06040800 MADISON RIVER ABOVE POWERPLANT, NEAR MCALLISTER, MT

Missouri Headwaters Basin
Madison Subbasin

LOCATION.--Lat 45°29′12″, long 111°37′59″ referenced to North American Datum of 1927, in NW ¼ NE ¼ SW ¼ sec.17, T.4 S., R.1 E., Madison County, MT, Hydrologic Unit 10020007, on right bank 160 ft upstream from Madison powerplant, 1.4 mi downstream from Ennis Lake, 5.6 mi northeast of McAllister, and at river mile 38.9.

DRAINAGE AREA.--2,186 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,690 ft, referenced to the National Geodetic Vertical Datum of 1929.

REMARKS.--Records are good except for estimated daily discharges, which are poor. Flow is regulated by Hebgen Lake (station number 06038000) and Ennis Lake (station number 06040500). Diversions for irrigation of about 23,000 acres occur upstream from station. Flow through Madison Powerplant bypasses the station. U.S. Geological Survey satellite telemeter is installed at station. Several unpublished observations of water temperature and specific conductance were made during the year.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	137	120	e100	100	131	112	217	227	227	188	562	109
2	135	120	e100	101	129	114	219	238	223	157	432	109
3	135	119	e100	128	125	e110	220	244	224	164	320	108
4	133	117	e100	126	126	113	220	376	224	218	479	109
5	132	115	e100	e110	128	113	220	452	376	344	246	109
6	130	114	e100	e110	130	113	220	447	739	198	265	109
7	135	115	139	110	249	114	218	440	1,260	354	216	110
8	134	114	161	119	327	116	218	430	934	499	115	110
9	132	113	190	138	327	119	220	313	276	320	101	110
10	132	114	212	141	325	119	221	261	219	132	88	112
11	129	113	213	e140	324	119	222	370	218	570	91	114
12	129	113	214	e135	323	120	222	452	222	251	99	112
13	129	112	214	e135	317	313	222	516	223	337	104	112
14	130	109	214	135	259	511	222	926	219	305	106	113
15	129	110	214	135	162	484	221	1,550	213	479	110	113
16	131	108	212	135	162	246	222	1,400	214	393	105	112
17	131	175	183	136	130	115	223	1,070	217	383	106	108
18	132	219	e100	137	111	105	224	683	216	298	110	108
19	133	219	116	138	112	105	228	489	214	542	117	107
20	133	235	125	139	114	105	230	539	211	631	114	111
21	132	265	126	141	114	104	231	882	209	624	114	115
22	132	202	128	239	152	104	230	767	207	625	113	115
23	131	165	130	269	222	104	230	819	206	636	113	110
24	130	165	158	134	219	103	216	615	204	314	115	107
25	129	164	234	110	156	103	207	365	200	584	110	106
26	128	125	133	111	116	101	208	223	208	461	107	106
27	126	e105	199	111	115	101	207	210	215	696	107	105
28	125	e100	270	110	113	101	208	225	213	577	108	104
29	124	e100	281	117	---	100	210	388	213	576	108	105
30	122	e100	e160	128	---	99	214	570	214	576	109	105
31	121	---	e100	132	---	129	---	337	---	579	109	---
Total	4,041	4,165	5,026	4,150	5,218	4,515	6,590	16,824	8,958	13,011	5,099	3,283
Mean	130	139	162	134	186	146	220	543	299	420	164	109
Max	137	265	281	269	327	511	231	1,550	1,260	696	562	115
Min	121	100	100	100	111	99	207	210	200	132	88	104
Ac-ft	8,020	8,260	9,970	8,230	10,350	8,960	13,070	33,370	17,770	25,810	10,110	6,510

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	221	192	145	151	146	135	246	767	1,068	418	155	144
Max	279	343	209	219	206	169	351	1,815	1,746	560	203	247
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2006)	(2002)	(2006)	(2005)	(2002)	(2002)	(2002)
Min	130	110	85.7	113	103	111	213	216	299	292	115	98.4
(WY)	(2007)	(2004)	(2003)	(2006)	(2003)	(2004)	(2005)	(2004)	(2007)	(2005)	(2005)	(2005)

