Instructions for 10/04/06 Draft IMPLEMENTATION checklist
SS – STREAMBANK STABILIZATION (non-bioengineered)

To be used for streambank stabilization features other than bioengineering. If the feature has secondary goals of instream habitat restoration, you do NOT need to fill out a separate Instream Habitat Restoration checklist.

APPROVED means as stated in the contract, specified in the design, or verbally agreed upon by contract manager. **Y** = Yes - as approved, no deviations. **P** = Partially - minor deviations/deficiencies, include comment. **N** = No - not as approved, include comment. **D** = Don't know - answer unknown and cannot be found; preferable to blank. **A** = Not Applicable - the question or sub-question does not pertain to feature or the component in question was not part of the approved contract.

See Manual Part III for guidance. See below for 3-letter code key; see glossary for definitions.

EACH FEATURE AND ITS **"TREATMENT AREA"** MUST BE IDENTIFIED USING THE PROTOCOL FOR DOCUMENTING THE LOCATION OF HABITAT RESTORATION FEATURES. IF PRE-TREATMENT MONITORING HAS BEEN COMPLETED, DELINEATE THE PERIMETER OF EACH FEATURE THE SAME WAY IT IS DELINEATED ON THE PRE-PROJECT CHECKLIST WHENEVER POSSIBLE, EXPLAIN NECESSARY CHANGES.

***All questions refer to the as-built* FEATURE.**

1. **Was the length of bank or channel treated the same as approved?** Refers to length of bank or channel that was actually treated, not intended to be treated.
   a. *Actual length of feature: (ft) (note if length includes habitat modification)* Measure the linear length of the structure and/or treated area along the bank. Do **not** include any length of bank or channel that was not treated but is intended to be stabilized or affected.
   b. *Area of the feature installed within bankfull channel: (ft^2)* Permit reporting requirement. Estimate the amount of area where something was installed; consider only area within the bankfull channel.
   c. *Length of aquatic habitat disturbed during implementation: (ft)* Permit reporting requirement.
   d. *Length of bank stabilized by the feature: (ft)* Performance measure, enter streambank length treated.
2. **Structural condition:** Specify the current structural condition of feature: *EXCL* = (Excellent) The treatment is intact and structurally sound. *GOOD* = the treatment is intact and generally sound but some wear or undermining is evident. Components may have shifted slightly, but the treatment is intact. *FAIR* = the treatment position or condition has been altered significantly. *POOR* = the treatment is visible but has suffered significant movement or damage. *FAIL* = (Fail) The treatment is not visible or remnants are not in any form of designed configuration.
3. **Are problems with the feature visible?** Refers to visual evidence of structure malfunction or lack of structural integrity.
   a. *Type:* Enter all that apply. Explain problems in comments.
4. **Was the feature placed in the approved location along the stream bank?** Refers to location of the structure linearly along the channel.
5. **Was the feature placed in the approved position?** Refers to position of the structure laterally in the channel.
   a. *Position*: Enter only one. The positions LBK and RBK are determined looking downstream. Weirs are SPN (spanning) regardless if they point up or down stream.
6. **Was the feature oriented as approved?** Refers to orientation of the structure in relation to the stream channel.
   a. *Orientation:* Enter only one. Weirs are PRP. "Spider-log" style multiple-log structures are MUL.
7. **Were approved materials used for the feature?** Refers to materials of approved type, quality and origin.
   a. *Materials:* Actual materials used to construct the feature. Enter all that apply.
8. **Were the sizes of materials used the same as approved?** Refers to size of materials specified in contract or design specifications.
9. **Was the feature anchored as approved?** If the feature was not supposed to be anchored i.e. unanchored LWD, enter A.
   a. *Anchoring:* Actual methods used to anchor structure. Enter all that apply.
10. **If applicable, was the approved bank or channel excavation carried out?** Applies to bank excavation or channel excavation including channel excavation for pool creation.
    a. *Were spoils placed where they cannot deliver sediment to a stream?* Refers to fine sediment removed from the bank that should not be reintroduced to the stream. If moving materials within the channel, enter A.
11. **Were approved erosion control measures applied to disturbed areas?** Refers to erosion control measures applied to areas disturbed during construction and does not include streambank stabilization structures.
    a. *Type:* Enter all that apply. If planting occurred, complete a Revegetation Treatment checklist.

