



Water-Data Report 2008

## 12043000 CALAWAH RIVER NEAR FORKS, WA

Washington Coastal Basin  
Hoh-Quillayute Subbasin

LOCATION.--Lat 47°57'37", long 124°23'30" referenced to North American Datum of 1927, in NW ¼ SW ¼ sec.4, T.28 N., R.13 W., Clallam County, WA, Hydrologic Unit 17100101, on left bank 30 ft downstream from U.S. Highway 101 bridge, 0.8 mi northwest of Forks, and at mile 6.6.

DRAINAGE AREA.--129 mi<sup>2</sup>.

### SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 1897 to December 1901, October to December 1975 (discharge measurements and peak discharges), January 1976 to September 1980, March 1984 to current year. Monthly and peak discharge only, November 1897 and August 1898, published in WSP 1316. Published as Calowa River at Forks, November 1897 to December 1899; as Calowa River near Forks, 1900; and as Kalawa River near Forks, 1901.

REVISED RECORDS.--WSP 1316: 1898-1902. WSP 1736: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 201.58 ft above NGVD of 1929. November 1897 to December 1901, nonrecording gage at same site but at different datum; October to December 1975, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records good. No regulation or diversion upstream from station. Chemical analyses October 1976 to September 1978. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--31 years (water years 1899-1901, 1977-80, 1985-2008), 1,048 ft<sup>3</sup>/s, 110.40 in/yr, 759,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,100 ft<sup>3</sup>/s, Nov. 6, 2006, gage height, 21.41 ft, from rating curve extended above 10,000 ft<sup>3</sup>/s on basis of step-backwater analysis; minimum discharge, 15 ft<sup>3</sup>/s, Sept. 28, 1899.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 3	0845	*35,100	*20.62
No other peak greater than base discharge			

Minimum discharge, 72 ft<sup>3</sup>/s, Aug. 18, 19, gage height, 2.65 ft.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,010	442	499	1,140	937	1,390	597	984	347	195	222	341
2	1,660	412	1,270	2,260	876	1,070	552	829	324	187	175	294
3	1,550	432	25,100	2,750	772	1,010	522	786	355	180	124	262
4	996	476	13,400	3,330	698	1,120	524	721	386	174	105	238
5	706	426	5,250	4,660	1,190	975	525	773	371	200	95	217
6	564	395	2,960	3,040	1,410	845	638	788	698	211	89	201
7	2,510	378	2,040	2,050	2,430	781	1,170	694	604	173	85	187
8	2,020	386	1,530	1,830	2,970	785	1,160	642	511	158	83	175
9	1,180	757	1,230	2,140	2,950	772	952	575	525	151	91	164
10	1,740	1,630	1,040	4,460	3,720	1,400	830	511	1,400	145	187	156
11	1,230	1,310	899	6,650	3,030	2,630	732	598	979	140	134	149
12	893	4,610	816	4,030	2,410	1,810	787	588	776	135	103	140
13	704	3,110	771	3,360	2,290	1,300	1,080	553	633	128	93	133
14	588	1,830	792	3,250	1,750	1,080	892	723	557	125	86	127
15	524	2,670	1,490	2,730	1,390	952	763	919	497	120	82	122
16	622	5,650	1,770	1,940	1,210	855	650	981	e450	117	79	118
17	644	2,610	1,890	1,560	1,090	886	628	1,110	e400	114	75	114
18	1,110	1,820	1,650	1,260	978	832	615	957	e370	111	73	111
19	2,460	1,450	2,580	1,150	1,010	841	602	800	e340	108	75	108
20	3,700	1,150	2,640	1,070	1,020	924	557	743	e320	105	259	104
21	2,430	962	1,810	906	947	968	541	780	e300	100	416	109
22	2,450	830	2,060	806	909	946	532	722	e280	97	293	119
23	2,030	731	2,560	788	909	1,300	542	602	e270	95	202	103
24	1,460	653	2,750	717	816	1,350	563	583	e255	93	598	113
25	1,120	587	2,000	671	767	1,110	546	587	245	91	581	339
26	903	576	1,650	629	779	1,020	508	559	235	93	363	271
27	763	586	1,460	598	769	907	528	514	226	94	556	170
28	658	567	1,790	548	806	834	922	471	222	91	572	143
29	595	569	1,680	576	974	774	1,730	431	216	107	545	126
30	524	512	1,510	618	---	710	1,280	379	206	155	504	117
31	475	---	1,300	896	---	686	---	353	---	112	408	---
<b>Total</b>	39,819	38,517	90,187	62,413	41,807	32,863	22,468	21,256	13,298	4,105	7,353	5,071
<b>Mean</b>	1,284	1,284	2,909	2,013	1,442	1,060	749	686	443	132	237	169
<b>Max</b>	3,700	5,650	25,100	6,650	3,720	2,630	1,730	1,110	1,400	211	598	341
<b>Min</b>	475	378	499	548	698	686	508	353	206	91	73	103
<b>Ac-ft</b>	78,980	76,400	178,900	123,800	82,920	65,180	44,570	42,160	26,380	8,140	14,580	10,060
<b>Cfs/m</b>	9.96	9.95	22.6	15.6	11.2	8.22	5.81	5.32	3.44	1.03	1.84	1.31
<b>In.</b>	11.48	11.11	26.01	18.00	12.06	9.48	6.48	6.13	3.83	1.18	2.12	1.46

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 2008, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	757	1,965	2,171	1,976	1,728	1,479	990	622	411	218	153	200
<b>Max</b>	2,544	4,706	4,395	4,025	3,782	3,583	1,532	1,161	1,128	788	766	812
<b>(WY)</b>	(2004)	(1991)	(1980)	(2006)	(1999)	(1997)	(1997)	(1984)	(1900)	(1997)	(1991)	(1978)
<b>Min</b>	49.3	439	585	476	405	419	389	190	124	95.9	62.9	59.0
<b>(WY)</b>	(1988)	(1994)	(1986)	(1979)	(1993)	(1992)	(2004)	(2004)	(1995)	(1995)	(2003)	(1998)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1898 - 2008	
<b>Annual total</b>	452,122		379,157			
<b>Annual mean</b>	1,239		1,036		1,048	
<b>Highest annual mean</b>					1,555	1999
<b>Lowest annual mean</b>					665	1977
<b>Highest daily mean</b>	25,100	Dec 3	25,100	Dec 3	25,100	Dec 3, 2007
<b>Lowest daily mean</b>	84	Sep 27	73	Aug 18	15	Sep 28, 1899
<b>Annual seven-day minimum</b>	88	Sep 21	80	Aug 13	26	Sep 22, 1899
<b>Annual runoff (ac-ft)</b>	896,800		752,100		759,400	
<b>Annual runoff (cfsm)</b>	9.60		8.03		8.13	
<b>Annual runoff (inches)</b>	130.38		109.34		110.40	
<b>10 percent exceeds</b>	2,620		2,270		2,440	
<b>50 percent exceeds</b>	653		690		552	
<b>90 percent exceeds</b>	157		117		94	

