

## **Summary of Changes to the CRAM Riverine Field Book**

*Version 6.0 to Version 6.1*

*1/18/2013*

### **Title Page:**

- Updated version number and date of release

### **Basic Information Page:**

- Changed order of Names and ID numbers so that the AA Name is first
- Changed “Project Site ID” to “Project ID #” still for use with mitigation or other projects that have a unique identifying number that should be on each data sheet
- Changed “CRAM Site ID” to “Assessment Area ID #” for use with large-scale projects that have many AAs.
- Added Datum to AA location

### **Score Sheet Page:**

- Added page number references for each Attribute
- Changes “Aquatic Area Abundance” to “Stream Corridor Continuity”
- Removed language that says to round the raw attribute scores and Plant Community Metric scores to nearest whole integer.

### **Identify Wetland Type:**

- Updated with new flowchart that has slope wetlands etc.

### **Riverine Wetlands Description:**

- Updated description with additional language on state wetland definition and caveats for ephemeral streams and large rivers.
- Added examples of landscapes that have confined streams

### **Entrenchment/Confinement Description:**

- Updated language and added special note on relationship between the two, and updated descriptions for Figure 2.
- Added definition of bankfull for use in determining confinement

### **Establish the Assessment Area:**

- Added stream specific language
- Clarified importance of riparian areas to all wetlands, not just streams
- Updated lateral extent figure so that the edge of the AA includes the entire dripline of the trees that overhang the floodplain
- Tables 1 and 2: changed the word “delineate” to “establish boundaries”
- Inserted reference to the CRAM photo dictionary

### **Attribute 1: Buffer and Landscape Context**

#### Metric 1-Stream Corridor Continuity

- Changed named of Riparian Continuity to Stream Corridor Continuity(Aquatic Area Abundance for all other wetland types)
- Replaced “riparian” with “stream” throughout
- Added language to clarify procedure for assessing Stream Corridor Continuity
- Revised descriptions for Figure 4 to clarify the method to measure breaks in continuity (for bridges that disrupt both sides of the stream).
- Added “upstream” and “downstream” labels to Figure 4
- Separated Table 5 into two separate tables: 5A for two-sided AAs and 5b for one-sided AAs

#### Metric 2- Buffer

- Added reference to the CRAM photo dictionary for Table 6
- Added red lines to Figure 6 to indicate where no buffer is present and therefore buffer width lines are not drawn
- Added a note to Table 10 to refer to the CRAM photo dictionary for photos of various buffer conditions
- Added option to D for buffer condition: “or there is no buffer present”

### **Attribute 2: Hydrology**

#### Metric 1- Water Source

- Added and removed language from the definition

#### Metric 2- Channel Stability

- Added special note to clarify that the checklist should be used to guide BPJ but is not a quantitative measure
- Added reference to the CRAM photo dictionary and the glossary in the User’s Manual
- Added definition of well-sorted bars to the checklist
- Revised narrative in Table 12: removed “the channel seems to be approaching an equilibrium form” from the B text, added language on sediment transport

#### Metric 3- Hydrological Connectivity

- Added additional language to the definition of the metric regarding bankfull flow
- Revised definition of bankfull in Special Notes
- Added language to clarify procedure to do the 10% test

### **Attribute 3 Physical Structure:**

#### Metric 1-Structural Patch Richness

- Added reference to the CRAM photo dictionary
- Revised definitions for abundant wrackline, bank slumps, and cobbles and boulders

- Added language to worksheet to indicate that not all features in a site will be counted as patch types

#### Metric 2- Topographic Complexity

- Added definition of a bench to Special Notes
- Added a second option for B of 1 bench with abundant micro, changed C to be one bench without micro

#### Attribute 4 Biotic Structure:

##### Metric 1-Plant Community

- Added sentence to definition of Submetric A about the height of vines
- Layer definitions: revised example species for each layer
- Revised flowchart for plant dominance: changed

**Step 1: Determine the number of plant layers.** Estimate which possible layers comprise at least 5% of the portion of the AA that is suitable for supporting **vascular vegetation**.

**Changed to:** suitable for supporting **that layer**.

- Added Special Note on collecting plants for identification
- Added reference to the CRAM photo dictionary
- Plant Community Worksheet: added “round to nearest whole integer” for percent invasive species
- Table 18: changed D to 0-1 instead of 0, changed C to 2 instead of 1-2

##### Metric 2-Horizontal Interspersion

- Revised definition: changed examples of zones so that they are not each a different plant height class layer

##### Metric 3-Vertical Biotic Structure

- Added additional examples of overlap in figure 13
- Made it clear in the figure and the figure text that **all** layers count in the assessment of this metric
- Removed “or 3 layers are well represented in the AA with little or no overlap” from C score, also removed “2 layers are well represented in the AA with little or no overlap” from D score

#### Stressor Worksheet:

- In worksheet for conversions, changed “seasonal estuarine” to “bar-built estuarine”

#### CRAM Score Guidelines

- Revised guidelines to keep significant figures in calculations until the final Index Score is reached (no rounding to improve precision)