600	e5,500	5,580	5,340	8,420	5,210	4,520	5,030
13	3,750	e4,900	e4,800	e5,800	e5,400	e5,900	5,370	5,840	9,050	5,170	4,630	4,700
14	3,930	e4,900	e5,000	e5,800	e5,400	e6,900	5,280	7,150	9,780	4,950	4,370	4,880
15	4,240	e4,700	e5,800	e5,800	e5,400	e6,400	5,230	6,760	9,740	4,820	4,470	4,990
16	4,270	e4,800	e6,000	e5,900	e5,300	6,250	5,110	6,390	9,200	4,860	4,300	4,950
17	4,880	e4,900	e5,600	e6,000	e5,200	5,830	5,180	5,800	8,490	4,710	4,350	4,910
18	5,020	e4,900	e5,200	e6,000	e5,400	6,130	5,160	5,550	7,870	4,470	4,350	4,860
19	5,240	e4,900	e5,400	e6,000	e5,400	6,070	5,220	5,560	7,550	4,410	4,230	4,660
20	5,330	e4,900	e6,000	e5,800	e5,800	6,080	5,240	5,730	7,240	4,340	4,250	4,600
21	4,860	e4,800	e5,400	e5,800	e6,000	6,080	5,190	5,580	7,490	4,440	4,410	4,390
22	5,110	e4,700	e5,200	e5,800	e6,000	6,030	5,180	5,660	7,360	e4,400	4,640	4,480
23	5,240	e4,600	e5,200	e5,600	e5,800	5,990	5,100	6,770	7,100	4,390	4,680	4,690
24	5,030	e3,800	e5,200	e5,400	e5,800	6,030	4,910	7,850	7,200	4,350	4,660	4,530
25	5,470	e4,200	e5,100	e5,600	e5,800	6,040	4,910	7,810	6,920	4,370	5,140	4,530
26	5,330	e5,200	e5,100	e5,200	e5,400	5,940	4,850	8,110	6,520	4,350	5,860	4,580
27	4,970	e5,800	e5,200	e3,500	e5,400	5,930	4,800	8,420	6,450	e4,350	5,690	4,410
28	5,030	e5,800	e5,600	e3,400	e5,400	5,840	4,700	8,430	6,240	e4,300	5,690	4,330
29	5,940	e5,200	e5,000	e4,300	e5,400	5,670	4,790	9,050	5,980	4,380	5,510	4,250
30	e4,200	e5,200	e4,200	e4,500	---	5,750	4,990	10,100	5,980	4,310	5,310	4,090
31	e4,600	---	e3,500	e5,200	---	5,550	---	9,900	---	4,270	5,240	---
TOTAL	143,540	145,900	156,600	156,500	161,600	179,610	160,480	200,330	232,860	153,220	144,420	139,040
MEAN	4,630	4,863	5,052	5,048	5,572	5,794	5,349	6,462	7,762	4,943	4,659	4,635
MAX	5,940	5,800	6,000	6,000	6,000	6,900	5,990	10,100	9,780	5,950	5,860	5,030
MIN	3,750	3,800	3,500	3,400	5,200	5,200	4,700	4,890	5,980	4,270	4,110	4,090
AC-FT	284,700	289,400	310,600	310,400	320,500	356,300	318,300	397,400	461,900	303,900	286,500	275,800

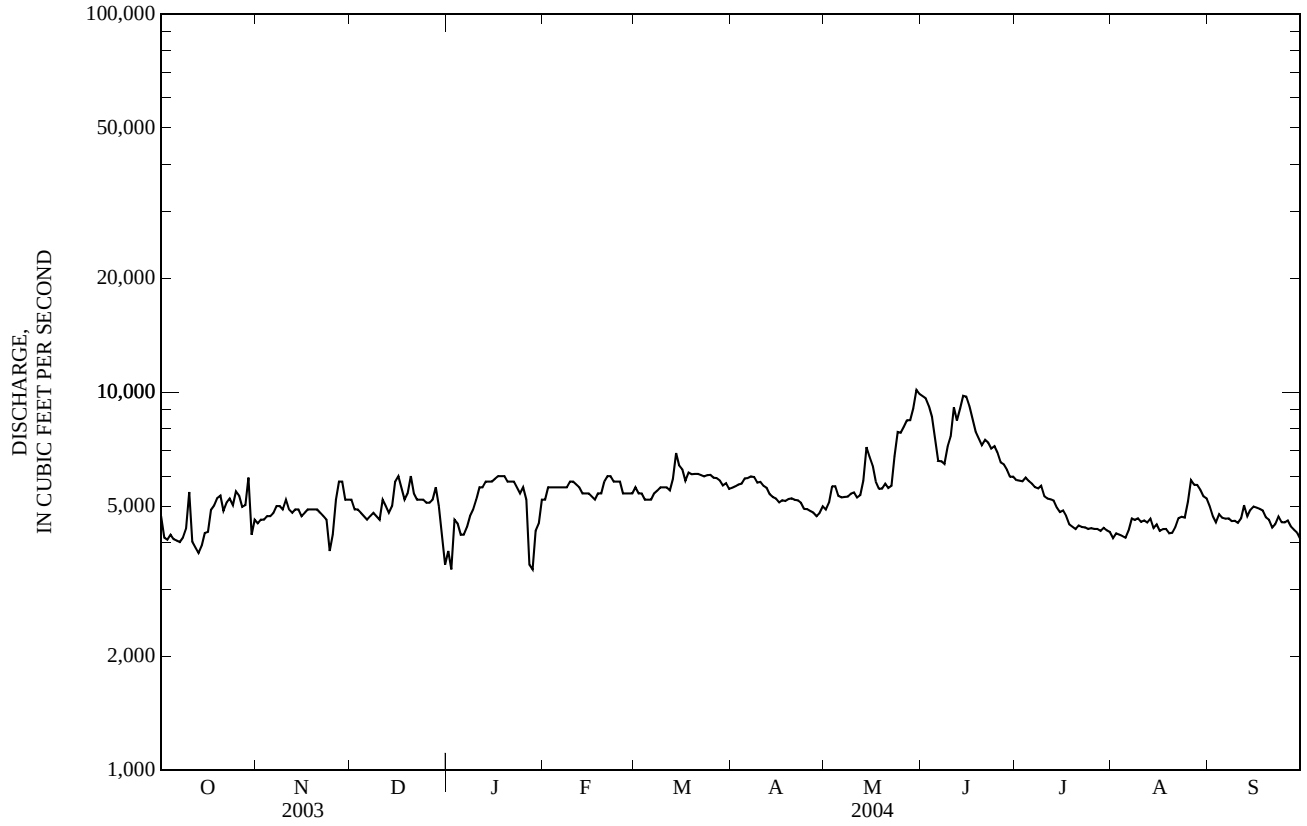
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2004, BY WATER YEAR (WY)

MEAN	6,498	6,705	6,590	6,583	7,097	8,489	9,474	14,110	19,230	10,620	6,539	6,165
MAX	16,480	13,920	13,180	10,840	11,380	19,700	19,240	30,510	55,270	33,590	12,620	12,310
(WY)	(1966)	(1966)	(1960)	(1979)	(1965)	(1978)	(1952)	(1975)	(1948)	(1975)	(1975)	(1965)
MIN	3,270	3,581	3,121	2,805	2,511	4,313	4,338	4,860	4,939	3,956	2,075	2,501
(WY)	(1935)	(1938)	(1937)	(1937)	(1936)	(2002)	(1961)	(1992)	(1977)	(1940)	(1934)	(1934)

06115200 MISSOURI RIVER NEAR LANDUSKY, MT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1934 - 2004	
ANNUAL TOTAL	2,264,870		1,974,100			
ANNUAL MEAN	6,205		5,394		9,032	
HIGHEST ANNUAL MEAN					15,280	1975
LOWEST ANNUAL MEAN					4,438	1937
HIGHEST DAILY MEAN	18,000	Mar 16	10,100	May 30	136,000	Jun 6, 1953
LOWEST DAILY MEAN	3,500	Dec 31	3,400	Jan 2	1,220	Dec 13, 1936
ANNUAL SEVEN-DAY MINIMUM	3,710	Sep 5	4,030	Dec 30	1,620	Dec 9, 1936
MAXIMUM PEAK FLOW			a10,700	May 30	c137,000	Jun 3, 1953
MAXIMUM PEAK STAGE			b20.30	Mar 9	b34.17	Mar 22, 1978
INSTANTANEOUS LOW FLOW					1,120	Jul 8, 1936
ANNUAL RUNOFF (AC-FT)	4,492,000		3,916,000		6,543,000	
10 PERCENT EXCEEDS	9,560		6,530		15,900	
50 PERCENT EXCEEDS	5,500		5,200		7,250	
90 PERCENT EXCEEDS	4,000		4,300		4,400	

a--Gage height, 16.55 ft.
b--Backwater from ice.
c--Gage height, 22.20 ft, from graph based on gage readings; site and datum then in use.
e--Estimated.



06115200 MISSOURI RIVER NEAR LANDUSKY, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1979 to September 1981.
WATER TEMPERATURE: March to September 1979.
SUSPENDED-SEDIMENT DISCHARGE: October 1971 to September 1991, October 1991 to current year (seasonal records only, March through October).

REMARKS.--Daily sediment records rated good to fair. Daily sediment data not available from Nov. 1 to Mar. 15 due to ice cover. No bed sediment sample analysis for Mar. 16 due to problems with sampling equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1979-81): Maximum daily, 1,240 microsiemens per centimeter (μS/cm), June 20, 1979; minimum daily, 410 μS/cm, July 3, 1980.
WATER TEMPERATURE (water year 1979): Maximum, 24.0°C, on several days during June to August 1979; minimum, 0.5°C, on several days during March 1979.
SEDIMENT CONCENTRATION: Maximum daily mean, 27,400 mg/L, June 22, 1976; minimum daily mean, 2 mg/L, Dec. 21, 1983.
SEDIMENT LOAD: Maximum daily, 1,680,000 tons, June 22, 1976; minimum daily, 33 tons, Dec. 21, 1983.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: During seasonal period of collection, maximum daily mean, 9,900 mg/L, May 24; minimum daily mean, 62 mg/L, Sept. 9-10.

SEDIMENT LOAD: During seasonal period of collection, maximum daily, 212,000 tons, May 24; minimum daily, 635 tons, Aug. 3.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Specif. conductance, water unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Suspended sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT								
15...	1245	4,220	451	12.5	9.5	24	97	1,110
MAR								
16...	1230	6,090	630	--	5.5	68	715	11,800
APR								
29...	1300	4,810	419	4.0	12.0	56	106	1,380
JUN								
15...	1100	9,890	525	21.0	16.0	77	859	22,900
SEP								
08...	1315	4,570	487	--	17.0	44	70	864
28...	1730	4,320	490	--	15.0	51	69	805

Date	Bed sediment, percent <.063mm (80164)	Bed sediment, percent <.125mm (80165)	Bed sediment, percent <.25mm (80166)	Bed sediment, percent <.5 mm (80167)	Bed sediment, percent <1 mm (80168)	Bed sediment, percent <2 mm (80169)	Bed sediment, percent <4 mm (80170)	Bed sediment, percent <8 mm (80171)	Bed sediment, percent <16 mm (80172)
OCT									
15...	<1	2	88	96	98	99	100	--	--
MAR									
16...	--	--	--	--	--	--	--	--	--
APR									
29...	--	<1	1	50	92	98	99	100	--
JUN									
15...	1	6	20	28	37	47	67	94	100
SEP									
08...	<1	3	74	96	99	100	100	--	--
28...	<1	2	71	91	98	100	100	--	--

06115200 MISSOURI RIVER NEAR LANDUSKY, MT—Continued

SUSPENDED-SEDIMENT (SEASONAL)
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Day	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	140	1,780									---	---
2	127	1,420									---	---
3	122	1,340									---	---
4	137	1,550									---	---
5	117	1,290									---	---
6	94	1,030									---	---
7	98	1,060									---	---
8	105	1,170									---	---
9	120	1,410									---	---
10	3,800	55,900									---	---
11	2,240	24,400									---	---
12	133	1,390									---	---
13	98	992									---	---
14	118	1,250									---	---
15	108	1,240									---	---
16	68	784									725	12,200
17	98	1,290									600	9,440
18	114	1,550									654	10,800
19	109	1,540									780	12,800
20	96	1,380									499	8,190
21	84	1,100									276	4,530
22	111	1,530									241	3,920
23	122	1,730									205	3,320
24	110	1,490									216	3,520
25	99	1,460									202	3,290
26	90	1,300									192	3,080
27	84	1,130									192	3,070
28	88	1,200									178	2,810
29	145	2,330									146	2,240
30	163	1,850									148	2,300
31	198	2,460									146	2,190
TOTAL	---	121,346									---	87,700
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	159	2,400	89	1,180	731	19,300	200	3,160	60	666	125	1,690
2	171	2,600	99	1,370	670	17,400	228	3,600	57	651	83	1,050
3	183	2,820	157	2,390	598	14,800	250	3,920	56	635	90	1,100
4	195	3,020	155	2,360	465	10,800	280	4,500	57	642	111	1,430
5	206	3,290	122	1,750	321	6,540	305	4,790	61	679	106	1,330
6	211	3,380	105	1,490	387	6,880	330	5,110	73	850	116	1,450
7	200	3,230	103	1,470	490	8,680	330	5,000	88	1,100	105	1,320
8	183	2,950	113	1,620	529	9,230	300	4,500	99	1,230	77	948
9	184	2,870	122	1,780	570	11,000	265	4,050	110	1,380	62	765
10	187	2,920	131	1,920	650	13,400	225	3,220	118	1,450	62	755
11	180	2,750	118	1,680	4,880	120,000	188	2,650	123	1,520	80	1,000
12	151	2,270	100	1,440	7,180	163,000	148	2,080	126	1,540	139	1,890
13	118	1,710	135	2,130	2,180	53,300	130	1,810	126	1,580	132	1,680
14	129	1,840	263	5,080	2,050	54,100	124	1,660	120	1,420	133	1,750
15	118	1,670	272	4,960	1,070	28,100	119	1,550	107	1,290	134	1,810
16	108	1,490	225	3,880	802	19,900	114	1,500	96	1,110	121	1,620
17	100	1,400	172	2,690	595	13,600	108	1,370	89	1,050	112	1,480
18	98	1,370	142	2,130	562	11,900	101	1,220	82	963	106	1,390
19	111	1,560	124	1,860	520	10,600	94	1,120	78	891	98	1,230
20	121	1,710	123	1,900	460	8,990	88	1,030	82	941	91	1,130
21	111	1,560	131	1,970	380	7,680	82	983	110	1,310	86	1,020
22	102	1,430	146	2,230	314	6,240	80	950	222	2,780	91	1,100
23	111	1,530	1,210	22,100	390	7,480	80	948	278	3,510	92	1,160
24	100	1,330	9,990	212,000	480	9,330	80	940	230	2,890	89	1,090
25	99	1,310	3,400	71,700	450	8,410	80	944	258	3,580	90	1,100
26	84	1,100	1,940	42,500	418	7,360	79	928	350	5,540	98	1,210
27	96	1,240	940	21,400	382	6,650	79	928	280	4,300	86	1,020
28	110	1,400	862	19,600	328	5,530	74	859	232	3,560	74	865
29	117	1,510	940	23,000	232	3,750	71	840	203	3,020	66	757
30	110	1,480	1,050	28,600	190	3,070	68	791	168	2,410	64	707
31	---	---	922	24,600	---	---	64	738	142	2,010	---	---
TOTAL	---	61,140	---	514,780	---	667,020	---	67,689	---	56,498	---	36,847

06115270 ARMELLS CREEK NEAR LANDUSKY, MT

LOCATION.--Lat 47°36'38", long 108°41'41" (NAD 27), in NE¼NW¼SW¼ sec.6, T.21 N., R.24 E., Fergus County, Hydrologic Unit 10040104, on right bank at downstream side of bridge on U.S. Highway 191, 1.5 mi south of Fred Robinson Bridge, 22 mi south of Landusky, and at river mile 1.1.

