

Table 1 Rosgen Stream Type morphometry and landform

Stream type	General description	Entrench ratio	Width-to-depth ratio	Sinuosity	Slope	Landform/soils/features
Aa+	Very steep, deeply entrenched, debris transport streams	<1.4	<12	1.0 – 1.2	>.10	Very high relief. Erosional, bedrock, boulder, or depositional features; debris flow potential. Deeply entrenched streams. Vertical steps with deep scour pools; waterfalls
A	Steep, entrenched, cascading, step-pool streams. High energy/debris transport with depositional soils. Very stable if bedrock or boulder-dominated channel	<1.4	<12	1.0 – 1.2	.04–.10	High relief. Erosional bedrock forms. Entrenched and confined streams with cascading reaches. Frequently spaced, deep pools in associated step-pool bed morphology
B	Moderately entrenched, moderate gradient dominated channel, with infrequently spaced pools. Very stable plan and profile. Stable banks	1.4 – 2.2	>12	>1.2	.02–.039	Moderate relief, colluvial riffle deposition, and/or residual soils. Moderate entrenchment and width-to-depth ratio. Narrow, moderately sloping valleys. Rapids predominate with occasional pools
C	Low gradient, meandering point-bar, riffle-pool, alluvial channels with broad, well-defined flood plains	>2.2	>12	>1.4	<.02	Broad valleys w/terraces, in association with flood plains, alluvial soils. Slightly entrenched with well-defined meandering channel. Riffle-pool bed morphology
D	Braided channel with longitudinal and transverse bars. Very wide channel with eroding banks	N/a	>40	N/A	<.04	Broad valleys with alluvial and colluvial fans. Glacial debris and depositional features. Active lateral adjustment with abundance of sediment supply
DA	Anastomosing (multiple channels) narrow and deep with expansive well-vegetated flood plain and associated wetlands. Very gentle relief with highly variable sinuosity's, stable streambanks	>4.0	<40	Variable	<.005	Broad, low-gradient valleys with fine alluvium and/or lacustrine soils. Anastomosed (multiple channel) geologic control creating fine deposition with well-vegetated bars that are laterally stable with broad wetland flood plains. Stream type common in estuaries
E	Low gradient, meandering riffle-pool stream with low width-to-depth ratio and little deposition. Very efficient and stable. High meander width ratio	>2.2	<12	>1.5	<.02	Broad valley/meadows. Alluvial materials with flood plain and/or lacustrine soil. Highly sinuous with stable well-vegetated banks. Riffle-pool morphology with very low width-to-depth ratio
F	Entrenched meandering riffle-pool channel on low gradients with high width-to-depth ratio	<1.4	>12	>1.4	<.04	Entrenched in highly weathered material. Gentle gradients usually less than .02 ft/ft, but may range up to .04 ft/ft with a high width-to-depth ratio. Meandering, laterally unstable with high bank erosion rates. Riffle-pool morphology.
G	Entrenched gully step-pool and low width-to-depth ratio on moderate gradients	<1.4	<12	>1.2	.02–.039	Gully, step-pool morphology with moderate slopes and low width-to-depth ratio. Narrow valleys, or deeply incised in alluvial or colluvial materials (fans or deltas). Unstable with grade control problems and high bank erosion rates