



Water-Data Report 2009

## 13010065 SNAKE RIVER ABOVE JACKSON LAKE AT FLAGG RANCH, WY

Snake Headwaters Basin  
Snake Headwaters Subbasin

LOCATION.--Lat 44°05'56", long 110°40'03" referenced to North American Datum of 1983, Teton County, WY, Hydrologic Unit 17040101, Flagg Ranch quad., Grand Teton National Park, on left bank 50 ft upstream from State Highway 89 bridge, 2 mi downstream from the south boundary of Yellowstone National Park, 600 ft downstream from the confluence with Sheffield Creek.

DRAINAGE AREA.--486 mi<sup>2</sup>.

### SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1983 to current year. Prior to 1988 water year, published as station 13010200.

GAGE.--Water-stage recorder. Datum of the gage is 6,801.61 ft above NGVD of 1929, (levels by U.S. Coast and Geodetic Survey). A nonrecording cantilever chain gage was used from 1913-18 at a site 2.5 mi upstream at a different datum. In 1918, an auxiliary chain gage was installed at the current site and read periodically. Water-stage recorder installed July 1921 at the current site at a different datum and operated until July 1925. Records probably not comparable.

REMARKS.--Records fair. Station equipment includes satellite telemetry.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 11,300 ft<sup>3</sup>/s June 5, 1996; maximum gage height, 10.75 ft, June 5, 1996, from backwater; minimum, 158 ft<sup>3</sup>/s Aug. 30, Sept. 3, 2001, gage height, 2.04 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 31	0115	*10,600	*9.13
Jun 21	0730	5,870	7.55

Minimum daily discharge, 218 ft<sup>3</sup>/s, Nov. 28.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	376	318	e310	e400	308	e270	360	631	7,200	2,340	568	396
2	378	e340	e330	e390	299	e290	363	648	6,320	2,180	548	392
3	378	e350	e320	e370	e290	311	388	761	5,410	2,020	536	385
4	400	e360	308	e360	e290	328	384	904	5,710	1,960	523	382
5	406	e340	e290	e380	e280	e310	369	958	5,870	1,810	517	383
6	391	e330	310	e400	e280	e310	359	1,130	5,910	1,720	536	394
7	368	e310	308	e420	e290	e320	364	1,240	5,280	1,610	562	417
8	351	e340	e290	e410	e290	e330	378	1,230	4,030	1,490	540	393
9	351	e330	e290	e390	295	e340	376	1,140	4,090	1,390	572	380
10	362	e350	300	e380	289	e340	375	1,320	4,370	1,300	523	376
11	368	e350	299	e390	283	e330	387	1,570	4,030	1,230	500	362
12	368	e360	290	e400	e280	e320	402	1,850	4,020	1,170	483	345
13	362	e430	e300	e390	e260	e330	413	1,580	3,700	1,210	469	337
14	368	e400	e290	e380	e270	331	426	1,580	3,810	1,100	459	340
15	378	e310	e300	e370	e270	334	459	1,760	3,780	1,050	450	346
16	385	e330	e300	e360	e270	361	463	2,290	4,150	981	447	349
17	365	e320	e310	e350	e270	384	475	2,900	4,050	928	448	346
18	367	e320	e300	e330	276	377	520	3,970	4,420	e900	433	336
19	359	e320	e320	e320	270	375	558	5,540	3,960	e900	426	331
20	348	e330	e330	e320	271	371	635	6,750	3,850	e850	419	331
21	349	e340	e340	e310	e270	379	796	6,100	5,110	e800	409	329
22	325	e290	e350	e300	e260	394	996	5,690	4,070	722	402	321
23	305	e320	355	331	e270	393	1,220	6,460	3,540	695	407	321
24	321	e290	349	331	e270	362	1,270	6,610	3,340	686	484	320
25	314	e270	379	330	e280	357	934	6,760	3,320	684	446	318
26	292	e250	e380	e320	e290	e340	826	7,210	3,280	656	423	314
27	288	228	e370	e300	e280	e320	748	6,920	3,210	643	418	309
28	313	218	e390	e310	e270	e320	749	7,470	2,780	652	412	307
29	306	254	e400	316	---	e340	714	7,750	2,610	653	405	306
30	298	283	400	318	---	e350	667	7,920	2,480	604	405	316
31	302	---	397	313	---	360	---	8,220	---	587	400	---
<b>Total</b>	10,842	9,581	10,205	10,989	7,821	10,577	17,374	116,862	127,700	35,521	14,570	10,482
<b>Mean</b>	350	319	329	354	279	341	579	3,770	4,257	1,146	470	349
<b>Max</b>	406	430	400	420	308	394	1,270	8,220	7,200	2,340	572	417
<b>Min</b>	288	218	290	300	260	270	359	631	2,480	587	400	306
<b>Ac-ft</b>	21,510	19,000	20,240	21,800	15,510	20,980	34,460	231,800	253,300	70,460	28,900	20,790
<b>Cfs/m</b>	0.72	0.66	0.68	0.73	0.57	0.70	1.19	7.76	8.76	2.36	0.97	0.72
<b>In.</b>	0.83	0.73	0.78	0.84	0.60	0.81	1.33	8.94	9.77	2.72	1.12	0.80

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2009, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	346	351	351	354	342	351	722	3,119	3,050	863	412	338
<b>Max</b>	679	607	531	720	469	506	1,509	5,484	6,701	1,633	861	644
<b>(WY)</b>	(1984)	(1984)	(1997)	(1997)	(1999)	(1986)	(1990)	(1997)	(1996)	(1995)	(1997)	(1997)
<b>Min</b>	185	213	247	261	267	279	404	1,818	768	318	196	168
<b>(WY)</b>	(1989)	(1988)	(1988)	(2001)	(1989)	(1988)	(2008)	(1987)	(2001)	(2007)	(2001)	(1994)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1984 - 2009	
<b>Annual total</b>	388,824		382,524			
<b>Annual mean</b>	1,062		1,048		885	
<b>Highest annual mean</b>					1,538	1997
<b>Lowest annual mean</b>					526	1988
<b>Highest daily mean</b>	6,780	May 20	8,220	May 31	11,300	Jun 5, 1996
<b>Lowest daily mean</b>	218	Nov 28	218	Nov 28	161	Sep 6, 1994
<b>Annual seven-day minimum</b>	256	Nov 24	256	Nov 24	163	Sep 4, 1994
<b>Annual runoff (ac-ft)</b>	771,200		758,700		640,800	
<b>Annual runoff (cfsm)</b>	2.19		2.16		1.82	
<b>Annual runoff (inches)</b>	29.76		29.28		24.73	
<b>10 percent exceeds</b>	3,950		3,600		2,380	
<b>50 percent exceeds</b>	370		378		385	
<b>90 percent exceeds</b>	300		290		262	

