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

Upper Yellowstone Basin
Yellowstone Headwaters Subbasin

LOCATION.--Lat 44°55′40″, long 110°23′35″ referenced to North American Datum of 1927, 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.--September 1922, April 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 those for 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 Several unpublished observations of water temperature and specific conductance were made during the year.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 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	144	e150	e150	e150	e90	e95	365	5,160	1,910	705	261	152
2	143	e160	e160	e170	e90	e90	363	5,520	2,110	662	273	147
3	240	e170	e160	e150	e110	e90	309	5,260	2,470	626	271	137
4	273	e180	e180	e140	e120	e110	311	3,430	2,560	595	261	130
5	217	189	e190	e150	e130	e100	335	2,740	2,690	582	244	168
6	207	182	e190	e150	e140	e120	355	2,180	3,040	550	275	301
7	338	280	e190	e150	e140	e130	394	2,340	2,920	536	252	243
8	507	687	e190	e160	e150	e150	468	3,260	2,290	525	219	185
9	352	731	e190	e170	e150	e160	636	4,220	2,060	487	206	162
10	295	435	e200	e120	e150	e180	567	4,730	2,000	451	199	160
11	278	383	e210	e100	e140	e200	480	5,310	2,020	425	190	154
12	261	338	e210	e80	e130	e230	421	5,740	2,010	400	180	143
13	248	308	e220	e85	e130	e250	424	6,080	1,990	386	171	137
14	238	e280	e220	e90	e120	e220	475	5,870	1,960	377	170	136
15	228	e250	e200	e95	e130	e200	653	4,760	1,900	369	164	135
16	248	e250	e150	e100	e130	e220	662	4,410	1,890	345	158	132
17	284	e240	e130	e110	e110	e250	1,060	4,420	1,830	333	190	128
18	238	e220	e120	e110	e120	e300	1,230	4,270	1,590	328	240	133
19	228	e210	e130	e120	e120	e350	1,030	4,270	1,370	302	227	143
20	252	e200	e150	e140	e120	e380	822	4,210	1,350	281	207	139
21	246	e210	e150	e120	e110	e360	803	4,180	1,320	268	200	128
22	218	e200	e150	e120	e120	e350	761	3,280	1,270	254	203	125
23	208	e190	e140	e130	e110	e330	839	2,650	1,210	245	202	155
24	227	e180	e150	e120	e110	309	927	2,300	1,120	258	201	215
25	252	e170	e160	e110	e110	404	1,260	2,080	1,040	398	181	192
26	209	e170	e190	e110	e100	491	1,600	1,890	951	406	162	162
27	214	e180	e200	e110	e100	605	1,540	1,960	885	518	150	148
28	206	e160	e180	e110	e100	585	2,380	2,480	835	409	146	141
29	199	e140	e160	e100	---	432	3,840	2,510	799	334	142	139
30	e180	e130	e150	e100	---	411	4,980	2,050	749	295	138	141
31	e160	---	e140	e110	---	382	---	2,010	---	272	138	---
Total	7,538	7,573	5,310	3,780	3,380	8,484	30,290	115,570	52,139	12,922	6,221	4,711
Mean	243	252	171	122	121	274	1,010	3,728	1,738	417	201	157
Max	507	731	220	170	150	605	4,980	6,080	3,040	705	275	301
Min	143	130	120	80	90	90	309	1,890	749	245	138	125
Ac-ft	14,950	15,020	10,530	7,500	6,700	16,830	60,080	229,200	103,400	25,630	12,340	9,340

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2007, BY WATER YEAR (WY) *

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	213	158	121	107	102	116	490	2,905	4,161	1,311	345	228
Max	485	330	202	200	171	274	1,684	6,885	9,044	3,256	886	518
(WY)	(1942)	(1928)	(1951)	(1969)	(1969)	(2007)	(1990)	(1928)	(1996)	(1943)	(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 record [September 1922, April 1923 to September 1969, May 1985 to September 1986 (seasonal records only), October 1988 to current year].

