

DATA SHEET 5 FLOW - METHOD I

(for streams greater than 3 feet wide)

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Name _____ Group _____ Date _____ Time _____

Stream Name _____ Reach Name/# _____ Site Name _____

Site Location: Latitude ___° ___' ___" N
 Longitude ___° ___' ___" W
 River mile: _____
 Transect #: _____

Driving/Hiking directions: _____

Site Description: (e.g. transect #, landmarks, etc.) _____

Weather Conditions: Clear Cloudy Rain Other _____

Air Temperature: _____° (F or C)

Amount of precipitation in last storm _____ Time elapsed since last storm _____

Other recent weather information _____

Velocity Float Trials:

Trial #	Time	Distance
1		[]
2		
3		
4		
5		
6		
7		
8		
9		
10		
Total		

/ =
 total time/# of trials = avg. time

Cross Sectional Area:

Record depths at one-foot intervals Depth = D

Cross Section 1				Cross Section 2				Cross Section 3			
#	D	#	D	#	D	#	D	#	D	#	D
1		11		1		11		1		11	
2		12		2		12		2		12	
3		13		3		13		3		13	
4		14		4		14		4		14	
5		15		5		15		5		15	
6		16		6		16		6		16	
7		17		7		17		7		17	
8		18		8		18		8		18	
9		19		9		19		9		19	
10		20		10		20		10		20	
[] sum				+ [] sum				+ [] sum			

) / 3 =

Average Cross Sectional Area = **ft²** (Multiply sums by 2 if depths were measured in 2 ft. intervals)

Average Surface Velocity = / = **feet/sec.**
 distance/avg. time

X (0.8) = **velocity correction factor** =

Average Corrected Velocity =

Flow = **ft./sec.** X **ft.²** = **CFS**
 Avg. Corrected Velocity Avg. Cross Sectional Area (cubic feet/second)

DATA SHEET 5 FLOW - METHOD II
(for streams up to three feet wide)

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Name _____ Group _____ Date _____ Time _____

Stream Name _____ Reach Name/# _____ Site Name _____

Site Location: Latitude ___° ___' ___" N
Longitude ___° ___' ___" W
River mile: _____
Transect #: _____

Site Description: (e.g. transect #, landmarks, etc.) _____
Driving/Hiking Directions _____

Weather Conditions: Clear Cloudy Rain Other _____
Air Temperature: _____° ____ (C or F)
Amount of precipitation in last storm _____ Time elapsed since last storm _____
Other recent weather information _____

Velocity Float Trials:

trial #	time	Distance
1		□
2		
3		
4		
5		
6		
7		
8		
9		
10		

□ / □ = □
sum/# of trials avg time

Average Surface Velocity = $\frac{\square}{\text{distance/avg. time}}$ = $\frac{\square}{\text{feet/sec.}}$

Average Corrected Velocity = $\frac{\square}{\text{feet/sec}} \times (0.8) = \square \text{ feet/sec}$
velocity correction factor

Use Average Corrected Velocity to calculate Flow, using formula on page 3 bottom of following page.

DATA SHEET 5 FLOW - METHOD II (CONTINUED) (PAGE 3 OF 3)

Cross Sectional Area

Use Average Cross Sectional Area to calculate Flow, using formula on bottom of this page.

Cross Section 1

1	
2	
3	

avg. depth = $\frac{\text{sum}}{3}$ = feet

Area₁ = x = ft²

avg. depth width

Cross Section 2

1	
2	
3	

avg. depth = $\frac{\text{sum}}{3}$ = feet

Area₂ = x = ft²

avg. depth width

Cross Section 3

1	
2	
3	

avg. depth = $\frac{\text{sum}}{3}$ = feet

Area₃ = x = ft²

avg. depth width

Average Cross Sectional Area =

Area₁

+

Area₂

+

Area₃

/3

= feet²

Flow = X =

Avg. Corrected Avg. Cross

Velocity Sectional Area

CFS

(cubic feet/second)