Water-Data Report 2012

06208500 CLARKS FORK YELLOWSTONE RIVER AT EDGAR, MT

Upper Yellowstone Basin
Clarks Fork Yellowstone Subbasin

LOCATION.--Lat 45°27'57", long 108°50'39" referenced to North American Datum of 1983, in SE ¼ SE ¼ SE ¼ sec.23, T.4 S., R.23 E., Carbon County, MT, Hydrologic Unit 10070006, on right bank 400 ft downstream from county bridge, 0.5 mi east of Edgar, 6 mi upstream from Rock Creek, and at river mile 22.1.

DRAINAGE AREA.--2,022 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1921 to September 1969, October 1986 to current year.

REVISED RECORDS.--Water Supply Paper (WSP) 1509: 1924; 1932, maximum discharge. WSP 1729: Drainage area. Water Data Report MT-04-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,460 ft, referenced to the National Geodetic Vertical Datum of 1929. Prior to Aug. 31, 1953, nonrecording gage located at same site and elevation.

REMARKS.--Records are good except for the estimated daily discharges, which are poor. Diversions for irrigation include about 41,500 acres, of which about 840 acres lie downstream from the station. In addition, about 6,300 acres of land upstream from the station are irrigated by diversions from the adjoining Rock Creek basin. 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 Several unpublished observations of water temperature and specific conductance were made during the year. Discharge values and summary statistics given herein have the diversions to White Horse Canal subtracted.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	358	701	586	e500	e420	400	476	1,340	2,240	3,120	792	138
2	357	742	596	e480	e400	393	632	1,200	3,630	3,030	713	158
3	363	707	535	519	e410	387	610	1,000	5,310	2,920	650	176
4	381	630	e480	546	e410	389	532	848	6,780	2,800	603	194
5	405	676	416	488	e400	400	546	751	7,780	2,770	568	192
6	434	690	516	e480	e390	406	620	772	8,440	2,560	522	198
7	508	657	544	e450	e390	407	590	655	7,000	2,110	483	208
8	633	637	550	e430	e410	390	544	555	5,150	1,910	429	200
9	648	613	704	e450	e400	369	514	546	4,890	1,830	395	223
10	630	625	672	e460	e390	395	510	765	4,810	1,710	368	216
11	626	616	648	e440	e360	392	538	1,140	3,660	1,670	381	198
12	615	614	645	e460	e380	398	677	1,060	2,830	1,650	398	193
13	621	625	653	e470	e390	397	830	1,070	2,520	1,530	371	195
14	613	615	615	e500	e400	399	735	1,250	2,940	1,460	365	212
15	608	611	595	e510	e390	401	693	1,740	3,480	1,480	372	236
16	623	607	585	e340	e370	411	668	2,480	3,390	1,530	384	258
17	685	571	599	e320	380	429	630	3,230	3,400	1,780	361	282
18	798	e520	617	e330	381	462	621	3,700	4,100	1,790	313	276
19	731	e500	595	e320	391	495	609	3,580	4,770	1,550	295	283
20	694	e470	e560	e400	384	488	592	2,860	4,240	1,320	275	294
21	679	e560	537	e440	372	426	564	2,500	3,430	1,190	242	281
22	680	761	620	e480	382	407	581	2,790	3,330	1,110	224	278
23	661	735	637	e460	398	406	870	4,080	3,820	1,050	219	282
24	659	714	587	e420	398	412	1,280	3,700	4,500	1,030	206	286
25	677	635	574	e410	377	477	2,200	2,840	5,080	1,000	199	289
26	729	616	604	e420	380	538	2,790	2,550	5,130	955	198	300
27	728	570	613	e440	378	590	2,830	2,380	5,040	901	190	297
28	697	568	543	e420	369	572	2,480	2,220	4,280	980	165	304
29	690	602	562	e390	390	527	1,970	1,990	3,480	1,060	145	304
30	685	600	575	e410	---	511	1,590	1,980	3,210	1,050	133	307
31	682	---	585	e430	---	487	---	2,010	---	946	132	---
Total	18,898	18,788	18,148	13,613	11,290	13,561	29,322	59,582	132,660	51,792	11,091	7,258
Mean	610	626	585	439	389	437	977	1,922	4,422	1,671	358	242
Max	798	761	704	546	420	590	2,830	4,080	8,440	3,120	792	307
Min	357	470	416	320	360	369	476	546	2,240	901	132	138
Ac-ft	37,480	37,270	36,000	27,000	22,390	26,900	58,160	118,200	263,100	102,700	22,000	14,400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2012, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	537	505	409	353	350	365	555	2,095	4,051	2,045	592	459
Max	1,010	777	593	512	584	554	1,398	5,578	7,256	6,366	1,541	1,395
(WY)	(1942)	(1928)	(1996)	(1997)	(1963)	(1943)	(1943)	(1928)	(1996)	(2011)	(1951)	(1941)
Min	298	310	217	200	180	220	123	710	1,768	290	49.5	156
(WY)	(1956)	(1936)	(1937)	(1922)	(1922)	(1924)	(1961)	(2010)	(1987)	(1988)	(1988)	(1988)

*During periods of operation (water years 1921-69, 1987 to current year).