DRAINAGE AREA.--397 mi^2.

PERIOD OF RECORD.--February 2000 to September 2004, (discontinued).

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,280 ft (NGVD 29).

REMARKS.--Records good except those for estimated daily discharges, which are poor. U. S.Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	e0.00	e80	2.5	0.00	13	0.59	0.00	0.00
2	0.00	0.00	0.00	0.00	e0.00	e40	2.0	0.00	7.8	0.44	0.00	0.00
3	0.00	0.00	0.00	0.00	e0.00	e30	1.9	0.00	5.1	0.29	0.00	0.00
4	0.00	0.00	0.00	0.00	e0.00	25	1.5	0.00	3.6	0.18	0.00	0.00
5	0.00	0.00	0.00	0.00	e0.00	23	1.2	0.00	2.5	0.20	0.00	0.00
6	0.00	0.00	0.00	0.00	e0.00	24	1.1	0.00	2.5	0.15	0.00	0.00
7	0.00	0.00	0.00	0.00	e0.00	35	0.91	0.00	1.8	0.08	0.00	0.00
8	0.00	0.00	0.00	0.00	e0.00	562	0.63	0.00	1.7	0.01	0.00	0.00
9	0.00	0.00	0.00	0.00	e0.00	870	0.41	0.00	1.5	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	e0.00	702	0.12	0.00	33	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	e0.00	134	0.00	0.00	697	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	e0.00	56	0.00	0.00	561	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	e0.00	77	0.00	0.00	117	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	e0.00	49	0.00	0.00	71	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	e0.00	33	0.00	0.00	38	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	e0.00	35	0.00	0.00	23	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	e0.00	39	0.00	0.00	14	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	e0.00	42	0.00	0.00	9.8	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	e0.50	48	0.00	0.00	7.8	0.00	0.00	0.00
20	0.00	0.00	0.00	e0.00	e10	33	0.00	0.00	6.1	0.00	0.00	0.00
21	0.00	0.00	0.00	e0.00	e130	18	0.00	0.00	4.8	0.00	0.00	0.00
22	0.00	0.00	0.00	e0.00	e120	13	0.00	0.01	4.0	0.00	0.00	0.00
23	0.00	0.00	0.00	e0.00	e110	11	0.00	66	3.5	0.00	0.00	0.00
24	0.00	0.00	0.00	e0.00	e100	11	0.00	396	3.1	0.00	0.00	0.00
25	0.00	0.00	0.00	e0.00	e120	14	0.00	105	2.5	0.00	0.00	0.00
26	0.00	0.00	0.00	e0.00	e180	14	0.00	39	1.8	0.00	0.00	0.00
27	0.00	0.00	0.00	e0.00	e250	11	0.00	20	1.4	0.00	0.00	0.00
28	0.00	0.00	0.00	e0.00	700	7.8	0.00	13	1.2	0.00	0.00	0.00
29	0.00	0.00	0.00	e0.00	198	5.4	0.00	43	0.89	0.00	0.00	0.00
30	0.00	0.00	0.00	e0.00	---	3.9	0.00	68	0.71	0.00	0.00	0.00
31	0.00	---	0.00	e0.00	---	3.2	---	25	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	1,918.50	3,049.3	12.27	775.01	1,641.10	1.94	0.00	0.00
MEAN	0.000	0.000	0.000	0.000	66.2	98.4	0.41	25.0	54.7	0.063	0.000	0.000
MAX	0.00	0.00	0.00	0.00	700	870	2.5	396	697	0.59	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	3.2	0.00	0.00	0.71	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	3,810	6,050	24	1,540	3,260	3.8	0.00	0.00

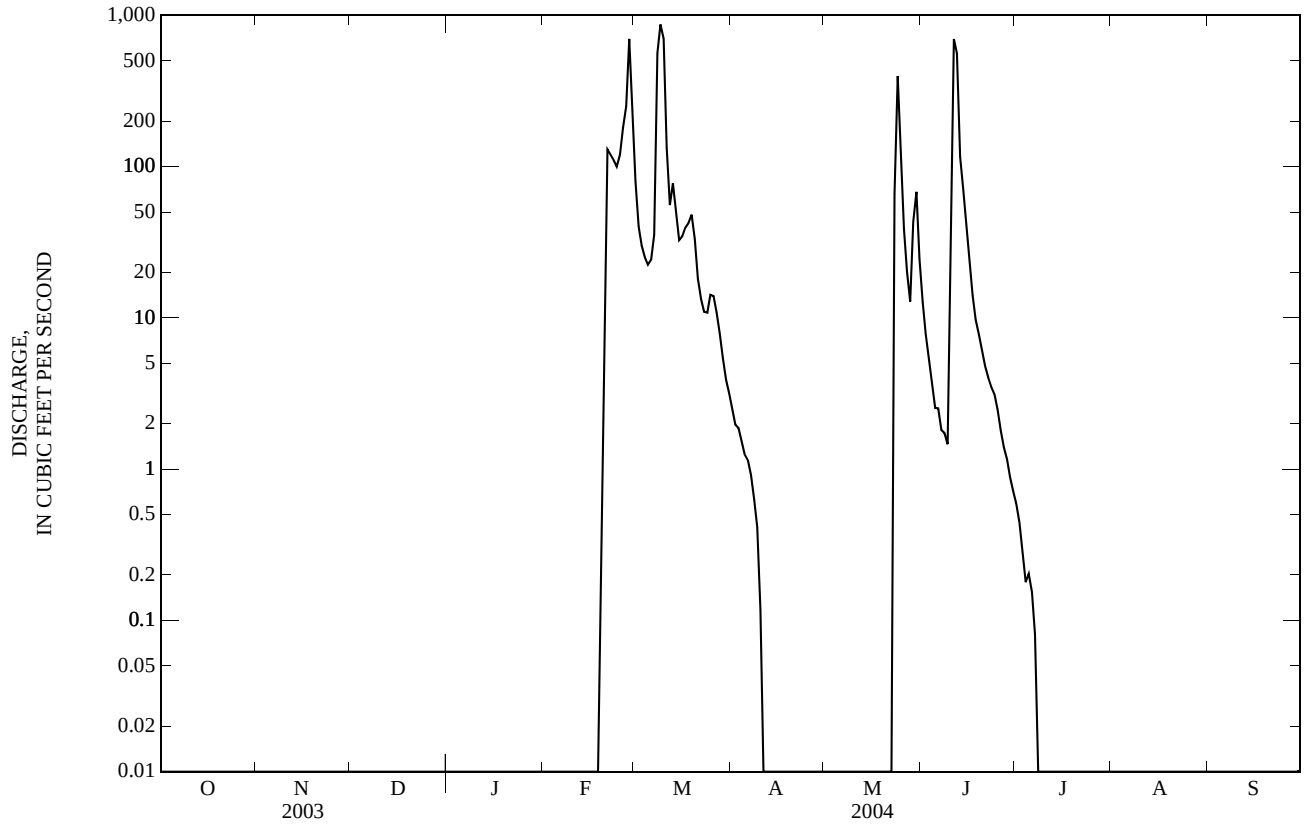
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	0.000	0.000	0.001	0.002	14.0	36.2	2.03	9.11	14.2	7.18	0.62	0.000
MAX	0.000	0.000	0.003	0.010	66.2	98.4	7.52	25.0	54.7	32.1	2.17	0.000
(WY)	(2001)	(2001)	(2003)	(2003)	(2004)	(2004)	(2003)	(2004)	(2004)	(2001)	(2002)	(2000)
MIN	0.000	0.000	0.000	0.000	0.000	0.53	0.000	0.000	0.003	0.000	0.000	0.000
(WY)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2000)	(2003)	(2000)	(2000)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	3,295.72		7,398.12			
ANNUAL MEAN	9.03		20.2		8.47	
HIGHEST ANNUAL MEAN					20.2	2004
LOWEST ANNUAL MEAN					1.05	2002
HIGHEST DAILY MEAN	1,380	Mar 14	870	Mar 9	1,380	Mar 14, 2003
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Feb 1, 2000
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Feb 1, 2000
MAXIMUM PEAK FLOW			1,440	Mar 9	a2,910	Mar 14, 2003
MAXIMUM PEAK STAGE			9.78	Mar 9	12.85	Mar 14, 2003
ANNUAL RUNOFF (AC-FT)	6,540		14,670		6,140	
10 PERCENT EXCEEDS	4.2		33		4.0	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a--On the basis of slope-area measurement of peak flow.
e--Estimated.

06115270 ARMELLS CREEK NEAR LANDUSKY, MT—Continued



06115300 DUVAL CREEK NEAR LANDUSKY, MT

LOCATION.--Lat 47°45'17", long 108°42'23" (NAD 27), in SW¼NW¼ SE¼ sec.13, T.23 N., R.23 E., Phillips County, Hydrologic Unit 10040104, at culvert on U.S. Highway 191 at milepost 98, 10.0 miles north of Fred Robinson Bridge, and 11 mi southwest of Landusky.

DRAINAGE AREA.--3.3 mi^2.

PERIOD OF RECORD.--February 2000 to September 2004 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 2,900 ft (NGVD 29), from topographic map. Prior to Jan. 19, 2000, peak flow gage only at present site and elevation.

REMARKS.--Records good except those days with flow, which are fair and those for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 660 ft^3/s, June 29, 1991, gage height, 13.83 ft, present site and elevation. Site operated as crest-stage gage from May 1963 to January 2000.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

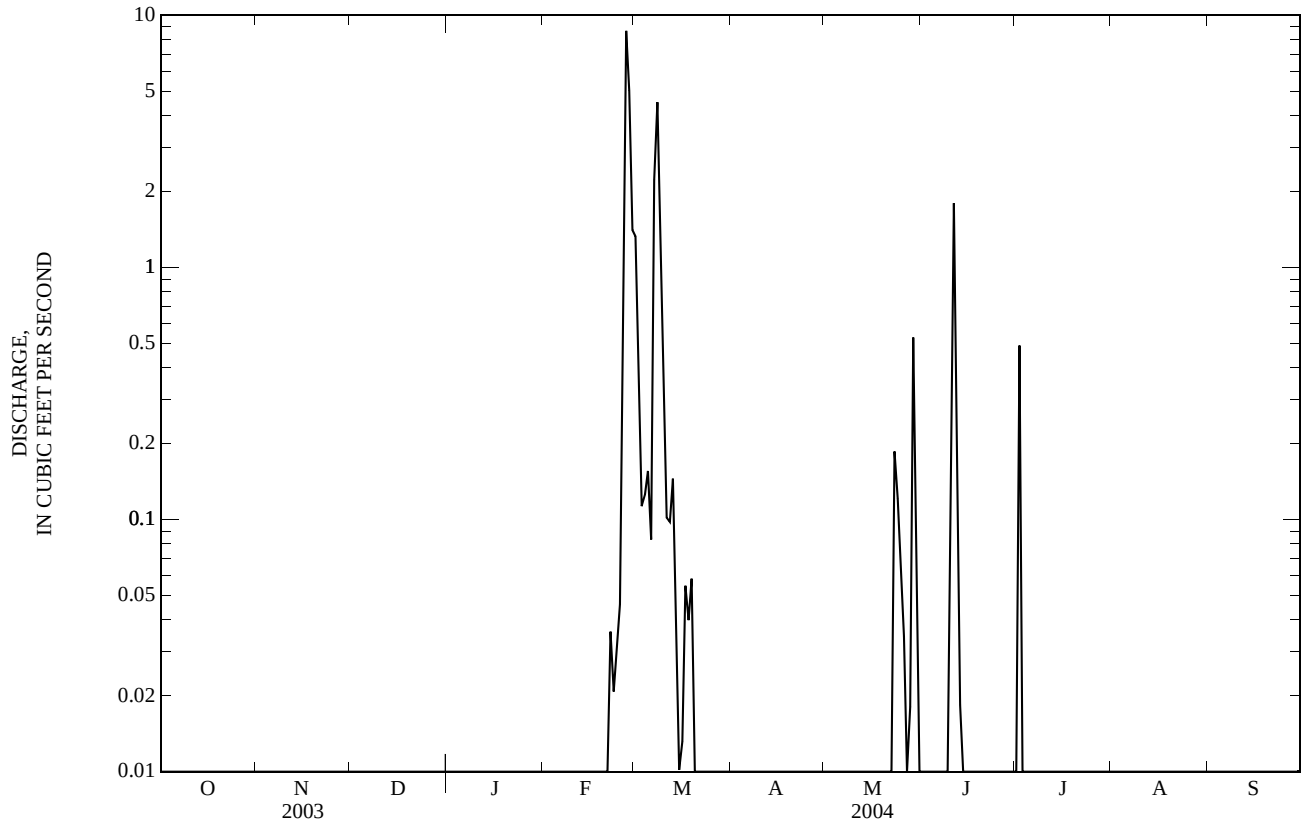
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	1.3	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.49	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.01	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	2.2	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	4.5	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	1.3	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.53	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	1.8	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.13	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.02	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.19	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.12	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.07	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.03	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	8.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	5.0	0.00	0.00	0.02	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	1.4	0.00	0.00	0.53	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.04	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	15.47	11.20	0.00	1.00	2.48	0.50	0.00	0.00
MEAN	0.000	0.000	0.000	0.000	0.53	0.36	0.000	0.032	0.083	0.016	0.000	0.000
MAX	0.00	0.00	0.00	0.00	8.7	4.5	0.00	0.53	1.8	0.49	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	31	22	0.00	2.0	4.9	1.0	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	0.000	0.000	0.000	0.000	0.16	0.43	0.000	0.007	0.057	0.13	0.11	0.000
MAX	0.000	0.000	0.000	0.000	0.53	1.78	0.000	0.032	0.17	0.63	0.56	0.000
(WY)	(2001)	(2001)	(2001)	(2001)	(2004)	(2003)	(2000)	(2004)	(2002)	(2002)	(2002)	(2000)
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	(2001)	(2001)	(2001)	(2001)	(2001)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	60.39		30.65			
ANNUAL MEAN	0.17		0.084		0.092	
HIGHEST ANNUAL MEAN					0.17	2003
LOWEST ANNUAL MEAN					0.003	2001
HIGHEST DAILY MEAN	20	Mar 14	8.7	Feb 27	20	Mar 14, 2003
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Feb 1, 2000
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Feb 1, 2000
MAXIMUM PEAK FLOW			38	Feb 27	238	Jul 8, 2002
MAXIMUM PEAK STAGE			2.85	Feb 27	6.55	Jul 8, 2002
ANNUAL RUNOFF (AC-FT)	120		61		67	
10 PERCENT EXCEEDS	0.00		0.02		0.00	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

06115300 DUVAL CREEK NEAR LANDUSKY, MT—Continued



06115350 ROCK CREEK NEAR LANDUSKY, MT

LOCATION.--Lat 47°42'17", long 108°32'49" (NAD 27), in NW¼NW¼ NW¼ sec.5, T.22 N., R.25 E., Phillips County, Hydrologic Unit 10040104, on left bank at Charles M. Russell National Wildlife Refuge boundary and 14 mi southeast of Landusky.

