06101500 MARIAS RIVER NEAR CHESTER, MT

Upper Missouri Basin
Marias Subbasin

LOCATION.--Lat 48°18′23″, long 111°04′47″ referenced to North American Datum of 1927, in SW ¼ SW ¼ SW ¼ sec.34, T.30 N., R.5 E., Liberty County, MT, Hydrologic Unit 10030203, on left bank 2.0 mi downstream from Tiber Dam, 4.4 mi upstream from Pondera Coulee, 15 mi southwest of Chester, and at river mile 78.3.

DRAINAGE AREA.--4,927 mi^2, of which 518 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April to September 1921, October 1945 to September 1947, October 1955 to current year. Monthly discharge only for some periods, published in Water Supply Paper (WSP) 1309.

REVISED RECORDS.-- WSP 1629: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,814.03 ft, referenced to the National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Oct. 1, 1921, nonrecording gage at bridge 2.5 mi downstream at different elevation. Oct. 4, 1945, to Sept. 30, 1946, nonrecording gage at site 3 mi downstream at different elevation.

REMARKS.--Records are good. Flow is completely regulated by Lake Elwell since Oct. 28, 1955 (see preceding page). Bureau of Reclamation satellite telemeter is located at the station. Several unpublished observations of water temperature and specific conductance were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1948 reached a stage of 16 ft, present elevation.

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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	404	404	322	314	314	309	314	649	668	669	676	536
2	403	401	322	314	314	310	314	649	668	672	677	538
3	404	353	319	314	314	309	403	650	668	674	587	537
4	402	322	319	314	314	309	497	654	668	674	534	536
5	403	322	317	314	312	310	497	655	668	674	534	536
6	399	322	318	314	313	310	499	653	668	674	537	536
7	398	323	318	315	313	309	501	653	670	674	536	530
8	399	322	318	314	311	309	499	653	668	674	536	521
9	399	323	316	314	310	308	499	654	732	675	535	515
10	400	323	317	314	310	309	500	654	868	674	537	514
11	398	322	318	314	311	308	500	655	1,660	674	534	514
12	398	322	317	314	310	309	502	655	2,940	675	536	514
13	398	323	314	314	310	309	501	655	4,120	674	536	513
14	400	319	315	314	e310	312	502	655	4,730	669	529	514
15	399	321	315	314	313	314	501	656	4,740	674	532	514
16	398	319	316	314	e310	314	502	655	4,340	674	534	513
17	399	318	315	314	e310	314	503	655	3,570	675	537	513
18	399	317	314	314	e310	312	503	655	2,840	674	537	514
19	401	318	314	314	314	313	503	656	2,190	672	535	513
20	401	318	314	314	314	308	503	657	1,610	674	532	513
21	398	318	314	314	314	319	503	661	1,400	674	525	513
22	400	318	314	314	312	314	503	658	1,070	675	531	510
23	399	318	314	312	313	314	503	650	671	674	532	514
24	398	320	314	314	314	315	596	646	673	674	534	514
25	399	323	314	314	313	316	649	648	671	676	536	514
26	398	322	314	314	312	314	646	662	666	674	536	513
27	401	322	314	314	311	314	646	663	658	674	536	513
28	403	323	315	314	309	314	649	667	668	675	529	514
29	403	323	314	314	---	314	649	668	671	676	542	514
30	403	323	315	314	---	321	647	668	667	674	536	513
31	403	---	314	314	---	314	---	667	---	675	536	---
Total	12,407	9,822	9,794	9,733	8,735	9,674	15,534	20,336	47,501	20,890	16,904	15,566
Mean	400	327	316	314	312	312	518	656	1,583	674	545	519
Max	404	404	322	315	314	321	649	668	4,740	676	677	538
Min	398	317	314	312	309	308	314	646	658	669	525	510
Ac-ft	24,610	19,480	19,430	19,310	17,330	19,190	30,810	40,340	94,220	41,440	33,530	30,880

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2006, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	719	581	444	406	440	593	793	1,184	1,653	1,194	900	829
Max	2,758	1,733	1,050	1,079	1,068	2,400	2,343	3,541	6,254	5,325	2,909	3,063
(WY)	(1966)	(1986)	(1990)	(1990)	(1990)	(1947)	(1996)	(1947)	(1964)	(1975)	(1964)	(1965)
Min	208	0.40	15.7	35.0	35.0	47.7	46.1	51.0	58.9	57.5	82.5	173
(WY)	(1983)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1921)

* During periods of operation (April to September 1921, October 1945 to September 1947, October 1955 to current year).

