Water-Data Report 2013

06652000 NORTH PLATTE RIVER AT ORIN, WY

North Platte Basin
Glendo Reservoir Subbasin

LOCATION.--Lat 42°39'09.1", long 105°09'31.0" referenced to North American Datum of 1927, in NE ¼ SE ¼ SW ¼ sec.17, T.31 N., R.69 W., Converse County, WY, Hydrologic Unit 10180008, on right bank 0.5 mi downstream from bridge on State Highway 319, 0.1 mi downstream from Shawnee Creek, and 1.5 mi east of Orin. Prior to Mar. 6, 1994, at site 0.3 mi upstream from station.

DRAINAGE AREA.--15,025 mi^2 of which 1,203 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January, April to November 1895, April to October 1896, January 1897 to December 1898, April to November 1899, April to September 1917, April to September 1918, May to September 1924, April 1958 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Orin Junction" 1895, 1897-99 and as "at McKinley" 1917-18.

REVISED RECORDS.--WSP 1310: 1896, 1899. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Concrete weir since March 6, 1994. Elevation of gage is 4,660 ft above NGVD of 1929, from topographic map. January 1, 1895 to November 30, 1899, and May 1 to September 30, 1924, nonrecording gage at railroad bridge upstream from State Highway 319 at different datum. April 1, 1917 to September 30, 1918, nonrecording gage at site 1.9 mi downstream from station at different datum. April 1958 to March 5, 1994, at site 0.3 mi upstream from station at different datum. Wyoming State Engineer's Office data collection platform with satellite telemetry at station.

COOPERATION.--Twelve discharge measurements provided by the Wyoming State Engineer's Office and one discharge measurement provided by U.S. Bureau of Reclamation.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Major regulation began after completion of Pathfinder Reservoir in April 1909. Natural flow of stream affected by storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas. Quality of water data were collected and are available at http://waterdata.usgs.gov/usa/nwis/qw.

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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	590	568	568	e560	544	614	692	1,580	1,090	2,780	2,070	660
2	581	568	567	e560	650	617	652	1,460	1,080	2,710	1,970	576
3	569	564	569	e570	614	668	638	1,380	1,020	2,710	1,920	526
4	578	558	565	e580	644	696	632	1,380	945	2,770	1,920	513
5	574	563	566	e600	641	668	640	1,350	888	2,800	1,890	496
6	588	564	561	e620	643	627	643	1,340	861	2,920	1,870	497
7	586	561	551	e640	655	623	694	1,310	844	2,770	1,850	505
8	604	564	559	e620	623	609	778	1,330	850	2,760	1,850	e500
9	598	554	539	e620	631	617	933	1,330	840	2,700	1,870	e490
10	594	570	508	e640	661	606	1,040	1,370	828	2,670	1,870	e480
11	586	570	472	e680	578	613	1,020	1,380	823	2,680	1,930	472
12	576	576	e520	e620	519	615	1,110	1,340	803	2,710	1,910	492
13	580	550	e560	e550	480	614	1,150	1,320	1,260	2,710	1,880	535
14	572	591	e560	e500	503	611	1,140	1,280	1,970	2,700	1,880	594
15	573	572	e550	e520	663	607	1,110	1,250	2,390	2,680	1,900	602
16	573	575	e540	e560	621	606	1,120	1,260	2,540	2,690	1,880	651
17	581	580	e540	e600	631	613	1,150	1,250	2,530	2,520	1,880	624
18	565	567	e520	e620	686	610	1,100	1,210	2,470	2,410	1,870	589
19	567	569	e500	e640	661	590	1,090	1,250	2,550	2,430	1,880	544
20	561	565	e470	e640	585	585	1,180	1,680	2,670	2,720	1,860	534
21	566	567	e320	e560	629	595	1,230	2,100	2,690	2,660	1,870	531
22	560	567	e280	e580	624	654	1,260	2,290	2,730	2,630	1,890	532
23	571	558	e480	e590	595	778	1,250	2,040	2,790	2,590	1,900	543
24	607	570	e410	e620	597	1,380	1,190	1,880	2,800	2,490	1,560	533
25	611	571	e420	e640	624	1,410	1,150	1,630	2,740	2,390	1,250	524
26	616	586	e380	e660	574	1,420	1,130	1,440	2,740	2,350	1,210	522
27	584	591	e320	e680	621	1,480	1,150	1,300	2,710	2,360	1,190	555
28	575	588	e370	684	607	1,470	1,260	1,180	2,730	2,430	1,180	658
29	578	578	e480	672	---	1,470	1,450	1,120	2,700	2,650	960	623
30	574	568	e580	601	---	1,340	1,550	1,130	2,740	2,680	751	591
31	571	---	e580	556	---	770	---	1,090	---	2,510	720	---
Total	18,009	17,093	15,405	18,783	17,104	25,176	31,132	44,250	56,622	81,580	52,431	16,492
Mean	581	570	497	606	611	812	1,038	1,427	1,887	2,632	1,691	550
Max	616	591	580	684	686	1,480	1,550	2,290	2,800	2,920	2,070	660
Min	560	550	280	500	480	585	632	1,090	803	2,350	720	472
Ac-ft	35,720	33,900	30,560	37,260	33,930	49,940	61,750	87,770	112,300	161,800	104,000	32,710

