

Water-Data Report 2010

06185500 MISSOURI RIVER NEAR CULBERTSON, MT

Missouri-Poplar Basin
Charlie-Little Muddy Subbasin

LOCATION.--Lat 48°07'30", long 104°28'20" referenced to North American Datum of 1927, in SE ¼ NW ¼ sec.3, T.27 N., R.56 E., Richland County, MT, Hydrologic Unit 10060005, on right bank at upstream side of bridge on State Highway 16, 2.5 mi southeast of Culbertson, 10 mi downstream from Big Muddy Creek, and at river mile 1,620.76.

DRAINAGE AREA.--91,557 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1941 to December 1951, April 1958 to current year.

REVISED RECORDS.--Water Supply Paper 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,883.4 ft, referenced to the National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). July 1 to Nov. 6, 1941, water-stage recorder at site 400 ft. upstream at elevation 0.11 ft. higher. Nov. 7, 1941, to Aug. 17, 1950, water-stage recorder at site 580 ft. downstream at present elevation. Aug. 18, 1950, to Dec. 31, 1951, nonrecording gage on bridge at present elevation. Apr. 1, 1958, to Nov. 1, 1967, water-stage recorder at site 580 ft. downstream at present elevation.

REMARKS.--Records are good except for estimated daily discharges, which are poor. Flow is partly regulated by Fort Peck Lake (station number 06131500) and many other reservoirs upstream from station. Diversions for irrigation of about 1,030,400 acres occur upstream from station. U.S. Army Corps of Engineers satellite telemeter is located at the station.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4,860	4,720	4,940	e4,700	e5,400	e4,700	e5,550	6,950	12,500	9,390	6,950	6,910
2	4,910	4,690	4,940	e4,700	e5,200	e4,700	e5,400	7,150	11,200	9,350	7,080	6,860
3	4,990	4,680	4,930	e4,800	e5,000	e5,200	e5,100	7,210	10,100	9,310	6,570	6,630
4	4,790	4,640	e4,800	e4,800	e4,800	e5,300	e5,500	6,890	9,400	9,210	6,360	6,510
5	4,720	4,500	e4,700	e4,900	e4,600	e5,000	e5,400	6,850	8,600	9,230	6,320	6,450
6	4,700	4,450	e4,440	e4,900	e4,600	e5,200	5,350	7,120	8,180	9,110	6,190	6,630
7	4,660	4,630	e4,000	e4,800	e4,500	e4,800	5,140	7,150	8,010	9,100	6,390	6,990
8	4,680	4,690	e4,000	e4,700	e4,600	e4,800	5,260	7,380	7,600	8,980	6,350	6,720
9	4,570	4,710	e4,400	e5,000	e4,600	e4,800	5,260	7,870	7,510	8,790	6,490	6,700
10	4,580	4,850	e4,500	e4,700	e4,600	e4,800	5,230	7,730	7,720	8,450	6,770	6,380
11	4,690	4,880	e4,700	e4,700	e4,700	e4,900	5,160	7,630	7,920	7,940	6,700	6,550
12	4,740	4,890	e4,800	e4,700	e4,700	e4,900	5,010	7,740	8,240	7,440	6,330	6,660
13	4,830	4,880	e4,800	e4,700	e4,700	e4,900	4,770	8,080	8,760	7,170	6,700	6,680
14	4,850	4,950	e4,700	e4,800	e4,600	e4,800	4,550	7,990	8,880	6,790	6,560	6,900
15	4,830	4,990	e4,700	e4,700	e4,700	e4,900	4,500	8,250	8,310	6,440	6,290	7,240
16	4,900	4,980	e4,700	e4,700	e4,600	e4,900	4,810	8,250	8,230	6,640	6,240	7,970
17	4,900	4,890	e4,700	e4,800	e4,700	e4,800	4,900	8,170	8,300	6,770	6,240	8,330
18	4,830	4,880	e4,700	e4,800	e4,600	e4,900	4,840	8,360	8,040	6,750	6,360	8,300
19	4,780	4,870	e4,800	e4,800	e4,600	e4,800	4,750	8,510	7,880	6,790	6,320	7,920
20	4,840	4,890	e4,800	e4,800	e4,400	e4,900	4,870	8,500	7,960	6,790	6,320	7,590
21	4,820	4,900	e4,700	e5,100	e4,700	e4,900	4,830	8,500	8,980	6,800	6,340	7,310
22	4,880	4,960	e4,700	e4,900	e4,800	e4,800	4,720	8,330	10,200	6,870	6,410	7,280
23	4,900	4,930	e4,700	e4,600	e4,800	e4,700	4,730	7,950	11,700	6,620	6,360	7,310
24	4,830	4,800	e4,700	e4,700	e4,800	e4,800	4,590	7,730	12,600	6,740	6,540	7,130
25	4,880	4,830	e4,800	e4,600	e4,700	e4,800	4,680	8,000	12,500	6,840	6,350	7,000
26	4,890	4,850	e4,800	e4,900	e4,700	e5,000	5,430	8,410	11,900	6,120	5,920	7,020
27	4,780	4,880	e4,600	e5,400	e4,700	e4,980	6,230	9,220	10,600	5,940	6,200	6,980
28	4,760	4,920	e5,000	e5,700	e4,700	e5,150	6,390	9,600	9,990	6,370	6,410	6,960
29	4,820	4,910	e5,000	e5,900	---	e5,200	6,400	10,300	9,650	6,360	6,410	6,790
30	4,760	4,970	e4,800	e5,800	---	e5,500	6,540	13,500	9,440	6,700	6,380	6,870
31	4,720	---	e4,700	e5,600	---	e5,600	---	14,300	---	6,820	6,740	---
Total	148,690	144,610	145,550	152,700	132,100	153,430	155,890	259,620	280,900	232,620	199,590	211,570
Mean	4,796	4,820	4,695	4,926	4,718	4,949	5,196	8,375	9,363	7,504	6,438	7,052
Max	4,990	4,990	5,000	5,900	5,400	5,600	6,540	14,300	12,600	9,390	7,080	8,330
Min	4,570	4,450	4,000	4,600	4,400	4,700	4,500	6,850	7,510	5,940	5,920	6,380
Ac-ft	294,900	286,800	288,700	302,900	262,000	304,300	309,200	515,000	557,200	461,400	395,900	419,600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2010, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	9,935	8,733	8,885	9,625	10,150	9,857	10,030	9,361	9,520	9,846	10,810	10,510
Max	28,570	22,440	13,280	14,400	17,450	20,690	32,840	26,220	26,650	37,050	25,300	26,590
(WY)	(1949)	(1952)	(1944)	(1986)	(1976)	(1976)	(1979)	(1979)	(1975)	(1975)	(1948)	(1948)
Min	1,237	1,126	1,061	1,010	1,167	2,674	1,965	1,353	1,366	1,273	3,823	3,771
(WY)	(1942)	(1942)	(1942)	(1943)	(1942)	(1950)	(1945)	(1945)	(1945)	(1945)	(1963)	(1992)

