

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

STATION ID: 32B100
STATION NAME: Touchet River at Bolles Road
WATER YEAR: WY 2007
AUTHOR: Mitch Wallace

Introduction

Watershed Description

The Touchet River, the largest tributary of the Walla Walla River flows out of the Blue Mountains in southeast Washington. Spring Chinook, steelhead, and bull trout are present within the watershed. Land use is primarily agricultural, consisting of dryland crops and irrigated farming in the lower portions.

Gage Location

This gage is located on the right bank, downstream of the Highway 125 Bridge, 3.5 miles west of the town of Waitsburg. It is located at river mile 40.4.

Table 1.

Drainage Area (square miles)	357 (Streamstats)
Latitude (degrees, minutes, seconds)	46° 16' 28" N
Longitude (degrees, minutes, seconds)	118° 13' 16" W

Discharge

Table 2. Discharge Statistics.

Mean Annual Discharge (cfs)	209
Median Annual Discharge (cfs)	101
Maximum Daily Mean Discharge (cfs)	957
Minimum Daily Mean Discharge (cfs)	27
Maximum Instantaneous Discharge (cfs)	1260
Minimum Instantaneous Discharge (cfs)	26
Discharge Equaled or Exceeded 10 % of Recorded Time (cfs)	553
Discharge Equaled or Exceeded 90 % of Recorded Time (cfs)	33
Number of Days Discharge is Greater Than Range of Ratings	0
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

Data collection at this site began on January 17, 2007. The above statistics only cover the January through September period. Three discharge measurements were taken during the water year, ranging from 39 to 82 cfs.

Error Analysis

Table 3. Error Analysis Summary.

Logger Drift Error (% of discharge)	4.4
Weighted Rating Error (% of discharge)	7.7
Total Potential Error (% of discharge)	12.1

Rating Table(s)

Table 4. Rating Table Summary

Rating Table No.	2			
Period of Ratings	1/17/7-11/14/7			
Range of Ratings (cfs)	17 to 7780			
No. of Defining Measurements	11			
Rating Error (%)	7.7			

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

Narrative

Initial Rating

Stage Record

Table 5. Stage Record Summary

Minimum Recorded Stage (feet)	2.89
Maximum Recorded Stage (feet)	5.42
Range of Recorded Stage (feet)	2.53
Number of Un-Reported Days	0
Number of Days Qualified as Estimates	8
Number of Days Qualified as Unreliable Estimates	0

Narrative

Above statistics cover the period from mid-January to the end of the water year. Estimated data was a result of the mean daily flow differences between edited and un-edited data being greater than 20%.

Modeled Discharge

Table 6. Model Summary

Model Type (Slope conveyance, other, none)	Slope conveyance
Range of Modeled Stage (feet)	6.00 to 9.48
Range of Modeled Discharge (cfs)	1780 to 7780
Valid Period for Model	Jan. 07 to Oct.07
Model Confidence	2.13%

Surveys

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

Type	Date
N/A	N/A

Activities Completed

Installed laser level pad and reference marks.