Water-Data Report 2010

13062500 SNAKE RIVER AT BLACKFOOT, ID

Upper Snake Basin
American Falls Subbasin

LOCATION.--Lat 43°11′51″, long 112°22′09″ referenced to North American Datum of 1983, in SE ¼ SW ¼ sec.33, T.2 S., R.35 E., Bingham County, ID, Hydrologic Unit 17040206, Blackfoot quad., on left bank immediately upstream from old Riverside Highway bridge, 0.25 mi downstream from new U.S. Highway 26 bridge, 1.2 mi west of Blackfoot, and at mile 764.3.

DRAINAGE AREA.--9,950 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1978 to current year. Records for May 1924 to September 1932 at site downstream, published as "Snake River below Blackfoot Bridge, near Blackfoot", are not equivalent because diversions were not included.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 4,490 ft above NGVD of 1929, from topographic map. May 1924 to Sept. 1932, water-stage recorder at site downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry. Flow regulated by Jackson Lake, Palisades Reservoir, Henrys Lake, Island Park Reservoir, and Grassy Lake, having a combined capacity of 2,570,000 acre-ft. Diversions above station for irrigation of about 750,000 acres. Considerable water leaks above the station into the Snake River Plain aquifer.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,200 ft^3/s June 17, 1997, gage height, 13.55 ft; maximum gage height, 14.71 ft, Feb. 7, 1985, result of backwater from ice; minimum, 2.7 ft^3/s Apr. 29, 1992, gage height, 0.91 ft, caused by irrigation diversions.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,700 ft^3/s June 14, gage height, 10.35 ft; minimum, 726 ft^3/s Apr. 17, gage height, 3.51 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,750	3,780	3,060	e3,050	e2,670	2,340	1,530	2,200	4,200	7,000	3,290	2,410
2	2,940	4,010	3,060	e3,070	e2,720	2,330	1,550	2,040	3,350	6,470	3,360	2,250
3	2,890	3,870	2,820	e3,090	e2,730	2,280	1,550	1,270	2,840	6,150	3,570	1,940
4	2,480	3,530	e2,310	e3,050	e2,760	2,320	1,510	1,160	3,150	6,180	3,460	1,730
5	2,480	3,450	e2,220	e3,240	e2,780	2,300	1,590	1,230	3,790	6,130	3,380	1,550
6	2,690	3,410	e2,110	e3,210	e2,790	2,310	1,670	1,470	4,810	5,170	3,200	1,530
7	2,700	3,390	e2,040	e2,560	e2,770	2,170	1,630	1,590	6,380	3,720	3,070	1,540
8	2,590	3,410	e1,960	e2,260	e2,730	2,130	1,480	1,680	8,990	2,550	3,000	1,530
9	2,330	3,420	e1,910	e2,200	e2,550	2,070	1,410	1,700	13,500	1,800	3,080	1,690
10	2,250	3,430	e1,630	e2,160	e2,480	1,980	1,460	1,710	18,800	1,570	3,040	2,040
11	1,970	3,450	e1,670	e2,410	e2,620	1,950	1,570	1,550	20,700	1,690	2,950	2,450
12	1,970	3,350	e1,910	e2,950	e2,690	1,870	1,490	1,840	20,200	2,010	2,880	2,730
13	2,050	3,450	e2,160	e3,200	e2,690	1,780	1,380	2,990	20,700	1,980	2,440	2,630
14	2,470	3,600	e2,480	e3,190	e2,570	1,700	1,100	5,960	21,300	1,910	2,390	2,620
15	2,730	3,560	e2,790	e3,100	e2,600	1,680	1,270	9,170	19,900	1,800	2,310	2,550
16	2,920	3,550	e3,300	e3,120	e2,570	1,620	971	11,000	16,600	1,690	2,250	2,210
17	3,390	3,560	e3,550	e3,040	e2,560	1,610	806	10,500	13,400	1,580	2,090	2,030
18	3,380	3,280	e3,660	e3,150	e2,600	1,640	999	9,450	11,500	1,410	1,980	1,990
19	3,340	3,290	e3,520	e3,090	e2,570	1,700	1,230	8,470	10,600	1,490	1,820	1,480
20	3,390	3,030	e3,380	e3,110	e2,500	1,560	1,250	7,730	8,510	1,360	1,640	1,250
21	3,390	3,140	e3,280	e3,120	2,420	1,600	964	7,350	6,140	1,100	1,480	1,240
22	3,490	3,200	e3,300	e3,110	2,320	1,560	947	6,720	5,180	1,850	1,290	1,190
23	3,410	3,180	e3,230	e3,110	2,130	1,660	1,700	6,200	5,260	2,590	1,910	1,340
24	3,430	3,180	e2,850	e3,040	2,280	1,550	2,350	5,640	6,600	2,550	1,980	1,240
25	3,380	3,220	e2,800	e3,100	2,460	1,460	2,380	5,190	7,010	2,710	2,450	1,270
26	3,070	3,130	e2,820	e3,020	2,580	1,370	2,130	4,540	7,020	2,980	2,120	1,340
27	3,090	3,170	e2,710	e3,050	2,470	1,400	1,670	3,950	7,160	2,980	1,910	1,010
28	3,190	3,190	e2,550	e2,960	2,400	1,340	1,770	3,150	7,310	2,450	1,770	1,050
29	3,130	3,190	e2,640	e2,970	---	1,250	2,140	2,880	6,930	2,530	1,820	1,300
30	3,300	3,150	e2,780	e2,640	---	1,280	2,470	3,400	6,970	2,710	2,090	1,470
31	3,330	---	e2,840	e2,690	---	1,350	---	4,280	---	2,950	2,410	---
Total	89,920	101,570	83,340	91,060	72,010	55,160	45,967	138,010	298,800	91,060	76,430	52,600
Mean	2,901	3,386	2,688	2,937	2,572	1,779	1,532	4,452	9,960	2,937	2,465	1,753
Max	3,490	4,010	3,660	3,240	2,790	2,340	2,470	11,000	21,300	7,000	3,570	2,730
Min	1,970	3,030	1,630	2,160	2,130	1,250	806	1,160	2,840	1,100	1,290	1,010
Ac-ft	178,400	201,500	165,300	180,600	142,800	109,400	91,180	273,700	592,700	180,600	151,600	104,300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,554	3,318	3,218	3,313	3,465	4,501	6,301	9,115	9,484	4,676	2,984	2,599
Max	6,093	7,926	8,271	7,995	10,910	15,280	19,450	22,080	30,360	13,150	7,400	6,099
(WY)	(1984)	(1984)	(1984)	(1984)	(1997)	(1997)	(1986)	(1986)	(1997)	(1983)	(1997)	(1984)
Min	871	1,810	1,535	1,327	1,511	1,489	1,254	1,535	2,050	1,726	1,156	726
(WY)	(1982)	(1982)	(1989)	(2008)	(2002)	(1988)	(2003)	(1988)	(1988)	(1985)	(1981)	(1981)

