

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

**STATION ID:** 35M100  
**STATION NAME:** Deadman Creek near Gould City  
**WATER YEAR:** 2013  
**AUTHOR:** Mitch Wallace

**Introduction**

Watershed Description

Deadman Creek is a left-bank tributary to the Snake River, opposite Central Ferry State Park. The creek drains the fertile agricultural highlands flanking the southern breaks of the Snake River in its northernmost bend into Washington State.

Gage Location

The station is located on the right side of the stream at the Deadman Creek road bridge, approximately 2.0 miles downstream from the confluence of the north and south forks of Deadman Creek.

Table 1. Basin Area and Legal Description

Drainage Area (square miles)	77 (USGS)
Latitude (degrees, minutes, seconds)	46° 36' 0" N
Longitude (degrees, minutes, seconds)	117° 36' 0" W

Table 2. Discharge Statistics.

Mean Annual Discharge (cfs)	3.8
Median Annual Discharge (cfs)	3.9
Maximum Daily Mean Discharge (cfs)	7.7
Minimum Daily Mean Discharge (cfs)	0.40
Maximum Instantaneous Discharge (cfs)	11
Minimum Instantaneous Discharge (cfs)	0.20
Discharge Equaled or Exceeded 10 % of Recorded Time (cfs)	5.4
Discharge Equaled or Exceeded 90 % of Recorded Time (cfs)	1.9
Number of Days Discharge is Greater Than Range of Ratings	4
Number of Days Discharge is Less Than Range of Ratings	0
Number of Un-Reported Days	4
Number of Days Qualified as Estimates	207
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)

Eight discharge measurements were taken throughout the water year, ranging from 3.5 to 6 cfs.

The high number of estimated days is caused by differences between logger readings and the primary gage index (PGI). The logger data are corrected to match the PGI using a data shift. If the mean daily flow difference between corrected and uncorrected data is greater than 20%, the data are qualified as an estimate.

Table 3. Error Analysis Summary.

Potential Logger Drift Error (% of discharge)	34.4
Potential Weighted Rating Error (% of discharge)	12.3
Total Potential Error (% of discharge)	46.7

Table 3 Discussion (Error Analysis)

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Table 4. Stage Record Summary

Minimum Recorded Stage (feet)	4.70
Maximum Recorded Stage (feet)	5.17
Range of Recorded Stage (feet)	0.47

Table 4 Discussion (Stage Record)

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Table 5. Rating Table Summary

Rating Table No.	121	131	16
Period of Ratings	10/1/12 to 11/14/12	10/3/12 to 1/8/13	11/14/12 to 2/19/13
Range of Ratings (cfs)	0.14 to 8.7	0.07 to 16	0.99 to 12
No. of Defining Measurements	11	7	1
Rating Error (%)	12.6	12.5	11.1

Rating Table No.	132	122	
Period of Ratings	1/8/13 to 7/1/13	5/21/13 to 9/30/2013	
Range of Ratings (cfs)	0.07 to 16	0.14 to 8.7	
No. of Defining Measurements	7	11	
Rating Error (%)	12.5	12.6	

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 accumulation at the control. This leads to rating shifts in the fall and early winter.

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)

No model was used.
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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

DCP and antenna were replaced in November, 2012.
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## Appendix