**NYSCTU Stream Stability Recon Assessment Form (comprehensive baseline)**

**Date:\_\_\_\_\_\_\_\_\_\_\_\_\_ Party:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Chapter: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ #\_\_\_\_\_\_\_\_\_\_\_\_\_ yrly rainfall: \_\_\_\_\_\_\_\_ <DEC region>:\_\_\_\_\_\_\_\_\_\_**

**County:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Township:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ valley type (I-XI): \_\_\_\_\_\_**

**Watershed code:\_\_\_\_\_\_\_ Stream: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ GPS: N \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_E\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Reach: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Active channel width: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Length:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ft Bkfl Width est:\_\_\_\_\_\_\_\_\_\_\_\_\_\_ft Active Flood Plain Width:-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**(HUC code: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) Coord:­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_N \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_W**

**Drainage Area \_\_\_\_\_\_\_\_\_\_\_\_\_ mi sq Dominant substrate: \_\_\_\_\_\_(1-6) Channel form \_\_\_\_\_\_\_ (Aa-G) Reference reach candidate: Y / N / ?**

1. **Broad Level Channel Instability Indicators\*:** circle responses & criteria ( source: VT. ANR)

 **Aggredation evidence: Y / N**

1 riffle embedded 2 pool siltation

 3 mid channel bars & braiding 4 growing bars, no vegetation

 5 bar W.>½ WSW at low flow 6 point bar particles much coarser than riffle particles

 **Degredation evidence: Y / N**

 1 exposed infrastructure 2 undermined bank revetment

 3 cut faces on point bars 4 head cuts, over steep riffle

 5 suspended armor layer 6 large unvegetated point bars with much finer

 than riffle particles (see RSI)

 **Widening evidence: Y / N**

1 undercut leaning trees 2 exposed tree roots

 3 toe scour on inside of meanders 4 toe scour on both sides of riffle

 5 non cohesive soil in steep bank 6 lack of vegetation at eroding banks

 **Planform adjustments: Y / N**

1 channel braids, flood chutes, cutoffs 2 runs replace riffle/pool features

 3 thalweg out of phase 4 aerial photo (meander form, ROC)

1. **Rosgen Level III Prediction of stability**
2. **Riparian Vegetation** \* % coverage & vigor : Overstory\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Understory \_\_\_\_\_\_\_\_\_\_\_\_ Ground cover \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**IV. Channel debris/blockages\***: none <10 -30% of XC area 30 – 50% of XC area > 50% XC area Dams/weirs

1. **Channel confinement** (MWR/Wbkfl/reference MWR): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ value & rating

**VI. Modified Pfankuch Stability Rating** (adj. by stream type**)**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ value & rating

**VII. Rapid Cross Section** (set tape at low bankl elevation, note bkfl candidates)

 LFPL TOB LBKFL LBB LWS LIB Dmax RIB RWS RBB RBKFL (hi BKFL) Top Low Bk RFP

tape:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

rod:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Bankfull Width:\_\_\_\_\_\_\_ Mean Depth\_\_\_\_\_\_ **W/D\*** ­\_\_\_\_\_ **(W/D state\***) \_\_\_\_\_\_\_ Flood Prone Width:\_\_\_\_\_\_ **E. R.** (FPW/Wbkf)l\_\_\_\_\_\_\_\_

Cross Sectional Area: ~\_\_\_\_\_\_\_\_\_\_\_\_ **BH Ratio\*** (Low Bank Ht/Bankfull Height): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1.0-1.1 1.1-1.3 1.3-1.5 >1.5

**VIII. BANCS Model (Bank Erodability Hazard Index + Near Bank Stress Index)\***

 value index

1. Bank Ht/ Bkfl Ht \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ Final BEHI index (see sheet) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Root depth/Bank Ht \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_
3. Root Density (%) \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ BEHI Interpretation\*: vl low mod

 (circle)

1. Bank Angle \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ hi vhi extreme
2. % Surface protect. \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_
3. **Near Bank Stress Index\* (see sheet)** : method (1-5) \_\_\_\_\_\_\_\_\_\_ Severity: low mod high very hi extreme
4. **Stream Channel Succession Stage Shift\*:**

Stable (circle) (C 🡪 E, Fb 🡪 B, G 🡪 B, F 🡪 Bc, F 🡪 C, D 🡪 C) Mod unstable (E 🡪 C, C 🡪 hi W/D C)

Unstable (G 🡪 F, F 🡪 D, C 🡪 F) Highly Unstable (C 🡪 D, B 🡪 G, D 🡪 G, C 🡪 G, E 🡪G)