12452500 CHELAN RIVER AT CHELAN, WA

LOCATION.--Lat 47°50'05", long 120°00'43", in SE $^1/_4$ NE $^1/_4$ sec.30, T.27 N., R.23 E., Chelan County, Hydrologic Unit 17020009, at Chelan River powerplant tailrace, 4.3 mi downstream from control dam at outlet of Lake Chelan, and 3.0 mi southeast of Chelan.

DRAINAGE AREA.--924 mi^2.

PERIOD OF RECORD.--November 1903 to current year. Published as "below Chelan Lake" 1904-05. Adjusted records for October 1903 to September 1911, published in WSP 482, 492, and 870 are unreliable and should not be used.

REVISED RECORDS.--WSP 482: 1904-13. WSP 612: 1924. WSP 1246: 1951. WSP 1286: 1952. WSP 1933: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and watt-hour meters on each turbine. Datum of gage is 1,074.66 ft above sea level, datum of 1912. To convert to National Geodetic Vertical Datum of 1929, subtract 1.62 ft. See WSP 1933 for history of changes prior to Mar. 20, 1939. Mar. 20, 1939, to Sept. 30, 1981, gage at site 1.7 mi downstream from the Lake Chelan gage, at same datum, and published as the gage of record, used to determine head and spill discharge.

REMARKS.--Daily discharge determined from flow through turbines computed from relation between loading and head, plus flow through two irrigation pipes which divert water from the penstock just above the turbines, plus spill discharge. Unmeasured water that is diverted for irrigation upstream from station is a small percentage of total runoff. Public Utility District No. 1 of Chelan County diverts water at Chelan to develop about 40,000 kW and to irrigate 900 acres near Chelan. This quantity is included in records of daily discharge. Diversions for irrigation of about 6,280 acres with an annual depletion of about 11,000 acre-ft, 1946 estimate. Flow regulated by Lake Chelan (station 12452000).

COOPERATION.--Records partially furnished by Public Utility District No. 1 of Chelan County.

AVERAGE DISCHARGE.--96 years (water years 1905-2000), 2,058 ft^3/s, 30.25 in/yr, 1,491,000 acre-ft/yr, adjusted for storage since October 1911.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 18,400 ft^3/s June 3, 1968; no flow part of day Jan. 30, 1917, when lake outlet was blocked with ice, and at other times owing to artificial regulation.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,790 ft^3/s June 23-25; minimum daily discharge, 22 ft^3/s Sept. 23, 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2170	2210	2210	2210	2210	2210	2210	2220	2220	3930	2690	716
2	2210	2210	2210	2210	2210	2210	2210	2220	2160	3880	2710	124
3	2210	2210	2210	2210	2210	2210	2210	2220	2220	3880	2570	124
4	2210	1690	2210	2210	2210	2210	2120	2220	2220	3890	2450	124
5	2210	2210	2210	2210	2210	2210	2210	2220	2220	3880	2440	1200
6	2210	2210	2210	2210	2210	2210	2210	2220	2220	3190	2440	1170
7	2210	2210	2210	2210	2210	2210	2210	2220	2220	2660	2370	1060
8	2210	2210	2210	2210	2210	2210	2210	2220	2220	2700	2410	1250
9	2210	2210	2210	2210	2210	2210	2210	2220	2220	3000	2400	124
10	2210	2210	2210	2210	2210	2210	2210	2220	2220	3120	2320	124
11	2210	2210	2210	2210	2210	2210	2210	2220	2220	3530	1930	1400
12	2120	2210	2210	2210	2210	2210	2210	2220	2220	3520	1890	1510
13	2210	2210	2210	2210	2210	2120	2210	2220	2220	3520	1900	1510
14	2210	2210	2210	2210	2210	2210	2210	2220	2220	3520	1890	1520
15	2210	2210	2210	2210	2210	2210	2210	2220	2220	3430	1430	1500
16	2210	2210	2210	2210	2210	2210	2210	2220	2220	3130	1140	1510
17	2210	2210	2210	2210	2210	2210	2210	2220	2220	3130	1150	430
18	2210	2210	2210	2210	2210	2210	2210	2220	2220	3130	1280	1690
19	2160	2210	2210	2210	2210	2210	2210	2220	2220	3130	1310	1840
20	2210	2210	2210	2210	2210	2210	2210	2220	2220	2860	126	1640
21	2210	2210	2210	2210	2210	2210	2210	2220	3130	3120	1300	1410
22	2210	2210	2210	2210	2210	2210	2210	2220	5040	3140	1330	1140
23	2210	2210	2210	2210	2210	2210	2220	2220	5790	3180	909	22
24	2210	2210	2210	2210	2210	2210	2220	2220	5790	3590	980	22
25	2210	2210	2210	2210	2210	2210	2220	2220	5790	3170	897	1690
26	2210	2210	2210	2210	2210	2210	2220	2220	4340	3170	126	2220
27	2210	2210	2210	2210	2210	2210	2220	2220	3110	3170	126	2200
28	2210	2210	2210	2210	2210	2210	2220	2220	2470	3170	930	2220
29	2120	2210	2210	2210	2210	2210	2220	2220	2470	3170	1000	2220
30	2200	2210	2210	2210	---	2210	2220	2220	2700	3170	793	2220
31	1880	---	2210	2210	---	2210	---	2220	---	2880	688	---
TOTAL	67900	65780	68510	68510	64090	68420	66290	68820	84970	101960	47925	35930
MEAN	2190	2193	2210	2210	2210	2207	2210	2220	2832	3289	1546	1198
MAX	2210	2210	2210	2210	2210	2210	2220	2220	5790	3930	2710	2220
MIN	1880	1690	2210	2210	2210	2120	2120	2220	2160	2660	126	22
AC-FT	134700	130500	135900	135900	127100	135700	131500	136500	168500	202200	95060	71270
MEAN†	816	2767	1554	961	763	886	3027	4293	6183	3438	1380	732
CFSM†	0.88	2.99	1.68	1.04	0.83	0.96	3.28	4.65	6.69	3.72	1.49	0.79
IN.†	1.02	3.34	1.94	1.20	0.89	1.11	3.65	5.36	7.46	4.29	1.72	0.88
AC-FT†	50200	164600	95600	59100	43900	54500	180100	264000	367800	211400	84860	43570

CAL YR 1999 TOTAL 988264 MEAN 2708 MAX 11100 MIN 622 AC-FT 1960000 MEAN† 2879 CFSM† 3.12 IN.† 42.31 AC-FT† 2085000
WTR YR 2000 TOTAL 809105 MEAN 2211 MAX 5790 MIN 22 AC-FT 1605000 MEAN† 2231 CFSM† 2.41 IN.† 32.87 AC-FT† 1620000

† Adjusted for change in contents in Lake Chelan.