06188000 LAMAR RIVER NEAR TOWER FALLS RANGER STATION, YELLOWSTONE NATIONAL PARK

Upper Yellowstone Basin
Yellowstone Headwaters Subbasin

LOCATION.--Lat 44°55'41", long 110°23'39" referenced to North American Datum of 1983, Park County, WY, Hydrologic Unit 10070001, Yellowstone National Park, on left bank 0.5 mi north of the Cooke City highway, 1.6 mi northeast of Tower Falls Ranger Station, 2.7 mi downstream from Slough Creek, and at river mile 0.5.

DRAINAGE AREA.--660 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1923 to September 1969, May 1985 to September 1986 (seasonal records only), October 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,000 ft, referenced to the National Geodetic Vertical Datum of 1929. Prior to Sept. 16, 1925, nonrecording gage and Sept. 16, 1925 to July 29, 1927, water-stage recorder at same site at elevation 1.00 ft higher. July 29, 1927 to Sept. 30, 1969, water-stage recorder at same site and elevation. May 1985 to September 1986, nonrecording gage at same site and elevation.

REMARKS.--Records are good except estimated daily discharges, which are poor. No regulation or diversion occurs 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 Several unpublished observations of water temperature and specific conductance were made during the year.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 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	175	208	e140	e100	e80	e70	482	1,650	4,000	1,880	360	164
2	173	e140	e140	e100	e80	e80	421	1,410	5,250	1,780	340	246
3	177	e150	e120	e100	e60	e80	376	1,260	6,950	1,660	320	209
4	178	e160	e100	e100	e40	e100	439	1,230	8,090	1,570	311	169
5	179	e150	e80	e100	e50	e110	518	1,400	8,840	1,410	297	157
6	202	e140	e100	e90	e70	e90	497	1,250	7,570	1,290	286	152
7	218	e160	e120	e60	e70	e70	393	1,200	4,820	1,170	296	158
8	220	e180	e140	e90	e70	e80	346	1,380	4,680	1,120	276	153
9	225	e180	e130	e100	e80	e100	365	2,080	5,800	1,050	263	146
10	216	e170	e100	e100	e90	e110	468	3,230	4,270	979	269	141
11	217	e190	e110	e80	e90	e120	698	2,500	3,380	942	329	135
12	250	e210	e110	e40	e90	e130	1,040	2,600	3,170	893	292	134
13	229	e190	e110	e70	e90	e120	821	3,040	3,420	840	254	133
14	215	e180	e130	e90	e90	e130	695	3,930	3,740	876	236	132
15	222	e160	e140	e100	e80	e150	686	4,960	3,590	923	224	130
16	259	e130	e140	e90	e50	e160	610	5,750	3,280	818	220	129
17	379	e160	e130	e70	e70	e190	586	5,860	3,750	850	212	134
18	303	e160	e110	e40	e70	e180	585	5,760	3,950	710	202	129
19	249	e140	e110	e100	e60	e170	571	4,360	3,720	644	194	125
20	228	e150	e100	e100	e40	e160	533	3,920	3,030	600	193	122
21	220	e170	e100	e100	e70	e180	767	4,420	2,830	569	192	120
22	223	e170	e80	e90	e90	e220	1,410	6,100	3,000	538	186	119
23	218	e160	e50	e80	e80	e250	1,960	5,700	3,200	524	180	118
24	212	e140	e80	e70	e90	249	3,000	3,980	3,340	499	172	119
25	230	e120	e100	e80	e90	297	4,100	3,130	3,230	463	166	124
26	205	e110	e110	e80	e80	373	4,240	2,720	3,130	431	164	136
27	187	e130	e120	e70	e70	341	4,130	2,880	2,780	425	170	132
28	187	e150	e130	e70	e80	295	2,610	2,480	2,290	562	159	124
29	189	e160	e130	e80	e90	273	1,940	2,380	2,140	464	149	120
30	184	e160	e130	e80	---	240	1,600	2,560	2,020	417	143	120
31	186	---	e120	e90	---	287	---	2,540	---	380	143	---
Total	6,755	4,778	3,510	2,610	2,160	5,405	36,887	97,660	123,260	27,277	7,198	4,230
Mean	218	159	113	84.2	74.5	174	1,230	3,150	4,109	880	232	141
Max	379	210	140	100	90	373	4,240	6,100	8,840	1,880	360	246
Min	173	110	50	40	40	70	346	1,200	2,020	380	143	118
Ac-ft	13,400	9,480	6,960	5,180	4,280	10,720	73,170	193,700	244,500	54,100	14,280	8,390

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2012, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	212	159	121	107	102	118	494	2,913	4,261	1,355	347	225
Max	485	330	202	200	171	274	1,684	6,885	9,044	3,839	886	518
(WY)	(1942)	(1928)	(1951)	(1969)	(1969)	(2007)	(1990)	(1928)	(1996)	(2011)	(1968)	(1968)
Min	109	88.1	75.5	71.8	70.0	67.9	106	969	1,408	344	173	115
(WY)	(1989)	(1937)	(1953)	(1989)	(1942)	(1964)	(1945)	(1933)	(1934)	(1931)	(1940)	(1988)

*During periods of operation [September 1922, April 1923 to September 1969, May 1985 to September 1986 (seasonal records only), October 1988 to current year].

