Water-Data Report 2013

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 North American Vertical Datum of 1988. 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 Several unpublished observations of water temperature and specific conductance were made during the year.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 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	302	555	509	e420	e310	330	324	468	2,140	2,280	319	134
2	303	565	505	e420	e320	347	334	414	1,850	2,060	322	140
3	324	545	508	e420	e330	358	366	397	1,970	1,900	355	137
4	351	545	506	e420	e330	353	394	398	2,530	1,700	323	137
5	378	533	500	e420	e330	339	412	406	2,320	1,940	301	142
6	394	529	504	e420	e320	315	421	414	2,170	2,260	282	143
7	433	507	517	e430	e330	330	442	444	2,570	2,120	261	153
8	456	509	519	e430	e330	346	416	782	3,430	1,860	229	168
9	447	516	e450	e430	e330	336	401	1,090	4,330	1,620	209	263
10	450	541	e410	e420	e310	330	378	1,250	5,000	1,420	214	194
11	435	e530	e430	e420	e310	329	348	1,360	5,660	1,180	223	184
12	445	e520	e470	e400	e310	324	375	1,640	5,660	1,030	218	181
13	443	503	e500	e370	e290	330	372	2,380	5,310	896	198	202
14	424	546	e500	e330	e310	326	381	3,630	5,070	839	187	326
15	426	570	e500	e300	e330	335	388	4,740	4,170	788	186	630
16	430	548	e500	e300	e330	338	363	4,700	3,040	673	172	1,150
17	435	531	e500	e300	e330	352	353	4,480	2,570	675	171	735
18	492	527	e500	e320	e340	352	349	4,460	2,550	725	157	744
19	500	530	e480	e320	e350	343	332	4,000	2,720	694	143	1,110
20	464	522	e420	e320	355	321	327	3,520	2,750	682	138	1,070
21	454	511	e460	e330	357	328	327	2,900	2,520	620	130	984
22	462	510	e470	e330	357	323	329	2,580	2,100	530	129	881
23	489	508	e470	e330	345	326	331	2,770	1,760	445	126	797
24	494	491	e460	e330	342	306	319	3,590	1,530	365	121	732
25	497	493	e400	e330	343	294	306	3,910	1,460	287	124	704