DRAINAGE AREA.--72.9 mi^2.

PERIOD OF RECORD.--November 1999 to September 2004 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 2,670 ft (NGVD 29), from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	e1.0	e0.60	e0.50	e6.0	1.8	0.05	0.17	0.00	e0.00	e0.00
2	0.00	0.00	e1.0	e0.50	e0.50	e4.0	1.9	0.04	0.00	0.00	e0.00	e0.00
3	0.00	0.00	e1.0	e0.40	e0.60	e2.0	2.1	0.00	0.00	0.25	e0.00	0.00
4	0.00	0.00	e1.0	e0.40	e0.70	e4.0	2.1	0.06	0.00	0.00	e0.00	0.00
5	0.00	0.00	e1.0	e0.30	e0.90	e6.0	2.0	0.06	0.00	0.00	e0.00	0.00
6	0.00	0.00	e1.0	e0.40	e1.0	e4.0	2.1	0.01	0.00	0.00	e0.00	0.00
7	0.00	0.00	e1.0	e0.50	e1.0	e15	1.6	0.00	0.00	0.00	e0.00	0.00
8	0.00	0.00	e1.0	e0.60	e1.0	e40	1.7	0.00	0.00	0.00	e0.00	0.00
9	0.00	0.00	e1.0	e0.70	e1.0	e15	1.6	0.00	0.00	0.00	e0.00	0.00
10	0.00	0.00	e0.90	e0.80	e1.0	e10	1.4	0.00	0.00	0.23	e0.00	0.00
11	0.00	0.00	e0.90	e1.0	e1.0	e8.0	1.2	0.08	1.7	0.00	e0.00	0.00
12	0.00	0.00	e0.80	e1.0	e1.0	e6.0	1.4	0.31	1.6	0.00	e0.00	0.00
13	0.00	e0.50	e0.90	e1.0	e1.0	e6.0	1.3	0.39	1.6	0.00	e0.00	0.00
14	0.00	e1.0	e1.0	e1.0	e1.0	e5.0	1.3	0.33	0.71	0.00	e0.00	0.00
15	0.00	e1.0	e1.0	e1.0	e1.0	e5.0	1.2	0.24	0.06	0.00	e0.00	0.00
16	0.00	e1.0	e1.0	e1.0	e1.0	e5.0	1.2	0.11	0.00	0.00	e0.00	0.00
17	0.00	e1.0	e1.0	e1.0	e1.5	4.0	1.2	0.00	0.00	0.00	e0.00	0.00
18	0.00	e1.0	e1.0	e1.0	e2.0	4.0	1.2	0.01	0.00	0.00	e0.00	0.00
19	0.00	e1.0	e1.0	e1.0	e1.5	3.5	1.1	0.05	0.00	e0.00	e0.00	0.00
20	0.00	e1.0	e1.0	e1.0	e1.5	3.1	1.1	0.08	0.00	e0.00	e0.00	0.00
21	0.00	e0.80	e1.0	e1.0	e1.5	2.9	0.89	0.47	0.00	e0.00	e0.00	0.00
22	0.00	e0.70	e1.0	e1.0	e2.0	2.8	0.69	0.99	0.00	e0.00	e0.00	0.00
23	0.00	e0.60	e1.0	e1.0	e2.0	2.8	0.59	2.1	0.00	e0.00	e0.00	0.00
24	0.00	e0.80	e1.0	e0.80	e2.0	2.7	0.41	2.7	0.00	e0.00	e0.00	0.00
25	0.00	e1.0	e0.90	e0.60	e2.0	2.5	0.15	2.0	0.00	e0.00	e0.00	0.00
26	0.00	e1.0	e0.70	e0.50	e4.0	2.4	0.08	1.3	0.00	e0.00	e0.00	0.00
27	0.00	e1.0	e0.60	e0.50	e20	2.1	0.08	1.0	0.00	e0.00	e0.00	0.00
28	0.00	e1.0	e0.60	e0.50	e60	1.8	0.08	1.1	0.00	e0.00	e0.00	0.00
29	0.00	e1.0	e0.50	e0.50	e10	1.6	0.03	1.8	0.00	e0.00	e0.00	0.00
30	0.00	e1.0	e0.50	e0.70	---	1.7	0.02	0.83	0.00	e0.00	e0.00	0.00
31	0.00	---	e0.50	e0.50	---	1.7	---	0.53	---	e0.00	e0.00	---
TOTAL	0.00	16.40	27.80	22.80	124.20	180.6	33.52	16.64	5.84	0.48	0.00	0.00
MEAN	0.000	0.55	0.90	0.74	4.28	5.83	1.12	0.54	0.19	0.015	0.000	0.000
MAX	0.00	1.0	1.0	1.0	60	40	2.1	2.7	1.7	0.25	0.00	0.00
MIN	0.00	0.00	0.50	0.30	0.50	1.6	0.02	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	33	55	45	246	358	66	33	12	1.0	0.00	0.00

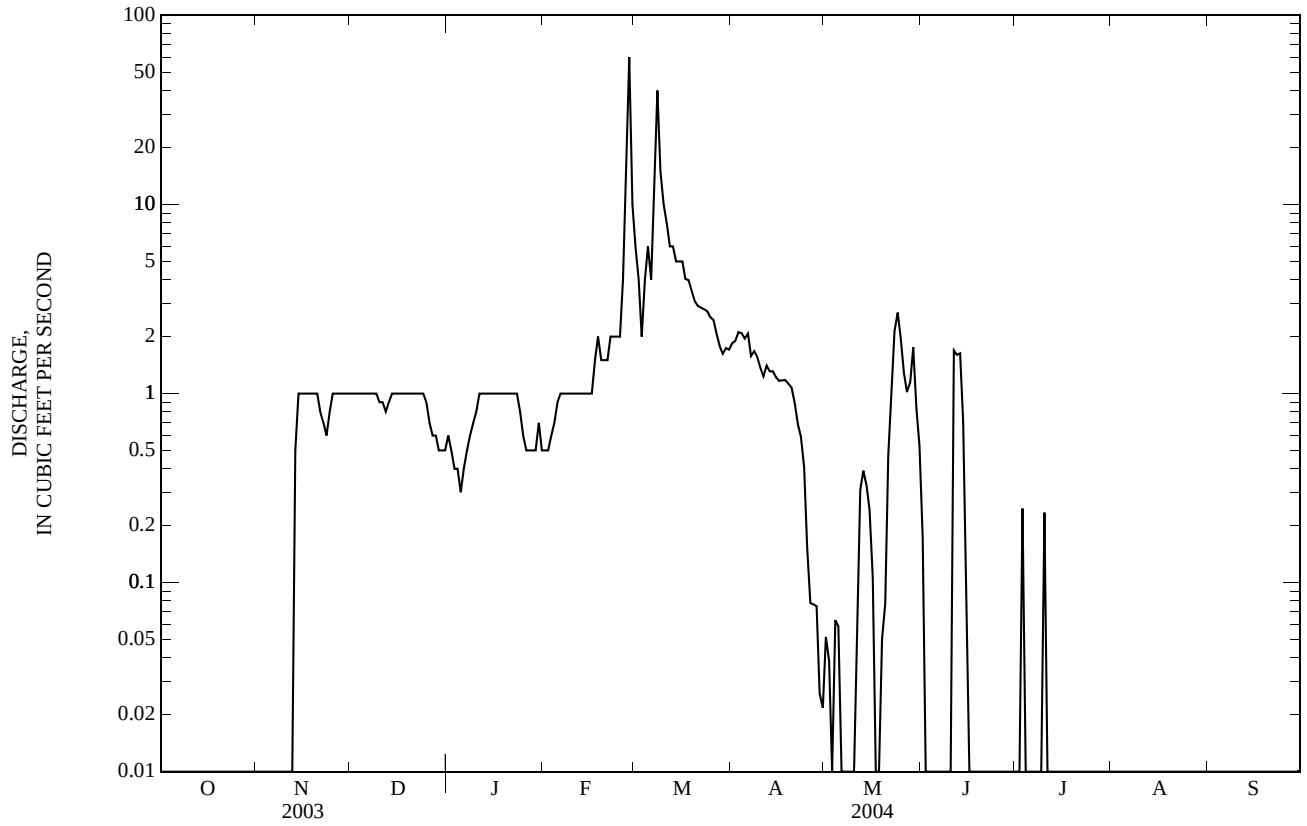
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	0.39	1.20	1.10	1.01	2.05	13.4	2.66	1.57	1.25	4.22	0.20	0.000
MAX	1.43	2.78	2.45	1.97	4.28	51.9	3.38	3.27	3.52	13.6	0.79	0.000
(WY)	(2003)	(2000)	(2003)	(2000)	(2004)	(2003)	(2000)	(2003)	(2002)	(2000)	(2002)	(2000)
MIN	0.000	0.000	0.000	0.000	0.66	0.90	1.12	0.48	0.19	0.000	0.000	0.000
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2004)	(2001)	(2004)	(2003)	(2003)	(2000)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	1,968.68		428.28			
ANNUAL MEAN	5.39		1.17		2.36	
HIGHEST ANNUAL MEAN					5.82	2003
LOWEST ANNUAL MEAN					1.00	2001
HIGHEST DAILY MEAN	567	Mar 14	60	Feb 28	567	Mar 14, 2003
LOWEST DAILY MEAN	0.00	Jun 17	0.00	Oct 1	0.00	Jun 19, 2000
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 17	0.00	Oct 1	0.00	Jun 19, 2000
MAXIMUM PEAK FLOW			unknown		a1,660	Jul 8, 2000
MAXIMUM PEAK STAGE					6.99	Jul 8, 2000
ANNUAL RUNOFF (AC-FT)	3,900		849		1,710	
10 PERCENT EXCEEDS	3.4		2.0		3.0	
50 PERCENT EXCEEDS	0.94		0.25		0.43	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a--On the basis of slope-area measurement of peak flow.
e--Estimated.

06115350 ROCK CREEK NEAR LANDUSKY, MT—Continued



06119600 MUSSELSHELL RIVER NEAR MARTINSDALE, MT

LOCATION.--Lat 46°28'37", long 110°14'54" (NAD 27), in SW¼SW¼SE¼ sec. 5, T.8N., R.12E., Wheatland County, Hydrologic Unit 10040201, on right bank at private road bridge, 1.7 mi downstream from confluence of North and South Forks, 3.2 mi northeast of Martinsdale, and at river mile 362.5.

DRAINAGE AREA.--538 mi^2.

PERIOD OF RECORD.--April 2003 to current year (seasonal records only).

GAGE.--Water-stage recorder. Elevation of gage is 4,660 ft (NGVD 29) .