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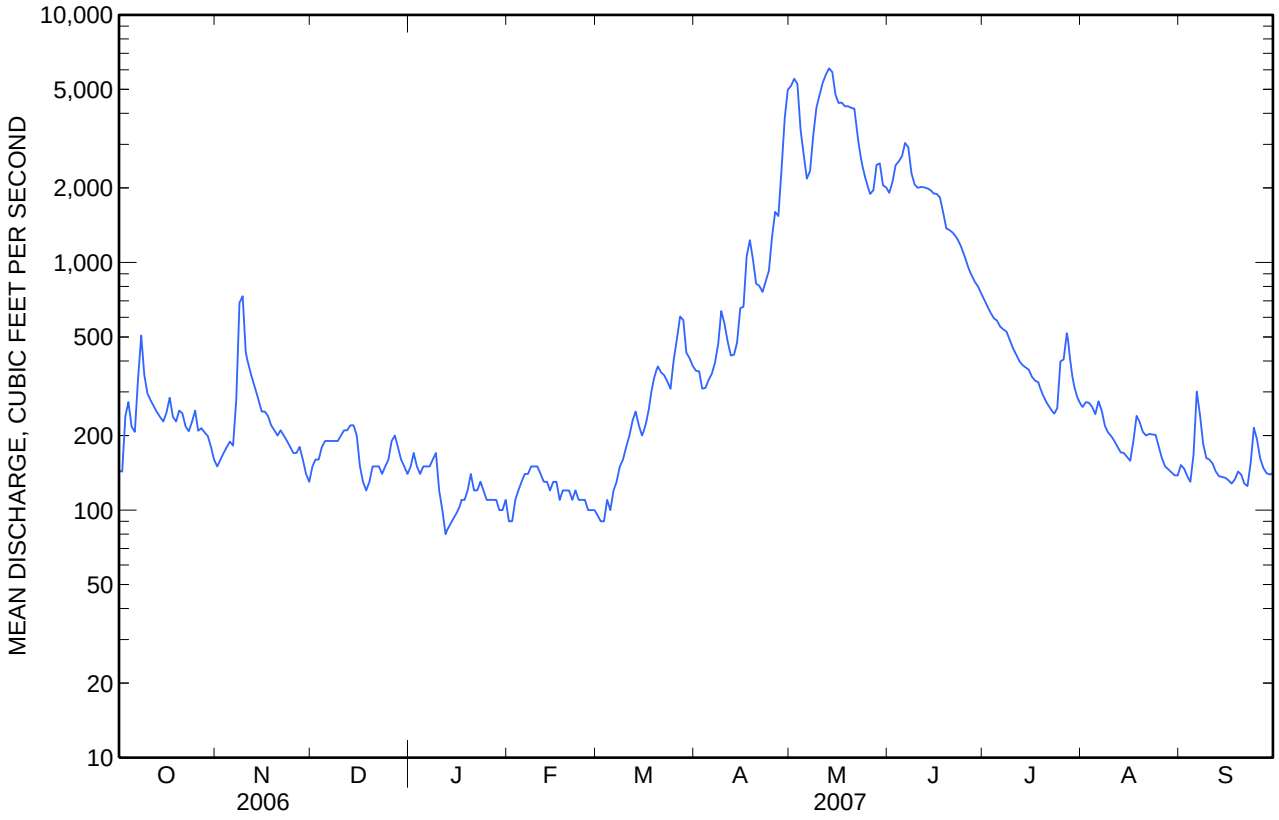
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1923 - 2007*	
Annual total	320,158		257,918			
Annual mean	877		707		861	
Highest annual mean					1,531	1997
Lowest annual mean					525	1934
Highest daily mean	8,570	May 19	6,080	May 13	15,600	Jun 10, 1996
Lowest daily mean	50	Feb 18	80	Jan 12	45	Mar 23, 1964
Annual seven-day minimum	70	Feb 15	94	Jan 11	57	Mar 5, 1964
Maximum peak flow			7,570	May 14	19,500	Jun 10, 1996
Maximum peak stage			7.54	May 14	12.15	Jun 10, 1996
Instantaneous low flow					[a]40	Mar 16, 1945
Annual runoff (ac-ft)	635,000		511,600		623,600	
10 percent exceeds	2,700		2,090		2,900	
50 percent exceeds	194		220		183	
90 percent exceeds	110		120		90	

* During periods of record [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.