Water-Data Report 2006

06037500 MADISON RIVER NEAR WEST YELLOWSTONE, MT

Missouri Headwaters Basin
Madison Subbasin

LOCATION.--Lat 44°39′25″, long 111°04′03″ referenced to North American Datum of 1927, in NE ¼ NW ¼ SW ¼ sec.36, T.13 S., R.5 E., Gallatin County, Hydrologic Unit 10020007, Yellowstone National Park, on left bank 0.7 mi downstream from Montana-Wyoming stateline, 1.5 mi east of West Yellowstone, 16.4 mi downstream from Gibbon River, and at river mile 132.7.

DRAINAGE AREA.--420 mi^2.

PERIOD OF RECORD.--June 1913 to December 1917, July 1918 to October 1921, June 1922 to September 1973, August 1983 to September 1986, October 1988 to current year. Monthly discharge only for some periods, published in Water Supply Paper 1309.

GAGE.--Water-stage recorder. Elevation of gage is 6,650 ft, referenced to the National Geodetic Vertical Datum of 1929. Prior to Oct. 20, 1918, nonrecording gage, and Oct. 20, 1918 to June 29, 1930, nonrecording gage or water-stage recorder at sites 2.5 mi upstream at different elevations. Supplementary nonrecording gage at site 0.3 mi downstream at different elevation used at time during 1927-30.

REMARKS.--Records are good except those for estimated daily discharges, which are fair. No regulation or diversions occur upstream from station. U.S. Geological Survey satellite telemeter is located at the station. Several observations of water temperature and specific conductance were made during the year.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	363	384	383	402	392	426	401	795	664	472	407	383
2	381	391	403	394	391	395	391	794	657	474	421	385
3	423	448	384	411	388	388	383	761	668	495	405	386
4	416	414	e380	391	387	390	421	752	693	473	404	384
5	403	401	e380	384	394	382	485	743	712	462	410	382
6	396	413	e360	382	384	379	558	771	700	469	411	383
7	396	469	e330	391	383	389	494	835	685	475	403	388
8	396	508	e320	398	380	382	480	948	744	462	407	394
9	399	441	e330	386	384	388	503	904	872	448	400	397
10	388	413	e350	386	372	378	492	791	859	452	394	402
11	384	418	e370	398	e360	367	460	733	820	446	392	390
12	387	421	e390	391	e370	374	455	769	768	439	391	386
13	384	397	399	389	374	366	531	875	704	458	392	385
14	377	402	379	393	378	367	599	972	682	434	391	387
15	377	379	372	401	378	379	615	1,030	841	426	392	405
16	376	388	377	389	e350	372	651	1,100	748	421	415	421
17	370	392	374	383	e330	372	700	1,160	640	419	397	401
18	370	386	e350	396	e340	379	576	1,220	588	415	391	398
19	373	386	e370	391	e370	380	516	1,300	567	413	391	393
20	377	383	379	386	366	372	498	1,310	561	413	391	395
21	377	379	381	388	367	372	504	1,240	542	414	386	417
22	377	379	403	382	367	368	531	1,150	527	409	385	434
23	377	376	399	382	376	365	607	1,070	511	411	383	410
24	377	375	384	379	372	370	601	1,000	501	418	383	403
25	377	373	384	378	377	373	562	940	497	425	387	399
26	377	386	385	381	376	388	545	920	497	421	393	398
27	378	381	384	389	378	377	589	918	493	417	400	395
28	406	376	388	386	400	379	600	907	498	405	396	392
29	407	378	407	386	---	395	645	846	481	400	390	392
30	400	386	390	389	---	394	737	782	470	396	385	391
31	387	---	398	398	---	386	---	719	---	396	381	---
Total	11,976	12,023	11,683	12,080	10,484	11,792	16,130	29,055	19,190	13,478	12,274	11,876
Mean	386	401	377	390	374	380	538	937	640	435	396	396
Max	423	508	407	411	400	426	737	1,310	872	495	421	434
Min	363	373	320	378	330	365	383	719	470	396	381	382
Ac-ft	23,750	23,850	23,170	23,960	20,800	23,390	31,990	57,630	38,060	26,730	24,350	23,560

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2006, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	431	422	414	403	398	405	496	848	804	495	431	425
Max	710	697	641	586	572	539	671	1,725	1,479	917	759	704
(WY)	(1914)	(1914)	(1997)	(1997)	(1914)	(1917)	(1925)	(1997)	(1997)	(1913)	(1913)	(1913)
Min	297	297	304	304	303	313	369	388	341	282	273	282
(WY)	(1935)	(1932)	(1932)	(1932)	(1932)	(1943)	(1941)	(1934)	(1931)	(1931)	(1934)	(1934)

* During periods of operation (June 1913 to December 1917, July 1918 to October 1921, June 1922 to September 1973, August 1983 to September 1986, October 1988 to current year).

