

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

STATION ID: 35P050
STATION NAME: George Creek at Mouth
WATER YEAR: 2013
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Introduction

Watershed Description

George Creek is located in Asotin County in Southeast Washington. It flows northeast out of the Blue Mountains, beginning at an elevation of 5470 feet. The upper portion of the watershed is primarily forested land. The lower to middle areas are used by ranchers primarily as rangeland.

Gage Location

The George Creek at Mouth station is located on private property off of Cloverland Road, 0.1 miles upstream from the confluence with Asotin Creek.

Table 1. Basin Area and Legal Description

Drainage Area (square miles)	128 (USGS)
Latitude (degrees, minutes, seconds)	46° 18' 0" N
Longitude (degrees, minutes, seconds)	117° 6' 0" W

Table 2. Discharge Statistics.

Mean Annual Discharge (cfs)	17
Median Annual Discharge (cfs)	7.8
Maximum Daily Mean Discharge (cfs)	56
Minimum Daily Mean Discharge (cfs)	1.6
Maximum Instantaneous Discharge (cfs)	58
Minimum Instantaneous Discharge (cfs)	1.6
Discharge Equaled or Exceeded 10 % of Recorded Time (cfs)	46
Discharge Equaled or Exceeded 90 % of Recorded Time (cfs)	1.90
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	112
Number of Days Qualified as Estimates	93
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 above data only cover the period from October 1, 2012 to July 5, 2013. Continuous data collection was discontinued at this site due to budget cuts. One additional discharge measurement was taken in early October, 2013.

The pressure transducer was removed in early November for the winter. It was reinstalled in early March. This accounts for the majority of missing days.

Nine discharge measurements were taken throughout the water year, ranging from 1.4 to 49 cfs.

Table 3. Error Analysis Summary.

Potential Logger Drift Error (% of discharge)	48.1
Potential Weighted Rating Error (% of discharge)	10.2
Total Potential Error (% of discharge)	58.3

Table 3 Discussion (Error Analysis)

The potential logger drift error was a result of the mean daily flow differences between corrected and uncorrected data being greater than 20%.

Table 4. Stage Record Summary

Minimum Recorded Stage (feet)	4.11
Maximum Recorded Stage (feet)	5.21
Range of Recorded Stage (feet)	1.10

Table 4 Discussion (Stage Record)

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Table 5. Rating Table Summary

Rating Table No.	12	13	121
Period of Ratings	10/1/12 to 10/28/12	10/1/12 to 12/3/12	12/3/12 to 3/6/13
Range of Ratings (cfs)	0 to 102	0 to 6.3	0 to 102
No. of Defining Measurements	7	3	7
Rating Error (%)	10.0	13.6	10.0

Rating Table No.	111	122	131
Period of Ratings	2/22/13 to 5/22/13	4/10/13 to 9/30/13	9/15/13 to 9/30/13
Range of Ratings (cfs)	16 to 145	0 to 102	0 to 6.3
No. of Defining Measurements	2	7	3
Rating Error (%)	7.7	10.0	13.6

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

Table 5 Discussion (Rating Tables)

This site is susceptible to leaf litter build-up in the fall months.
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Table 6. 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

Table 6 Discussion (Modeled Data)

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

Type	Date
n/a	n/a

Table 7 Discussion (Surveys)

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Activities Completed

Continuous data collection was discontinued in early July. The electronics were removed. The infrastructure is still in place.
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Appendix