

12194000 SKAGIT RIVER NEAR CONCRETE, WA

Puget Sound Basin
Lower Skagit Subbasin

LOCATION.--Lat 48°31'28", long 121°46'11" referenced to North American Datum of 1927, in SE ¼ NE ¼ sec.16, T.35 N., R.8 E., Skagit County, WA, Hydrologic Unit 17110007, on right bank at Dalles Bridge, 1.3 mi southwest of Concrete, 2.4 mi downstream from Baker River, and at mile 54.1.

DRAINAGE AREA.--2,737 mi², of which 400 mi² are in Canada.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--September 1924 to current year.

REVISED RECORDS.--WSP 1566: 1957. WSP 1736: 1948. WSP 1932: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 130.0 ft above NGVD of 1929. Prior to Dec. 10, 1924, nonrecording gage 200 ft upstream and Dec. 10, 1924, to Sept. 30, 1937, water-stage recorder at present site; both gages at datum 12.7 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Ross Reservoir (station 12175000), Diablo Reservoir (station 12176500), Gorge Reservoir (station 12177700), Baker Lake (station 12191600), and Lake Shannon (station 12193000). Chemical analyses November 1970 to September 1971, October 1973 to September 1974. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--89 years (water years 1925-2013), 15,050 ft³/s, 10,900,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 166,000 ft³/s, Oct. 21, 2003, gage height, 42.21 ft; minimum discharge, probably less than 2,160 ft³/s, during period Oct. 1-24, 1925, when recorder was not operating and gates in Baker River Dam were first closed; minimum daily recorded, 2,360 ft³/s, Dec. 12, 1929.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about 1815 reached a stage of 69.3 ft present datum, from floodmarks at site 200 ft upstream, estimated discharge is 510,000 ft³/s. Records of other floods, prior to establishment of station, are given in WSP 1527.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 47,300 ft³/s, Sept. 29, gage height, 25.34 ft; minimum discharge, 4,320 ft³/s, Oct. 12, gage height, 14.01 ft.