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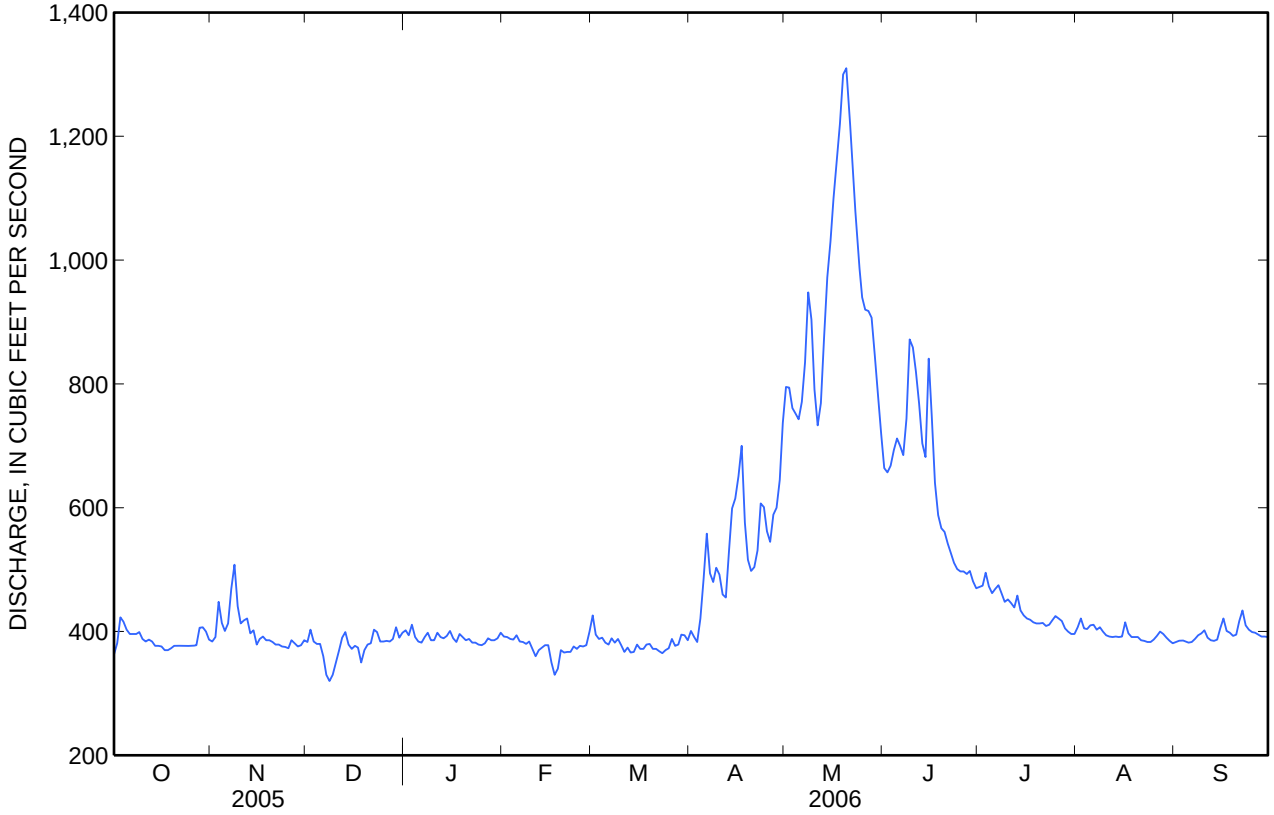
SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1913 - 2006*	
Annual total	162,194		172,041			
Annual mean	444		471		496	
Highest annual mean					789	1997
Lowest annual mean					337	1934
Highest daily mean	1,160	May 20	1,310	May 20	2,750	May 18, 1996
Lowest daily mean	320	Dec 8	320	Dec 8	245	Jan 1, 1942
Annual seven-day minimum	349	Dec 5	349	Dec 5	267	Aug 6, 1931
Maximum peak flow			1,450	May 20	[a]2,820	May 18, 1996
Maximum peak stage			2.81	May 20	[b]10.00	Jan 8, 1937
Instantaneous low flow					[c]100	Feb 7, 1933
Annual runoff (ac-ft)	321,700		341,200		359,700	
10 percent exceeds	643		739		739	
50 percent exceeds	388		395		429	
90 percent exceeds	369		374		340	

* During periods of operation (June 1913 to December 1917, July 1918 to October 1921, June 1922 to September 1973, August 1983 to September 1986, October 1988 to current year).

[a] Gage height, 3.78 ft.

[b] About, backwater from ice.

[c] Result of freezeup.