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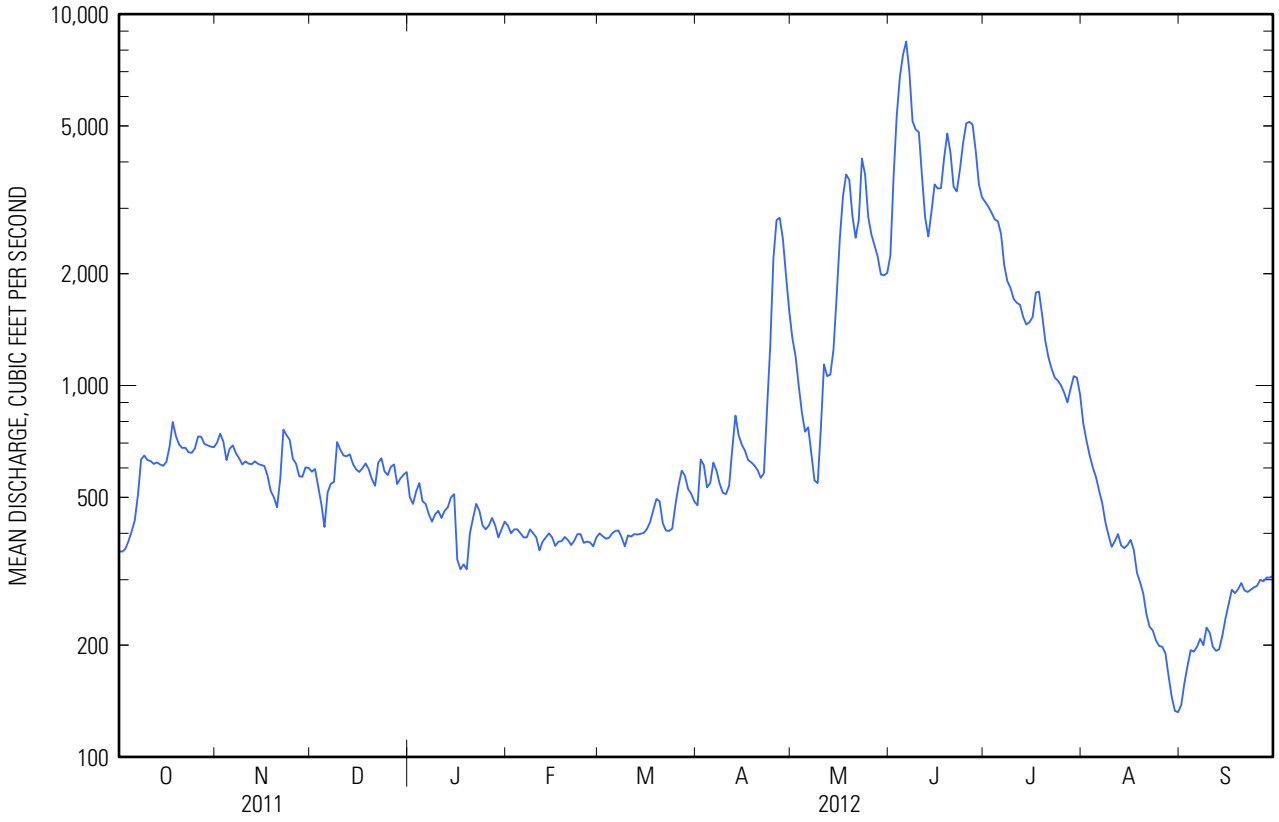
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1921 – 2012*	
Annual total	564,983		386,003			
Annual mean	1,548		1,055		1,028	
Highest annual mean					1,623	1997
Lowest annual mean					644	2001
Highest daily mean	10,300	Jul 1	8,440	Jun 6	10,600	Jun 2, 1936
Lowest daily mean	260	Jan 2	132	Aug 31	37	May 11, 1961
Annual seven-day minimum	320	Feb 20	150	Aug 28	43	Apr 18, 1961
Maximum peak flow			8,920	Jun 6	11,100	Jun 12, 1997
Maximum peak stage			8.44	Jun 6	9.30	Jun 12, 1997
Instantaneous low flow			[a]124	Aug 30	36	Apr 22, 1961
Annual runoff (ac-ft)	1,121,000		765,600		744,400	
10 percent exceeds	5,350		2,850		2,820	
50 percent exceeds	585		578		467	
90 percent exceeds	360		292		273	

*During periods of operation (water years 1921-69, 1987 to current year).
[a]Gage height, 0.86 ft.