REMARKS.-Seasonal records good. Some regulation by Bair and Martinsdale Reservoirs. Diversions for irrigation of about 21,900 acres upstream from station of which about 21,400 acres are flood irrigated. U. S. Geological Survey satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

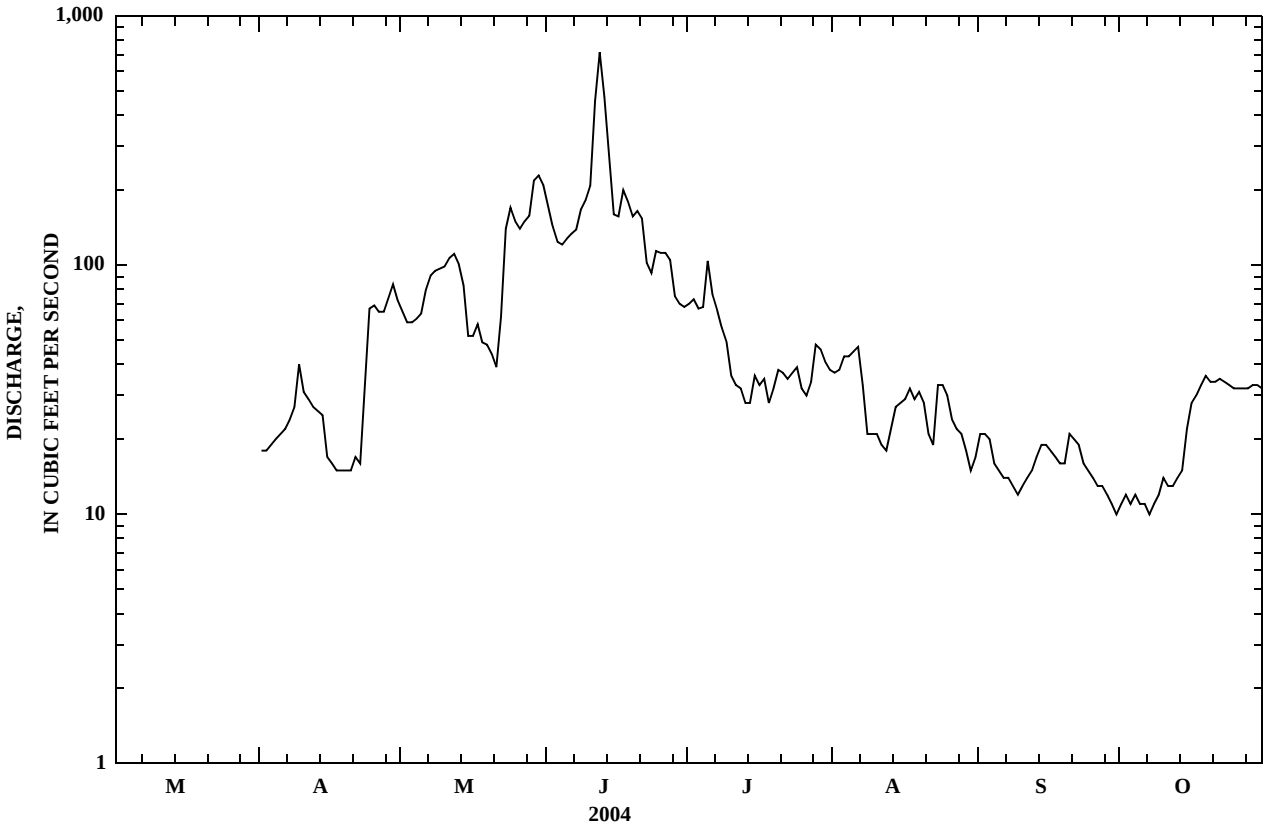
DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				18	65	172	70	37	21	11		
2				18	59	143	73	38	21	12		
3				19	59	124	67	43	20	11		
4				20	61	121	68	43	16	12		
5				21	64	128	104	45	15	11		
6				22	80	134	76	47	14	11		
7				24	91	139	66	33	14	10		
8				27	95	168	56	21	13	11		
9				40	97	183	49	21	12	12		
10				31	99	209	36	21	13	14		
11				29	107	457	33	19	14	13		
12				27	111	715	32	18	15	13		
13				26	101	475	28	22	17	14		
14				25	83	262	28	27	19	15		
15				17	52	160	36	28	19	22		
16				16	52	157	33	29	18	28		
17				15	58	200	35	32	17	30		
18				15	49	180	28	29	16	33		
19				15	48	157	32	31	16	36		
20				15	44	165	38	28	21	34		
21				17	39	154	37	21	20	34		
22				16	62	102	35	19	19	35		
23				34	140	93	37	33	16	34		
24				67	170	114	39	33	15	33		
25				69	150	112	32	30	14	32		
26				65	140	112	30	24	13	32		
27				65	150	105	34	22	13	32		
28				74	158	75	48	21	12	32		
29				84	219	70	46	18	11	33		
30				72	229	68	41	15	10	33		
31				---	209	---	38	17	---	32		
TOTAL				1,003	3,141	5,454	1,405	865	474	715		
MEAN				33.4	101	182	45.3	27.9	15.8	23.1		
MAX				84	229	715	104	47	21	36		
MIN				15	39	68	28	15	10	10		
AC-FT				1,990	6,230	10,820	2,790	1,720	940	1,420		

STATISTICS OF MONTHLY MEAN DATA FOR 2003 - 2004 SEASONS*

MEAN	68.3	147	142	46.6	22.3	15.0	21.1
MAX	103	194	182	47.9	27.9	15.8	23.1
(WY)	(2003)	(2003)	(2004)	(2003)	(2004)	(2004)	(2005)
MIN	33.4	101	103	45.3	16.6	14.3	19.2
(WY)	(2004)	(2004)	(2003)	(2004)	(2003)	(2003)	(2004)

SUMMARY STATISTICS	FOR 2004 SEASON		SEASONS 2003 - 2004*	
HIGHEST DAILY MEAN	715	Jun 12	715	Jun 12, 2004
LOWEST DAILY MEAN	10	Sep 30	7.1	Sep 7, 2003
MAXIMUM PEAK FLOW	810	Jun 12	810	Jun 12, 2004
MAXIMUM PEAK STAGE	4.35	Jun 12	4.35	Jun 12, 2004
INSTANTANEOUS LOW FLOW			6.4	Sep 3, 2003

06119600 MUSSELSHELL RIVER NEAR MARTINSDALE, MT—Continued



06120500 MUSSELSHELL RIVER AT HARLOWTON, MT

LOCATION.--Lat 46°25'48", long 109°50'24" (NAD 27), in SW¼NW¼ NW¼ sec.27, T.8 N., R.15 E., Wheatland County, Hydrologic Unit 10040201, on right bank at downstream of bridge on U.S. Highway 191, 1.0 mi southwest of Harlowton, 9.6 mi upstream from American Fork, and at river mile 327.8.

DRAINAGE AREA.--1,125 mi^2.

PERIOD OF RECORD.--July 1907 to November 1929, March 1930 to December 1932, April to August 1933, February 1934 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1912, 1915(M), 1918, 1925. WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,171.46 ft (NGVD 29) (levels by Morrison and Maierle, Inc.). Prior to Dec. 8, 1937, nonrecording gages at site 1.2 mi downstream at different elevations. Dec. 8, 1937 to Aug. 26, 1955, nonrecording gage at previous bridge 50 ft downstream at elevation 2.0 ft higher. Aug. 27, 1955 to Apr. 9, 2003, water-stage recorder 350 ft downstream at same elevation.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation by Bair and Martinsdale Reservoirs. Diversions for irrigation of about 21,900 acres upstream from station of which about 21,400 acres are flood irrigated. U. S. Geological Survey satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	e35	60	e45	e55	e40	28	78	181	101	31	7.9
2	17	e40	43	e35	e50	e38	25	71	155	106	28	6.7
3	14	44	36	e25	e47	e33	25	64	131	100	30	9.5
4	14	e43	e30	e25	e45	e35	26	59	122	93	31	11
5	16	e42	e30	e27	e48	e35	26	61	117	109	30	12
6	16	e43	e35	e30	e48	e37	24	68	117	134	37	11
7	16	e46	e38	e40	e50	41	23	83	119	103	49	10
8	14	e48	e40	e45	e50	46	21	82	131	80	35	9.6
9	11	e50	e40	e47	e50	54	23	74	172	67	26	8.8
10	10	e52	e38	e45	e50	51	19	85	201	62	32	8.9
11	12	52	e35	e43	e45	47	18	111	312	50	32	9.4
12	14	52	e40	e43	e40	44	12	111	551	52	29	11
13	14	61	e50	e45	e42	43	11	99	604	51	34	14
14	16	54	57	e47	e45	43	13	90	386	50	33	17
15	19	47	59	e47	e50	39	16	71	230	50	32	19
16	25	53	61	e47	e50	38	14	49	160	48	31	21
17	26	52	74	e45	e52	41	12	53	194	41	29	21
18	25	43	74	e43	e55	44	11	56	236	40	24	19
19	24	61	72	e45	e55	43	9.9	60	218	42	24	21
20	23	53	69	e45	e52	45	11	55	214	42	23	25
21	23	46	64	e45	e50	42	11	52	225	43	22	30
22	24	e45	63	e45	e48	36	11	61	176	41	20	31
23	24	e47	62	e45	e45	35	14	98	148	39	19	28
24	24	e50	60	e40	e47	34	30	142	148	44	22	26
25	23	e52	58	e35	e50	34	65	146	152	46	29	23
26	25	e52	54	e32	e48	33	69	132	156	38	36	21
27	25	e54	50	e30	e45	32	67	128	152	30	36	21
28	23	e56	e47	e35	e42	30	68	126	133	31	30	21
29	31	e58	e45	e40	e40	30	77	152	103	41	20	21
30	33	59	e43	e50	---	29	84	196	105	39	17	21
31	e30	---	e45	e60	---	29	---	191	---	32	11	---
TOTAL	631	1,490	1,572	1,271	1,394	1,201	863.9	2,904	6,049	1,845	882	515.8
MEAN	20.4	49.7	50.7	41.0	48.1	38.7	28.8	93.7	202	59.5	28.5	17.2
MAX	33	61	74	60	55	54	84	196	604	134	49	31
MIN	10	35	30	25	40	29	9.9	49	103	30	11	6.7
AC-FT	1,250	2,960	3,120	2,520	2,760	2,380	1,710	5,760	12,000	3,660	1,750	1,020

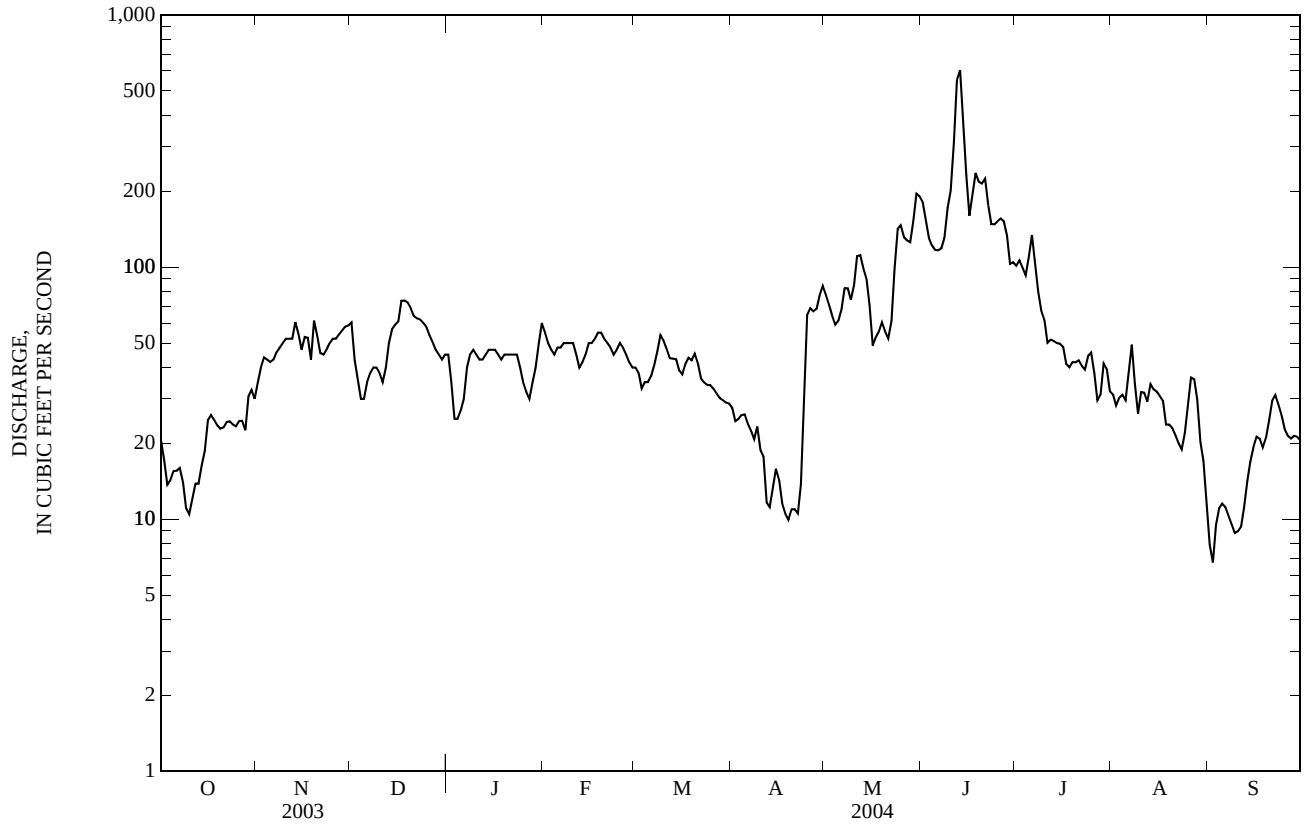
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 2004, BY WATER YEAR (WY)*

MEAN	73.2	77.4	67.0	58.6	65.3	112	174	401	500	160	74.9	62.4
MAX	226	176	206	250	190	500	632	1,957	2,467	751	292	290
(WY)	(1919)	(1942)	(1976)	(1918)	(1996)	(1918)	(1943)	(1917)	(1917)	(1975)	(1993)	(1993)
MIN	0.00	0.00	0.00	0.00	10.0	20.4	22.1	11.8	27.9	0.84	0.00	0.00
(WY)	(1932)	(1932)	(1932)	(1932)	(1936)	(1935)	(1931)	(1931)	(1930)	(1936)	(1931)	(1931)

06120500 MUSSELSHELL RIVER AT HARLOWTON, MT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1907 - 2004*	
ANNUAL TOTAL	25,135.3		20,618.7			
ANNUAL MEAN	68.9		56.3		154	
HIGHEST ANNUAL MEAN					483	1917
LOWEST ANNUAL MEAN					21.1	1935
HIGHEST DAILY MEAN	400	Apr 27	604	Jun 13	6,200	Jun 20, 1975
LOWEST DAILY MEAN	1.9	Sep 8	6.7	Sep 2	0.00	Aug 4, 1910
ANNUAL SEVEN-DAY MINIMUM	3.6	Sep 5	9.7	Sep 1	0.00	Aug 4, 1910
MAXIMUM PEAK FLOW			694	Jun 13	7,270	Jun 20, 1975
MAXIMUM PEAK STAGE			4.57	Jun 13	b10.01	Jun 20, 1975
INSTANTANEOUS LOW FLOW			a6.2	Sep 1	0.01	Aug 29, 2001
ANNUAL RUNOFF (AC-FT)	49,860		40,900		111,600	
10 PERCENT EXCEEDS	156		117		354	
50 PERCENT EXCEEDS	43		43		75	
90 PERCENT EXCEEDS	16		16		25	

*--During periods of operation (July 1907 to November 1929, March 1930 to December 1932, April to August 1933, February 1934 to current year).
a--Gage height, 2.42 ft.
b--Previous site and same datum.
e--Estimated.



06123030 MUSSELSHELL RIVER ABOVE MUD CREEK, NEAR SHAWMUT, MT

LOCATION.--Lat 46°19'07", long 109°27'35" (NAD 27), in NE¼SW¼SW¼ sec.34, T.7 N., R.18 E., Wheatland County, Hydrologic Unit 10040201, on left bank at private road bridge, 14.1 mi downstream from diversion to Deadmans Basin Reservoir, 3.5 mi southeast of Shawmut, 3.7 mi west of Barber, and at river mile 294.8.

