



Stream Channel Classification (Level II)

Wisconsin Job Sheet 811

Natural Resources Conservation Service (NRCS)

Wisconsin

Project: _____	Date: _____
County: _____	Stream: _____
Reach No.: _____	Logged By: _____

Horizontal Datum: NAD _____ Projection: Transverse Mercator Lambert Conformal Conical
 Coordinate System: _____ County Coordinates WTM State Plane Coordinates UTM
 Units: Meters Feet Horizontal Control: N or Lat. _____ E or Long. _____
 Elevation: _____ Assumed DOT NAVD (29 / 88) Units: Meters Feet

Fluvial Geomorphology Features (3 Cross Sections) for Stream Classification

Bankfull Width (W_{bkt}): _____ ft. _____ ft. _____ ft. Average ft.

Width of the stream channel, at bankfull stage elevation, in a riffle section.

Mean Depth (d_{bkt}): _____ ft. _____ ft. _____ ft. ft.

Mean depth of the stream channel cross section, at bankfull stage elevation, in a riffle section.
 $(d_{bkt} = A_{bkt} / W_{bkt})$

Bankfull X-Section Area (A_{bkt}): _____ sq. ft. _____ sq. ft. _____ sq. ft. sq. ft.

Area of the stream channel cross section, at bankfull stage elevation, in a riffle section.

Width / Depth Ratio (W_{bkt} / d_{bkt}): _____ ft. _____ ft. _____ ft. ft.

Bankfull width divided by bankfull mean depth, in a riffle section.

Maximum Depth (d_{mbkt}): _____ ft. _____ ft. _____ ft. ft.

Maximum depth of the Bankfull channel cross section, or distance between the bankfull stage and thalweg elevations, in a riffle section.

Width of Flood-Prone Area (W_{fpa}): _____ ft. _____ ft. _____ ft. ft.

Twice maximum depth, or $(2 \times d_{mbkt})$ = the stage/elevation at which flood-prone area width is determined (riffle section).

Entrenchment Ratio (ER): _____ ft. _____ ft. _____ ft. ft.

The ratio of flood-prone area width divided by bankfull channel width. (W_{fpa} / W_{bkt}) (riffle section)

Reach Characteristics

Channel Materials (Particle Size Index) D50: _____ mm

The D50 particle size index represents the median diameter of channel materials, as sampled from the channel surface, between the bankfull stage and thalweg elevations.

Water Surface Slope (S): _____ ft./ft.

Channel slope = "rise" over "run" for a reach approximately 20-30 bankfull channel widths in length, with the "riffle to riffle" water surface slope representing the gradient at bankfull stage.

Channel Sinuosity (K): _____.

Sinuosity is an index of channel pattern, determined from a ratio of stream length divided by valley length (SL/VL); or estimated from a ratio of valley slope divided by channel slope (VS/S).

Distance to Up-Stream Structures: _____.

Stream Type: _____ (For reference, note Stream Type Chart and Classification Key)

Dominant Channel Soils at an Eroding Bank Location

Bed Material: _____ Left Bank: _____ Right Bank: _____

Description of Soil Profiles (from base of bank to top):

Left: _____

Right: _____

Riparian Vegetation at an Eroding Bank Location

Left Bank: _____ Right Bank: _____

Percent Total Area (Mass): Left: _____ Right: _____

Percent Total Height with Roots: Left: _____ Right: _____

Other Bank Features at an Eroding Bank Location

Actual Bank Height: _____ Bankfull Height: _____

Bank Slope (Horizontal to Vertical):	Left:	0-20° (flat)	Right:	0-20° (flat)
		21-60° (moderate)		21-60° (moderate)
		61-80° (steep)		61-80° (steep)
		81-90° (vertical)		81-90° (vertical)
		90°+ (undercut)		90°+ (undercut)

Visible Seepage in Bank? Yes No Where? _____

Thalweg Location: Near 1/3 Mid 1/3 Far 1/3