Water-Data Report 2012

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 just 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.--Eleven discharge measurements provided by the Wyoming State Engineer's Office and nine discharge measurements 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 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	709	703	674	e540	681	607	1,280	904	3,670	3,300	2,650	2,670
2	688	715	661	e470	665	711	1,350	936	3,680	3,270	2,590	2,640
3	684	735	617	e560	689	630	1,680	1,090	3,670	3,270	2,590	2,650
4	679	700	e600	e580	677	602	2,030	1,350	3,640	3,290	2,600	2,650
5	656	692	e500	e580	635	697	2,060	1,740	3,640	3,280	2,630	2,630
6	666	696	e420	636	599	677	2,020	1,920	3,700	3,370	2,630	2,500
7	718	700	e380	597	593	863	2,000	1,950	3,730	3,330	2,610	2,470
8	755	700	e430	558	609	978	1,660	1,910	3,730	3,300	2,590	2,510
9	789	697	e480	534	596	839	1,190	1,870	3,620	3,320	2,570	2,500
10	812	696	e520	545	627	755	1,090	1,840	3,560	3,340	2,600	2,490
11	758	700	e560	596	607	755	1,040	1,850	3,550	3,330	2,620	2,470
12	729	703	e540	539	550	764	1,030	2,110	3,500	3,210	2,610	2,280
13	699	697	e500	e520	576	788	1,100	2,430	3,510	3,000	2,640	1,850
14	691	686	e520	e560	682	810	1,090	2,400	3,520	2,980	2,610	1,570
15	683	688	e500	e600	675	818	1,090	2,350	3,510	2,990	2,590	1,530
16	674	680	e520	e700	688	847	1,100	2,620	3,530	2,950	2,750	1,240
17	718	675	e500	e540	611	894	1,020	2,930	3,550	2,900	2,990	1,080
18	739	677	e540	e600	640	988	1,030	3,090	3,530	2,930	2,980	1,060
19	728	708	e560	e660	634	1,090	1,030	3,310	3,510	2,930	2,960	994
20	713	666	e560	e760	680	1,080	1,020	3,440	3,490	2,940	2,960	725
21	706	650	e540	e740	625	1,030	936	3,490	3,530	2,950	2,980	629
22	691	705	e440	e700	640	953	923	3,460	3,540	2,960	2,990	607
23	695	689	e370	e660	761	929	906	3,450	3,500	2,980	2,950	597
24	682	669	e430	690	761	949	893	3,660	3,490	2,980	2,950	593
25	679	668	e450	715	774	1,010	871	3,700	3,520	2,980	2,750	597
26	673	646	e490	647	692	1,100	875	3,720	3,500	3,030	2,650	592
27	681	645	e450	681	612	1,210	872	3,880	3,450	3,010	2,650	591
28	686	649	e500	718	638	1,140	911	3,860	3,450	2,980	2,640	606
29	680	662	e560	582	707	1,130	885	3,820	3,450	2,960	2,630	593
30	675	667	e580	569	---	1,160	916	3,810	3,420	2,980	2,600	594
31	677	---	e600	677	---	1,150	---	3,720	---	2,920	2,630	---
Total	21,813	20,564	15,992	19,054	18,924	27,954	35,898	82,610	106,690	95,960	84,190	46,508
Mean	704	685	516	615	653	902	1,197	2,665	3,556	3,095	2,716	1,550
Max	812	735	674	760	774	1,210	2,060	3,880	3,730	3,370	2,990	2,670
Min	656	645	370	470	550	602	871	904	3,420	2,900	2,570	591
Ac-ft	43,270	40,790	31,720	37,790	37,540	55,450	71,200	163,900	211,600	190,300	167,000	92,250