DRAINAGE AREA.--1,513 mi^2.

PERIOD OF RECORD.--June 1998 to current season (seasonal records only).

REVISED RECORDS.--WDR MT-03-1: 2002-02 (M).

GAGE.--Water-stage recorder. Elevation of gage is 3,780 ft (NGVD 29).

REMARKS.--Seasonal records good. Diversions for irrigation of about 27,000 acres upstream from station. U.S. Geological Survey satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

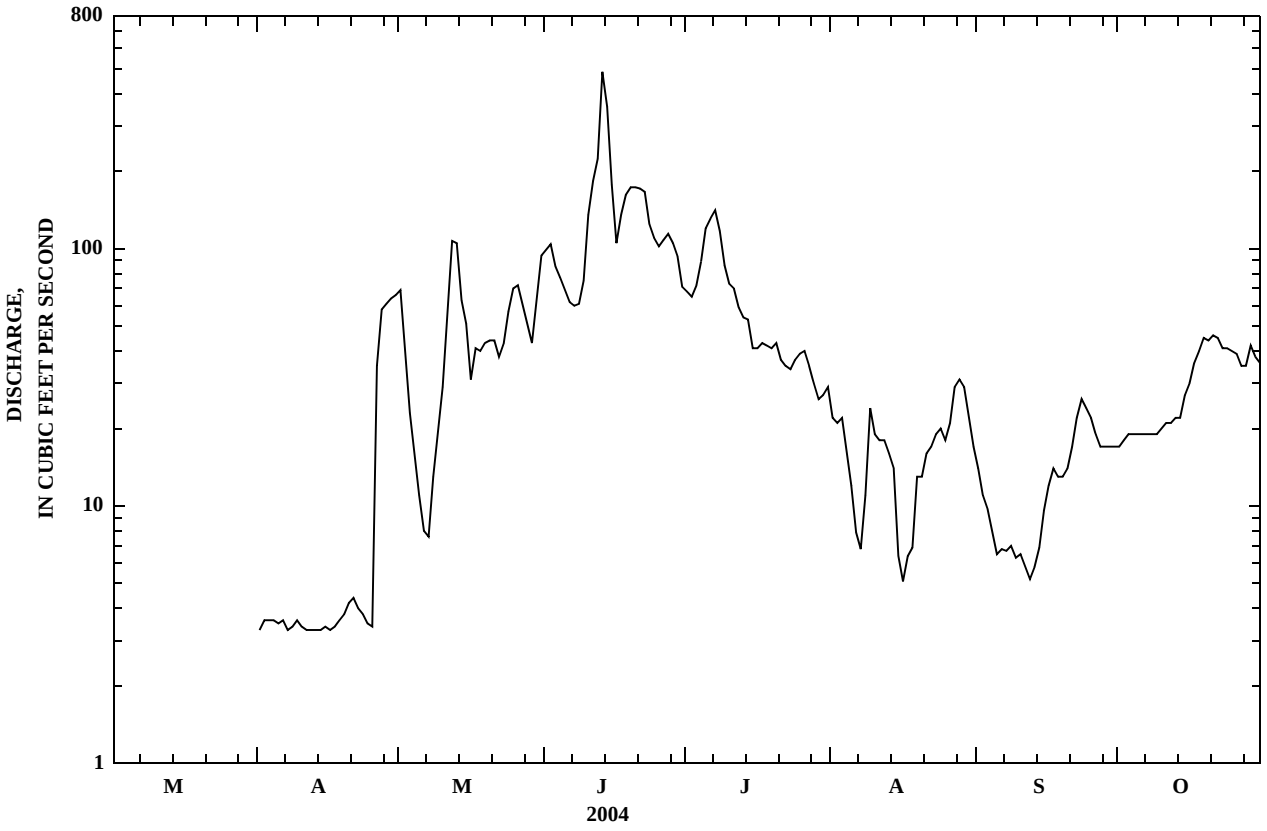
DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				3.3	69	99	68	22	14	17		
2				3.6	40	104	65	21	11	18		
3				3.6	23	85	72	22	9.7	19		
4				3.6	16	77	89	16	7.9	19		
5				3.5	11	69	120	12	6.5	19		
6				3.6	8.0	62	131	7.9	6.8	19		
7				3.3	7.6	60	141	6.8	6.7	19		
8				3.4	13	61	117	11	7.0	19		
9				3.6	20	75	86	24	6.3	19		
10				3.4	29	135	73	19	6.5	20		
11				3.3	61	183	70	18	5.8	21		
12				3.3	107	223	59	18	5.2	21		
13				3.3	105	486	54	16	5.8	22		
14				3.3	63	355	53	14	6.9	22		
15				3.4	51	177	41	6.4	9.6	27		
16				3.3	31	105	41	5.1	12	30		
17				3.4	41	136	43	6.4	14	36		
18				3.6	40	162	42	6.9	13	40		
19				3.8	43	173	41	13	13	45		
20				4.2	44	173	43	13	14	44		
21				4.4	44	171	37	16	17	46		
22				4.0	38	166	35	17	22	45		
23				3.8	43	124	34	19	26	41		
24				3.5	57	110	37	20	24	41		
25				3.4	70	102	39	18	22	40		
26				35	72	108	40	21	19	39		
27				58	61	114	35	29	17	35		
28				61	51	105	30	31	17	35		
29				64	43	93	26	29	17	42		
30				66	62	71	27	22	17	38		
31				---	94	---	29	17	---	36		
TOTAL				372.9	1,457.6	4,164	1,818	517.5	379.7	934		
MEAN				12.4	47.0	139	58.6	16.7	12.7	30.1		
MAX				66	107	486	141	31	26	46		
MIN				3.3	7.6	60	26	5.1	5.2	17		
AC-FT				740	2,890	8,260	3,610	1,030	753	1,850		

STATISTICS OF MONTHLY MEAN DATA FOR SEASONS 1998 - 2004

MEAN	23.6	55.6	128	61.2	26.4	23.9	27.6
MAX	57.6	121	279	201	97.8	70.8	65.4
(WY)	(2003)	(2003)	(1998)	(1998)	(1998)	(1998)	(1999)
MIN	3.91	8.96	14.4	9.88	1.68	1.38	3.48
(WY)	(2002)	(2001)	(2000)	(2000)	(2000)	(2000)	(2002)

SUMMARY STATISTICS	FOR 2004 SEASON		SEASONS 1998 - 2004	
HIGHEST DAILY MEAN	486	Jun 13	661	Jun 22, 1998
LOWEST DAILY MEAN	3.3	Apr 1	0.18	Sep 28, 2001
MAXIMUM PEAK FLOW	512	Jun 13	672	Jun 22, 1998
MAXIMUM PEAK STAGE	4.18	Jun 13	4.57	Jun 22, 1998

06123030 MUSSELSHELL RIVER ABOVE MUD CREEK, NEAR SHAWMUT, MT—Continued



06126050 MUSSELSHELL RIVER NEAR LAVINA, MT

LOCATION.--Lat 46°17'34", long 108°53'31" (NAD 27), in SW¼SW¼SE¼ sec. 6, T.6 N., R.23 E., Golden Valley County, Hydrologic Unit 10040201, on left bank, at private bridge 2.2 mi east of Lavina, 4.4 mi downstream from Big Coulee Creek, and at river mile 245.7.

DRAINAGE AREA.--2,970 mi^2.

PERIOD OF RECORD.--April 1992 to current year (seasonal record only).

GAGE.--Water-stage recorder. Elevation of gage is 3,400 ft (NGVD 29).

REMARKS.--Seasonal records fair except those for estimated daily discharges, which are poor. Some regulation by Bair (station number 06116500), Martinsdale (station number 06119000), and Deadman's Basin (station number 06122500) Reservoirs. Diversions for irrigation of about 31,900 acres upstream from station, of which about 29,700 acres is flood irrigated. Several observations of water temperature and specific conductance were made during the year. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				1.3	33	88	89	e25	13	11		
2				1.7	36	80	79	e25	15	13		
3				2.0	21	72	64	e25	11	14		
4				2.1	9.5	e60	e60	e20	8.7	12		
5				2.6	24	e50	e70	e20	7.1	11		
6				2.4	119	e45	e100	e20	5.2	11		
7				2.9	172	e40	e120	20	4.2	11		
8				2.5	191	40	e120	25	3.3	12		
9				2.3	187	43	e110	24	2.3	13		
10				1.6	182	120	e85	20	1.7	15		
11				1.5	194	227	e75	19	1.00	16		
12				1.4	186	192	e50	14	0.73	18		
13				1.0	194	251	e40	14	0.55	17		
14				0.68	177	409	e35	31	0.41	18		
15				0.59	172	262	e30	30	0.36	26		
16				0.45	200	151	e25	27	0.26	26		
17				0.59	201	107	e35	23	0.27	25		
18				0.88	200	130	e40	21	0.19	31		
19				1.9	190	157	e60	19	0.22	37		
20				2.3	152	158	e50	18	4.1	41		
21				2.0	118	161	e50	17	6.2	43		
22				0.86	106	160	e50	14	7.2	43		
23				1.3	111	155	e40	8.9	9.6	45		
24				1.00	91	127	e35	10	14	44		
25				0.79	60	112	e25	10	17	43		
26				0.65	58	e100	e35	11	16	43		
27				0.48	48	e80	e35	11	15	42		
28				4.0	45	e90	e35	11	14	41		
29				42	37	106	e30	17	13	55		
30				46	33	100	e30	18	11	57		
31				---	56	---	e25	17	---	50		
TOTAL				131.77	3,603.5	3,873	1,727	584.9	202.59	884		
MEAN				4.39	116	129	55.7	18.9	6.75	28.5		
MAX				46	201	409	120	31	17	57		
MIN				0.45	9.5	40	25	8.9	0.19	11		
AC-FT				261	7,150	7,680	3,430	1,160	402	1,750		

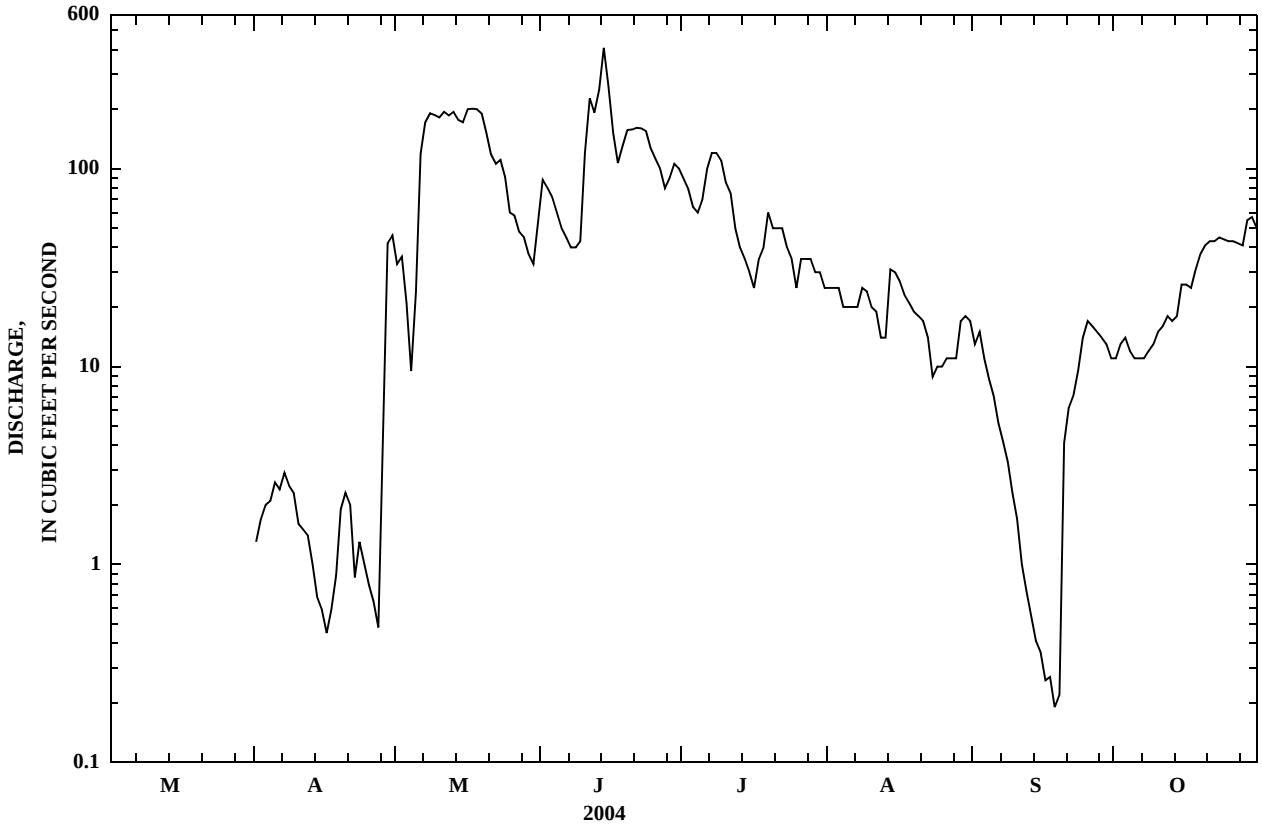
STATISTICS OF MONTHLY MEAN DATA FOR SEASONS 1992 - 2004

MEAN	101	293	495	295	173	123	81.6
MAX	466	919	2,733	1,061	507	525	335
(WY)	(1996)	(1997)	(1997)	(1997)	(1993)	(1993)	(1994)
MIN	4.39	36.7	67.8	35.8	3.00	2.22	0.87
(WY)	(2004)	(2002)	(2001)	(2002)	(2002)	(2000)	(2002)

SUMMARY STATISTICS	FOR 2004 SEASON		SEASONS 1992 - 2004	
HIGHEST DAILY MEAN	409	Jun 14	5,850	Jun 14 1997
LOWEST DAILY MEAN	0.19	Sep 18	0.00	Sep 26 ,001
MAXIMUM PEAK FLOW	427	Jun 14	6,220	Jun 14 1997
MAXIMUM PEAK STAGE	3.86	Jun 14	11.13	Jun 14 1997

e--Estimated.

