

## DATA FORM FOR CALCULATING FLOW

Solving the equation:  $\text{Flow} = \frac{A L C}{T}$

Where:

A = Average cross-sectional area of the stream. L = Length of the stream reach measured (usually 20 ft.).

C = A coefficient or correction factor (0.8 for rocky-bottom streams or 0.9 for muddy-bottom streams). T = Time, in seconds, for the float to travel the length of L.

### A: Average Cross-Sectional Area

#### Transect #1 (upstream)

Interval width (feet)	Depth (feet)
A to B = _____	_____ (at B)
B to C = _____	_____ (at C)
C to D = _____	_____ (at D)
D to E = _____	_____ (shoreline)
<b>Totals</b> <input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/> ÷ 4
	= Avg. depth <input style="width: 40px;" type="text"/> ft

#### Cross-sectional area of Transect #1

= Total width (ft) X Avg. depth (ft)  
 X  =  ft<sup>2</sup>

#### Transect #2 (downstream)

Interval width (feet)	Depth (feet)
A to B = _____	_____ (at B)
B to C = _____	_____ (at C)
C to D = _____	_____ (at D)
D to E = _____	_____ (shoreline)
<b>Totals</b> <input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/> ÷ 4
	= Avg. depth <input style="width: 40px;" type="text"/> ft

#### Cross-sectional area of Transect #2

= Total width (ft) X Avg. depth (ft)  
 X  =  ft<sup>2</sup>

**(Cross-sectional area of Transect #1 + Cross-sectional area of Transect #2) ÷ 2 = Average Cross-sectional area**

$A = ( \text{ } \text{ft}^2 + \text{ } \text{ft}^2 ) \div 2 = \text{ } \text{ft}^2$

### L: Length of Stream Reach

ft

### C: Coefficient

### T: Travel Time

Travel Time  
of Float (sec.)

Trial #1    \_\_\_\_\_

Trial #2    \_\_\_\_\_

Trial #3    \_\_\_\_\_

Total     ÷ 3  
 = Avg. time  sec.

$\text{Flow} = \frac{A L C}{T} = \frac{\text{ } \text{ft}^2 \times \text{ } \text{ft} \times \text{ } \text{ft}^2}{\text{ } \text{sec.}} = \text{ } \text{ft}^3/\text{sec.}$