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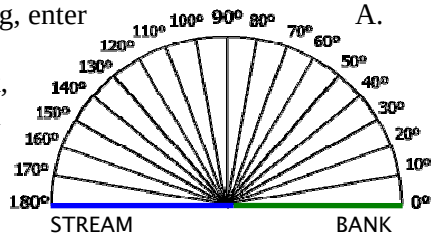
***Question pertains to features that involve "laying back" the* BANK.**

12. **If applicable, was the bank constructed to the approved angle?** Refers to physically altering the bank (e.g. excavating and laying bank the bank to a 2:1 slope). If there was no bank re-shaping, enter A.
    a. *As-built bank angle: (degrees)* The average bank angle at the proposed treatment site will be reported in departure from horizontal with 0° on the bank, regardless of which bank. A vertical bank is 90°. A 1:1 slope is 45°. A 1½ : 1 slope is 33.69°. And, a 2:1 slope is 26.65°. For undercut banks, also record the horizontal distance undercut to the tenth of a foot in the comments.



Question pertains to the excavation of a* HABITAT *type at the time of implementation.

13. **If applicable, was the habitat type modification completed as approved?** Refers to the excavation of the stream channel. If there was no instream habitat modification, enter A.
    a. *Habitat type created:* Refers to habitat type created in treatment area during project implementation.

IMPLEMENTATION *questions are feature specific.*

14. **Does the feature meet design, contract & permit specifications?** Standard CDFG approved design referenced in contract or another design described in the contract. If not answered Yes, a comment and appropriate documentation of deviation from the approved design are required - whether the change is beneficial or detrimental.
    a. *If not, were modifications beneficial to performance?* A if implemented as approved.
    b. *Is non-compliance significant enough to jeopardize performance?* A if implemented as approved.
    c. *Are corrections needed?* Y or P if the contractor will be asked to make the corrections. A if implemented as approved.
15. **Would a different treatment or design have been preferable? If Y, comment.** Yes to this question will be given serious consideration and requires a comment.
16. **Rate the implementation of the feature, not the structural condition**. Use the following definitions and rate according to how well the contract was executed and how closely the as-built matches the design. (To be better defined)

- *EXCL– (Excellent)* Installation of the project feature meets all requirements.
- *GOOD* –There are some deficiencies in the project feature, but these will not affect its overall effectiveness. Deficiencies are not enough to lead to failure.
- *FAIR* – There are some deficiencies in the project feature, and these may cause problems in the future. Some characteristics of project feature, although not enough to cause corrective action at this time, require further scrutiny. The feature will probably hold up.
- *POOR* – Implementation was not done correctly. There are deficiencies in the project feature, and these are enough to cause problems in the future. Remedial action is required.
- *FAIL – (Failed)* Implementation was not done correctly. Deficiencies in the project feature have already caused enough problems that its objectives will not be met. Remedial action is required.

Code Key

ANC	Anchor failure	MDC	Mid-channel	RIF	Riffle	UND	Undercut/ undermined
BBB	Buried by bedload	MTL	Metal	RTW	Rootwad		
BUR	Buried or "keyed in"	MUL	Multiple angles	SEE	Seeding	UNS	Undersized/ under-built
CBL	Cabled	NON	None	SHF	Structure shifted		
CON	Concrete	NTM	Native mulch	SLF	Silt fence	UPS	Upstream
CRF	Cable/rebar failure	NTR	Native rock	SPN	Spanning	VEG	Vegetation
DNS	Downstream	OFR	Off-site rock	STK	Staked	WOO	Wood/wooden
DRY	Dry	OTH	Other	STM	Straw mulch	WSH	Washed out
FAB	Fabric	PLN	Planting	STR	Stranded out of active channel (horizontally)		
FLT	Flatwater	POO	Pool				
LBK	Left bank	PRL	Parallel				
LWD	Large woody debris	PRP	Perpendicular	SWA	Stranded out of water (vertically)		
MAT	Structure material failure	RBK	Right bank				
		REB	Rebar	TIE	Tied		