

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

STATION ID: 29C100
STATION NAME: Wind River at Stabler
WATER YEAR: 2009
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Introduction

Watershed Description

The basin consists mainly of Forest Service lands. Gage height is determined by staff gage observations. Manual gage height observations were observed on a weekly to bi-weekly frequency for the duration of the water year. During extreme high and low discharge events the staff gage can become submerged or de-watered. During these times secondary gages are used to determine gage height.

Gage Location

Ecology's telemetry stream gage on the Wind River at Stabler is located at river mile 11.0, on Hemlock Road,. The gage is on the left bank on the upstream side of bridge.

Table 1.

Drainage Area (square miles)	107
Latitude (degrees, minutes, seconds)	45 48 28
Longitude (degrees, minutes, seconds)	121 54 33

Discharge

Table 2. Discharge Statistics.

Mean Annual Discharge (cfs)	428
Median Annual Discharge (cfs)	289
Maximum Daily Mean Discharge (cfs)	2,030
Minimum Daily Mean Discharge (cfs)	60
Maximum Instantaneous Discharge (cfs)	2,650
Minimum Instantaneous Discharge (cfs)	59
Discharge Equaled or Exceeded 10 % of Recorded Time (cfs)	971
Discharge Equaled or Exceeded 90 % of Recorded Time (cfs)	79
Number of Days Discharge is Greater Than Range of Ratings	5
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>There were five un-reported days in which the rating was exceeded. Fourteen days exceeded the interpolated range of the rating. However these are reliable extrapolations.</p>

Error Analysis

Table 3. Error Analysis Summary.

Logger Drift Error (% of discharge)	2%
Weighted Rating Error (% of discharge)	17%
Total Potential Error (% of discharge)	19%

Rating Table(s)

Table 4. Rating Table Summary

Rating Table No.	2		
Period of Ratings	10/01/08 to 4/10/13		
Range of Ratings (cfs)	66 to 1,337		
No. of Defining Measurements	32		
Rating Error (%)	17%		

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

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Stage Record

Table 5. Stage Record Summary

Minimum Recorded Stage (feet)	2.29
Maximum Recorded Stage (feet)	13.64
Range of Recorded Stage (feet)	11.35
Number of Un-Reported Days	5
Number of Days Qualified as Estimates	0
Number of Days Qualified as Unreliable Estimates	0

Narrative

The five un-reported days are due to the exceedance of the rating table.
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Modeled Discharge

Table 6. Model Summary

Model Type (Slope conveyance, other, 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

Activities Completed

None