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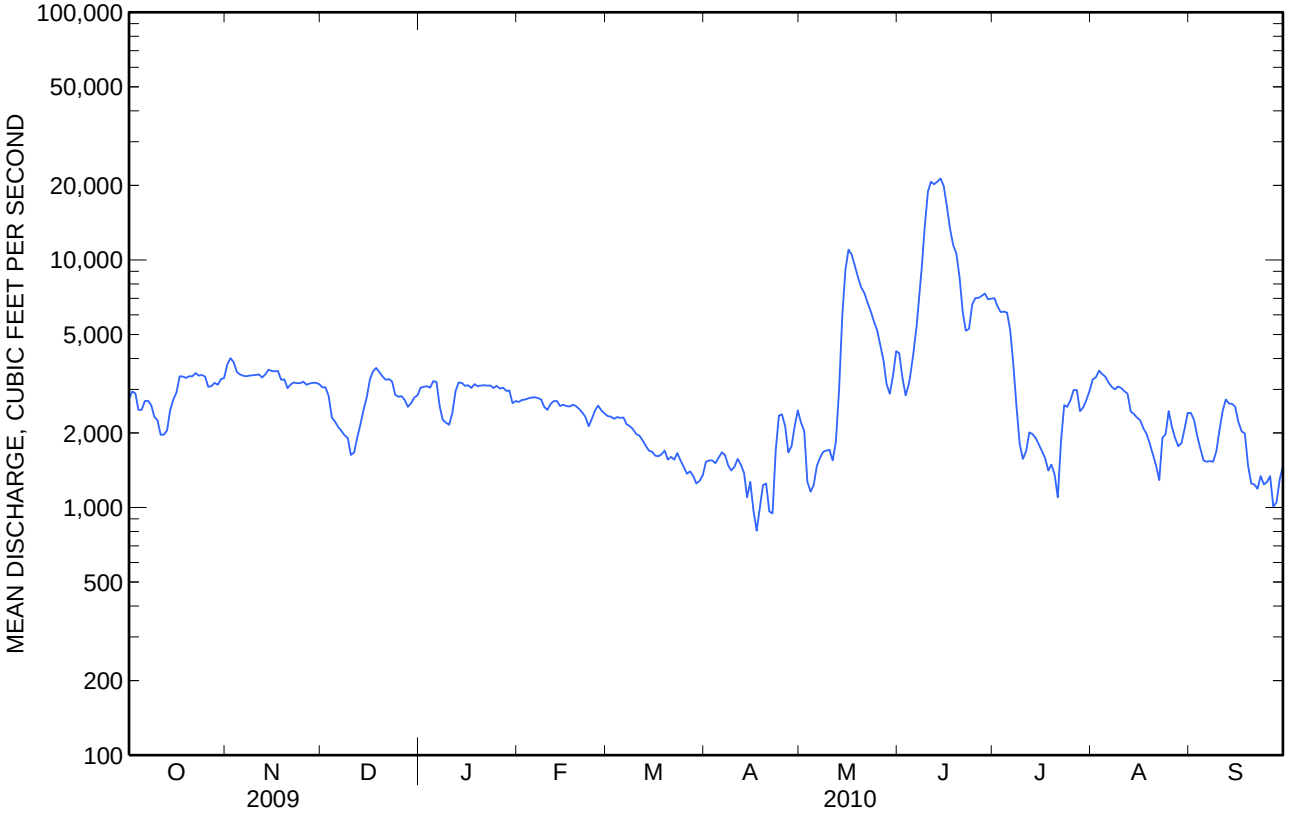
SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1978 - 2010	
Annual total	1,898,410		1,195,927			
Annual mean	5,201		3,277		4,633	
Highest annual mean					11,120	1997
Lowest annual mean					2,019	1988
Highest daily mean	23,500	Jun 25	21,300	Jun 14	42,600	Jun 17, 1997
Lowest daily mean	1,250	Jan 28	806	Apr 17	35	Apr 28, 1992
Annual seven-day minimum	1,480	Jan 26	1,020	Apr 16	141	Oct 2, 1980
Annual runoff (ac-ft)	3,765,000		2,372,000		3,356,000	
10 percent exceeds	15,400		6,030		10,400	
50 percent exceeds	2,870		2,620		2,750	
90 percent exceeds	1,820		1,470		1,520