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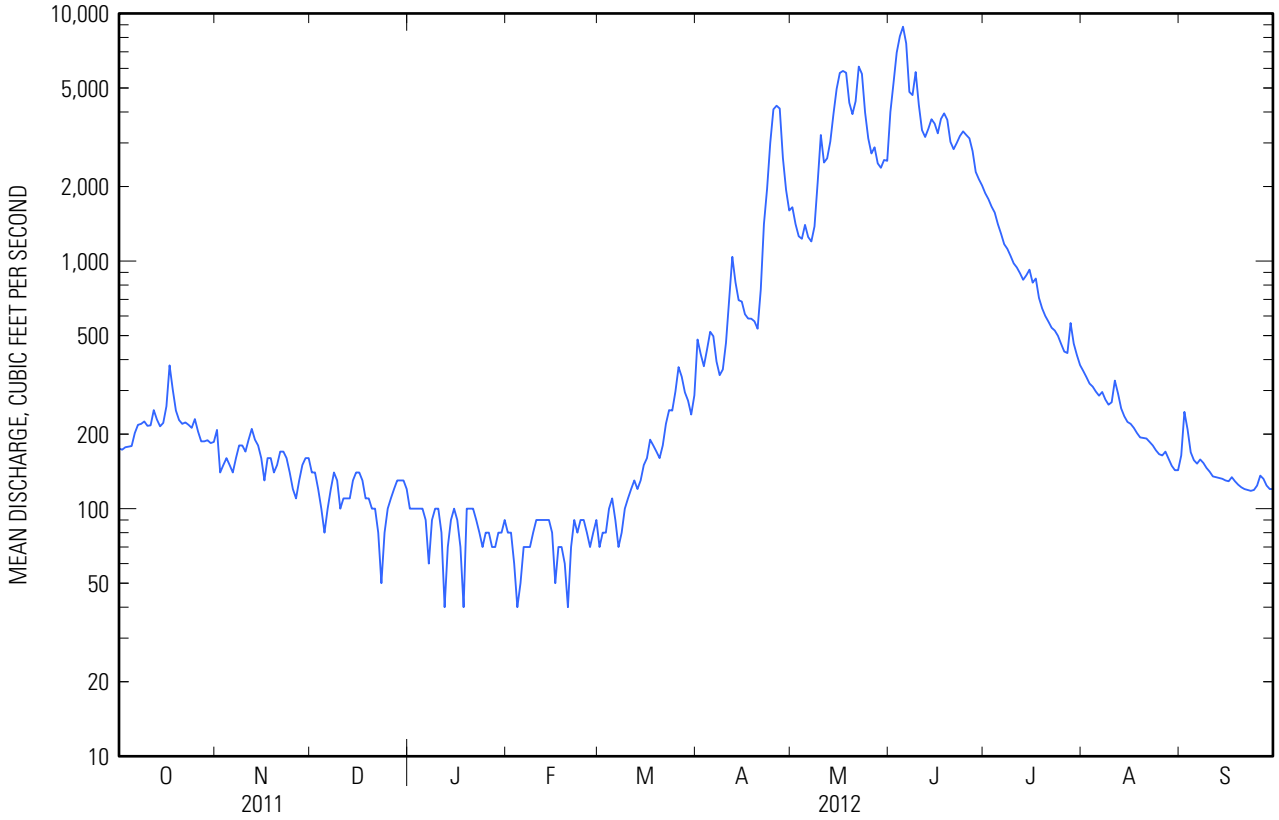
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1923 – 2012*	
Annual total	475,495		321,730			
Annual mean	1,303		879		874	
Highest annual mean					1,531	1997
Lowest annual mean					525	1934
Highest daily mean	12,300	Jun 24	8,840	Jun 5	15,600	Jun 10, 1996
Lowest daily mean	50	Dec 23	40	Jan 12	40	Jan 12, 2012
Annual seven-day minimum	89	Dec 19	63	Feb 2	57	Mar 5, 1964
Maximum peak flow			10,200	Jun 5	19,500	Jun 10, 1996
Maximum peak stage			8.58	Jun 5	12.15	Jun 10, 1996
Instantaneous low flow					[a]40	Mar 16, 1945
Annual runoff (ac-ft)	943,100		638,200		633,100	
10 percent exceeds	4,750		3,180		2,950	
50 percent exceeds	210		187		183	
90 percent exceeds	126		80		90	

*During periods of operation [September 1922, April 1923 to September 1969, May 1985 to September 1986 (seasonal records only), October 1988 to current year].

[a]Observed, but may have been lower during periods of no gage-height record in the winter.