

Water-Data Report 2013

06329500 YELLOWSTONE RIVER NEAR SIDNEY, MT

Yellowstone Basin
Lower Yellowstone Subbasin

LOCATION.--Lat 47°40'39", long 104°09'19" referenced to North American Datum of 1983, in SW ¼ NE ¼ SW ¼ sec.9, T.22 N., R.59 E., Richland County, MT, Hydrologic Unit 10100004, on left bank at Montana-Dakota Utilities Company powerplant, 0.2 mi downstream from bridge on State Highway 23, 2.5 mi south of Sidney, 3.0 mi downstream from Fox Creek, and at river mile 29.2.

DRAINAGE AREA.--69,083 mi² of which 691 mi² probably is noncontributing. Area at site 4.5 mi upstream. 68,812 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1910 to September 1931 (published as "at Intake"), October 1933 to current year. If monthly figures of diversions to Lower Yellowstone Canal at Intake are added to records at this site, records equivalent to those published as Yellowstone River at Glendive (1898-1910, 1931-34) can be obtained. Monthly discharge only for some periods, published in Water Supply Paper (WSP) 1309. Monthly figures of diversions into Lower Yellowstone Canal prior to 1951 published in WSP 1309, 1951-60 published in WSP 1729, 1961-65 published in WSP 1916, 1966-70 published in WSP 2116, and 1971 to current year are published in annual reports.

REVISED RECORDS.--Water Data Report MT-04-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,881.3 ft, referenced to National Geodetic Vertical Datum of 1929, levels by U.S. Army Corps of Engineers. Jan. 1, 1911, to Sept. 30, 1931, nonrecording gage at site 32 miles upstream at different elevation. Apr. 9, 1934, water-stage recorder at two sites within 500 ft of highway bridge 0.2 mi upstream and May 17, 1945, to Apr. 3, 1952, nonrecording gage on same bridge at elevation 1.36 ft higher. Apr. 4, 1952, to Nov. 19, 1967, water-stage recorder at site 4.5 mi upstream at different elevation.

REMARKS.--Records are good except for estimated daily discharges, which are poor. Flow is regulated to some extent by Bighorn Lake, usable capacity, 1,312,000 acre-ft, on the Bighorn River and on other tributary streams in Wyoming and Montana. Diversion for irrigation of about 1,250,000 acres occurs upstream from station. Lower Yellowstone Project Main Canal diverts from left bank in NW¼ sec.36, T.18 N., R.56 E., at Lower Yellowstone diversion dam at Intake about 36.6 mi upstream for irrigation of about 52,000 acres of which about one-third lies upstream from station. U.S. Army Corps of Engineers satellite telemeter is located at the station.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

