

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

Puget Sound Basin
Dungeness-Elwha Subbasin

LOCATION.--Lat 48°03'18", long 123°34'55" referenced to North American Datum of 1927, in NE ¼ NW ¼ sec.33, T.30 N., R.7 W., Clallam County, WA, Hydrologic Unit 17110020, Olympic National Forest, on right bank near the site of the McDonald Bridge (removed), 0.7 mi upstream from Little River, 1.1 mi upstream of highway 101 Bridge, 4.9 mi below Glines Canyon Dam, 8 mi southwest of Port Angeles, and at mile 8.6.

DRAINAGE AREA.--269 mi².

SURFACE-WATER RECORDS

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. 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 FOR PERIOD OF RECORD.--93 years (water years 1898-1901, 1919-2007), 1,510 ft³/s, 76.23 in/yr, 1,094,000 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, 20,900 ft³/s, Nov. 6, gage height, 21.17 ft; minimum discharge, 209 ft³/s, Oct. 26, gage height, 9.69 ft.

12045500 ELWHA RIVER AT MCDONALD BRIDGE, NEAR PORT ANGELES, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	347	255	1,360	1,710	1,040	1,000	1,600	1,360	3,150	1,700	977	544
2	346	319	1,260	8,130	1,010	952	1,570	1,380	3,300	1,660	964	518
3	344	1,220	1,190	6,150	967	977	1,400	e1,410	3,560	1,710	1,000	527
4	344	3,890	1,330	3,910	964	1,020	1,340	e1,340	3,760	1,950	945	584
5	345	2,520	1,340	3,400	1,140	1,070	1,300	e1,210	3,220	2,120	892	522
6	345	13,200	1,330	3,730	1,200	1,160	1,360	e1,150	2,560	2,110	898	530
7	353	6,560	1,310	4,470	1,270	1,560	1,950	e1,500	2,140	1,930	891	484
8	355	3,710	1,420	3,720	1,550	1,630	2,280	e2,080	2,040	1,870	867	476
9	353	2,750	1,510	3,260	1,360	1,570	2,300	2,150	2,070	1,860	806	454
10	353	2,440	1,640	2,950	1,470	1,700	1,930	1,760	2,380	1,890	750	435
11	353	2,490	3,220	2,380	1,540	4,330	1,750	1,830	2,260	1,980	724	468
12	353	2,870	3,650	2,100	1,630	8,490	1,570	1,840	1,870	2,020	734	467
13	341	3,250	4,750	1,900	1,450	4,350	1,510	1,890	1,780	2,000	710	456
14	294	2,260	4,820	1,790	1,340	3,300	1,690	1,860	1,840	1,910	698	440
15	297	6,240	6,500	1,570	1,900	2,580	1,490	1,830	1,740	1,790	694	440
16	353	6,440	3,980	1,540	2,150	2,410	1,420	2,270	1,800	1,600	729	443
17	310	3,590	3,020	1,390	1,740	2,470	1,400	2,200	1,720	1,500	684	476
18	292	2,920	2,490	1,380	1,830	2,590	1,280	2,040	1,820	1,440	685	429
19	327	3,760	2,230	1,290	1,690	2,550	1,230	1,980	1,740	1,430	687	416
20	333	3,590	2,260	1,220	2,110	2,660	1,200	2,000	1,990	1,380	647	387
21	301	3,880	3,470	1,200	1,740	2,230	1,120	1,840	2,150	1,730	655	409
22	280	3,170	2,650	1,250	1,510	1,960	1,100	1,680	2,180	3,290	663	407
23	251	2,710	2,340	1,630	1,380	2,030	1,100	1,700	1,840	2,090	624	377
24	236	2,330	2,800	1,640	1,300	3,850	1,110	1,660	1,750	1,630	611	362
25	245	1,950	3,880	1,490	1,300	3,810	1,180	1,930	1,710	1,400	614	402
26	231	1,860	2,860	1,360	1,200	2,860	1,170	2,070	1,470	1,330	598	397
27	311	1,650	2,440	1,350	1,100	2,470	1,320	2,350	1,570	1,310	558	383
28	275	1,490	2,020	1,240	1,040	2,070	1,880	2,050	1,810	1,240	542	443
29	235	1,340	1,820	1,150	---	1,900	1,560	1,990	2,240	1,180	556	381
30	249	1,580	1,660	1,120	---	1,830	1,460	2,190	1,920	1,130	565	893
31	232	---	1,540	1,070	---	1,700	---	2,750	---	1,040	596	---
Total	9,584	96,234	78,090	72,490	39,921	75,079	44,570	57,290	65,380	53,220	22,564	13,950
Mean	309	3,208	2,519	2,338	1,426	2,422	1,486	1,848	2,179	1,717	728	465
Max	355	13,200	6,500	8,130	2,150	8,490	2,300	2,750	3,760	3,290	1,000	893
Min	231	255	1,190	1,070	964	952	1,100	1,150	1,470	1,040	542	362
Ac-ft	19,010	190,900	154,900	143,800	79,180	148,900	88,400	113,600	129,700	105,600	44,760	27,670
Mean adjusted for change in contents in Lake Mills	289	3,231	2,522	2,337	1,427	2,421	1,485	1,849	2,179	1,720	727	467
CFSM adjusted for change in contents in Lake Mills	1.07	12.01	9.38	8.69	5.30	9.00	5.52	6.87	8.10	6.39	2.70	1.74
In. adjusted for change in contents Lake Mills	1.24	13.40	10.81	10.02	5.52	10.38	6.16	7.92	9.03	7.37	3.12	1.94
Ac-ft adjusted for change in contents Lake Mills	17,780	192,200	155,100	143,700	79,210	148,900	88,370	113,700	129,600	105,800	44,730	27,770

12045500 ELWHA RIVER AT MCDONALD BRIDGE, NEAR PORT ANGELES, WA—Continued

	Calendar Year 2006	Water Year 2007
Total	615,938	628,372
Mean	1,688	1,722
Max	13,200	13,200
Min	231	231
Ac-ft	1,222,000	1,246,000
Mean adjusted for change in contents in Lake Mills	1,688	1,721
CFSM adjusted for change in contents in Lake Mills	6.28	6.40
In. adjusted for change in contents Lake Mills	85.18	86.85
Ac-ft adjusted for change in contents Lake Mills	1,222,000	1,246,000

