Summary of Changes to the CRAM Vernal Pool Systems Field Book
Version 6.1 to Version 6.2
3/31/20

Title Page:

- Updated version number and date of release
- Updated cover photo

Basic Information Page:

- Removed the question about the apparent hydrologic regime of the wetland (as it applies to Depressional wetlands)

Scoring Sheet:

- Changed all text to black, rather than colored by each Attribute as before
- Updated page numbers for each Attribute

Identify Wetland Type:

- Updated with new flowchart that has episodic riverine wetlands

Establish the Assessment Area:

- Table 1- Added note about local watershed boundaries as AA boundaries.
- Table 3- Updated the recommended AA size so that the number of pool replicates is reduced from 6 to 3
- Table 4- Updated the number of pool replicates from 6 to 3, and the guidance to assess one large pool, one intermediate pool, and one small pool

Attribute 1: Buffer and Landscape Context

Metric 1- Aquatic Area Abundance

- Worksheet 1- Revised the order of the cardinal directions to north, east, south, west
- Table 5- Adjusted the value of Aquatic Area Abundance in each scoring bin to better reflect the distribution of Aquatic Area Abundance raw scores. Changed A to an average of 31-100%, B to an average of 21-30%, C to an average of 11-20%, and D to an average of 0-10%

Metric 2- