

SKAGIT RIVER BASIN

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12193500 BAKER RIVER AT CONCRETE, WA

LOCATION.--Lat 48°32'24", long 121°44'31", in NW 1/4 NW 1/4 sec.11, T.35 N., R.8 E., Skagit County, Hydrologic Unit 17110005, on left bank at upstream side of fish barrier, 0.2 mi northeast of Concrete, 0.3 mi downstream from Baker River powerplant, and at mile 0.7.

DRAINAGE AREA.--297 mi².

PERIOD OF RECORD.--September 1910 to March 1915, September 1943 to current year.

REVISED RECORDS.--WSP 1286: 1911-13(M), 1945-46, drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Mar. 5, 1915, nonrecording gage at site 0.2 mi downstream at different datum. Sept. 1, 1943, to Jan. 22, 1958, water-stage recorder at site 700 ft upstream at datum 172.6 ft above sea level (from river-profile survey). Jan. 23 to June 11, 1958, powerplant record. Supplementary water-stage recorder on left bank about 40 ft downstream from fish barrier and on tailrace of powerhouse at same datum.

REMARKS.--No estimated daily discharges. Records good except those below 200 ft³/s, which are poor. Flows on occasion may be affected by backwater from Skagit River during high flows. All diversions returned to river upstream from gage; at times, power generation is shut down for maintenance at Baker River or the fish-barrier dam causing the stage to drop below the control. Water is released through a valve-controlled pipe to the fish ladder located on the left bank just downstream from the gage and control. Flow regulated by Baker and Shannon Lakes (stations 12191600 and 12191300). U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--62 years (water years 1911-14, 1944-2001), 2,654 ft³/s, 121.35 in/yr, 1,923,000 acre-ft/yr, adjusted for storage in Lake Shannon since November 1925, and Baker Lake since July 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,600 ft³/s Nov. 19, 1962, elevation, 186.6 ft, computation of peak flow over dam; minimum daily discharge, 30 ft³/s Mar. 21-26, 1973, Apr. 26-28, May 7-9, 11, 1983, Apr. 20, 24-28, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft³/s Aug. 23, elevation, 178.74 ft; minimum daily discharge, 47 ft³/s, Mar. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	2990	1260	398	2250	61	56	584	3650	2220	2230	2490
2	2770	2910	1210	414	2280	51	56	1140	5070	2230	2230	2510
3	3450	3230	1210	357	1890	49	58	1530	3060	3110	2040	2530
4	3340	3460	1250	249	1690	49	58	1470	3350	3250	102	2710
5	3240	3660	1070	94	388	49	58	1610	3090	2770	102	3000
6	2160	3760	352	92	877	49	59	1680	1670	2570	2400	3170
7	1430	3750	369	92	1760	49	59	1520	3380	3010	2730	2880
8	1760	3750	398	93	2220	56	58	1880	2440	1070	2680	2380
9	1180	3730	541	97	2450	47	59	1890	3050	1570	2470	95
10	1770	3720	506	429	2670	48	92	2820	2600	3500	2640	2690
11	2150	3720	475	1730	2790	49	105	2500	3880	2430	214	2520
12	3110	3720	570	1190	2880	49	105	2390	4420	1200	106	2520
13	2190	3730	1070	1590	3000	49	126	1290	4400	3810	2630	2610
14	98	3730	618	1670	3010	49	139	879	2550	3820	2920	2380
15	2010	3730	927	1860	3020	49	166	324	3260	3170	3040	95
16	3010	3720	723	1840	3010	49	163	2380	3280	2900	2920	95
17	3530	3720	92	1750	3080	49	120	4040	1750	2710	1980	2210
18	3820	3700	133	1100	3190	50	125	1370	1310	114	111	980
19	3820	3670	312	1310	3200	50	200	779	2920	2220	1160	118
20	3850	2980	845	2290	3200	49	239	838	2880	101	2560	1400
21	3850	2520	1390	2120	2850	49	303	502	3130	102	2190	897
22	3860	2550	1690	1780	3050	51	324	764	3050	102	5000	95
23	3880	119	815	2200	2800	51	363	979	2820	2260	7080	95
24	3880	314	329	2340	2310	53	833	1290	708	161	4760	946
25	3860	98	380	2440	1680	53	1940	921	1770	2710	3960	1060
26	3850	95	392	2700	1130	53	79	599	2330	2450	3950	1550
27	3850	1710	94	2790	984	55	1610	953	2480	1350	3860	2500
28	3840	1960	92	2330	824	54	2640	915	3330	1800	2540	1950
29	3810	1410	92	1040	---	55	1890	2380	2670	163	2610	95
30	3750	1230	92	1650	---	55	883	1730	2500	2080	2880	95
31	2610	---	92	2070	---	57	---	2840	---	2070	2630	---
TOTAL	89823	83386	19389	42105	64483	1586	12966	46787	86798	63023	78725	48666
MEAN	2898	2780	625	1358	2303	51.2	432	1509	2893	2033	2540	1622
MAX	3880	3760	1690	2790	3200	61	2640	4040	5070	3820	7080	3170
MIN	95	95	92	92	388	47	56	324	708	101	102	95
AC-FT	178200	165400	38460	83520	127900	3150	25720	92800	172200	125000	156200	96530
MEAN†	2039	1024	1207	1646	915	1578	1775	3244	2980	2184	2247	1231
CFSM†	6.87	3.45	4.06	5.54	3.08	5.31	5.98	10.92	10.03	7.35	7.57	4.14
IN. †	7.92	3.85	4.69	6.39	3.21	6.13	6.67	12.59	11.19	8.48	8.72	4.62
AC-FT†	125400	60930	74240	101200	50790	97040	105600	199500	177300	134300	138200	73210

CAL YR 2000 TOTAL 889693 MEAN 2431 MAX 4050 MIN 56 AC-FT 1765000 MEAN† 2265 CFSM† 7.63 IN.† 103.79 AC-FT† 1644000
WTR YR 2001 TOTAL 637737 MEAN 1747 MAX 7080 MIN 47 AC-FT 1265000 MEAN† 1848 CFSM† 6.22 IN.† 84.47 AC-FT† 1338000

† Adjusted for change in contents in Baker Lake and Lake Shannon.