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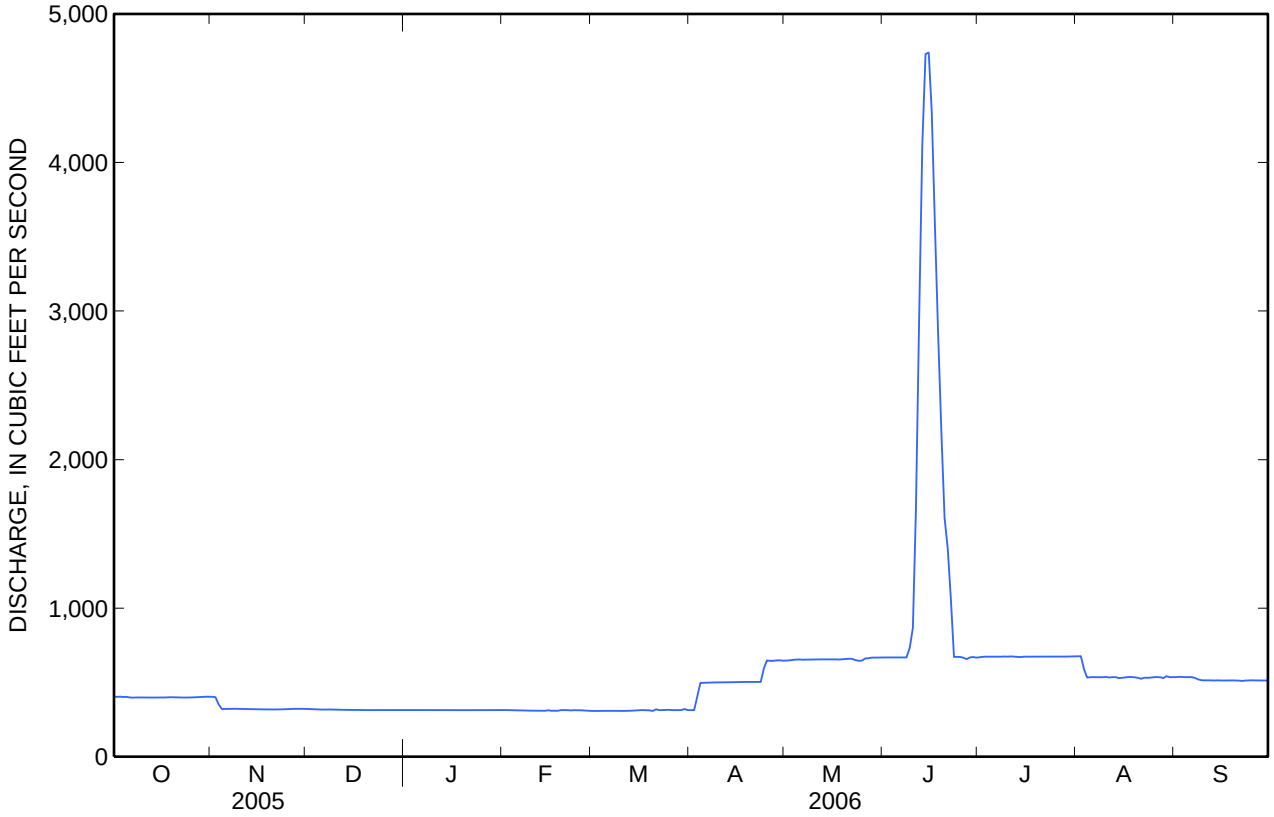
SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1921 - 2006*	
Annual total	158,235		196,896			
Annual mean	434		539		810	
Highest annual mean					1,488	1959
Lowest annual mean					97.5	1956
Highest daily mean	514	Jun 2	4,740	Jun 15	10,100	Jun 12, 1964
Lowest daily mean	314	Dec 13	308	Mar 9	0.20	Oct 29, 1955
Annual seven-day minimum	314	Dec 18	309	Mar 7	0.20	Oct 29, 1955
Maximum peak flow			4,800	Jun 14	[a]10,400	Jun 16, 1964
Maximum peak stage			7.44	Jun 14	10.63	Jun 16, 1964
Instantaneous low flow					[b]0.20	Nov 10, 1955
Annual runoff (ac-ft)	313,900		390,500		587,100	
10 percent exceeds	503		674		1,580	
50 percent exceeds	417		404		529	
90 percent exceeds	319		313		229	

* During periods of operation (April to September 1921, October 1945 to September 1947, October 1955 to current year).
[a] Since dam completion. Maximum discharge not determined; occurred about Mar. 20, 1947.
[b] Probably less than; during Tiber Dam shutdown.