06126050 MUSSELSHELL RIVER NEAR LAVINA, MT—Continued



06126500 MUSSELSHELL RIVER NEAR ROUNDUP, MT

LOCATION.--Lat 46°25'41", long 108°34'19" (NAD 27), in NW¼SE¼SE¼ sec. 22, T.8 N., R.25 E., Musselshell County, Hydrologic Unit 10040202, on left bank 20 ft downstream from Halfbreed Creek, 0.1 mi upstream from bridge on U.S. Highway 87, 2.0 mi southwest of Roundup, and at river mile 211.6.
DRAINAGE AREA.--4,023 mi^2.

PERIOD OF RECORD.--May 1946 to current year. Monthly discharge only from October 1947 to September 1949, published in WSP 1309.

REVISED RECORDS.--WSP 1086: 1946. WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,188.15 ft (NGVD 29) (levels by U.S. Army Corps of Engineers). Prior to Sept. 26, 1949, nonrecording gage at present site and elevation.

REMARKS.--Records good except those for estimated daily discharge, which are poor. Some regulation by Bair (station number 06116500), Martinsdale (station number 06119000) and Deadmans Basin (station number 06122500) Reservoirs. Diversions for irrigation of about 39,100 acres upstream from station, of which about 35,900 acres are flood irrigated. Several observations of water temperature and specific conductance were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	e65	e9.0	e10	e9.0	e9.0	1.8	39	35	73	13	12
2	6.6	e60	e9.0	e10	e9.0	e11	1.9	31	54	55	14	11
3	7.2	e55	e10	e9.0	e10	e12	2.0	33	49	44	15	13
4	7.1	e50	e9.0	e8.0	e10	e13	1.6	23	43	38	8.4	10
5	6.7	e45	e8.0	e5.0	e10	e15	1.6	14	33	52	9.7	7.8
6	6.9	e40	e9.0	e5.0	e10	e18	1.7	23	27	77	8.3	6.3
7	6.0	e40	e9.0	e7.0	e11	e24	1.6	127	29	88	12	5.1
8	8.1	e37	e9.0	e7.0	e12	e28	1.6	179	32	104	13	4.0
9	8.9	e37	e9.0	e8.0	e12	e25	1.6	175	31	96	16	3.2
10	9.6	e35	e8.0	e9.0	e10	e28	1.5	160	43	78	16	2.7
11	9.2	e30	e9.0	e9.0	e10	28	1.5	165	161	56	14	2.4
12	12	e28	e8.0	e10	e9.0	32	1.5	172	130	41	12	2.2
13	16	e25	e9.0	e10	e10	28	1.4	153	118	35	10	2.0
14	20	e22	e9.0	e11	e10	23	1.4	158	260	30	9.0	1.9
15	25	e20	e9.0	e11	e10	21	1.4	136	271	22	15	1.6
16	28	e17	e9.0	e10	e10	17	1.4	159	116	19	22	1.3
17	29	e14	e9.0	e10	e10	15	1.4	181	63	29	21	1.0
18	32	e12	e9.0	e10	e12	9.0	1.5	176	36	32	19	0.82
19	37	e15	e10	e10	e12	7.9	1.4	170	55	50	17	0.71
20	47	e10	e10	e10	e10	5.8	1.6	155	76	44	16	0.72
21	53	e9.0	e10	e10	e10	3.8	1.4	109	77	44	13	0.59
22	52	e8.0	e10	e12	e10	3.1	1.4	92	70	44	12	0.56
23	64	e9.0	e10	e14	e10	3.0	1.3	99	68	37	12	0.54
24	62	e9.0	e11	e11	e10	2.7	1.2	92	66	29	9.2	0.48
25	63	e9.0	e11	e10	e10	2.0	1.2	62	60	21	6.9	0.38
26	68	e9.0	e12	e8.0	e10	2.0	1.2	46	51	27	6.8	4.0
27	66	e9.0	e10	e7.0	e10	1.9	0.97	24	40	29	7.4	12
28	71	e9.0	e9.0	e7.0	e9.0	2.0	1.4	9.4	54	28	7.1	12
29	77	e9.0	e8.0	e8.0	e8.0	1.9	1.3	8.7	64	24	7.0	12
30	75	e9.0	e9.0	e9.0	---	1.8	11	20	74	20	7.1	11
31	75	---	e10	e10	---	1.6	---	21	---	15	12	---
TOTAL	1,054.5	746.0	290.0	285.0	293.0	395.5	53.77	3,012.1	2,286	1,381	380.9	143.30
MEAN	34.0	24.9	9.35	9.19	10.1	12.8	1.79	97.2	76.2	44.5	12.3	4.78
MAX	77	65	12	14	12	32	11	181	271	104	22	13
MIN	6.0	8.0	8.0	5.0	8.0	1.6	0.97	8.7	27	15	6.8	0.38
MED	28	18	9.0	10	10	11	1.5	99	57	38	12	2.6
AC-FT	2,090	1,480	575	565	581	784	107	5,970	4,530	2,740	756	284

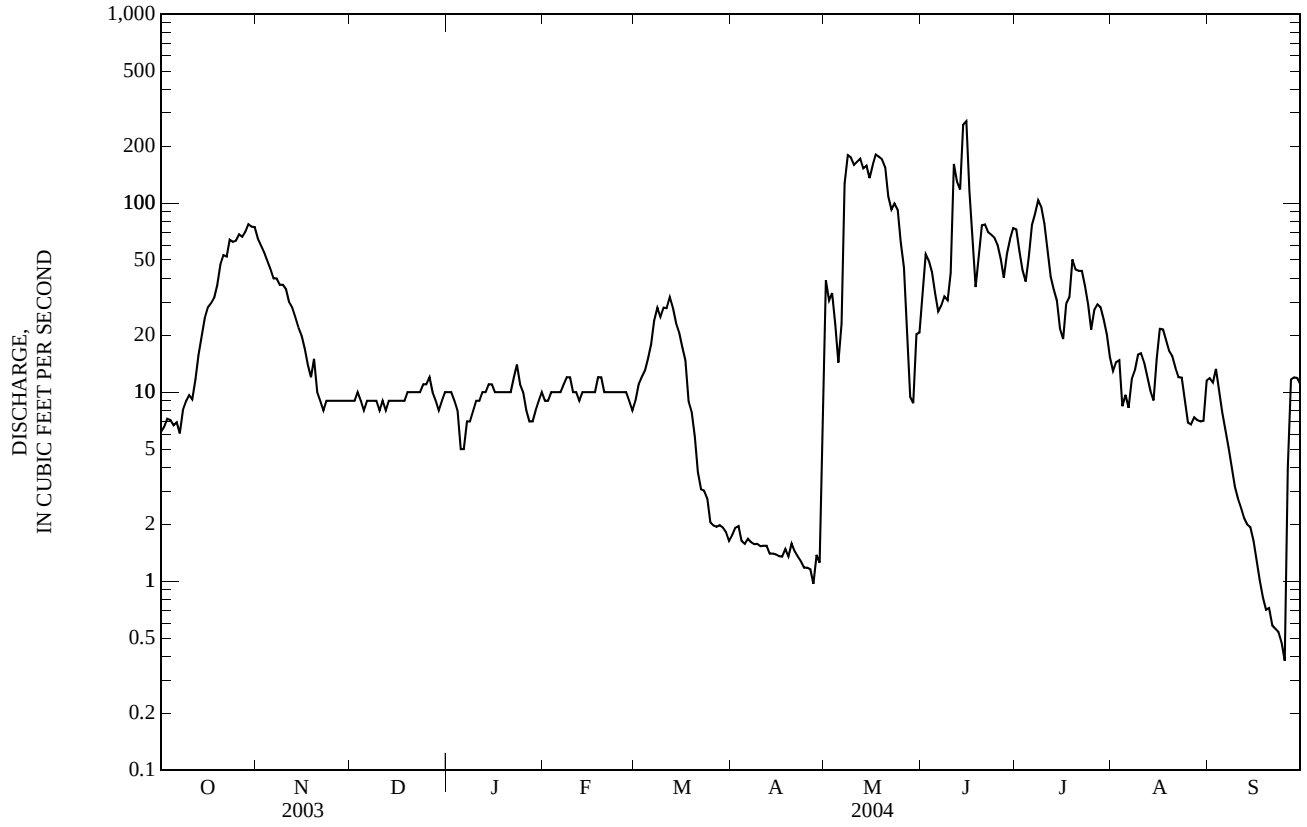
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

MEAN	77.1	72.9	66.0	63.4	93.5	192	178	410	654	292	185	124
MAX	335	242	283	222	414	1,281	788	1,811	4,315	1,308	563	504
(WY)	(1994)	(1994)	(1976)	(1976)	(1971)	(1978)	(1975)	(1976)	(1967)	(1975)	(1993)	(1993)
MIN	1.43	3.99	3.65	5.29	5.82	6.81	1.77	30.0	36.6	14.5	2.11	0.01
(WY)	(2002)	(2002)	(2002)	(2002)	(1985)	(2002)	(2002)	(2002)	(2001)	(2002)	(2001)	(2002)

06126500 MUSSELSHELL RIVER NEAR ROUNDUP, MT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	17,897.1		10,321.07			
ANNUAL MEAN	49.0		28.2		a201	
HIGHEST ANNUAL MEAN					608	1975
LOWEST ANNUAL MEAN					17.6	2002
HIGHEST DAILY MEAN	435	Jun 12	271	Jun 15	8,180	Jun 8, 1967
LOWEST DAILY MEAN	2.7	Apr 5	0.38	Sep 25	0.00	Sep 4, 2002
ANNUAL SEVEN-DAY MINIMUM	3.7	Apr 2	0.57	Sep 19	0.00	Sep 11, 2002
MAXIMUM PEAK FLOW			338	Jun 14	b9,610	Jun 18, 1967
MAXIMUM PEAK STAGE			2.47	Jun 14	c13.73	Mar 9, 1979
ANNUAL RUNOFF (AC-FT)	35,500		20,470		145,400	
10 PERCENT EXCEEDS	144		72		430	
50 PERCENT EXCEEDS	12		11		96	
90 PERCENT EXCEEDS	5.0		1.6		17	

a--Median of yearly mean discharges, 182 ft^3/s, 132, 100 ac-ft/yr.
b--Gage height, 12.45 ft.
c--Ice jam.
e--Estimated.



06127020 WILLOW CREEK ABOVE LMGA RESERVOIR, NEAR ROUNDUP, MT

LOCATION.--Lat 46°36'52", long 108°41'40" (NAD 27), in NW¼NW¼SW¼ sec. 27, T.10 N., R.24 E., Musselshell County, Hydrologic Unit 10040202, on right bank, 0.8 mi upstream from Lake Mason Grazing Association Reservoir, and 12 mi northwest of Roundup.

DRAINAGE AREA.--124 mi^2.

PERIOD OF RECORD.--September 1995 to October 2004 (seasonal records only), (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 3,660 ft (NGVD 29).

REMARKS.--Seasonal records good. Numerous diversions upstream for irrigation. U. S. Geological Survey satellite telemeter at station. U.S. Geological Survey satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
3				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4				0.00	0.00	0.00	0.01	0.00	0.00	0.00		
5				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
6				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
8				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
9				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
10				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
11				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
13				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
14				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
15				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
16				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
17				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
18				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
19				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
20				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
21				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
22				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
23				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
24				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
25				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
26				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
27				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
28				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
29				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
30				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
31				---	0.00	---	0.00	0.00	---	0.00		
TOTAL				0.00	0.00	0.00	0.01	0.00	0.00	0.00		
MEAN				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
MAX				0.00	0.00	0.00	0.01	0.00	0.00	0.00		
MIN				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
AC-FT				0.00	0.00	0.00	0.02	0.00	0.00	0.00		

STATISTICS OF MONTHLY MEAN DATA FOR SEASONS 1995 - 2004

MEAN	0.79	0.73	2.12	1.10	0.15	0.04	0.37
MAX	3.33	4.25	13.1	6.04	1.36	0.20	1.82
(WY)	(1996)	(1996)	(1997)	(1997)	(1997)	(1996)	(1998)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(2000)	(2000)	(2000)	(1999)	(1998)	(1998)	(1999)

SUMMARY STATISTICS	FOR 2004 SEASON		WATER YEARS 1995 - 2004	
HIGHEST DAILY MEAN	0.00	Apr 1	150	Jun 6, 1997
LOWEST DAILY MEAN	0.00	Apr 1	a0.00	Aug 7, 1996
MAXIMUM PEAK FLOW			b607	Jun 6, 1997
MAXIMUM PEAK STAGE			5.84	Jun 6, 1997

a--No flow many days most years.
b--From rating curve extended above 18 ft^3/s on basis of slope-area measurement of peak flow.

06127060 WILLOW CREEK AT U.S. CANAL, NEAR ROUNDUP, MT

LOCATION.--Lat 46°33'17", long 108°40'42" (NAD 27), in SW¼SE¼NE¼ sec. 10, T.9 N., R.24 E., Musselshell County, Hydrologic Unit 10040202, on right bank, 12 mi northwest of Roundup.

DRAINAGE AREA.--141 mi^2.

PERIOD OF RECORD.--September 1995 to October 2004 (seasonal records only), (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 3,610 ft (NGVD 29).

REMARKS.--Seasonal records good. Regulation by Lake Mason Grazing Association Reservoir upstream from the gage. Numerous diversions upstream from station for irrigation. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
3				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
5				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
6				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
8				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
9				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
10				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
11				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
13				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
14				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
15				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
16				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
17				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
18				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
19				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
20				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
21				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
22				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
23				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
24				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
25				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
26				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
27				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
28				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
29				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
30				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
31				---	0.00	---	0.00	0.00	---	0.00		
TOTAL				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
MEAN				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
MAX				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
MIN				0.00	0.00	0.00	0.00	0.00	0.00	0.00		
AC-FT				0.00	0.00	0.00	0.00	0.00	0.00	0.00		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

MEAN	0.46	0.40	1.49	0.28	0.05	0.00	0.06
MAX	2.03	2.95	9.55	1.44	0.48	0.00	0.64
(WY)	(1996)	(1996)	(1997)	(1997)	(1997)	(1995)	(1998)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1999)	(1998)	(1998)	(1998)	(1996)	(1995)	(1996)

SUMMARY STATISTICS	FOR 2004 SEASON		SEASONS 1995 - 2004	
HIGHEST DAILY MEAN	0.00	Apr 1	33	Jun 7, 1997
LOWEST DAILY MEAN	0.00	Apr 1	a0.00	Aug 26, 1995
MAXIMUM PEAK FLOW			39	Jun 7, 1997
MAXIMUM PEAK STAGE			2.78	Jun 7, 1997

a--No flow many days most years.

