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 NGVD of 1912. To convert to NGVD 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.--98 years (water years 1905-2002), 2,050 ft^3/s, 30.13 in/yr, 1,485,000 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, 8,740 ft^3/s June 20; minimum daily discharge, 6.5 ft^3/s Nov. 22-30 and Dec. 4.

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	2210	2210	6.6	2210	2210	2210	2210	2220	2220	6280	2570	2220
2	2210	2160	6.6	2210	2210	2210	2210	2220	2220	3960	2570	2220
3	2210	2210	6.6	2210	2210	2210	2210	2220	2220	3450	2450	2220
4	2210	2210	6.5	2210	2210	2210	2210	2220	2220	3460	2330	2220
5	1910	2210	1880	2120	2210	2210	2210	2220	2220	3010	2080	2040
6	2190	2210	2120	2210	2210	2210	2210	2220	2220	2460	1450	2220
7	2200	2210	2210	2210	1990	1960	2210	2220	2220	2410	1540	2220
8	2210	2210	2210	2210	2210	2210	2210	2220	2220	4140	507	2220
9	2210	2210	2210	2210	2210	2210	2210	2220	2130	4200	591	2170
10	2190	2210	2210	1930	2210	2210	2210	2220	2220	3760	621	2220
11	2010	2210	2210	2210	2210	2210	2210	2220	2220	3500	226	2130
12	2210	2210	2210	2210	2210	2210	2210	2220	2220	4730	629	1990
13	2210	2210	2210	2210	2210	2210	2210	2220	2280	5760	514	1420
14	2210	2210	2210	2210	2210	2210	2210	2220	2340	6350	697	1350
15	2210	2210	2210	2210	2210	2210	2210	2220	2340	6020	608	1310
16	2210	2210	2210	2210	2210	2210	2210	2220	2340	4760	1410	1240
17	2210	2210	2210	2210	2210	2210	2120	2220	2350	4160	1580	1350
18	2210	607	2210	2210	2210	2210	2210	2220	5210	5350	1100	1340
19	2120	47	2210	2210	2210	2210	2210	2220	6310	5460	1660	1340
20	2210	6.6	2050	2210	2210	2210	2210	2220	8740	5400	1630	1340
21	2120	6.6	2210	2210	2030	2100	2210	2220	8630	3830	1520	1170
22	2210	6.5	2210	2210	2210	2210	2210	2220	8620	2500	1520	1340
23	2210	6.5	2210	2210	2210	2210	2210	2220	8660	2510	1520	322
24	2210	6.5	2210	2010	2210	2210	2210	2220	7620	3630	1500	410
25	2210	6.5	2210	2210	2210	2210	2210	2220	5620	7170	1450	122
26	2210	6.5	2210	2210	2210	2210	2210	2220	4100	6770	1230	122
27	2210	6.5	2010	2210	2210	2210	2210	2220	3470	3360	1490	122
28	2210	6.5	2210	2210	2210	2210	2210	2220	3550	3410	2220	122
29	2120	6.5	2210	2210	---	2210	2210	2220	3580	3410	2220	826
30	2210	6.5	2210	2210	---	2210	2210	2220	4360	3120	2220	1340
31	2210	---	2210	2210	---	2210	---	2220	---	2570	2220	---
TOTAL	67690	38245.7	58916.3	67940	61480	68150	66210	68820	116670	130900	45873	42676
MEAN	2184	1275	1901	2192	2196	2198	2207	2220	3889	4223	1480	1423
MAX	2210	2210	2210	2210	2210	2210	2210	2220	8740	7170	2570	2220
MIN	1910	6.5	6.5	1930	1990	1960	2120	2220	2130	2410	226	122
AC-FT	134300	75860	116900	134800	121900	135200	131300	136500	231400	259600	90990	84650
MEAN†	379	1003	652	959	920	932	2342	4832	8472	4779	1510	604
CFSM.†	0.41	1.09	0.71	1.04	1.00	1.01	2.53	5.23	9.17	5.17	1.63	0.65
IN.†	0.47	1.21	0.81	1.20	1.04	1.16	2.83	6.03	10.23	5.96	1.88	0.73
AC-FT†	23300	59660	40100	59000	51100	57300	139300	297200	504000	293900	92890	35950

CAL YR 2001 TOTAL 393656.1 MEAN 1079 MAX 2220 MIN 6.5 AC-FT 780800 MEAN† 1162 CFSM† 1.26 IN.† 17.08 AC-FT† 841700
WTR YR 2002 TOTAL 833571.0 MEAN 2284 MAX 8740 MIN 6.5 AC-FT 1653000 MEAN† 2283 CFSM† 2.47 IN.† 33.54 AC-FT† 1653000

† Adjusted for change in contents in Lake Chelan.