Water-Data Report 2011

# 12046260 ELWHA RIVER AT DIVERSION NEAR PORT ANGELES, WA

Puget Sound Basin
Dungeness-Elwha Subbasin

LOCATION.--Lat 48°06′44″, long 123°33′03″ referenced to North American Datum of 1927, in NE ¼ NW ¼ sec.10, T.30 N., R.7 W., Clallam County, WA, Hydrologic Unit 17110020, on right bank 3.5 miles upstream from mouth, 5.7 miles west of Port Angeles, WA.

DRAINAGE AREA.--318 $mi^2$.

## WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 2004 to September 2005.
TURBIDITY: August 2003 to September 2005, May to September 2011.

INSTRUMENTATION.--Turbidity sensor since May 2011, with 15-minute logging interval.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE (April 2004 to September 2005): Maximum, 19.3°C. Aug. 21, 2005; minimum 3.0°C, Jan. 17, 2005.
TUBIDITY: Maximum >1,080 FNU, Jan. 17, 18, and 22, 2005; minimum. 0.0 FNU, Aug. 16, Sept. 2-5, and 15, 2005.

EXTREMES FOR CURRENT YEAR.--
TURBIDITY: Maximum, 574 FNU, Sept. 26, minimum, 1.0 FNU Sept. 14, 15.

**12046260 ELWHA RIVER AT DIVERSION NEAR PORT ANGELES, WA—Continued**

**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS**
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

| Day | Max | Min | Median | Max | Min | Median | Max | Min | Median | Max | Min | Median |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | October | | | November | | | December | | | January | | |
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Max | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Min | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

**12046260 ELWHA RIVER AT DIVERSION NEAR PORT ANGELES, WA—Continued**

**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS**
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

| Day | Max | Min | Median | Max | Min | Median | Max | Min | Median | Max | Min | Median |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | February | | | March | | | April | | | May | |
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2.2 | 1.3 | 1.4 |
| 8 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.7 | 1.2 | 1.4 |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.6 | 1.2 | 1.3 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.6 | 1.2 | 1.3 |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.8 | 1.2 | 1.3 |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.7 | 1.2 | 1.4 |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.7 | 1.3 | 1.5 |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.9 | 1.4 | 1.6 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.2 | 1.7 | 2.0 |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.0 | 2.4 | 3.1 |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.1 | 3.2 | 3.7 |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.7 | 3.7 | 4.3 |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.1 | 4.1 | 4.8 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.0 | 4.2 | 4.6 |
| 21 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.3 | 4.0 | 4.5 |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.3 | 3.8 | 4.2 |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.9 | 3.7 | 4.1 |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.9 | 3.6 | 3.9 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.7 | 3.4 | 3.7 |
| 26 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.7 | 3.3 | 3.6 |
| 27 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.3 | 3.1 | 3.4 |
| 28 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.4 | 3.0 | 3.2 |
| 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3.8 | 2.8 | 3.1 |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3.6 | 2.6 | 2.8 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3.3 | 2.4 | 2.7 |
| Max | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Min | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

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**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

