

12045500 ELWHA RIVER AT McDONALD BRIDGE, NEAR PORT ANGELES, WA

LOCATION.--Lat 48°03'18", long 123°34'55", in NE 1/4 NW 1/4 sec.33, T.30 N., R.7 W., Clallam County, Hydrologic Unit 17110020, Olympic National Forest, on right bank 300 ft upstream from site of McDonald Bridge (now removed), 0.7 mi upstream from Little River, 4.9 mi below Glines Canyon Dam, 8 mi southwest of Port Angeles, and at mile 8.6.

DRAINAGE AREA.--269 mi.

PERIOD OF RECORD.--October 1897 to December 1901, October 1918 to current year. Published as "at McDonald" October 1897 to December 1901.

REVISED RECORDS.--WSP 1246: Drainage area. WSP 1286: 1898, 1899(M), 1900-1902, 1919, 1920-31(M), 1932, 1933(M). WSP 1566: 1957(M).

GAGE.--Water-stage recorder. Datum of gage is 200.00 ft above NGVD of 1929. Oct. 1, 1897, to Dec. 31, 1901, nonrecording gage at McDonald Bridge at different datum. Dec. 9, 1918, to May 1, 1936, water-stage recorder under McDonald Bridge at datum 7.4 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair. Water is diverted through Glines Canyon powerhouse and returned to river upstream from gage. Flow partly regulated by Lake Mills 4.9 mi upstream (station 12045000). Chemical analyses July 1959 to June 1960, July 1960 to September 1970 (partial-record station), October 1971 to September 1986. Water temperatures April 1976 to August 1977, October 1994 to April 1998. Suspended sediment discharge April 1994 to September 1995. Miscellaneous sediment measurements October 1995 to September 1997. Prior to 1962, published as Elwha River near Port Angeles. October 1971 to September 1974 published as Elwha River below Little River, near Port Angeles. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--88 years (water years 1898-1901, 1919-2002), 1,511 ft³/s, 76.28 in/yr, 1,095,000 acre-ft/yr, adjusted for storage since April 1927.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,600 ft³/s Nov. 18, 1897, gage height, 14.5 ft, from graph based on gage readings, site and datum then in use, from rating curve extended above 3,300 ft³/s on basis of two determinations of flow over dam at discharge 26,700 ft³/s and 30,100 ft³/s, referred to 1897 datum; minimum daily discharge, 10 ft³/s Oct. 3, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,700 ft³/s Jan. 7, gage height, 22.84 ft; minimum discharge, 144 ft³/s Oct. 2.

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	369	1370	2520	1470	1160	1630	1100	1840	2530	2180	879	555
2	364	1270	2460	3490	1280	1460	1060	2200	2530	2040	816	554
3	367	1020	1870	3120	1270	1450	e959	1930	2600	1910	783	554
4	367	971	1630	2390	1220	1210	1030	1830	2640	1780	802	535
5	367	1080	1440	2140	1160	1310	1190	1680	3050	1660	809	414
6	367	862	1620	3620	1400	1210	1260	1610	2990	1640	784	409
7	367	802	1340	18000	1460	1190	1330	1450	2400	1710	716	424
8	367	727	1900	12600	1380	1040	1240	1310	2170	1920	655	452
9	367	682	1790	7100	1240	1020	1280	1300	1920	1750	748	344
10	368	681	1540	5050	1160	1040	1830	e1280	2190	1970	852	375
11	456	682	1420	4000	1150	2190	1730	e1260	2570	2160	750	409
12	481	1670	1380	3540	1010	2130	2020	e1400	2870	2090	656	384
13	605	1930	2810	3130	997	1910	2820	e1580	3210	1970	725	367
14	531	6090	3780	2830	1030	1680	5550	1560	3600	1940	819	369
15	441	8070	2540	2540	861	1470	3400	1540	3470	1790	764	372
16	408	4450	8800	2330	1020	1260	2830	1470	3140	1630	706	438
17	415	2940	8330	2090	902	1240	2180	1610	2960	1690	683	580
18	398	2230	4400	1950	876	1220	1980	1650	2970	1580	625	407
19	399	3810	3290	1900	1240	1160	1860	1570	2540	1510	561	318
20	399	6260	2760	1810	1110	1130	1770	1630	2440	1470	523	399
21	408	5480	2310	1710	3280	916	1710	1800	2520	1370	527	371
22	714	4310	2000	1610	7740	1060	1710	1810	2850	1370	538	365
23	1500	3240	1800	1460	4630	1030	1590	1790	2690	1480	541	345
24	881	2740	1550	2330	3140	1060	1560	1750	2540	1480	548	312
25	909	2310	1590	3120	2570	1110	1500	1950	e2640	1520	652	310
26	972	1950	1410	2110	2180	1120	1450	2340	2960	1400	694	318
27	1450	1800	1370	1880	1840	1080	1380	2590	3040	1300	638	318
28	961	1850	1390	1680	1750	1060	1280	3030	2890	1110	572	318
29	773	1860	1360	1460	---	1050	1460	3900	3790	1280	558	317
30	699	1670	1260	1460	---	1010	1460	3110	2550	1110	558	281
31	1930	---	1270	1450	---	926	---	2750	---	1040	556	---
TOTAL	19400	74807	74930	105370	50056	39372	53519	58520	83260	50850	21038	11914
MEAN	626	2494	2417	3399	1788	1270	1784	1888	2775	1640	679	397
MAX	1930	8070	8800	18000	7740	2190	5550	3900	3790	2180	879	580
MIN	364	681	1260	1450	861	916	959	1260	1920	1040	523	281
AC-FT	38480	148400	148600	209000	99290	78090	106200	116100	165100	100900	41730	23630
MEAN†	631	2495	2416	3393	1794	1269	1787	1886	2775	1637	671	403
CFSM†	2.35	9.28	8.98	12.61	6.67	4.72	6.64	7.01	10.32	6.09	2.49	1.50
IN.†	2.71	10.34	10.36	14.55	6.94	5.44	7.41	8.09	11.51	7.02	2.88	1.67
AC-FT†	38820	148400	148600	208700	99630	78020	106300	116000	165100	100700	41290	23970

CAL YR 2001 TOTAL 414141 MEAN 1135 MAX 8800 MIN 310 AC-FT 821400 MEAN† 1135 CFSM† 4.22 IN.† 57.27 AC-FT† 821600
WTR YR 2002 TOTAL 643036 MEAN 1762 MAX 18000 MIN 281 AC-FT 1275000 MEAN† 1761 CFSM† 6.55 IN.† 88.87 AC-FT† 1275000

† Adjusted for change in contents in Lake Mills.
e Estimated