

Stream Discharge Data

Site # _____ Stream _____ County _____

Site Location _____

Date _____ Time (military time) _____ Rainfall (inches in last 7 days) _____

Trained Data Submitter (responsible volunteer) _____ Stream Smart Team # _____

Trained Participants _____

1. Stretch tape across stream with the zero on the left water's edge (river left: as viewed facing downstream).
2. Measure the stream's width from bank to bank perpendicular to flow Stream Width (W) = _____
3. Divide the stream width by 10 to determine interval (I). $[(W \div 10) = I]$ (W) _____ $\div 10 = (I)$ _____
4. Multiply interval (I) and multiplier in chart to determine distance from left water's edge to measure depth.
5. Measure depth of water at each measurement point and record depth in tenths of feet in the far right column.

Interval (I)		Multiplier		Measurement Point (Feet)	Notes	Depth (Feet)
	x	0	=	0	Left Water's Edge	0
	x	0.5	=			
	x	1.5	=			
	x	2.5	=			
	x	3.5	=			
	x	4.5	=			
	x	5.5	=			
	x	6.5	=			
	x	7.5	=			
	x	8.5	=			
	x	9.5	=			
	x	10	=		Right Water's Edge	0
SUM						
Average Depth (D) = Sum \div 10						

6. Sum depth measurements and divide by 10 to calculate average channel depth (D).
7. Multiply average depth by width of stream to calculate stream channel area (A).
 Area = Width (W) x Average Depth (D)
 Area = (W) _____ x (D) _____ = _____
8. Float an orange (or other semi bouyant object) over a known distance (≥ 10 ft.) three times. Record below.
 Distance _____ ft. Time 1 _____ sec. Time 2 _____ Sec. Time 3 _____ sec.
9. Calculate average time.
 Average Time = (Time 1 + Time 2 + Time 3) \div 3
 Average Time = (_____ + _____ + _____) \div 3 = _____ sec.
10. Calculate average stream velocity.
 Average Velocity = [**0.8** x Distance] \div Average Time
 Average Velocity = [**0.8** x _____ feet] \div _____ sec. = _____ ft/sec (V)
11. Calculate Stream Discharge.
 Stream Discharge = Area x Average Velocity (V)
 Area (A) _____ ft² x Velocity (V) _____ ft/sec. = Discharge _____ ft³/sec.