

**WASHINGTON DEPARTMENT OF ECOLOGY**  
**ENVIRONMENTAL ASSESSMENT PROGRAM**  
**FRESHWATER MONITORING UNIT**  
**STREAM DISCHARGE TECHNICAL NOTES**

**STATION ID:** 27D090  
**STATION NAME:** East Fork Lewis River at Dollar Corner  
**WATER YEAR:** 2006  
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**Introduction**

Watershed Description

The East Fork of the Lewis River is located in southwestern Washington in Clark and Skamania counties. It is the largest tributary of the Lewis River, with a drainage basin area of 217 square miles. The river runs about 43 miles from its source to its confluence with the main stem Lewis River. The eastern portion of the river drainage basin lies in the forested foothills of the Cascade Mountains within Gifford Pinchot National Forest. Major tributaries include Rock, Yacolt Mason, Jenny, Breeze and McCormick creeks.

Gage Location

The gage is located in Clark County at Dollar Corner County Park off NE 72nd Ave. The gage house is located on the left bank of the River about 250 ft downstream of the boat launch.

Table 1.

Drainage Area (square miles)	217
Latitude (degrees, minutes, seconds)	45 48 51
Longitude (degrees, minutes, seconds)	122 35 30

**Discharge**

Table 2. Discharge Statistics.

Mean Annual Discharge (cfs)	944
Median Annual Discharge (cfs)	537
Maximum Daily Mean Discharge (cfs)	5,750
Minimum Daily Mean Discharge (cfs)	52
Maximum Instantaneous Discharge (cfs)	6,940
Minimum Instantaneous Discharge (cfs)	47
Discharge Equaled or Exceeded 10 % of Recorded Time (cfs)	2,940
Discharge Equaled or Exceeded 90 % of Recorded Time (cfs)	60
Number of Days Discharge is Greater Than Range of Ratings	4
Number of Days Discharge is Less Than Range of Ratings	0

Note: Statistics displayed in Table 2 may not include values in which the predicted discharge exceeds the range of ratings.

**Narrative**

<p>Normal storm events occurred from October through February with a peak event in January. A filling event occurred during late December to February, resulting in a shift in the rating.</p>
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**Error Analysis**

Table 3. Error Analysis Summary.

Logger Drift Error (% of discharge)	9
Weighted Rating Error (% of discharge)	9
Total Potential Error (% of discharge)	18

**Rating Table(s)**

Table 4. Rating Table Summary

Rating Table No.	1	2	
Period of Ratings	02-09 to 02-01	02-01 to 11-10	
Range of Ratings (cfs)	45 to 7,230	34 to 7,230	
No. of Defining Measurements	26	31	
Rating Error (%)	10	9	

Rating Table No.			
Period of Ratings			
Range of Ratings (cfs)			
No. of Defining Measurements			
Rating Error (%)			

Rating Table No.			
Period of Ratings			
Range of Ratings (cfs)			
No. of Defining Measurements			
Rating Error (%)			

## Narrative

A series of storm events from late December 2005 through January 2006 filled the channel and resulted in a shift from rating 1 to rating 2. Bank full was surveyed at 10.03 ft with estimated flow of 7,230 cfs on 10/05/2009.

## Stage Record

Table 5. Stage Record Summary

Minimum Recorded Stage (feet)	4.05
Maximum Recorded Stage (feet)	12.04
Range of Recorded Stage (feet)	7.99
Number of Un-Reported Days	4
Number of Days Qualified as Estimates	60
Number of Days Qualified as Unreliable Estimates	4

## Narrative

A data gap of 77 days occurred from instrument malfunction, was filled with USGS Sta. 1422500; there was one day over the 20% Logger Drift Assessment Error and four days of un-reported do to no field notes to confirm data.

## Modeled Discharge

Table 6. Model Summary

Model Type (Slope conveyance, other, none)	None
Range of Modeled Stage (feet)	
Range of Modeled Discharge (cfs)	
Valid Period for Model	
Model Confidence	

## Surveys

Table 7. Survey Type and Date (station, cross section, longitudinal)

Type	Date
None	

## Activities Completed

To capture moderate to high-flow events and run reference mark levels.