

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

**STATION ID:** 35D100  
**STATION NAME:** Asotin Creek above George Creek  
**WATER YEAR:** 2015  
**AUTHOR:** Mitch Wallace

**Introduction**

Watershed Description

Asotin Creek is a tributary of the Snake River, flowing through the town of Asotin in southeastern Washington. The area is semi-arid, with land use being pasture/rangeland, forest, and cropland.

Asotin Creek contains summer steelhead, spring Chinook, and bull trout. All of these are listed as threatened under the Endangered Species Act.

Gage Location

The Asotin Creek above George Creek stream gage is located on the left bank, one mile above the confluence with George Creek.

Table 1. Basin Area and Legal Description

Drainage Area (square miles)	172 (Streamstats)
Latitude (degrees, minutes, seconds)	46° 19' 23" N
Longitude (degrees, minutes, seconds)	117° 08' 06" W

Table 2. Discharge Statistics.

Mean Annual Discharge (cfs)	53
Median Annual Discharge (cfs)	48
Maximum Daily Mean Discharge (cfs)	255
Minimum Daily Mean Discharge (cfs)	23
Maximum Instantaneous Discharge (cfs)	270
Minimum Instantaneous Discharge (cfs)	19
Discharge Equaled or Exceeded 10 % of Recorded Time (cfs)	83
Discharge Equaled or Exceeded 90 % of Recorded Time (cfs)	26
Number of Days Discharge is Greater Than Range of Ratings	0
Number of Days Discharge is Less Than Range of Ratings	0
Number of Un-Reported Days	8
Number of Days Qualified as Estimates	12
Number of Modeled Days	0

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

Table 2 Discussion (Discharge Statistics)

The unreported days were a result of ice-impacted data.

Nine discharge measurements were taken throughout the water year, ranging from 28 to 77 cfs.

Table 3. Error Analysis Summary.

Potential Logger Drift Error (% of discharge)	1.4
Potential Weighted Rating Error (% of discharge)	12.6
Total Potential Error (% of discharge)	14.0

Table 3 Discussion (Error Analysis)

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Table 4. Stage Record Summary

Minimum Recorded Stage (feet)	0.86
Maximum Recorded Stage (feet)	0.86
Range of Recorded Stage (feet)	1.51

Table 4 Discussion (Stage Record)

The peak flow occurred in early February, caused by early season snowmelt. The lowest flow of the year was in early August.

Table 5. Rating Table Summary

Rating Table No.	801		
Period of Ratings	10/01/2014-10/31/2015		
Range of Ratings (cfs)	14 to 524		
No. of Defining Measurements	19		
Rating Error (%)	12.6		

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 (%)			

Table 5 Discussion (Rating Tables)

The site was very stable this year, only one rating was needed.
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Table 6. Model Summary

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

Table 6 Discussion (Modeled Data)

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

Type	Date
na	na

Table 7 Discussion (Surveys)

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Activities Completed

Repaired damage to staff after the high flows that occurred in February.
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## Appendix