

## COWLITZ RIVER BASIN

## 14236200 TILTON RIVER ABOVE BEAR CANYON CREEK, NEAR CINEBAR, WA

LOCATION.--Lat 46°35'44", long 122°27'30", in NE 1/4 SW 1/4 sec.20, T.13 N., R.3 E., Lewis County, Hydrologic Unit 17080005, on right bank 0.9 mi upstream from Bear Canyon Creek, 3.5 mi southeast of Cinebar, and at mile 7.1.

DRAINAGE AREA.--141 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1956 to current year.

REVISED RECORDS.--WDR WA-72-1: 1957(M), 1959(P), 1960(P), 1961(M), 1963(P), 1964(M), 1965, 1967(P), 1971(P).

GAGE.--Water-stage recorder. Elevation of gage is 600 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Several small diversions for municipal and domestic use upstream from station. No regulation. U.S. Geological Survey satellite telemeter at station. Water temperatures May 1965 to September 1982.

AVERAGE DISCHARGE.--46 years (water years 1957-2002), 828 ft<sup>3</sup>/s, 79.78 in/yr, 599,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,100 ft<sup>3</sup>/s Feb. 8, 1996, gage height, 17.90 ft, from rating curve extended above 10,500 ft<sup>3</sup>/s on basis of slope-area measurement at gage height of 14.79 ft; minimum discharge, 49 ft<sup>3</sup>/s Oct. 22-26, 28-30, 1987, gage height, 1.93 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 14	0830	7,180	9.37	Jan. 7	2330	7,480	9.55
Dec. 13	2345	8,270	10.01	Apr. 14	0445	8,250	10.00
Dec. 17	0100	*8,360	*10.06				

Minimum discharge, 58 ft<sup>3</sup>/s Sep. 25-29.

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	83	1540	2120	764	857	895	1000	974	656	439	112	73
2	79	1420	2260	1180	782	787	1000	962	608	362	108	73
3	79	1100	1770	1150	830	713	990	872	553	316	106	75
4	76	838	1500	1000	831	671	1050	757	527	288	109	74
5	72	736	1280	913	828	695	1210	789	604	262	115	72
6	72	608	1530	1300	977	714	1420	802	546	241	110	71
7	72	523	1560	5610	1360	643	1550	720	468	234	107	71
8	80	458	1360	5470	1470	595	1320	664	425	257	105	71
9	81	412	1340	2990	1320	553	1410	628	387	222	101	72
10	98	375	1220	1950	1170	569	2780	593	370	202	99	70
11	209	347	1160	1470	1120	2870	2900	586	364	189	98	69
12	172	347	1110	1600	983	3020	3500	648	360	180	95	67
13	307	488	4410	1530	878	1930	4140	840	354	174	91	67
14	388	5610	5560	1250	788	1580	6230	886	344	166	89	65
15	320	2930	2990	1050	735	1340	3270	807	325	161	87	64
16	242	1870	5780	912	740	1170	2480	733	300	158	87	72
17	205	1330	5850	806	723	993	1990	765	290	152	87	83
18	177	1030	3100	743	848	886	1650	761	353	150	84	73
19	171	943	2290	856	1170	1090	1420	724	350	144	83	69
20	165	936	1770	1230	1280	1820	1290	751	295	143	83	67
21	166	1160	1420	1400	2740	1560	1150	905	270	137	86	67
22	400	2570	1190	1110	3300	1370	1060	814	253	133	85	64
23	1270	3460	1020	978	3440	1310	988	721	239	128	82	62
24	1030	2200	893	2010	3240	1300	906	646	226	127	79	61
25	1230	1590	796	4260	2060	1300	863	644	213	125	79	59
26	895	1280	719	2530	1530	1280	856	662	202	126	79	58
27	690	1050	663	1750	1230	1270	852	686	197	125	81	58
28	569	1220	717	1330	1040	1280	798	902	269	121	79	58
29	467	2150	682	1090	---	1210	787	1300	984	120	76	61
30	537	1890	643	971	---	1110	866	954	606	116	75	73
31	1360	---	683	931	---	1050	---	760	---	115	74	---
TOTAL	11762	42411	59386	52134	38270	37574	51726	24256	11938	5813	2831	2039
MEAN	379	1414	1916	1682	1367	1212	1724	782	398	188	91.3	68.0
MAX	1360	5610	5850	5610	3440	3020	6230	1300	984	439	115	83
MIN	72	347	643	743	723	553	787	586	197	115	74	58
AC-FT	23330	84120	117800	103400	75910	74530	102600	48110	23680	11530	5620	4040
CFSM	2.69	10.0	13.6	11.9	9.69	8.60	12.2	5.55	2.82	1.33	0.65	0.48
IN.	3.10	11.19	15.67	13.75	10.10	9.91	13.65	6.40	3.15	1.53	0.75	0.54

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

	403	1265	1588	1553	1398	1129	1040	706	416	194	118	164
MEAN	403	1265	1588	1553	1398	1129	1040	706	416	194	118	164
MAX	1240	3014	3418	2869	3039	2940	1724	1283	1082	620	294	667
(WY)	1960	1996	1976	1971	1982	1972	2002	1974	1981	1983	1968	1959
MIN	52.0	185	401	415	377	374	520	304	134	93.4	64.3	60.5
(WY)	1988	1994	1977	1977	1977	1992	1998	1980	1992	1970	1970	1967

## SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1957 - 2002
ANNUAL TOTAL	243049	340140	
ANNUAL MEAN	666	932	828
HIGHEST ANNUAL MEAN			1228
LOWEST ANNUAL MEAN			464
HIGHEST DAILY MEAN	5850	Dec 17	21000
LOWEST DAILY MEAN	72	Oct 5	49
ANNUAL SEVEN-DAY MINIMUM	76	Oct 2	50
ANNUAL RUNOFF (AC-FT)	482100	674700	599800
ANNUAL RUNOFF (CFSM)	4.72	6.61	5.87
ANNUAL RUNOFF (INCHES)	64.12	89.74	79.78
10 PERCENT EXCEEDS	1370	1970	1780
50 PERCENT EXCEEDS	431	733	537
90 PERCENT EXCEEDS	98	78	95