12194000 SKAGIT RIVER NEAR CONCRETE, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5,490	30,300	22,000	11,900	13,400	13,400	13,700	16,200	17,300	30,700	10,400	8,900
2	5,620	26,100	21,500	12,100	13,700	16,700	14,500	15,600	18,800	30,600	11,300	8,190
3	5,560	28,400	22,600	12,300	13,700	15,200	15,400	16,100	18,900	28,500	10,600	9,370
4	5,390	35,500	22,400	12,600	12,800	12,800	22,500	17,800	19,800	24,500	11,500	9,970
5	5,190	34,000	21,200	11,700	13,000	11,200	28,300	20,500	22,900	20,800	11,500	9,990
6	5,500	28,200	18,400	11,900	14,000	10,200	33,200	24,500	25,600	20,000	11,600	16,500
7	5,320	27,900	17,400	12,600	13,000	9,640	28,600	24,900	26,000	21,300	10,800	15,900
8	5,250	24,700	17,600	14,200	14,000	9,210	24,100	26,600	23,500	21,600	11,200	14,800
9	5,260	22,400	16,200	24,900	11,100	8,990	17,600	28,700	22,200	21,400	11,600	12,700
10	5,240	21,300	14,000	20,300	12,800	8,600	19,500	31,200	21,700	21,700	9,690	11,900
11	5,270	20,300	11,800	18,100	12,100	8,480	23,500	31,800	20,300	20,600	13,100	11,800
12	5,190	20,000	12,300	17,200	12,000	9,520	21,300	37,000	18,700	18,800	12,300	11,800
13	5,640	20,800	13,000	15,900	11,100	17,700	19,900	42,900	17,300	15,700	11,400	11,800
14	13,400	20,400	13,400	15,000	10,400	19,000	18,500	36,900	17,100	15,600	11,400	10,500
15	23,000	15,800	12,600	14,100	11,800	19,400	16,600	26,000	18,300	14,500	11,500	8,090
16	22,900	14,900	13,100	14,400	9,570	19,000	15,400	22,700	20,500	15,700	12,400	8,810
17	17,200	14,500	13,300	13,800	12,800	17,700	15,600	22,400	24,900	16,100	11,500	8,720
18	13,900	14,800	12,800	14,000	11,700	15,100	14,800	21,600	24,500	14,800	11,300	8,480
19	24,400	20,900	12,000	12,600	10,800	13,300	14,800	20,500	20,600	14,300	9,920	8,840
20	24,600	30,400	10,900	13,800	11,800	14,400	13,700	20,700	27,200	13,600	9,650	8,480
21	17,400	23,100	11,900	14,600	10,800	15,300	14,900	20,300	27,800	12,100	9,720	8,340
22	14,900	20,500	10,300	13,200	11,700	13,400	17,500	22,300	22,600	11,100	9,070	9,150
23	13,100	22,700	11,200	11,500	9,770	12,200	15,200	20,500	23,200	11,400	6,740	17,800
24	11,600	28,600	10,500	12,700	11,400	11,400	14,900	18,800	25,300	11,400	6,880	17,800
25	11,000	21,200	11,400	12,900	10,700	10,900	14,500	18,600	25,200	11,300	7,170	14,500
26	10,500	18,400	11,400	11,400	11,200	10,300	15,200	17,600	25,000	13,100	7,130	12,900
27	11,600	16,800	10,000	12,600	12,200	10,300	15,300	17,700	24,600	13,400	7,450	12,700
28	20,400	15,800	10,600	11,200	11,000	11,000	16,600	20,000	25,400	13,000	8,010	17,100
29	26,800	16,100	9,470	11,100	---	11,000	17,800	20,700	27,800	12,100	11,700	39,400
30	31,800	16,800	10,100	11,800	---	11,400	16,900	20,600	29,100	12,000	16,300	33,800
31	39,200	---	10,800	12,300	---	12,100	---	20,100	---	11,300	10,800	---
Total	417,620	671,600	436,170	428,700	334,340	398,840	550,300	721,800	682,100	533,000	325,630	399,030
Mean	13,470	22,390	14,070	13,830	11,940	12,870	18,340	23,280	22,740	17,190	10,500	13,300
Max	39,200	35,500	22,600	24,900	14,000	19,400	33,200	42,900	29,100	30,700	16,300	39,400
Min	5,190	14,500	9,470	11,100	9,570	8,480	13,700	15,600	17,100	11,100	6,740	8,090
Ac-ft	828,300	1,332,000	865,100	850,300	663,200	791,100	1,092,000	1,432,000	1,353,000	1,057,000	645,900	791,500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	11,210	15,990	15,770	15,170	13,750	12,170	13,670	20,020	24,210	19,160	10,850	8,540
Max	26,670	49,160	34,660	25,240	28,840	25,660	29,270	36,310	43,320	37,430	20,930	16,710
(WY)	(2004)	(1991)	(1976)	(1935)	(1991)	(2007)	(1934)	(1925)	(1972)	(1972)	(1976)	(2004)
Min	3,808	2,876	5,289	4,485	3,195	6,224	7,045	11,440	10,600	8,856	6,403	4,852
(WY)	(1926)	(1937)	(1930)	(1930)	(1929)	(1929)	(2008)	(1977)	(2005)	(1977)	(1941)	(1942)

12194000 SKAGIT RIVER NEAR CONCRETE, WA—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1925 - 2013	
Annual total	6,531,760		5,899,130			
Annual mean	17,850		16,160		15,050	
Highest annual mean					21,270	1991
Lowest annual mean					9,512	2001
Highest daily mean	46,100	Jun 18	42,900	May 13	135,000	Nov 10, 1990
Lowest daily mean	5,190	Oct 5	5,190	Oct 5	2,360	Dec 12, 1929
Annual seven-day minimum	5,290	Oct 5	5,290	Oct 5	2,400	Oct 17, 1925
Annual runoff (ac-ft)	12,960,000		11,700,000		10,900,000	
10 percent exceeds	31,100		25,200		25,900	
50 percent exceeds	16,200		14,500		12,900	
90 percent exceeds	8,410		9,500		6,740	