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,056	961	817	832	906	1,162	1,900	3,171	3,176	2,672	2,244	1,505
Max	1,708	2,191	1,223	1,171	1,472	2,911	5,110	9,274	14,430	9,970	5,258	4,150
(WY)	(1986)	(1987)	(1974)	(1986)	(1980)	(1984)	(2011)	(1973)	(1917)	(1917)	(1924)	(1917)
Min	535	516	445	435	472	618	670	626	958	982	583	399
(WY)	(2003)	(2003)	(2008)	(2007)	(2003)	(1981)	(1981)	(2002)	(1990)	(1967)	(1898)	(1898)

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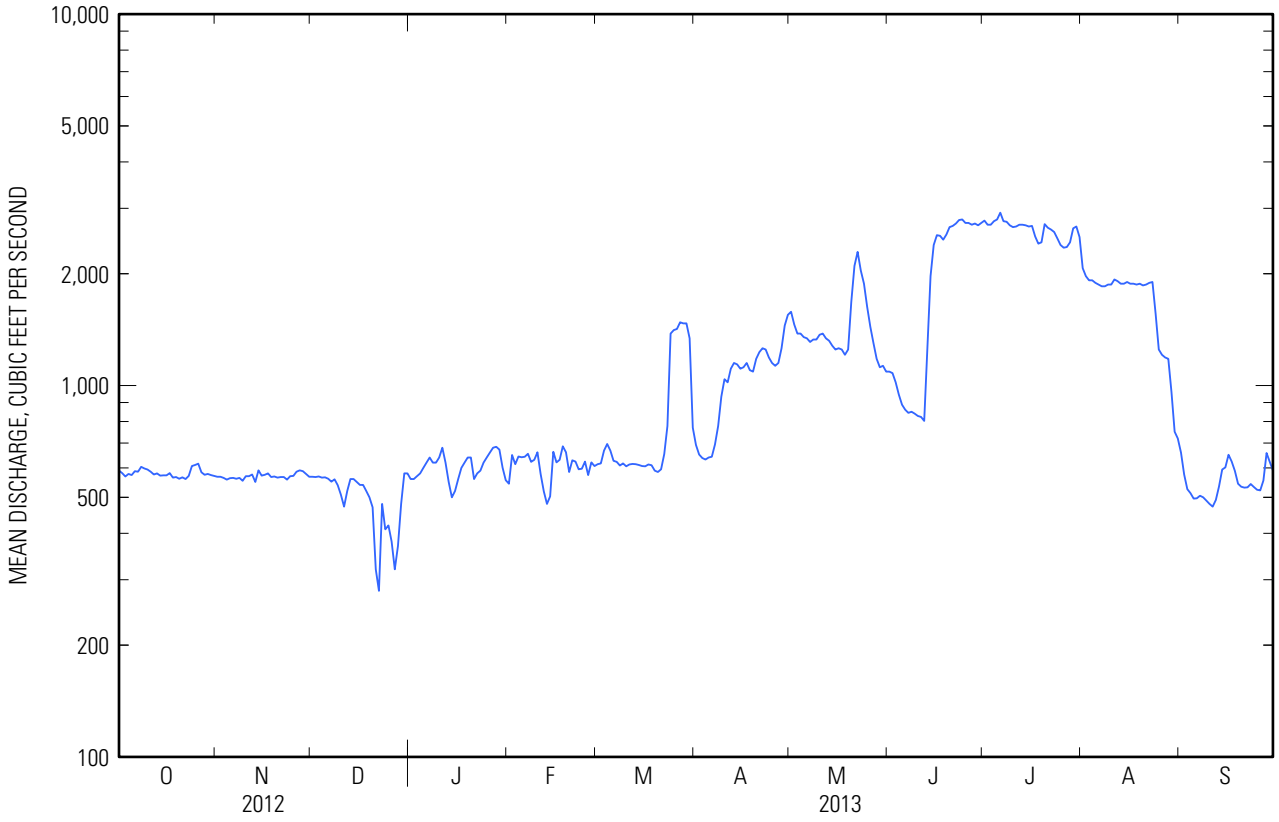
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1895 - 2013	
Annual total	568,295		394,077			
Annual mean	1,553		1,080		1,597	
Highest annual mean					3,512	2011
Lowest annual mean					824	2004
Highest daily mean	3,880	May 27	2,920	Jul 6	20,300	Jun 27, 1917
Lowest daily mean	280	Dec 22	280	Dec 22	140	Dec 21, 1990
Annual seven-day minimum	373	Dec 21	373	Dec 21	324	Sep 25, 1966
Maximum peak flow			3,120	Jul 6	[a]23,800	May 15, 1965
Maximum peak stage			5.23	Jul 6	[b]10.45	Jun 12, 1970
Annual runoff (ac-ft)	1,127,000		781,700		1,157,000	
10 percent exceeds	3,450		2,520		2,950	
50 percent exceeds	894		640		1,190	
90 percent exceeds	560		535		600	

[a] Gage height, 10.00 ft, site and datum then in use.
[b] Site and datum then in use.