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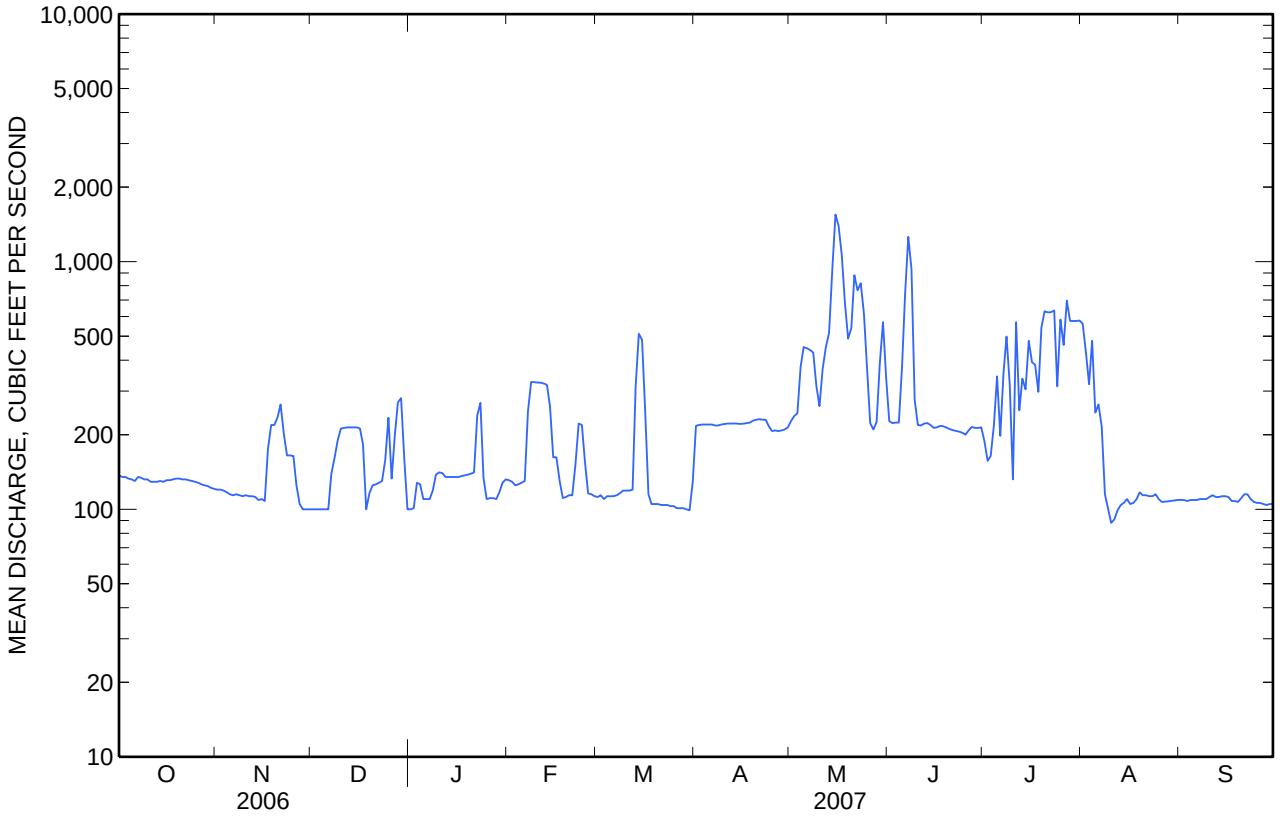
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 2002 - 2007	
Annual total	162,242		80,880			
Annual mean	444		222		316	
Highest annual mean					448	2006
Lowest annual mean					217	2004
Highest daily mean	3,860	May 27	1,550	May 15	3,860	May 27, 2006
Lowest daily mean	78	Jan 10	88	Aug 10	73	Dec 27, 2002
Annual seven-day minimum	86	Jan 4	100	Aug 9	77	Dec 22, 2002
Maximum peak flow			2,060	Jul 23	4,000	Jun 5, 2006
Maximum peak stage			7.36	Jul 23	9.47	Jun 5, 2006
Annual runoff (ac-ft)	321,800		160,400		229,100	
10 percent exceeds	913		452		600	
50 percent exceeds	139		136		139	
90 percent exceeds	100		105		95