

Water-Data Report 2011

12389000 CLARK FORK NEAR PLAINS, MT

Pend Oreille Basin
Lower Clark Fork Subbasin

LOCATION.--Lat 47°25'47", long 114°51'18" referenced to North American Datum of 1927, in E ½ SW ¼ sec.1, T.19 N., R.26 W., Sanders County, MT, Hydrologic Unit 17010213, on right bank 2.4 mi southeast of Plains, 6.0 mi downstream from Flathead River, and at river mile 239.0.

DRAINAGE AREA.--19,958 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods, published in Water Supply Paper (WSP) 1316.

REVISED RECORDS.--WSP 1246: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,449.11 ft, referenced to the National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Nov. 28, 1911, nonrecording gage located at site 50 ft upstream at same elevation.

REMARKS.--Records are fair except for estimated daily discharges, which are poor. Flow is partly regulated by Hungry Horse Reservoir (station number 12362000) and by Flathead Lake (station number 12371500). Diversions for irrigation include about 335,000 acres upstream from station. U.S. Geological Survey satellite telemeter is located at the 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 Several unpublished observations of water temperature and specific conductance were made during the year.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 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	15,900	9,130	12,700	11,100	15,000	17,400	19,300	27,200	72,500	93,200	25,600	12,300
2	15,900	9,130	12,700	10,800	15,900	17,000	22,700	27,000	70,400	93,000	25,300	12,400
3	15,800	9,220	12,800	e11,000	17,000	17,100	25,800	26,900	71,300	89,600	25,900	11,900
4	15,800	9,230	12,700	e11,300	18,100	16,900	25,900	27,100	76,100	87,600	25,800	11,600
5	14,700	9,530	12,500	e11,600	18,300	16,600	25,800	27,600	74,400	87,200	25,500	11,500
6	13,600	9,740	12,400	e11,900	18,300	16,600	25,900	28,100	73,200	86,200	25,200	11,500
7	12,800	9,780	12,200	e12,200	18,400	16,400	25,500	29,100	79,600	83,800	24,100	11,100
8	12,200	9,890	12,000	e12,600	18,300	16,100	25,300	30,800	93,000	78,200	22,900	10,700
9	11,300	10,100	12,200	e12,600	18,900	15,800	24,900	33,200	102,000	72,900	22,200	10,500
10	11,000	10,800	12,400	e12,700	19,300	15,500	24,500	36,000	104,000	69,900	21,900	10,500
11	10,500	11,200	12,600	e12,200	19,300	15,600	24,000	38,400	102,000	63,200	19,900	10,400
12	10,200	11,100	12,600	e12,000	19,400	15,500	24,100	41,100	101,000	58,900	19,100	10,400
13	9,700	11,000	12,700	e11,900	19,800	15,400	24,500	44,300	100,000	55,900	18,100	10,400
14	9,390	11,000	13,500	e12,200	20,000	15,300	25,100	48,700	100,000	54,400	17,400	10,300
15	9,370	11,000	13,700	12,900	20,400	15,500	24,800	56,400	99,400	54,200	16,700	10,100
16	9,350	11,700	13,500	14,700	20,800	15,700	24,900	64,000	98,300	55,500	16,200	9,930
17	9,360	12,600	13,300	17,200	21,100	15,900	25,300	68,100	96,100	55,400	15,700	9,920
18	9,370	12,600	12,700	18,700	21,000	16,100	25,800	68,800	92,700	54,200	15,400	9,760
19	9,380	13,000	12,400	19,100	20,700	16,300	26,500	66,100	89,300	51,600	14,800	9,770
