

COWLITZ RIVER BASIN

14231000 COWLITZ RIVER AT RANDLE, WA

LOCATION.--Lat 46°31'57", long 121°57'20", in NW 1/4 NE 1/4 sec.17, T.12 N., R.7 E., Lewis County, Hydrologic Unit 17080004, on left bank on upstream side of Cispus Road bridge in the town of Randle, and at mile 102.9.

DRAINAGE AREA.--541 mi².

PERIOD OF RECORD.--October 1910 to December 1911, October 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 900 ft above NGVD of 1929 from topographic map. October 1910 to December 1911, nonrecording gage at same site at different datum.

REMARKS.--Records good except for period of Oct. 1-Nov. 13 and estimated daily discharges, which are fair. Small diversions for domestic use and irrigation upstream from station. Minor regulation by Packwood Lake for power production. U.S. Geological Survey satellite telemeter at station. Due to bank overflow, discharges above 19.00 ft gage height cannot be determined by direct methods.

AVERAGE DISCHARGE.--9 years (water years 1994-2002), 2,916 ft³/s, 73.22 in/yr, 2,112,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 24.90 ft Feb. 9, 1996, from outside high-water mark; minimum discharge, 292 ft³/s Nov. 26, 1993.

EXTREMES FOR CURRENT YEAR.--Peak gage heights greater than base gage heights of 18.00 ft (National Weather Service flood stage) and maximum (*):

Date	Time	Gage height (ft)	Date	Time	Gage height (ft)
Jan. 8	1130	*19.77	No other peak greater than base gage height.		

Minimum discharge, 397 ft³/s Oct. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	519	3470	2750	1770	1980	2880	2270	4050	7440	4830	1300	764
2	499	3210	3090	1820	1880	2590	2320	4780	7100	4310	1250	742
3	504	2840	2890	1910	1810	2410	2360	4720	6930	4010	1120	770
4	530	2340	2670	1790	1770	2300	2520	4230	6680	3740	1070	743
5	519	2180	2470	1750	1740	2230	2900	3870	7220	3370	1020	699
6	511	1890	2440	2100	1760	2200	3240	3560	7860	3250	1000	667
7	467	1660	2440	11400	1960	2090	3580	3230	6260	3540	977	654
8	470	1470	2340	e22000	2120	1990	3590	2990	5270	4290	937	624
9	458	1360	2250	15300	2070	1920	3550	2820	4620	3570	954	619
10	448	1250	2140	8810	2000	1880	4500	2700	4590	3490	997	627
11	705	1170	2030	6420	1960	2550	5110	2690	5360	3890	1010	658
12	623	1150	1940	5730	1870	4490	5730	2910	6260	3880	986	672
13	1100	1480	3540	5320	1730	3910	7630	3710	7320	3760	998	683
14	1110	10100	7890	4660	1640	3430	16300	4180	8620	3480	1030	672
15	997	11300	5720	4090	1580	3090	13200	4200	8790	3030	1050	690
16	772	6920	6290	3640	1550	2840	8240	4150	8140	2770	1010	746
17	689	4910	10500	3280	1520	2600	6240	4250	6800	2690	958	752
18	611	3930	7420	3010	1510	2430	5240	4630	6460	2610	921	702
19	575	3550	5500	2850	1590	2440	4660	4700	5960	2480	887	693
20	609	3960	4480	2810	1720	2540	4290	5400	5560	2180	864	723
21	589	4110	3830	2790	2470	2490	4090	5890	5840	2030	818	648
22	705	4530	3350	2610	5570	2390	3880	5680	6360	1990	824	606
23	1770	6310	2980	2460	5740	2330	3640	5270	6530	2010	848	610
24	1440	5020	2710	2600	5610	2300	3420	5120	5810	1950	831	636
25	1270	4070	2490	3190	4730	2310	3310	5290	5690	1930	846	630
26	1370	3450	2310	3090	4050	2350	3310	5930	6260	1850	827	616
27	1420	2980	2160	2750	3590	2350	3280	6720	6670	1680	855	588
28	1350	2770	2050	2470	3210	2320	3170	8220	5980	1560	888	574
29	1180	2770	1930	2280	---	2310	3170	10400	8670	1510	901	584
30	1290	2640	1840	2140	---	2260	3380	10200	6460	1570	843	581
31	3400	---	1800	2040	---	2270	---	8550	---	1430	788	---
TOTAL	28500	108790	108240	138880	70730	78490	142120	155040	197510	88680	29608	19973
MEAN	919	3626	3492	4480	2526	2532	4737	5001	6584	2861	955	666
MAX	3400	11300	10500	22000	5740	4490	16300	10400	8790	4830	1300	770
MIN	448	1150	1800	1750	1510	1880	2270	2690	4590	1430	788	574
AC-FT	56530	215800	214700	275500	140300	155700	281900	307500	391800	175900	58730	39620
CFSM	1.70	6.70	6.45	8.28	4.67	4.68	8.76	9.24	12.2	5.29	1.77	1.23
IN.	1.96	7.48	7.44	9.55	4.86	5.40	9.77	10.66	13.58	6.10	2.04	1.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

MEAN	1428	3501	3926	3661	3510	2874	3274	4389	4191	2363	1122	805
MAX	3690	9466	6632	5981	8136	4912	4737	6748	6662	4822	2382	1493
(WY)	1998	1996	1996	1997	1996	1997	2002	1997	1999	1999	1999	1997
MIN	417	365	930	1391	1323	1658	2132	3239	2404	1290	715	593
(WY)	1994	1994	2001	2001	1994	2001	1998	1996	2001	2001	1994	1998

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	728336	1166561	
ANNUAL MEAN	1995	3196	
HIGHEST ANNUAL MEAN		2916	
LOWEST ANNUAL MEAN		3982	
HIGHEST DAILY MEAN	11300	Nov 15	22000
LOWEST DAILY MEAN	448	Oct 10	448
ANNUAL SEVEN-DAY MINIMUM	486	Oct 4	486
ANNUAL RUNOFF (AC-FT)	1445000	2314000	2112000
ANNUAL RUNOFF (CFSM)	3.69	5.91	5.39
ANNUAL RUNOFF (INCHES)	50.08	80.21	73.22
10 PERCENT EXCEEDS	3830	6380	5560
50 PERCENT EXCEEDS	1490	2480	2300
90 PERCENT EXCEEDS	745	692	697

e Estimated