| Day | Max | Min | Median | Max | Min | Median | Max | Min | Median | Max | Min | Median |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | June | | | July | | | August | | | September | |
| 1 | 3.2 | 2.3 | 2.7 | 24 | 16 | 18 | 14 | 10 | 11 | 2.4 | 1.9 | 2.1 |
| 2 | 3.3 | 2.3 | 2.6 | 24 | 17 | 19 | 15 | 9.5 | 10 | 2.6 | 1.9 | 2.1 |
| 3 | 6.7 | 2.5 | 3.4 | 21 | 14 | 17 | 13 | 8.6 | 9.6 | 2.6 | 2.0 | 2.2 |
| 4 | 8.2 | 4.2 | 5.9 | 17 | 12 | 13 | 10 | 7.3 | 8.2 | 6.7 | 2.0 | 2.3 |
| 5 | 8.7 | 6.2 | 6.8 | 15 | 11 | 12 | 9.0 | 6.2 | 7.2 | 5.3 | 2.0 | 2.3 |
| 6 | 19 | 7.6 | 10 | 13 | 11 | 11 | 8.1 | 5.5 | 6.1 | 9.4 | 2.1 | 2.5 |
| 7 | 72 | 16 | 39 | 16 | 11 | 13 | 6.8 | 5.0 | 5.4 | 23 | 2.1 | 2.5 |
| 8 | 90 | 54 | 68 | 17 | 14 | 15 | 6.8 | 4.9 | 5.3 | 15 | 2.3 | 2.8 |
| 9 | 97 | 70 | 85 | 17 | 13 | 15 | 6.7 | 4.9 | 5.2 | 13 | 2.2 | 2.7 |
| 10 | 92 | 58 | 69 | 19 | 13 | 14 | 6.3 | 4.8 | 5.3 | 17 | 1.8 | 2.2 |
| 11 | 91 | 65 | 76 | 15 | 12 | 13 | 7.0 | 4.7 | 5.1 | 3.0 | 1.4 | 1.7 |
| 12 | 84 | 58 | 73 | 15 | 11 | 12 | 6.0 | 4.4 | 5.0 | 52 | 1.2 | 1.5 |
| 13 | 78 | 43 | 56 | 15 | 10 | 11 | 5.8 | 4.2 | 4.6 | 6.3 | 1.2 | 1.3 |
| 14 | 58 | 37 | 43 | 13 | 10 | 11 | 6.5 | 4.0 | 4.4 | 1.5 | 1.0 | 1.2 |
| 15 | 47 | 34 | 37 | 13 | 9.8 | 10 | 5.9 | 3.8 | 4.1 | 2.0 | 1.0 | 1.6 |
| 16 | 39 | 27 | 32 | 12 | 9.7 | 10 | 4.8 | 3.6 | 4.0 | 2.1 | 1.6 | 1.9 |
| 17 | 33 | 22 | 26 | 117 | 10 | 70 | 4.9 | 3.6 | 3.8 | 2.4 | 1.6 | 2.0 |
| 18 | 29 | 21 | 23 | 60 | 17 | 31 | 5.7 | 3.7 | 4.1 | 2.5 | 1.8 | 2.1 |
| 19 | 26 | 19 | 21 | 20 | 13 | 16 | 4.3 | 3.3 | 3.8 | 2.4 | 1.7 | 2.1 |
| 20 | 25 | 18 | 20 | 17 | 11 | 13 | 4.6 | 3.2 | 3.6 | 2.7 | 1.8 | 2.1 |
| 21 | 27 | 19 | 22 | 14 | 9.2 | 11 | 3.9 | 2.9 | 3.2 | 2.3 | 1.6 | 2.0 |
| 22 | 26 | 20 | 22 | 13 | 9.0 | 9.5 | 3.9 | 2.7 | 3.1 | 2.6 | 1.6 | 1.9 |
| 23 | 28 | 20 | 23 | 12 | 8.8 | 9.6 | 3.8 | 2.5 | 2.8 | 3.2 | 1.9 | 2.3 |
| 24 | 34 | 22 | 25 | 13 | 8.9 | 9.6 | 3.2 | 2.3 | 2.5 | 2.2 | 1.7 | 2.0 |
| 25 | 35 | 25 | 28 | 13 | 9.6 | 10 | 2.8 | 2.3 | 2.4 | 2.4 | 1.7 | 2.0 |
| 26 | 34 | 24 | 27 | 15 | 10 | 11 | 3.0 | 2.4 | 2.6 | 574 | 2.0 | 3.3 |
| 27 | 34 | 23 | 27 | 15 | 10 | 11 | 2.8 | 2.2 | 2.4 | 86 | 29 | 53 |
| 28 | 29 | 18 | 22 | 14 | 11 | 11 | 3.2 | 2.2 | 2.5 | 96 | 47 | 62 |
| 29 | 22 | 17 | 18 | 14 | 11 | 12 | 2.6 | 2.1 | 2.3 | 79 | 43 | 55 |
| 30 | 21 | 16 | 17 | 14 | 10 | 11 | 2.8 | 2.0 | 2.2 | 81 | 40 | 51 |
| 31 | --- | --- | --- | 14 | 10 | 11 | 2.4 | 1.8 | 2.0 | --- | --- | --- |
| Max | 97 | 70 | 85 | 117 | 17 | 70 | 15 | 10 | 11 | 574 | 47 | 62 |
| Min | 3.2 | 2.3 | 2.6 | 12 | 8.8 | 9.5 | 2.4 | 1.8 | 2.0 | 1.5 | 1.0 | 1.2 |