

**WASHINGTON DEPARTMENT OF ECOLOGY  
 ENVIRONMENTAL ASSESSMENT PROGRAM  
 FRESHWATER MONITORING UNIT  
 STREAM DISCHARGE TECHNICAL NOTES  
 MANUAL STAGE HEIGHT STATION**

**STATION ID:** 35J050  
**STATION NAME:** Tenmile Creek @ Mouth  
**WATER YEAR:** 2009  
**AUTHOR:** Mitch Wallace

**Introduction**

Watershed Description

Tenmile Creek is located in Asotin County in southeastern Washington. Tenmile Creek drops 2000 feet from the fringes of the Blue Mountains to the Snake River. The canyon created by the creek provides habitat for a variety of wildlife including deer, elk, coyote, and many species of birds. Land use is primarily rangeland.

Tenmile Creek also has a small population of threatened Snake River steelhead.

Gage Location

Tenmile Creek at Mouth is located on the Snake River Road bridge crossing, approximately 4.5 miles south of Asotin, Washington. The gage is located on the left bank directly upstream of the bridge.

Table 1.

Drainage Area (square miles)	41.6 (Streamstats)
Latitude (degrees, minutes, seconds)	46° 17' 48" N
Longitude (degrees, minutes, seconds)	116° 59' 32" W
Primary Gage Index Type	Staff
Secondary Gage Index Type	Tapedown

**Error Analysis**

Overall Rating Error Percentage	12.4
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**Rating Table(s)**

Table 2. Rating Table Summary

Rating Table No.	8	9	10
Period of Ratings	10/1/08 to 10/23/08	10/23/08 to 4/15/09	2/25/09 to 9/30/09
Range of Ratings (cfs)	0.36 to 58	0.44 to 73	0.25 to 76
No. of Defining Measurements	6	3	5
Rating Error (%)	20.8	9.9	13.6

Rating Table No.	11		
Period of Ratings	9/28/09 to 09/30/09		
Range of Ratings (cfs)	0.39 to 2.0		
No. of Defining Measurements	1		
Rating Error (%)	13.7		

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

## Narrative

Ratings 9 and 11 were a result of leaf litter build up in the channel. Rating 10 was a result of spring run-off.

## Discrete Flow Record

Table 3. Discrete Flow Record Summary

Number of Discrete Stage Readings	22	
Maximum Observed Stage (feet) and Date	4.6	3 times
Maximum Predicted Discharge (cfs) and Date	50*	1/08/09
Minimum Observed Stage (feet) and Date	3.6	10/1/08
Minimum Predicted Discharge (cfs) and Date	0.20	8/23/09
Range of Stage (feet) and Discharge (cfs)	0.98	50*

## Narrative

\*Two gage heights were recorded, but flows would have been two times the highest measured flow and thus were not reported.

Eight discharge measurements were taken, ranging from 0.50 to 38 cfs.

## Modeled Discharge

Table 4. Model Summary

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

## Surveys

Table 5. Survey Type and Date (station, cross section, longitudinal)

Type	Date
n/a	n/a

## Activities Completed

A new reference point for the tapedown measurement was established.