*During periods of operation (1941-52, 1958 to current year).

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1941 - 2010*	
Annual total	2,165,030		2,217,270			
Annual mean	5,932		6,075		9,762	
Highest annual mean					16,580	1975
Lowest annual mean					4,083	1942
Highest daily mean	8,620	Apr 11	14,300	May 31	69,200	Mar 27, 1943
Lowest daily mean	4,000	Dec 7	4,000	Dec 7	575	Nov 22, 1941
Annual seven-day minimum	4,290	Mar 12	4,390	Dec 5	709	Nov 19, 1941
Maximum peak flow			14,700	May 31	^a 78,200	Mar 26, 1943
Maximum peak stage			7.30	May 31	^a 19.66	Apr 14, 1979
Annual runoff (ac-ft)	4,294,000		4,398,000		7,072,000	
10 percent exceeds	7,090		8,380		15,400	
50 percent exceeds	6,200		5,100		8,800	
90 percent exceeds	4,700		4,700		4,500	
			Water Years 1941 - 1951		Water Years 1958 - 2010	
Annual mean			9,245		9,861	
Highest annual mean			14,520		16,580	1975
Lowest annual mean			4,083		5,741	2005
Highest daily mean			69,200	Mar 27, 1943	52,000	Apr 18, 1979
Lowest daily mean			575	Nov 22, 1941	2,000	Nov 20, 1964
Annual seven-day minimum			709	Nov 19, 1941	2,130	Nov 19, 1964
Maximum peak flow			^a 78,200	Mar 26, 1943	^b 55,000	Mar 23, 1960
Maximum peak stage			^a 15.12	Mar 26, 1943	^a 19.66	Apr 14, 1979
Annual runoff (ac-ft)			6,698,000		7,144,000	
10 percent exceeds			21,000		14,900	
50 percent exceeds			6,910		8,980	
90 percent exceeds			1,400		5,400	

*During periods of operation (1941-52, 1958 to current year).

^aBackwater from ice.

^bGage height, 19.14 ft.

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