[e, estimated; &, affected value]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4,040	5,550	e5,860	e2,040	e4,660	e5,240	6,280	4,800	52,000	18,300	3,440	2,470
2	4,170	5,630	e5,720	e2,780	e4,660	e5,350	5,880	4,650	48,600	17,700	3,590	2,380
3	4,590	5,640	5,780	e3,470	e4,660	e5,570	5,730	4,560	38,500	17,200	3,620	2,520
4	4,830	5,680	5,950	e4,460	e4,660	e5,570	5,740	5,010	32,000	16,500	4,240	2,720
5	4,480	5,870	5,910	e4,720	e4,780	e5,570	5,610	5,490	26,400	15,200	7,460	2,810
6	4,420	5,880	&5,890	e4,600	e4,710	e5,570	5,520	5,530	23,600	14,100	6,340	3,000
7	4,470	5,790	e5,890	e4,600	e5,150	e5,570	5,460	5,280	23,800	13,000	5,540	3,080
8	4,780	5,740	e5,830	e4,440	e5,080	e5,570	5,450	4,720	22,900	12,900	5,100	2,950
9	5,100	5,710	e4,750	e4,440	e5,080	e5,740	5,580	4,250	21,500	15,600	4,690	3,210
10	5,220	e5,650	e2,970	e4,440	e5,080	e5,730	5,790	4,450	21,400	15,300	4,480	3,360
11	5,260	e5,530	e4,580	e4,440	e5,080	e5,730	6,190	4,260	23,600	14,100	4,180	4,460
12	5,320	e5,400	e4,190	e4,660	e5,080	e5,730	6,390	5,230	27,300	13,400	3,810	4,760
13	5,530	e5,200	e4,720	e4,660	e5,080	e5,730	6,270	8,190	30,600	11,600	3,860	4,460
14	5,400	e5,270	e4,610	e4,390	e5,080	e5,730	6,380	9,790	33,800	10,300	3,800	4,260
15	5,240	e5,280	e4,730	e4,280	e5,080	e5,730	6,190	10,100	36,900	9,450	4,020	4,070
16	5,340	e5,240	e4,600	e4,120	e5,080	e5,830	6,260	11,200	37,100	8,530	3,850	3,970
17	5,460	e5,410	e4,840	e4,010	e5,080	e5,890	6,370	15,700	37,100	8,010	3,440	4,180
18	5,340	5,700	e5,310	e4,010	e5,080	e5,890	6,290	22,200	33,300	7,440	3,410	5,030
19	5,220	5,910	e4,850	e4,010	e5,080	e5,830	6,270	24,000	27,800	6,780	3,390	6,700
20	5,270	5,980	e3,960	e4,010	e5,080	e5,780	6,390	24,400	24,800	6,240	3,350	8,100
21	5,310	5,990	e4,180	e4,340	e5,080	e5,260	6,340	25,500	23,400	6,020	3,320	7,270
22	5,490	5,970	e4,030	e4,340	e5,080	e5,620	6,300	26,100	23,300	6,040	3,230	7,100
23	5,820	6,140	e3,300	e4,500	e5,080	e5,510	5,990	25,600	23,500	5,830	2,840	7,640
24	5,840	5,960	e2,380	e4,600	e5,080	e4,890	5,660	23,500	22,900	5,430	2,520	7,770
25	5,580	5,910	e1,530	e4,660	e5,080	e5,190	5,620	21,500	20,600	5,040	2,170	7,360
26	5,580	e5,870	e985	e4,760	e5,080	e5,190	5,560	21,000	18,800	4,570	2,210	6,930
27	5,630	e5,930	e836	e5,020	e5,080	e5,410	5,420	24,000	16,700	3,950	2,260	6,800
28	5,680	e5,870	e658	e4,920	e5,320	e6,060	5,270	26,300	15,400	3,560	2,160	6,950
29	5,680	e5,810	e848	e4,840	---	e6,100	5,060	25,100	15,700	3,450	2,430	7,070
30	5,700	e5,830	e1,240	e4,660	---	e6,200	4,900	26,100	17,600	3,480	3,070	7,300
31	5,620	---	e1,640	e4,660	---	e6,300	---	40,000	---	3,440	2,840	---
Total	161,410	171,340	122,567	133,880	140,200	175,080	176,160	468,510	820,900	302,460	114,660	150,680
Mean	5,207	5,711	3,954	4,319	5,007	5,648	5,872	15,110	27,360	9,757	3,699	5,023
Max	5,840	6,140	5,950	5,020	5,320	6,300	6,390	40,000	52,000	18,300	7,460	8,100
Min	4,040	5,200	658	2,040	4,660	4,890	4,900	4,250	15,400	3,440	2,160	2,380
Ac-ft	320,200	339,900	243,100	265,600	278,100	347,300	349,400	929,300	1,628,000	599,900	227,400	298,900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2013, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	8,163	7,282	5,898	5,664	6,704	10,530	10,030	18,300	38,140	22,540	8,439	6,956
Max	29,130	12,150	9,594	13,110	17,750	25,980	39,160	48,400	77,280	58,540	20,470	16,000
(WY)	(1924)	(1924)	(1976)	(1925)	(1971)	(1972)	(1924)	(2011)	(1918)	(2011)	(1912)	(1941)
Min	3,726	3,700	3,019	2,087	2,702	3,235	2,821	5,409	11,580	3,311	1,602	2,389
(WY)	(1922)	(1922)	(1961)	(1937)	(1936)	(2002)	(1961)	(1961)	(1919)	(1919)	(1961)	(1934)

*During periods of operation 1911-31, 1934 to current year. Published as "at Intake" 1911-31.

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