

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

STATION ID: 35F050
STATION NAME: Pataha Creek near Mouth
WATER YEAR: 2010
AUTHOR: Mitch Wallace

Introduction

Watershed Description

Pataha Creek is a tributary of the Tucannon River. The confluence is approximately 1 mile downstream from the station. Pataha Creek runs generally northward from its headwaters in the northern Blue Mountains and then turns westward near the communities of Pataha and Pomeroy, where it drains agricultural lands.

Gage Location

The station is located at the Highway 261 crossing of Pataha Creek. It is located within the right-of-way of Highway 261 on the left side, downstream of the highway crossing.

Table 1.

Drainage Area (square miles)	170 (Streamstats)
Latitude (degrees, minutes, seconds)	46° 30' 43" N
Longitude (degrees, minutes, seconds)	117° 58' 23" W

Discharge

Table 2. Discharge Statistics.

Mean Annual Discharge (cfs)	8.9
Median Annual Discharge (cfs)	8.1
Maximum Daily Mean Discharge (cfs)	101
Minimum Daily Mean Discharge (cfs)	1.2
Maximum Instantaneous Discharge (cfs)	341
Minimum Instantaneous Discharge (cfs)	0.9
Discharge Equaled or Exceeded 10 % of Recorded Time (cfs)	16
Discharge Equaled or Exceeded 90 % of Recorded Time (cfs)	2.4
Number of Days Discharge is Greater Than Range of Ratings	0
Number of Days Discharge is Less Than Range of Ratings	74

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

Narrative

Six discharge measurements were conducted throughout the water year, ranging from 1.7 to 30 cfs. Peak flow occurred on January 5, 2010.

Error Analysis

Table 3. Error Analysis Summary.

Logger Drift Error (% of discharge)	3.4
Weighted Rating Error (% of discharge)	11.8
Total Potential Error (% of discharge)	15.2

Rating Table(s)

Table 4. Rating Table Summary

Rating Table No.	132	141	133
Period of Ratings	10/1/09 to 10/26/09	10/1/09 to 1/5/10	1/5/10 to 8/30/10
Range of Ratings (cfs)	0.72 to 350	1.02 to 350	0.72 to 350
No. of Defining Measurements	10	3	10
Rating Error (%)	11.1	9.1	11.1

Rating Table No.	18	19	161
Period of Ratings	6/7/10 to 9/1/10	8/30/10 to 9/30/10	9/1/10 to 9/30/10
Range of Ratings (cfs)	0.94 to 350	0.85 to 350	1.11 to 365
No. of Defining Measurements	3	5	3
Rating Error (%)	15.5	14.5	12.0

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)	4.70
Maximum Recorded Stage (feet)	10.34
Range of Recorded Stage (feet)	5.64
Number of Un-Reported Days	25
Number of Days Qualified as Estimates	22
Number of Days Qualified as Unreliable Estimates	0

Narrative

The unreported days were a result of ice impacted periods.
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Modeled Discharge

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

Surveys

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

Type	Date
n/a	n/a

Activities Completed

Installed new laser level setup.