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06127500 MUSSELSHELL RIVER AT MUSSELSHELL, MT

LOCATION.--Lat 46°31'23", long 108°06'30" (NAD 27), in SE¼SW¼SW¼ sec.20, T.9 N., R.29 E., Musselshell County, Hydrologic Unit 10040202, on left bank 0.9 mi upstream from Hawk Creek, 1 mi west of Musselshell, and at river mile 164.5.

DRAINAGE AREA.--4,568 mi^2.

PERIOD OF RECORD.--August 1928 to September 1932 (no records December to February for the water years 1930-31), August 1945 to September 1979, October 1982 to September 1983, October 1983 to current season (seasonal record only). Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,984.72 ft (NGVD 29) (levels by U.S. Army Corps of Engineers). Prior to Oct. 8, 1949, nonrecording gage at site 1 mi downstream at different elevations.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation by Bair (station number 06116500), Martinsdale (station number 06119000), and Deadmans Basin (station number 06122500) Reservoirs. Diversions for irrigation of about 44,600 acres upstream from station, of which about 39,400 acres is flood irrigated. U. S. Geological Survey satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				1.9	1.3	9.1	40	15	0.62	0.00		
2				1.6	1.3	11	42	12	0.39	0.00		
3				1.6	6.2	17	38	13	1.5	0.00		
4				1.3	6.4	11	21	17	7.9	0.00		
5				1.3	8.0	6.5	11	17	8.9	3.0		
6				1.4	7.1	8.2	11	12	10	9.1		
7				1.5	4.8	4.8	34	8.5	6.1	13		
8				1.5	74	8.8	53	6.6	2.8	15		
9				1.4	113	5.3	54	5.6	2.0	14		
10				1.3	101	7.2	37	3.6	2.0	14		
11				1.3	88	50	e30	1.0	1.7	16		
12				1.3	95	125	e30	0.25	1.5	15		
13				1.3	98	74	e25	0.01	1.4	18		
14				1.1	70	56	e20	0.00	1.1	23		
15				1.1	76	158	e15	0.00	1.0	26		
16				1.0	76	149	e15	0.00	1.2	26		
17				0.81	122	52	e15	0.00	1.1	39		
18				0.77	132	23	e20	0.00	0.67	43		
19				0.66	137	8.6	e30	0.00	0.28	42		
20				0.95	131	27	e30	0.00	0.11	39		
21				0.71	130	47	e30	0.00	0.09	49		
22				0.66	104	42	32	0.00	0.00	41		
23				0.65	98	29	33	0.00	0.00	44		
24				0.60	82	32	32	0.00	0.00	44		
25				0.38	68	37	28	0.00	0.00	48		
26				0.36	46	31	22	3.0	0.00	44		
27				0.38	28	25	18	4.2	0.00	41		
28				0.62	20	12	24	3.0	0.00	42		
29				0.88	13	12	25	2.6	0.00	46		
30				1.2	14	30	22	2.1	0.00	50		
31				---	9.5	---	19	1.2	---	52		
TOTAL				31.53	1,960.6	1,108.5	856	127.66	52.36	856.10		
MEAN				1.05	63.2	37.0	27.6	4.12	1.75	27.6		
MAX				1.9	137	158	54	17	10	52		
MIN				0.36	1.3	4.8	11	0.00	0.00	0.00		
AC-FT				63	3,890	2,200	1,700	253	104	1,700		

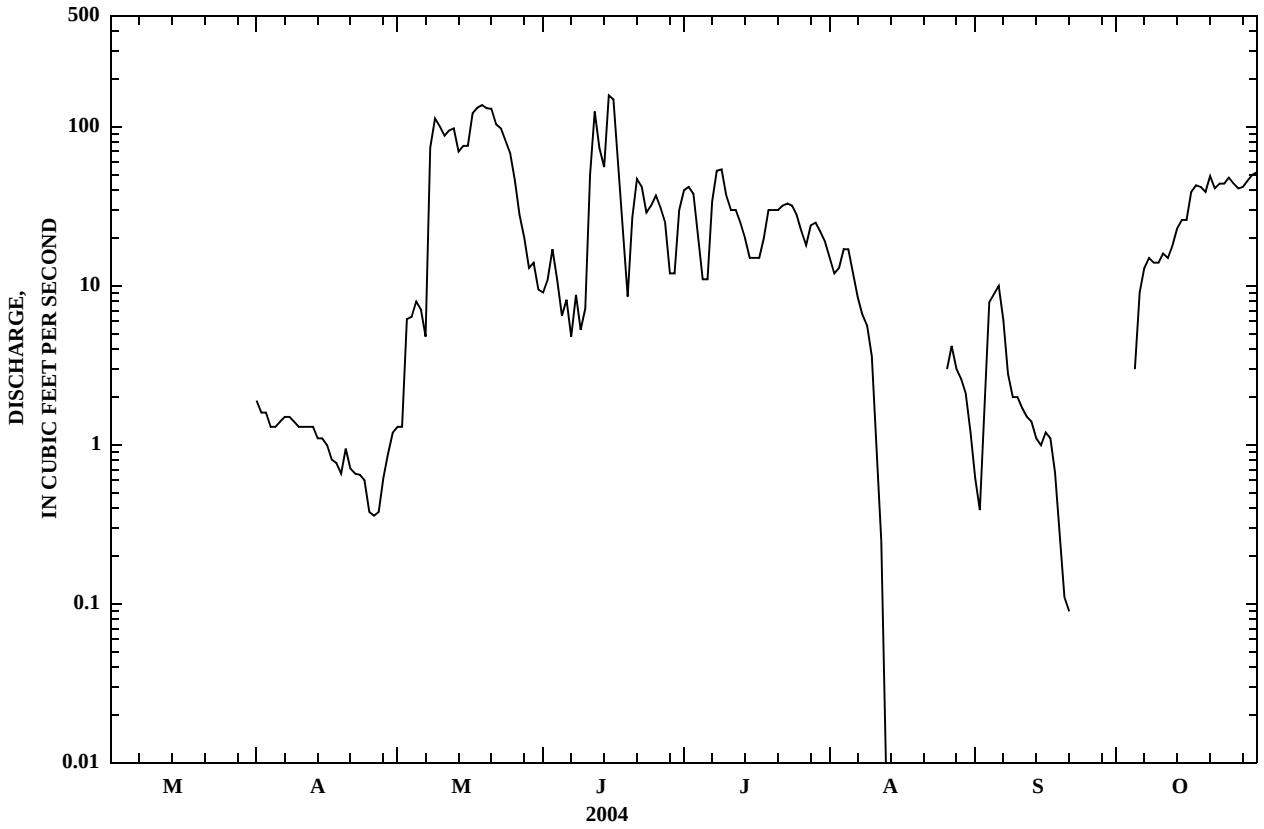
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1983 AND SEASONS 1984 - 2004*

MEAN	71.0	108	273	185	346	562	232	136	105	73.7	76.5	77.5
MAX	222	460	1,356	859	1,670	4,223	1,376	534	477	328	236	269
(WY)	(1976)	(1971)	(1979)	(1975)	(1976)	(1967)	(1975)	(1993)	(1993)	(1994)	(1976)	(1976)
MIN	0.00	0.04	12.7	1.05	0.36	0.49	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1932)	(1932)	(1932)	(2004)	(1931)	(1931)	(1930)	(1931)	(1931)	(1932)	(1932)	(1932)

06127500 MUSSELSHELL RIVER AT MUSSELSHELL, MT—Continued

SUMMARY STATISTICS	FOR 2004 SEASON		WATER YEARS 1929 - 1983**		SEASONS 1984 - 2004***	
ANNUAL MEAN			215			
HIGHEST ANNUAL MEAN			609	1975		
LOWEST ANNUAL MEAN			34.1	1961		
HIGHEST DAILY MEAN	158	Jun 15	8,600	Jun 19, 1967	6,270	Jun 16, 1997
LOWEST DAILY MEAN	.00	Aug 14	0.00	Sep 1, 1929	0.00	Aug 14, 2001
ANNUAL SEVEN-DAY MINIMUM			0.00	Sep 8, 1929		
MAXIMUM PEAK FLOW	200	Jun 15	a9,850	Jun 19, 1997	6,420	Jun 16, 1997
MAXIMUM PEAK STAGE	3.51	Jun 15	b12.96	Mar19, 1979	11.25	Jun 16, 1997
ANNUAL RUNOFF (AC-FT)			155,800			
10 PERCENT EXCEEDS			464			
50 PERCENT EXCEEDS			105			
90 PERCENT EXCEEDS			17			

*--During period of operation.
**--During period of continuous operation 1928-29, 1931-32, 1945-79, 1982-83.
***--Seasonal records October 1983 to current season.
a--Gage height, 11.57 ft.
b--Ice jam.
e--Estimated.



06130500 MUSSELSHELL RIVER AT MOSBY, MT

LOCATION.--Lat 46°59'41", long 107°53'18" (NAD 27), in SW¼NW¼NW¼ sec.11, T.14 N., R.30 E., Petroleum County, Hydrologic Unit 10040205, on right bank, downstream side of bridge on State Highway 20, 0.3 mi west of Mosby, 10.9 mi downstream from Flatwillow Creek, and at river mile 60.0.

DRAINAGE AREA.--7,846 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1929, March 1930 to September 1932, February 1934 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1559: 1935-36. WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,493.23 ft (NGVD 29). Dec. 6, 1962 to Mar. 14, 1966, water-stage recorder at site 900 ft downstream at different elevation. Mar. 15, 1966 to Dec. 11, 1973, water-stage recorder and nonrecording gages at site 400 ft downstream at same elevation. Dec. 12, 1973 to Oct. 1, 1981, nonrecording gage at site 400 ft downstream at same elevation. Oct. 1, 1981 to July 25, 1995, water-stage recorder at site 400 ft upstream from bridge at elevation 2.67 ft higher. See WSP 2116 for history of changes prior to 1962.

REMARKS.--Water-discharge records fair except those for estimated daily discharges, which are poor. Some regulation by Bair (station number 06116500), Martinsdale (station number 06119000) and Deadman's Basin (station number 06122500) Reservoirs. Diversions for irrigation of about 47,000 acres upstream from station. U. S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	e1.0	e1.5	e1.0	e4.0	7.6	0.58	5.6	1.0	0.00	0.00
2	0.00	0.00	e1.0	e1.5	e1.0	e4.0	5.4	0.29	5.5	0.64	0.00	0.00
3	0.00	0.00	e1.0	e1.5	e1.0	e5.0	4.1	0.16	5.6	0.83	0.00	0.00
4	0.00	0.00	e1.0	e1.0	e1.0	e5.0	3.0	0.01	3.8	0.59	0.00	0.00
5	0.00	0.00	e1.0	e0.50	e1.0	e6.0	3.0	0.14	2.4	0.17	9.0	0.00
6	0.00	0.00	e1.0	e1.0	e1.0	e10	3.6	0.02	1.7	1.5	8.4	0.00
7	0.00	0.00	e1.0	e1.5	e1.5	e50	2.3	0.00	0.85	5.0	6.0	0.00
8	0.00	0.00	e1.0	e1.5	e1.5	e150	3.0	0.01	2.0	5.6	6.7	0.00
9	0.00	0.00	e1.0	e1.5	e1.5	e500	1.8	0.00	1.3	6.5	3.8	0.00
10	0.00	0.00	e1.0	e2.0	e1.5	1,640	1.7	0.00	0.98	5.9	2.7	0.00
11	0.00	0.00	e0.50	e2.0	e1.0	880	1.3	0.09	3.1	7.0	1.6	0.00
12	0.00	0.00	e0.50	e2.0	e1.0	418	1.1	8.5	4.3	4.1	0.96	0.00
13	0.00	0.00	e1.0	e2.0	e1.0	300	1.0	11	11	2.2	0.37	0.00
14	0.00	e0.50	e1.0	e2.0	e1.0	224	3.0	4.9	32	1.7	0.05	0.00
15	0.00	e0.50	e1.0	e2.0	e1.5	149	4.2	1.3	52	1.1	0.00	0.00
16	0.00	e1.0	e1.0	e2.0	e1.5	114	3.1	1.1	26	1.4	0.00	0.00
17	0.00	e1.0	e1.0	e2.0	e1.5	136	2.7	4.3	25	1.4	0.00	0.00
18	0.00	e1.0	e1.0	e2.0	e2.0	173	1.9	4.8	41	1.2	0.00	0.00
19	0.00	e1.0	e1.0	e2.0	e2.0	169	1.4	7.7	48	0.98	0.00	0.00
20	0.00	e1.0	e1.0	e2.0	e2.0	162	2.4	7.9	26	0.72	0.00	0.00
21	0.00	e1.0	e1.0	e2.0	e3.0	77	2.4	8.9	16	0.17	0.00	0.00
22	0.00	e0.50	e1.0	e2.0	e3.0	53	2.2	7.4	7.7	0.00	0.00	0.00
23	0.00	e0.50	e1.0	e4.0	e4.0	41	1.7	15	3.5	0.00	0.00	0.00
24	0.00	e1.0	e1.0	e2.0	e4.0	35	2.6	30	1.8	0.00	0.00	0.00
25	0.00	e1.0	e1.0	e1.5	e5.0	30	0.84	36	3.5	0.00	0.00	0.00
26	0.00	e1.0	e1.0	e1.0	e5.0	28	1.2	44	9.4	0.00	0.00	0.00
27	0.00	e1.0	e1.0	e1.0	e5.0	26	0.75	30	3.8	0.00	0.00	0.00
28	0.00	e1.0	e0.50	e1.0	e5.0	21	1.5	17	1.1	0.00	0.00	0.00
29	0.00	e1.0	e0.50	e1.0	e5.0	15	1.2	15	0.96	0.00	0.00	0.00
30	0.00	e1.0	e1.0	e1.5	---	12	1.5	7.7	3.3	0.00	0.00	0.00
31	0.00	---	e1.0	e1.0	---	9.0	---	8.0	---	0.00	0.00	---
TOTAL	0.00	15.00	29.00	51.50	65.5	5,446.0	73.49	271.80	349.19	49.70	39.58	0.00
MEAN	0.00	0.50	0.94	1.66	2.26	176	2.45	8.77	11.6	1.60	1.28	0.00
MAX	0.00	1.0	1.0	4.0	5.0	1,640	7.6	44	52	7.0	9.0	0.00
MIN	0.00	0.00	0.50	0.50	1.0	4.0	0.75	0.00	0.85	0.00	0.00	0.00
AC-FT	0.00	30	58	102	130	10,800	146	539	693	99	79	0.00