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,065	969	823	836	912	1,169	1,915	3,199	3,197	2,673	2,253	1,520
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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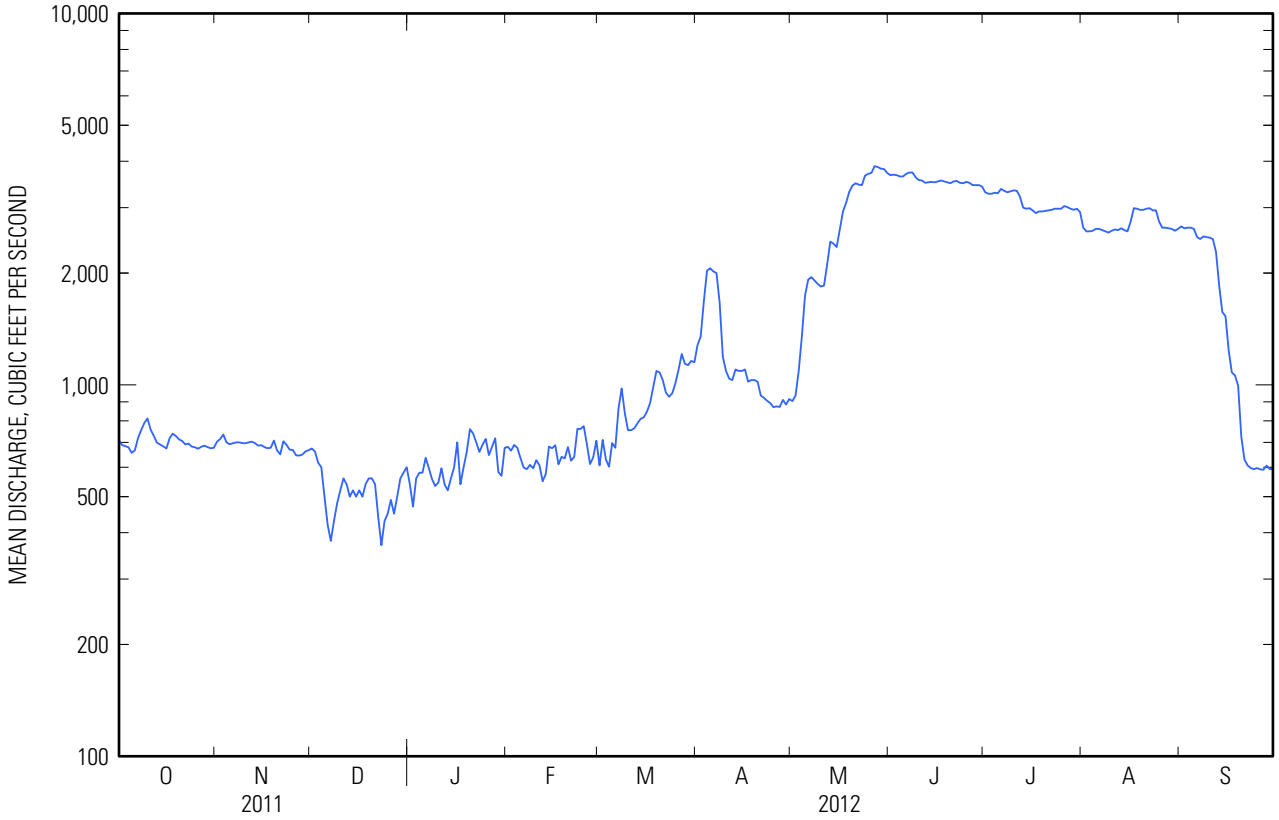
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1895 - 2012	
Annual total	1,279,978		576,157			
Annual mean	3,507		1,574		1,606	
Highest annual mean					3,512	2011
Lowest annual mean					824	2004
Highest daily mean	9,510	May 30	3,880	May 27	20,300	Jun 27, 1917
Lowest daily mean	235	Jan 2	370	Dec 23	140	Dec 21, 1990
Annual seven-day minimum	447	Dec 22	447	Dec 22	324	Sep 25, 1966
Maximum peak flow			[a]3,950	May 27	[b]23,800	May 15, 1965
Maximum peak stage			[c]6.10	Dec 10	[b]10.45	Jun 12, 1970
Annual runoff (ac-ft)	2,539,000		1,143,000		1,164,000	
10 percent exceeds	8,460		3,450		2,980	
50 percent exceeds	2,510		894		1,190	
90 percent exceeds	580		566		603	

[a] Gage height, 5.44 ft.
[b] Gage height, 10.00 ft, site and datum then in use.
[c] Backwater from ice.
[b] Site and datum then in use.