

Worksheet 13. Morphological relations, including dimensionless ratios of reference reach sites (Rosgen and Silvey, 2005).

... and Reference Reach Summary Data																		
Channel Dimension	Mean Riffle Depth (d_{bkr})		feet	Riffle Width (W_{bkr})		feet	Riffle Area (A_{bkr})		feet ²									
	Mean Pool Depth (d_{bkfp})		feet	Pool Width (W_{bkfp})		feet	Pool Area (A_{bkfp})		feet ²									
	Mean Pool Depth/Mean Riffle Depth		d_{bkfp}/d_{bkr}	Pool Width/Riffle Width		W_{bkfp}/W_{bkr}	Pool Area/ Riffle Area		A_{bkfp}/A_{bkr}									
	Max Riffle Depth (d_{mbkr})		feet	Max Pool Depth (d_{mbkfp})		feet	Max riffle depth/Mean riffle depth											
	Max pool depth/Mean riffle depth						Point Bar Slope											
Streamflow: Estimated Mean Velocity at Bankfull Stage (u_{bkr})							ft/s	Estimation Method										
Streamflow: Estimated Discharge at Bankfull Stage (Q_{bkr})							cfs	Drainage Area										
Channel Pattern	Geometry			Mean	Min	Max	Dimensionless Geometry Ratios			Mean	Min	Max						
	Meander Length (L_m)					feet	Meander Length Ratio (L_m/W_{bkr})											
	Radius of Curvature (R_c)					feet	Radius of Curvature/Riffle Width (R_c/W_{bkr})											
	Belt Width (W_{blt})					feet	Meander Width Ratio (W_{blt}/W_{bkr})											
	Individual Pool Length					feet	Pool Length/Riffle Width											
Pool to Pool Spacing						feet	Pool to Pool Spacing/Riffle Width											
Channel Profile	Valley Slope (VS)				ft/ft	Average Water Surface Slope (S)			ft/ft	Sinuosity (VS/S)								
	Stream Length (SL)				feet	Valley Length (VL)			feet	Sinuosity (SL/VL)								
	Low Bank Height (LBH)	start		feet	Max Riffle Depth	start		feet	Bank Height Ratio (LBH/Max Riffle Depth)	start								
		end		feet		end		feet		end								
	Facet Slopes			Mean	Min	Max	Dimensionless Slope Ratios			Mean	Min	Max						
	Riffle Slope (S_{rif})					ft/ft	Riffle Slope/Average Water Surface Slope (S_{rif}/S)											
	Run Slope (S_{run})					ft/ft	Run Slope/Average Water Surface Slope (S_{run}/S)											
	Pool Slope (S_p)					ft/ft	Pool Slope/Average Water Surface Slope (S_p/S)											
	Glide Slope (S_g)					ft/ft	Glide Slope/Average Water Surface Slope (S_g/S)											
	Feature Midpoint ^a			Mean	Min	Max	Dimensionless Depth Ratios			Mean	Min	Max						
	Riffle Depth (d_{rif})					feet	Riffle Depth/Mean Riffle Depth (d_{rif}/d_{bkr})											
	Run Depth (d_{run})					feet	Run Depth/Mean Riffle Depth (d_{run}/d_{bkr})											
	Pool Depth (d_p)					feet	Pool Depth/Mean Riffle Depth (d_p/d_{bkr})											
Glide Depth (d_g)					feet	Glide Depth/Mean Riffle Depth (d_g/d_{bkr})												
Channel Materials	Reach ^b			Riffle ^c			Bar			Reach ^b			Riffle ^c			Bar		
	% Silt/Clay																	
	% Sand																	
	% Gravel																	
	% Cobble																	
	% Boulder																	
	% Bedrock																	
D ₁₆																		
D ₃₅																		
D ₅₀																		
D ₈₄																		
D ₉₅																		
D ₁₀₀																		

^a Min, max, mean depths are the average mid point values except pools which are taken at deepest part of pool.

^b Composite sample of riffles and pools within the designated reach

^c Active bed of a riffle