20	9,350	13,100	12,500	18,000	20,400	16,300	26,600	64,500	87,600	49,100	14,300	9,610
21	8,940	12,900	12,300	16,500	19,200	16,300	26,600	65,100	88,000	46,900	13,900	9,430
22	8,530	12,700	12,100	15,800	18,300	16,200	26,500	66,600	89,300	44,600	13,800	9,220
23	8,510	12,300	12,000	15,500	18,600	16,200	26,300	69,000	92,300	43,000	13,700	9,180
24	8,520	e11,100	12,000	15,200	18,900	16,200	26,100	72,600	95,700	41,300	12,800	9,140
25	8,500	e11,100	12,100	14,900	17,900	16,200	25,900	76,900	98,300	38,800	12,400	9,050
26	8,520	11,500	12,100	15,300	18,000	16,300	25,900	82,300	97,900	36,400	12,300	9,010
27	8,690	11,800	12,300	15,300	17,000	16,400	26,100	84,300	93,800	33,900	12,200	8,920
28	8,940	12,100	12,400	15,000	17,500	16,400	26,700	84,600	90,300	30,700	12,200	8,840
29	9,160	12,600	12,600	14,800	---	16,600	26,800	81,000	88,800	27,800	12,300	8,790
30	9,130	12,700	12,700	14,700	---	16,500	27,100	78,200	90,800	26,700	12,300	8,810
31	9,120	---	12,000	14,500	---	17,000	---	75,600	---	26,000	12,300	---
Total	331,530	335,650	388,700	434,200	525,800	503,300	761,200	1,689,600	2,708,100	1,790,100	552,200	304,980
Mean	10,690	11,190	12,540	14,010	18,780	16,240	25,370	54,500	90,270	57,750	17,810	10,170
Max	15,900	13,100	13,700	19,100	21,100	17,400	27,100	84,600	104,000	93,200	25,900	12,400
Min	8,500	9,130	12,000	10,800	15,000	15,300	19,300	26,900	70,400	26,000	12,200	8,790
Ac-ft	657,600	665,800	771,000	861,200	1,043,000	998,300	1,510,000	3,351,000	5,372,000	3,551,000	1,095,000	604,900
Cfsm	0.54	0.56	0.63	0.70	0.94	0.81	1.27	2.73	4.52	2.89	0.89	0.51
In.	0.62	0.63	0.72	0.81	0.98	0.94	1.42	3.15	5.05	3.34	1.03	0.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	10,460	11,450	12,070	11,970	11,880	11,890	19,230	43,880	54,370	25,670	11,030	9,626
Max	23,550	21,170	27,630	22,320	30,070	31,390	47,830	89,760	101,600	76,930	24,840	16,920
(WY)	(1960)	(1928)	(1996)	(1934)	(1996)	(1996)	(1934)	(1928)	(1948)	(1916)	(1916)	(1985)
Min	4,760	4,588	4,075	3,344	3,940	4,636	6,112	13,010	13,560	7,843	5,656	4,768
(WY)	(1932)	(1937)	(1937)	(1937)	(1937)	(1937)	(1937)	(1941)	(1977)	(1940)	(1988)	(1931)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1911 - 2011	
Annual total	5,826,900		10,325,360			
Annual mean	15,960		28,290		19,470	
Highest annual mean					29,420	1996
Lowest annual mean					8,845	1941
Highest daily mean	58,000	Jun 8	104,000	Jun 10	133,000	May 31, 1948
Lowest daily mean	6,880	Mar 27	8,500	Oct 25	^a 3,200	Feb 8, 1936
Annual seven-day minimum	7,060	Mar 25	8,600	Oct 21	3,250	Jan 11, 1937
Maximum peak flow			104,000	Jun 10	134,000	Jun 5, 1948
Maximum peak stage			16.53	Jun 10	19.17	Jun 5, 1948
Instantaneous low flow					^b 3,200	Dec 10, 1940
Annual runoff (ac-ft)	11,560,000		20,480,000		14,110,000	
Annual runoff (cfsm)	0.800		1.42		0.976	
Annual runoff (inches)	10.86		19.25		13.26	
10 percent exceeds	29,200		78,200		44,100	
50 percent exceeds	12,000		16,300		13,000	
90 percent exceeds	7,640		9,750		6,640	

^aEstimated during period of ice-affected gage-height record.

^bGage height, 2.85 ft.