26	498	533	e400	e330	328	291	316	3,460	1,660	245	130	738
27	475	507	e420	e330	335	307	313	3,110	2,280	223	130	766
28	484	462	e430	e330	336	313	337	2,780	2,620	231	119	747
29	501	505	e440	e330	---	309	475	2,820	2,680	245	116	714
30	499	505	e430	e330	---	312	503	3,150	2,550	251	112	678
31	532	---	e420	e320	---	316	---	2,590	---	240	116	---
Total	13,717	15,697	14,528	11,230	9,238	10,159	11,032	74,633	88,970	31,024	5,961	15,684
Mean	442	523	469	362	330	328	368	2,408	2,966	1,001	192	523
Max	532	570	519	430	357	358	503	4,740	5,660	2,280	355	1,150
Min	302	462	400	300	290	291	306	397	1,460	223	112	134
Ac-ft	27,210	31,140	28,820	22,270	18,320	20,150	21,880	148,000	176,500	61,540	11,820	31,110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2013, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	536	505	410	353	350	364	552	2,099	4,036	2,031	587	460
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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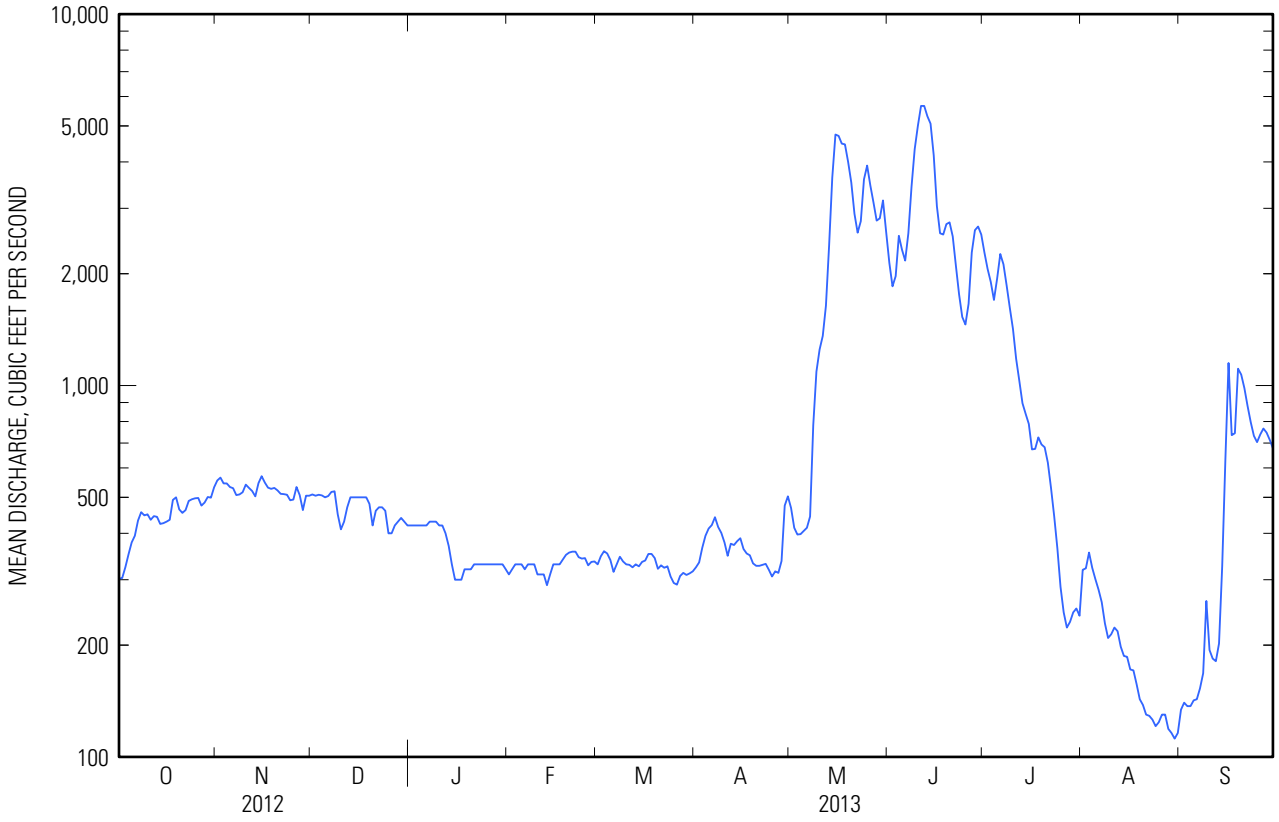
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1921 – 2013*	
Annual total	374,111		301,873			
Annual mean	1,022		827		1,025	
Highest annual mean					1,623	1997
Lowest annual mean					644	2001
Highest daily mean	8,440	Jun 6	5,660	Jun 11	10,600	Jun 2, 1936
Lowest daily mean	132	Aug 31	112	Aug 30	37	May 11, 1961
Annual seven-day minimum	150	Aug 28	121	Aug 25	43	Apr 18, 1961
Maximum peak flow			6,090	Jun 11	11,100	Jun 12, 1997
Maximum peak stage			7.03	Jun 11	9.30	Jun 12, 1997
Instantaneous low flow			[a]104	Aug 30	36	Apr 22, 1961
Annual runoff (ac-ft)	742,000		598,800		742,500	
10 percent exceeds	2,850		2,520		2,820	
50 percent exceeds	498		420		466	
90 percent exceeds	292		227		273	

*During periods of operation (water years 1921-69, 1987 to current year).
[a]Gage height, 0.73 ft.