

SKAGIT RIVER BASIN

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 mi<sup>2</sup>.

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 ft<sup>3</sup>/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.--61 years (water years 1911-14, 1944-2000), 2,667 ft<sup>3</sup>/s, 121.95 in/yr, 1,932,000 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 ft<sup>3</sup>/s Nov. 19, 1962, elevation, 186.6 ft, computation of peak flow over dam; minimum daily discharge, 30 ft<sup>3</sup>/s Mar. 21-26, 1973, Apr. 26-28, May 7-9, 11, 1983, Apr. 20, 24-28, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,100 ft<sup>3</sup>/s Nov. 12, 13, elevation, 183.90 ft; minimum daily discharge, 56 ft<sup>3</sup>/s, May 16.

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	1870	3620	3830	3590	1640	2170	101	3140	2790	4040	3900	118
2	1820	3660	3780	3680	2020	2030	101	2240	3140	4030	3980	118
3	159	3830	3720	3580	1540	2070	1840	2780	3880	4020	4040	118
4	2860	4050	3660	2850	689	1810	1960	2790	3890	4020	4040	118
5	3200	4050	3640	2760	98	1880	2600	2790	3880	4030	4040	2690
6	3860	4060	3460	3060	98	2150	2040	2830	3880	4040	4020	3560
7	3540	4070	1740	2880	709	1950	1380	2760	3870	4040	4010	3520
8	3710	4050	2890	709	99	1820	103	1840	3870	3980	4000	3350
9	3920	3980	3950	1950	1780	2150	412	2120	3870	3570	3930	2650
10	1730	4000	3950	3130	1930	1480	1890	2170	3860	4020	2810	3250
11	3220	5920	3960	3590	1760	1980	2020	2260	3860	3660	3010	3160
12	3700	11700	3960	3580	98	2160	1890	2180	3030	3300	730	3390
13	3720	17500	3980	3570	98	1050	1820	1660	3960	3340	120	3450
14	3860	19800	3980	3820	2060	1950	1890	958	3960	3410	3030	3430
15	3230	9190	3930	3490	2250	1870	2130	71	3950	3410	3250	3170
16	2960	5110	3930	2770	2750	1920	2110	56	3920	3290	3450	1550
17	2970	5160	3920	2870	2750	2070	2760	58	3550	2900	3410	1900
18	3640	3990	3930	3560	2660	2620	2710	58	3550	2870	3400	3390
19	3590	3990	3930	3560	1740	2640	2580	259	3810	2850	3500	3510
20	3640	3980	3920	3180	721	2640	1970	111	4010	2870	3850	3840
21	3950	3980	3930	1820	1110	2630	2050	1510	4020	2690	3270	3830
22	4010	3980	3920	98	1840	2660	1820	3420	4020	2810	3260	2260
23	4000	3990	3920	773	2180	3220	2110	3020	4020	2840	3230	1840
24	3980	3990	3890	2540	2320	3430	2340	3010	4020	3360	3250	114
25	3980	3970	3860	2790	2750	2730	2490	1570	4020	3850	3300	1880
26	3980	3940	3830	2740	1210	2780	2340	2600	4030	3990	3160	2790
27	3980	3920	3830	2730	1650	2270	2690	2820	4050	1420	3160	2780
28	3900	3920	3810	2720	536	1970	2460	2850	4050	3380	3380	2770
29	3840	3840	2790	493	657	1900	2090	2830	3940	3420	2070	1900
30	3840	3580	3870	97	---	1640	1970	3520	3990	3900	113	97
31	3680	---	3760	1760	---	1780	---	2930	---	3900	118	---
TOTAL	104339	164820	115470	80740	41743	67420	56667	63211	114690	107250	94831	70543
MEAN	3366	5494	3725	2605	1439	2175	1889	2039	3823	3460	3059	2351
MAX	4010	19800	3980	3820	2750	3430	2760	3520	4050	4040	4040	3840
MIN	159	3580	1740	97	98	1050	101	56	2790	1420	113	97
AC-FT	207000	326900	229000	160100	82800	133700	112400	125400	227500	212700	188100	139900
MEAN†	2632	5019	3397	1397	1391	1507	2824	3546	5235	3260	1977	1757
CFSM†	8.86	16.90	11.44	4.70	4.68	5.07	9.51	11.94	17.63	10.95	6.66	5.92
IN.†	10.22	18.85	13.19	5.42	5.05	5.85	10.61	13.77	19.66	12.66	7.68	6.60
AC-FT†	161900	298600	208900	85930	80040	92680	168000	218100	311400	200500	121600	104500

CAL YR 1999 TOTAL 1220027 MEAN 3343 MAX 19800 MIN 122 AC-FT 2420000 MEAN† 3287 CFSM† 11.07 IN.† 150.25 AC-FT† 2380000  
WTR YR 2000 TOTAL 1081724 MEAN 2956 MAX 19800 MIN 56 AC-FT 2146000 MEAN† 2829 CFSM† 9.54 IN.† 129.61 AC-FT† 2053000

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