

COWLITZ RIVER BASIN

14233500 COWLITZ RIVER NEAR KOSMOS, WA

LOCATION.--Lat 46°27'59", long 122°06'28", in NE 1/4 SW 1/4 sec.6, T.11 N., R.6 E., Lewis County, Hydrologic Unit 17080005, at Cowlitz Falls Dam, 1.1 mi downstream from Cispus River, 8 mi southwest of Randle, 4.5 mi southeast of Kosmos.

DRAINAGE AREA.--1,040 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1947 to current year. October 1967 to March 1994, published as "14233400 Cowlitz River near Randle."

GAGE.--Discharge determined from flow through turbines and outlet structures of Cowlitz Falls Dam. Prior to December 1948, nonrecording gage at site 0.8 mi downstream. December 1948 to September 1967, water-stage recorder at site 0.3 mi downstream, at datum 760.96 ft above sea level. October 1967 to March 1994, water-stage recorder, at site 0.6 mi upstream, at datum 799.42 ft above sea level.

REMARKS.--Flow regulated by Cowlitz Falls Dam since Mar. 8, 1994. Water temperatures November 1952 to August 1968, April 1969 to September 1982. Chemical analyses July 1959 to September 1970, December 1973 to September 1985.

COOPERATION.--Records provided by Lewis County Public Utility District since Mar. 8, 1994.

AVERAGE DISCHARGE.--54 years (water years 1948-2001), 4,828 ft<sup>3</sup>/s, 63.07 in/yr, 3,498,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft<sup>3</sup>/s Feb. 9, 1996; no flow part or all of many days 1994-2001 water years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 ft<sup>3</sup>/s May 24; no flow part of many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7530	1490	1010	2320	1620	1450	4850	8090	4800	2980	1520	1380
2	4380	1340	1410	2260	1520	1480	4700	7050	4730	2920	1500	1280
3	2860	1320	1700	2240	1690	1450	4180	6470	4400	2780	1420	1400
4	2350	1530	1490	2580	2420	1220	3680	6110	3770	2780	1420	1350
5	2110	1710	1330	3220	4350	1220	3540	6090	3370	2880	1420	1270
6	1850	1710	1380	3760	3850	1230	3360	5770	3340	2660	1380	1130
7	1720	1510	1320	3430	3290	1240	3090	5330	3420	2380	1460	853
8	1680	1550	1330	3110	3000	1580	2750	5520	3600	2340	1550	820
9	1710	1700	1330	2870	2740	1850	2690	5850	4100	2380	1460	835
10	1430	1710	1330	2650	2510	1910	2630	5780	4210	2320	1420	904
11	991	1340	1310	2400	2410	1840	2760	5640	3870	2300	1380	873
12	1190	1310	1250	2300	2190	1790	2650	6350	4790	2240	1380	839
13	1450	994	1020	2220	2090	1760	2600	7770	4640	2020	1380	844
14	1310	1050	997	2110	1900	1950	2370	7550	4380	2040	1520	868
15	1500	1030	1350	1860	1940	1870	2320	8230	4180	1860	1500	957
16	1230	1000	1380	1870	1880	1960	2330	8830	4000	1840	1480	969
17	1710	997	1530	1800	1820	1800	2670	7720	3720	1880	1480	997
18	1530	969	1700	1750	1770	1870	3050	6540	3500	1760	1320	967
19	1470	951	1310	1740	1710	4020	2810	5800	3430	1720	1220	944
20	1780	982	1370	1740	1690	4480	2870	5370	3470	1720	1180	919
21	2770	932	1350	1770	1690	3880	2760	5230	3660	1900	1190	884
22	2060	922	1330	1830	1700	3360	2830	6180	3850	1860	1680	800
23	1810	934	1340	1760	1690	3200	2980	8470	3560	1760	1880	817
24	1680	994	1530	1740	1700	3190	3330	9500	3150	1740	1840	839
25	1680	994	1690	1710	1500	4040	3390	8760	3020	1740	1550	850
26	1730	993	1710	1680	1480	4760	4960	7480	2690	1720	1400	885
27	1350	1520	1700	1690	1380	4840	6800	6950	2900	1740	1380	902
28	1440	1700	1690	1700	1480	3920	6750	6220	4280	1720	1440	772
29	1700	1750	1750	1710	---	4160	5920	5250	3620	1740	1530	721
30	1160	1560	2050	1520	---	3880	6860	4440	3180	1180	1590	676
31	1210	---	2270	1510	---	4020	---	4090	---	1440	1340	---
TOTAL	60371	38492	45257	66850	59010	81220	108480	204430	113630	64340	45210	28545
MEAN	1947	1283	1460	2156	2108	2620	3616	6595	3788	2075	1458	952
MAX	7530	1750	2270	3760	4350	4840	6860	9500	4800	2980	1880	1400
MIN	991	922	997	1510	1380	1220	2320	4090	2690	1180	1180	676
AC-FT	119700	76350	89770	132600	117000	161100	215200	405500	225400	127600	89670	56620
CFSM	1.87	1.23	1.40	2.07	2.03	2.52	3.48	6.34	3.64	2.00	1.40	.91
IN.	2.16	1.38	1.62	2.39	2.11	2.91	3.88	7.31	4.06	2.30	1.62	1.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2001, BY WATER YEAR (WY)

MEAN	2163	5022	6281	5778	5762	4700	5707	7960	7288	3940	1943	1478
MAX	6302	14650	16520	13820	15610	14510	9738	13760	16130	8580	3705	2881
(WY)	1960	1996	1978	1974	1996	1972	1990	1949	1974	1974	1974	1959
MIN	675	648	1100	1640	1815	2270	2656	4017	2176	1336	1042	952
(WY)	1988	1953	1953	1979	1977	1955	1975	1992	1992	1992	1992	2001

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1948 - 2001
ANNUAL TOTAL	1317312	915835	
ANNUAL MEAN	3599	2509	4828
HIGHEST ANNUAL MEAN			7236
LOWEST ANNUAL MEAN			2509
HIGHEST DAILY MEAN	12000	9500	84300
LOWEST DAILY MEAN	786	676	.00
ANNUAL SEVEN-DAY MINIMUM	857	806	549
ANNUAL RUNOFF (AC-FT)	2613000	1817000	3498000
ANNUAL RUNOFF (CFSM)	3.46	2.41	4.64
ANNUAL RUNOFF (INCHES)	47.12	32.76	63.07
10 PERCENT EXCEEDS	7440	4840	9410
50 PERCENT EXCEEDS	3030	1760	3760
90 PERCENT EXCEEDS	1170	997	1290