

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 mi².

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 NGVD of 1929.

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.--55 years (water years 1948-2002), 4,833 ft³/s, 63.14 in/yr, 3,501,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft³/s Feb. 9, 1996; no flow part or all of many days 1994-2002 water years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48,700 ft³/s April 14; no flow part of many days.

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	671	4800	5290	2880	3360	4490	3580	6640	12000	7020	2070	1320
2	631	4240	5940	3120	3180	3970	3710	7810	11400	6170	2040	1280
3	628	3920	5410	3210	3020	3700	3730	7940	11200	5680	1970	1290
4	594	3290	4860	3020	2960	3480	4030	7030	10700	5330	1930	1290
5	606	3060	4390	2920	2890	3410	4740	6440	11200	4840	1930	1210
6	585	2660	4310	3510	2960	3380	5500	5890	12100	4630	1430	1200
7	566	2340	4110	21100	3500	3180	5990	5260	9940	5000	1940	1190
8	504	2170	4030	36200	3820	2940	6100	4780	8160	6000	1430	1180
9	574	2030	3850	23800	3630	2840	6050	4390	6930	5170	1690	785
10	563	1800	3660	15700	3520	2880	8030	4210	6730	4940	1920	1110
11	832	1760	3500	11400	3410	4330	9470	4160	8000	5460	1530	1240
12	856	1820	3330	9960	3250	8130	9930	4540	9430	5460	1910	1210
13	957	2140	5550	8950	3020	6900	12600	5920	10900	5260	1390	1200
14	1000	13900	12900	7570	2820	5780	26100	6850	13000	4970	1930	889
15	1470	13600	10200	6740	2690	5340	18600	6990	13200	4350	1910	1200
16	1280	10500	11200	6000	2630	4830	14200	6890	12300	3960	1420	1130
17	861	7390	19000	5350	2510	4310	10600	7010	10500	3810	1890	1220
18	767	5830	14000	4850	2570	4030	8610	7690	9790	3750	1370	1160
19	722	5020	10600	4720	2780	4230	7410	7820	8890	3520	1630	1140
20	723	6340	8410	4680	2980	4180	6690	9250	8160	3240	1530	1160
21	723	7320	7000	4670	4160	3870	6370	9620	8440	3060	1460	1180
22	839	9090	5910	4320	8750	3820	5990	9560	9220	2970	1500	1120
23	1800	12200	5220	4020	9420	3750	5560	8820	9490	3010	1480	933
24	2180	9480	4650	4380	9230	3640	5240	8520	8510	2950	1470	1080
25	1790	7290	4240	5580	7720	3660	5050	8750	8090	2880	1560	816
26	1880	5990	3960	5430	6450	3740	5100	9870	8780	2800	1580	1010
27	1880	5000	3660	4850	5720	3760	5100	11000	9480	2660	1460	992
28	1910	4710	3450	4300	5070	3690	4880	13000	8420	2460	1460	968
29	1820	4940	3230	3670	---	3620	4940	16200	11600	2440	1520	936
30	1760	4570	2970	3680	---	3570	5330	16200	9480	2480	1500	971
31	4370	---	2980	3480	---	3580	---	13800	---	2290	1390	---
TOTAL	36342	169200	191810	234060	118020	127030	229230	252850	296040	128560	51240	33410
MEAN	1172	5640	6187	7550	4215	4098	7641	8156	9868	4147	1653	1114
MAX	4370	13900	19000	36200	9420	8130	26100	16200	13200	7020	2070	1320
MIN	504	1760	2970	2880	2510	2840	3580	4160	6730	2290	1370	785
AC-FT	72080	335600	380500	464300	234100	252000	454700	501500	587200	255000	101600	66270
CFSM	1.13	5.42	5.95	7.26	4.05	3.94	7.35	7.84	9.49	3.99	1.59	1.07
IN.	1.30	6.05	6.86	8.37	4.22	4.54	8.20	9.04	10.59	4.60	1.83	1.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2002, BY WATER YEAR (WY)

MEAN	2145	5033	6279	5810	5734	4689	5742	7963	7335	3944	1938	1472
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 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1948 - 2002

ANNUAL TOTAL	1169067	1867792										
ANNUAL MEAN	3203	5117								4833		
HIGHEST ANNUAL MEAN										7236		1974
LOWEST ANNUAL MEAN										2509		2001
HIGHEST DAILY MEAN	19000	Dec 17	36200	Jan 8	84300	Feb 9	1996					
LOWEST DAILY MEAN	504	Oct 8	504	Oct 8	0.00	Sep 9	1995					
ANNUAL SEVEN-DAY MINIMUM	570	Oct 4	570	Oct 4	549	Nov 27	1952					
ANNUAL RUNOFF (AC-FT)	2319000		3705000		3501000							
ANNUAL RUNOFF (CFSM)	3.08		4.92		4.65							
ANNUAL RUNOFF (INCHES)	41.82		66.81		63.14							
10 PERCENT EXCEEDS	6270		10300		9430							
50 PERCENT EXCEEDS	2340		4030		3760							
90 PERCENT EXCEEDS	913		1170		1290							