

**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 mi<sup>2</sup>, of which 400 mi<sup>2</sup> 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.--87 years (water years 1925-2011), 15,010 ft<sup>3</sup>/s, 10,880,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 166,000 ft<sup>3</sup>/s, Oct. 21, 2003, gage height, 42.21 ft; minimum discharge, probably less than 2,160 ft<sup>3</sup>/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 ft<sup>3</sup>/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 ft<sup>3</sup>/s. Records of other floods, prior to establishment of station, are given in WSP 1527.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 81,900 ft<sup>3</sup>/s, Dec. 12, gage height, 31.22 ft; minimum discharge, 5,050 ft<sup>3</sup>/s, Oct. 8-9, gage height, 14.40 ft.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	11,900	16,200	13,500	12,000	16,500	11,700	24,100	8,790	20,300	32,100	25,200	9,640
2	8,310	25,300	12,100	11,900	16,100	10,100	20,900	8,490	19,700	29,100	22,800	10,200
3	7,530	18,300	11,200	12,200	15,300	10,200	16,500	8,860	19,900	31,800	22,500	9,910
4	7,170	13,800	10,600	12,100	20,200	12,100	14,400	8,750	21,200	29,700	22,300	9,540
5	6,650	13,700	10,300	11,200	23,500	11,000	14,700	8,940	25,400	28,000	23,000	9,870
6	6,100	14,900	10,600	10,800	20,600	11,100	14,000	9,860	27,900	29,800	22,600	11,000
7	5,740	19,600	10,100	14,500	21,900	10,900	12,500	14,200	31,300	32,600	21,700	10,800
8	5,380	17,700	13,100	13,700	20,600	10,900	11,500	15,000	29,400	30,400	19,400	11,200
9	5,580	15,200	17,600	13,800	18,200	11,300	10,800	14,400	25,200	26,400	20,500	11,200
10	24,800	13,500	17,800	13,200	17,600	14,200	9,860	14,200	24,000	23,900	19,400	11,400
11	20,600	11,800	15,700	12,600	16,100	15,900	11,200	12,400	24,700	22,300	18,500	11,500
12	15,100	12,000	48,000	13,200	16,400	13,500	10,500	14,400	23,900	22,300	18,100	11,200
13	10,500	10,300	57,700	16,700	18,200	14,900	9,740	12,900	23,900	23,300	17,600	10,700
14	12,500	11,200	35,100	31,400	17,700	17,800	9,440	13,600	28,100	23,600	17,600	10,500
15	12,000	14,000	25,500	31,600	19,500	15,000	9,420	20,600	24,700	24,600	16,800	7,540
16	12,300	24,500	20,500	45,700	18,000	15,900	10,500	21,200	23,700	27,300	14,800	7,410
17	13,100	20,400	17,500	65,700	16,500	15,500	11,000	18,400	22,100	28,600	15,200	7,270
18	13,300	18,700	13,400	39,000	16,300	15,200	10,300	17,800	21,100	28,000	14,400	7,000
19	12,300	16,400	14,600	29,300	15,500	12,100	9,710	15,900	23,700	28,300	14,100	7,400
20	12,200	14,600	13,900	24,200	15,300	12,200	9,460	16,700	23,700	27,700	14,200	7,270
21	12,300	13,400	11,600	23,700	15,300	10,700	8,120	19,300	25,700	29,000	15,000	6,820
22	10,100	13,200	10,600	23,500	15,300	11,100	7,160	18,500	28,000	30,400	15,400	6,820
23	11,700	12,900	11,800	21,300	15,100	10,800	8,720	18,500	30,600	26,400	16,600	9,970
24	13,000	12,100	11,600	21,300	14,700	9,980	9,020	17,600	27,800	25,800	16,000	11,400
25	15,300	11,900	12,400	22,600	14,300	11,000	9,410	17,100	24,900	27,800	13,800	8,540
26	17,100	11,700	12,300	21,100	14,200	10,800	9,700	18,100	22,400	25,900	15,100	9,920
27	14,900	11,900	12,300	20,200	14,200	9,860	9,820	18,100	23,100	22,900	13,300	17,500
28	14,300	11,400	11,900	19,700	14,100	9,750	9,880	16,700	27,200	20,800	12,800	14,300
29	13,800	11,400	12,200	21,100	---	9,770	9,620	15,100	31,100	22,300	12,200	11,700
30	12,300	11,700	11,900	21,500	---	13,200	9,240	15,000	34,700	24,100	12,000	7,410
31	13,600	---	11,300	19,600	---	27,500	---	16,000	---	25,800	10,500	---
<b>Total</b>	371,460	443,700	518,700	670,400	477,200	395,960	341,220	465,390	759,400	831,000	533,400	296,930
<b>Mean</b>	11,980	14,790	16,730	21,630	17,040	12,770	11,370	15,010	25,310	26,810	17,210	9,898
<b>Max</b>	24,800	25,300	57,700	65,700	23,500	27,500	24,100	21,200	34,700	32,600	25,200	17,500
<b>Min</b>	5,380	10,300	10,100	10,800	14,100	9,750	7,160	8,490	19,700	20,800	10,500	6,820
<b>Ac-ft</b>	736,800	880,100	1,029,000	1,330,000	946,500	785,400	676,800	923,100	1,506,000	1,648,000	1,058,000	589,000

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2011, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	11,180	15,940	15,830	15,160	13,750	12,160	13,610	19,960	24,170	19,040	10,810	8,503
<b>Max</b>	26,670	49,160	34,660	25,240	28,840	25,660	29,270	36,310	43,320	37,430	20,930	16,710
<b>(WY)</b>	(2004)	(1991)	(1976)	(1935)	(1991)	(2007)	(1934)	(1925)	(1972)	(1972)	(1976)	(2004)
<b>Min</b>	3,808	2,876	5,289	4,485	3,195	6,224	7,045	11,440	10,600	8,856	6,403	4,852
<b>(WY)</b>	(1926)	(1937)	(1930)	(1930)	(1929)	(1929)	(2008)	(1977)	(2005)	(1977)	(1941)	(1942)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1925 - 2011	
<b>Annual total</b>	4,970,400		6,104,760			
<b>Annual mean</b>	13,620		16,730		15,010	
<b>Highest annual mean</b>					21,270	1991
<b>Lowest annual mean</b>					9,512	2001
<b>Highest daily mean</b>	57,700	Dec 13	65,700	Jan 17	135,000	Nov 10, 1990
<b>Lowest daily mean</b>	4,770	Sep 6	5,380	Oct 8	2,360	Dec 12, 1929
<b>Annual seven-day minimum</b>	5,980	Sep 2	6,310	Oct 3	2,400	Oct 17, 1925
<b>Annual runoff (ac-ft)</b>	9,859,000		12,110,000		10,880,000	
<b>10 percent exceeds</b>	20,600		26,700		25,800	
<b>50 percent exceeds</b>	12,400		14,700		12,800	
<b>90 percent exceeds</b>	7,790		9,710		6,720	

