RIVER BANKS & BUFFERS

No. 4

Field Assessment

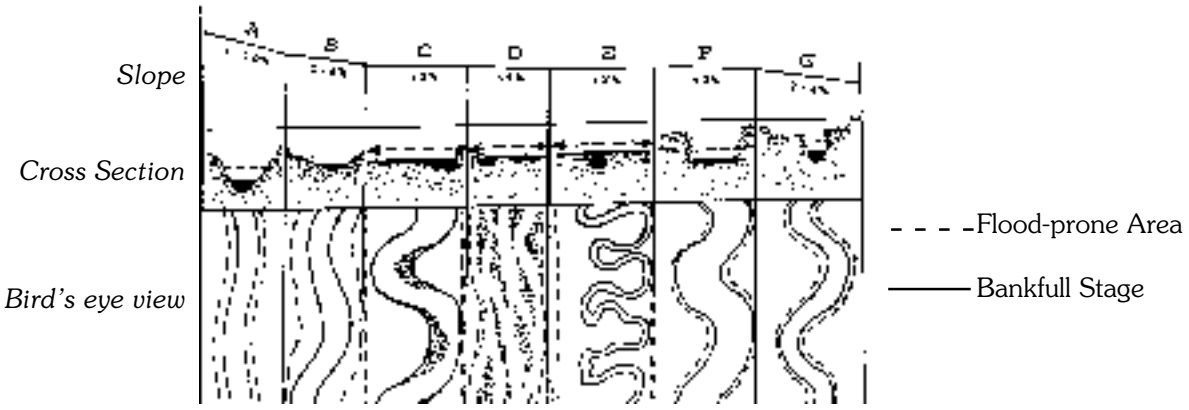
Use this sheet in the field to locate and describe factors causing or resisting erosion at your site. Refer to "River Dynamics and Erosion" (No. 1) for more.

Stream Diagram:
Draw a diagram of your reach of the river indicating bends and straight sections, direction of flow, obstructions, gravel beds, etc. Indicate location(s) of erosion, the length of each erosion site, and the length of the whole section. Show *North* with an arrow.

Watershed Characteristics:
Dramatic land use changes in recent years?

Cumulative land use changes over last 25 years?

Stream Channel Profile:
Indicate the diagram that most resembles your reach of river:



After Rosgen, 1994

Is there evidence of stream channel migration? ❑ Yes ❑ No

Stream channel gradient
- ❑ *Steep* (waterfalls, steeply stepped pools)
- ❑ *Medium* (riffles, pools)
- ❑ *Low* (straight run or glide, meander)

BANK CHARACTERISTICS

Slope: ❑ low (3:1) ❑ medium (2:1) ❑ high (1:1)

Height: (measure from ordinary water level to top of bank) _____feet

Soil texture: ❑ gravel ❑ sand ❑ silt ❑ clay ❑ other_____

Exposed soil on the bank: _____% stable vegetation _____% bare _____% slumped sod

Evidence of causes of erosion: *(check all that apply, circle suspected primary cause)*
- ❑ water running over bank ❑ obstacles in the stream ❑ wave action
- ❑ freeze-thaw /wet-dry cycle ❑ ice and debris ❑ boat wake action
- ❑ tributary entering ❑ reservoir fluctuation ❑ channel migration

Land uses affecting erosion:
❑ road runoff ❑ bridges ❑ heavy logging ❑ farm animals on bank

Type of erosion: *(check one or more that apply to your site)*
❑ mass wasting ❑ head cutting ❑ sloughing ❑ undercutting ❑ rill and gully

INSTREAM HABITAT CHARACTERISTICS

Presence of stable undercut banks (roots and rocks generally stabilize these areas, providing good habitat) ❑ Yes ❑ No

How much of the stream is shaded during the middle of the day?
❑ none ❑ edges ❑ half ❑ all

Habitat Type	**Number in reach diagrammed**	**Length**
Riffles	_____	___ ft.
Pools	_____	___ ft.
Runs	_____	___ ft.

Stream bottom: *(estimate % of each)*
bedrock: ___% boulders: >10" ___% cobbles: 2"-10" ___%
gravel: .10" - 2" ___% sediment (silt/sand/clay): < .10"____%

Embeddedness *(how deeply cobbles are embedded in sediment)*: *Pick up a few cobbles and estimate the average percent they are buried.*
❑ 0 - 25% ❑ 25 - 50% ❑ 50 - 75% ❑ 75 - 100%

RIPARIAN BUFFER CHARACTERISTICS

(The vegetated transition zone between the top of the bank and human activity or land disturbance.)

Buffer width range: _____ft. to _____ft.
Length of continuous buffer over 25' wide: _____ft.
Are there any wetlands present in the riparian buffer? ❑ Yes ❑ No
Dominant buffer vegetation: ❑ trees ❑ shrubs ❑ herbaceous plants ❑ grasses

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