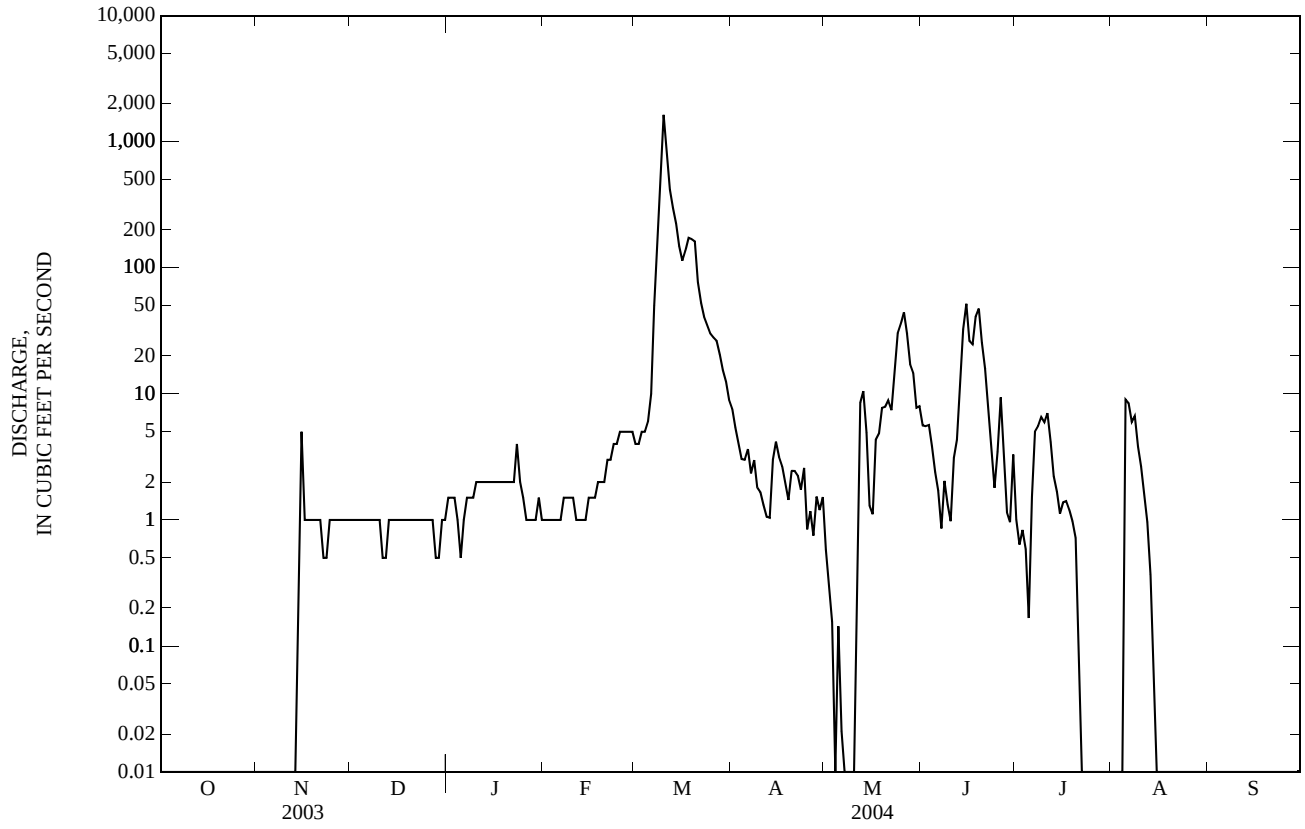
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)*

MEAN	78.6	78.0	70.0	75.4	170	450	279	514	858	314	111	111
MAX	478	337	278	376	1,858	4,658	1,917	3,772	4,967	2,153	870	787
(WY)	(1994)	(1994)	(1979)	(1997)	(1971)	(1978)	(1979)	(1975)	(1967)	(1975)	(1993)	(1986)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	0.00	0.00	0.00
(WY)	(1932)	(1932)	(1931)	(1932)	(1932)	(1932)	(2003)	(1931)	(1935)	(1961)	(1934)	(1934)

06130500 MUSSELSHELL RIVER AT MOSBY, MT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004*	
ANNUAL TOTAL	4,857.36		6,395.26			
ANNUAL MEAN	13.3		17.5		c261	
HIGHEST ANNUAL MEAN					1,089	1978
LOWEST ANNUAL MEAN					8.12	2002
HIGHEST DAILY MEAN	400	Mar 15	1,640	Mar 10	15,700	Jun 18, 1944
LOWEST DAILY MEAN	0.00	Jan 16	0.00	Oct 1	0.00	Oct 1, 1930
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 1	0.00	Oct 1	0.00	Oct 1, 1930
MAXIMUM PEAK FLOW			a1,910	Mar 10	d18,000	Jun 18, 1944
MAXIMUM PEAK STAGE			b6.35	Mar 9	f15.10	Mar 12, 1979
ANNUAL RUNOFF (AC-FT)	9,630		12,680		189,100	
10 PERCENT EXCEEDS	43		15		567	
50 PERCENT EXCEEDS	0.01		1.0		80	
90 PERCENT EXCEEDS	0.00		0.00		0.05	

*--During period of operation (1931-32, 1935 to current year).
a--Gage height, 5.97 ft.
b--Backwater from ice.
c--Median of yearly mean discharge, 190 ft^3/s.
d--Gage height 14.43 ft, from rating extension above 10,000 ft^3/s.
e--Estimated.
f--From floodmark, backwater from ice.



06130500 MUSSELSHELL RIVER AT MOSBY, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to June 2004 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981.
WATER TEMPERATURE: October 1974 to September 1979, May 2000 to September 2003 (seasonal records only).

SUSPENDED-SEDIMENT DISCHARGE: October 1982 to September 1991, October 1991 to 1995 (seasonal records only).

INSTRUMENTATION.--Temperature recorder installed March 20, 2000.

REMARKS.--Unable to collect samples in October, November and July through September due to no flow.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,900 microsiemens per centimeter (μS/cm) at 25°C, Aug. 14, 1977; minimum daily, 678 μS/cm at 25°C, Mar. 23, 1978.
WATER TEMPERATURE: Maximum daily, 33.0°C, July 13, 2000, July 3 and Aug. 6, 2001; minimum daily, 0.0°C on many days during winters.
SEDIMENT CONCENTRATION: Maximum daily mean, 25,800 mg/L, Aug. 3, 1985; minimum daily mean, 7 mg/L Oct. 30, 1989.
SEDIMENT LOAD: Maximum daily, 242,000 tons, Sep. 26, 1986; minimum daily, no load, 1985, 1988 during periods of no flow.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Specif. conductance, water unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Suspended sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Bed sediment, percent <.063mm (80164)	Bed sediment, percent <.125mm (80165)
MAR										
30...	1105	13	2,860	17.0	11.5	88	48	1.7	4	5
MAY										
12...	1230	.30	5,650	2.0	11.0	78	45	.04	2	4
JUN										
15...	1020	53	2,290	21.0	18.0	99	126	18	1	1

Date	Bed sediment, percent <.25mm (80166)	Bed sediment, percent <.5 mm (80167)	Bed sediment, percent <1 mm (80168)	Bed sediment, percent <2 mm (80169)	Bed sediment, percent <4 mm (80170)	Bed sediment, percent <8 mm (80171)	Bed sediment, percent <16 mm (80172)	Bed sediment, percent <32 mm (80173)	Bed sediment, percent <64 mm (80174)
MAR									
30...	8	12	17	24	39	100	--	--	--
MAY									
12...	7	10	14	28	53	100	--	--	--
JUN									
15...	2	3	4	7	11	18	54	79	100

06130650 HELL CREEK NEAR JORDAN, MT

LOCATION.--Lat 47°34'44", long 106°55'37" (NAD 27), in NW¼ NE¼ SE¼ sec.14, T.21 N., R.37 E., Garfield County, Hydrologic Unit 10040104, on left bank 1.5 mi upstream from Fort Peck Lake, and 19 mi north of Jordan.

DRAINAGE AREA.--70.6 mi^2.

PERIOD OF RECORD.--February 2000 to September 2004, (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 2,270 ft (NGVD 29). Prior to Oct. 1, 2000, at elevation 1.0 ft higher.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. U. S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.12	0.08	e0.00	e0.00	e2.0	e0.10	0.07	0.41	e0.20	0.00	0.04
2	0.00	0.07	0.10	e0.00	e0.00	e2.0	e0.10	0.06	0.35	e0.20	0.00	0.00
3	0.00	0.06	0.08	e0.00	e0.00	e2.0	e0.10	0.06	0.34	e0.20	0.00	0.00
4	0.00	0.06	e0.10	e0.00	e0.00	e2.0	e0.10	0.05	0.33	e0.20	0.00	0.00
5	0.00	0.06	e0.10	e0.00	e0.00	e10	e0.10	0.05	0.32	e0.20	0.00	0.00
6	0.00	0.06	e0.20	e0.00	e0.10	e8.0	e0.10	0.06	0.32	e0.20	0.17	0.00
7	0.00	0.06	e0.50	e0.00	e0.10	e20	e0.10	0.07	0.31	e0.20	0.56	0.00
8	0.00	0.06	e0.10	e0.00	e0.10	e70	e0.10	0.07	0.32	0.15	0.26	0.00
9	0.00	0.06	e0.10	e0.10	e0.10	e40	e0.10	0.06	0.34	0.13	0.18	0.00
10	0.00	0.08	e0.10	e0.20	e0.10	e20	e0.10	0.05	11	0.11	0.14	0.00
11	0.00	1.2	e0.10	e0.30	e0.10	e15	e0.10	0.10	40	0.09	0.11	0.00
12	0.00	e3.0	e0.10	e0.30	e0.10	e18	e0.10	0.78	9.4	0.08	0.09	0.00
13	0.00	e1.0	e0.10	e0.30	e0.10	e22	e0.10	1.3	2.0	0.07	0.07	0.00
14	0.00	e0.50	e0.10	e0.30	e0.10	e15	e0.10	0.40	1.2	0.03	0.03	0.00
15	0.00	e0.10	e0.10	e0.30	e0.10	e7.0	e0.10	0.27	e1.0	0.00	0.00	0.00
16	0.00	0.08	e0.10	e0.30	e0.10	e5.0	e0.10	0.18	e0.80	0.00	0.00	0.00
17	0.00	0.07	e0.10	e0.30	e0.10	e4.0	e0.10	0.12	e0.60	0.00	0.00	0.00
18	0.00	0.08	e0.10	e0.30	e7.0	e3.0	e0.10	0.10	e0.40	0.00	0.00	0.00
19	0.01	0.14	e0.10	e0.30	e20	e2.0	e0.10	0.12	e0.20	0.00	0.00	0.00
20	0.01	0.12	e0.10	e0.30	e18	e1.0	0.09	0.14	e0.20	0.00	0.00	0.00
21	0.01	0.08	e0.10	e0.30	e17	e1.0	0.09	0.11	e0.20	0.00	0.00	0.00
22	0.01	0.06	e0.10	e0.30	e16	e0.50	0.10	0.09	e0.20	0.00	0.00	0.00
23	0.01	0.07	e0.10	e1.0	e15	e0.40	0.08	8.0	e0.20	0.00	0.26	0.00
24	0.01	0.07	e0.10	e0.50	e14	e0.30	0.07	19	e0.20	0.00	0.92	0.00
25	0.01	0.07	e0.10	e0.00	e13	e0.20	0.06	2.9	e0.20	0.00	0.30	0.00
26	0.01	0.07	e0.05	e0.00	e10	e0.10	0.05	0.98	e0.20	0.00	0.17	0.00
27	0.01	0.07	e0.00	e0.00	e7.0	e0.10	0.05	0.73	e0.20	0.00	0.12	0.00
28	0.01	0.06	e0.00	e0.00	e5.0	e0.10	0.06	0.63	e0.20	0.00	0.10	0.00
29	28	0.08	e0.00	e0.00	e4.0	e0.10	0.09	0.58	e0.20	0.00	0.08	0.00
30	0.76	0.08	e0.00	e0.00	---	e0.10	0.09	0.54	e0.20	0.00	0.07	0.00
31	0.23	---	e0.00	e0.00	---	e0.10	---	0.48	---	0.00	0.06	---
TOTAL	29.09	7.69	3.01	5.40	147.20	271.00	2.73	38.15	71.84	2.06	3.69	0.04
MEAN	0.94	0.26	0.097	0.17	5.08	8.74	0.091	1.23	2.39	0.066	0.12	0.001
MAX	28	3.0	0.50	1.0	20	70	0.10	19	40	0.20	0.92	0.04
MIN	0.00	0.06	0.00	0.00	0.00	0.10	0.05	0.05	0.20	0.00	0.00	0.00
MED	0.00	0.07	0.10	0.10	0.10	2.0	0.10	0.12	0.32	0.00	0.07	0.00
AC-FT	58	15	6.0	11	292	538	5.4	76	142	4.1	7.3	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	0.33	0.090	0.025	0.19	1.47	5.81	0.47	2.42	7.80	6.86	1.62	0.49
MAX	0.94	0.26	0.097	0.58	5.08	16.2	1.10	9.04	24.2	18.6	6.19	2.44
(WY)	(2004)	(2004)	(2004)	(2001)	(2004)	(2003)	(2003)	(2003)	(2001)	(2000)	(2003)	(2000)
MIN	0.000	0.000	0.000	0.000	0.000	0.90	0.012	0.000	1.05	0.066	0.000	0.000
(WY)	(2002)	(2002)	(2001)	(2002)	(2002)	(2000)	(2001)	(2001)	(2003)	(2004)	(2000)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	1,165.16		581.90			
ANNUAL MEAN	3.19		1.59		2.23	
HIGHEST ANNUAL MEAN					3.09	2003
LOWEST ANNUAL MEAN					1.16	2002
HIGHEST DAILY MEAN	318	Mar 13	70	Mar 8	581	Jun 13, 2001
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Feb 1, 2000
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 10	0.00	Oct 1	0.00	Feb 1, 2000
MAXIMUM PEAK FLOW			a120	Jun 11	c1,700	Jul 13, 2001
MAXIMUM PEAK STAGE			b4.24	Mar 9	7.64	Jul 13, 2001
ANNUAL RUNOFF (AC-FT)	2,310		1,150		1,620	
10 PERCENT EXCEEDS	0.96		2.0		1.4	
50 PERCENT EXCEEDS	0.00		0.10		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a--Gage height, 1.80 ft.
b--Backwater from ice.
c--From slope-area measurement of peak flow.
e--Estimated.

06130650 HELL CREEK NEAR JORDAN, MT—Continued