

13353000 SNAKE RIVER BELOW ICE HARBOR DAM, WA

LOCATION.--Lat 46°14'53", long 118°52'43", in NE 1/4 SE 1/4 sec.24, T.9 N., R.31 E., Walla Walla County, Hydrologic Unit 17060110, in powerhouse forebay pier P-1 on south side of Bay 1, at Ice Harbor Dam, 8.0 mi northeast of Burbank, and at mile 9.7.

DRAINAGE AREA.--108,500 mi², approximately.

PERIOD OF RECORD.--October 1907 to March 1917, (gage heights only October 1907 to August 1909), March 1962 to September 1990, October 1995 to September 2000 (discontinued). Published as "at Burbank" prior to 1911 and as "near Burbank" 1912-17.

REVISED RECORDS.--WSP 1317: Drainage area.

GAGE.--Watt-hour meters on each turbine in Ice Harbor Dam powerhouse. Elevations are sea level datum. Oct. 2, 1907 to Mar. 31, 1917, nonrecording gage at site approximately 2 mi downstream at datum 300 ft higher. Mar. 23, 1962 to Sept. 30, 1968, water-stage recorder 1.0 mi downstream at sea level datum.

REMARKS.--No estimated daily discharges. Records computed from power output, flow over spillway, flow through fish ladder, and lockage records at Ice Harbor Dam. Diversions upstream from station for irrigation of over 4,090,000 acres. Flow regulated by Lake Sacajawea and many upstream storage reservoirs and powerplants. Chemical analyses October 1965 to September 1969, October 1971 to September 1972. For records collected at site 1.0 mi downstream see station 13353200.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--40 years (water years 1910-16, 1963-90, 1996-2000), 55,500 ft³/s, 40,210,000 acre-ft/yr.
33 years (water years 1963-90, 1996-2000), 54,830 ft³/s, 39,730,000 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 312,000 ft³/s June 19, 1974; no flow momentarily Aug. 27, 1965 (result of testing at Ice Harbor Dam).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1948, reached an elevation of 361.1 ft at a site 0.7 mi downstream, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum hourly discharge, 143,000 ft³/s May 23; maximum forebay elevation, 440.03 ft Feb. 29; minimum hourly discharge, 300 ft³/s Dec. 10; minimum forebay elevation, 436.89 ft Jul. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24500	25400	23900	20400	42800	69700	65700	95400	88900	41300	32500	21900
2	27400	15300	24200	22400	40900	57300	52000	96300	80900	42100	34100	14200
3	21000	30100	33100	27700	58600	61400	69000	100000	75000	35300	33000	17900
4	19600	20400	20400	32500	47000	63100	68500	97600	73100	40500	30000	16200
5	28400	18300	22800	26500	45000	58900	84900	105000	75400	37900	28300	13200
6	26300	24200	26300	39300	54400	65300	101000	100000	89300	43300	31600	23700
7	26000	26000	24300	31300	46900	66800	91000	95200	88200	43300	26500	26800
8	28600	22100	22600	30500	39900	73000	91400	85600	85100	42900	35900	23100
9	25000	23700	19800	42300	40100	49600	84200	77200	77100	48200	27800	15800
10	29600	22000	22400	33700	36900	50400	82200	84500	71600	47000	30400	14900
11	22600	21200	25100	35600	51600	58000	85400	85600	67600	49800	31500	14800
12	26400	25000	22200	39900	33900	56700	89200	81000	65500	46300	29200	18400
13	24400	22900	27900	40500	30500	61600	102000	79300	72500	52900	29000	23900
14	26800	19500	30300	35700	48800	50700	108000	74600	78600	46900	36400	24200
15	26700	19300	30400	37700	46600	55500	113000	73300	79100	49200	26000	25800
16	26300	25900	31900	32800	52800	53500	113000	65800	83400	46000	31900	24800
17	24700	22800	33200	35900	64700	56700	99700	70600	73500	44500	29100	20400
18	20400	18800	31700	49900	61800	53400	105000	72400	59900	44600	30800	24300
19	20600	28100	44700	47500	29800	51900	104000	74900	59600	40800	34700	31800
20	20300	27400	32900	38800	35200	56700	110000	85000	66700	44600	34000	26500
21	21700	22400	35000	43700	36700	50600	114000	82600	60000	42600	29300	27100
22	24100	24300	39600	33100	50100	47100	113000	86700	60400	38600	25700	22300
23	15100	16000	36700	40400	35400	53000	117000	105000	56200	39200	29800	33500
24	24900	24000	17300	37200	52600	57700	118000	95200	47300	41000	26600	15700
25	16800	15500	24800	43600	55600	63000	106000	94200	47300	44500	26500	26900
26	22900	26200	19600	39000	58200	55300	97900	95500	45500	41000	27600	23700
27	22000	42500	36400	38100	47300	55600	94700	92800	46300	41600	23200	27000
28	21000	32500	30200	37000	65200	59000	96400	87800	49400	42500	27200	15000
29	24400	32200	26900	40100	73700	66000	110000	100000	43300	33300	22400	15300
30	27600	20400	11500	35100	---	57100	91200	82900	46900	19600	20700	14700
31	25400	---	14700	39600	---	61600	---	93600	---	37000	20800	---
TOTAL	741500	714400	842800	1127800	1383000	1796200	2877400	2715600	2013600	1308300	902500	643800
MEAN	23920	23810	27190	36380	47690	57940	95910	87600	67120	42200	29110	21460
MAX	29600	42500	44700	49900	73700	73000	118000	105000	89300	52900	36400	33500
MIN	15100	15300	11500	20400	29800	47100	52000	65800	43300	19600	20700	13200
AC-FT	1471000	1417000	1672000	2237000	2743000	3563000	5707000	5386000	3994000	2595000	1790000	1277000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2000, BY WATER YEAR (WY)

MEAN	27060	31180	37980	44670	51790	63550	78750	110900	114800	46370	25360	26380
MAX	35310	46560	65870	95910	99840	129100	130500	187600	202800	82090	51520	35820
(WY)	1985	1984	1976	1997	1997	1986	1974	1971	1974	1982	1997	1984
MIN	17540	22240	21040	24270	22160	23720	30010	39820	27530	17310	14050	16030
(WY)	1989	1999	1989	1988	1988	1977	1977	1977	1987	1988	1977	1977

SNAKE RIVER MAIN STEM

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SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1963 - 2000	
ANNUAL TOTAL	23212900		17066900		54830	
ANNUAL MEAN	63600		46630		84190	1997
HIGHEST ANNUAL MEAN					27100	1977
LOWEST ANNUAL MEAN					305000	Jun 19 1974
HIGHEST DAILY MEAN	196000	May 27	118000	Apr 24	2700	Feb 4 1979
LOWEST DAILY MEAN	11500	Dec 30	11500	Dec 30	10400	Aug 10 1977
ANNUAL SEVEN-DAY MINIMUM	19500	Sep 7	17800	Aug 30	39730000	
ANNUAL RUNOFF (AC-FT)	46040000		33850000		116000	
10 PERCENT EXCEEDS	125000		89200		38800	
50 PERCENT EXCEEDS	53200		39100		20600	
90 PERCENT EXCEEDS	21100		20700			