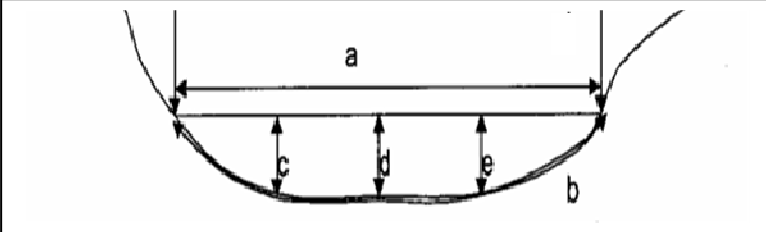


DOWNSTREAM CHANGES IN A RIVER
CHANNEL CROSS SECTION

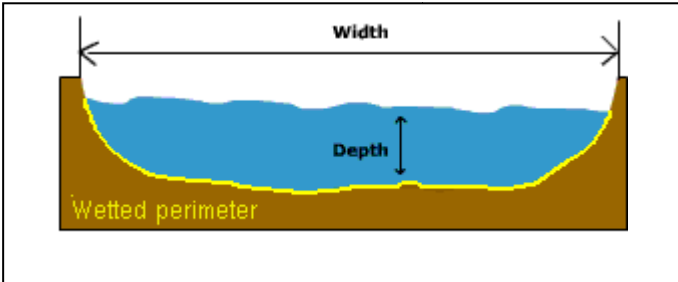
SITE

Measure the depth of the water in the channel every 20 cm(0.2m) using a metre rule. Note the depth in **metres**; 10cm=0.1 m, 25 cm=0.25m, 17cm=0.17m, 8cm=0.08m

Distance across river in metres	Depth in metres
0	
0.2	
0.4	
0.6	
0.8	
1.0	
1.2	
1.4	
1.6	
1.8	
2.0	
2.2	
2.4	
2.6	
2.8	
3.0	
3.2	
3.4	
3.6	
3.8	
4.0	



Place a ranging pole on each bank, stretch a tape between the poles and measure the depth of the water at regular intervals. In our case every 20cm (0.2m)



Measure the WETTED PERIMETER (see above diagram) using a rope or chain.

WETTED PERIMETERm

Width =m
 Average Depth =m
 Area of Cross Section =
 Width x Average Depth
 =.....m²

HYDRAULIC RADIUS = $\frac{\text{AREA}}{\text{WETTED PERIMETER}}$
 HYDRAULIC RADIUS =
 Note : larger hydraulic radius means a more efficient channel size and shape