

Calculating Channel Width

Channel width (wetted and bankfull) is measured in each of 2 forms – the Primary Transect Form and the Thalweg Form. Refer to Primary Transects method for widths at Transects A0, B0, etc. Refer to the Thalweg Method for widths at A5, B5, etc.

GIVEN:

TransectCode (choices are A0,B0, C0, D0,E0,F0,G0,H0,I0, J0,K0)

ThalwegStationName (choices are A5, B5,C5, D5, E5, F5, G5, H5, I5, J5)

ChannelNum (0,1,2,...n)

Wetted Width (tenths of m)

BankfulWidth (tenths of m)

1. Create a conceptual matrix for ChannelNum = 0

Transect Code or ThalwegStationName	WettedWidth	BankfulWidth
A0		
B5		
B0		
B5		
C0		
C5		
D0		
D5		
E0		
E5		
F0		
F5		
G0		
G5		
H0		
H5		
I0		
I5		
J0		
J5		
K0		

2. CALCULATE (for the main channel):
 - NumberOfWettedWidthsChan0** –count non-null wetted width values
 - NumberOfBankfulWidthsChan0** - count non-null bankfull width values
 - SiteAverageWettedWidthsChan0** - sum wetted widths, then divide by
NumberOfWettedWidthsChan0
 - SiteAverageBankfulWidthsChan0** - sum bankfull widths, then divide by
NumberOfBankfulWidthsChan0

3. REPEAT (for each side channel): ChannelNum(i) where i = 1 to n) to calculate.
 - NumberOfWettedWidthsChan(i)** –count non-null wetted width values
 - NumberOfBankfulWidthsChan(i)** - count non-null bankfull width values
 - SiteAverageWettedWidthsChan(i)** - sum wetted widths, then divide by
NumberOfWettedWidthsChan(n)
 - SiteAverageBankfulWidthsChan(i)** - sum bankfull widths, then divide by
NumberOfBankfulWidthsChan(n)

Metric	SourceFile	Operation
NumberOfWettedWidthsChan0	Primary Transect, Thalweg	Count WettedWidth observations (when ChannelNum = 0)
NumberOfBankfulWidthsChan0	Primary Transect, Thalweg	Count BankfulWidth observations (when ChannelNum = 0)
SiteAverageWettedWidthsChan0	Primary Transect, Thalweg	Sum wetted widths, then divide by NumberOfWettedWidthsSta0
SiteAverageBankfulWidthsChan0	Primary Transect, Thalweg	Sum bankfull widths, then divide by NumberOfBankfulWidthsSta0
NumberOfWettedWidthsChan(i)	Primary Transect, Thalweg	Count WettedWidth observations (when ChannelNum = i)
NumberOfBankfulWidthsChan(i)	Primary Transect, Thalweg	Count BankfulWidth observations (when ChannelNum = i)
SiteAverageWettedWidthsChan(i)	Primary Transect, Thalweg	Sum wetted widths, then divide by NumberOfWettedWidthsSta(i)
SiteAverageBankfulWidthsChan(i)	Primary Transect, Thalweg	Sum bankfull widths, then divide by NumberOfBankfulWidthsSta(i)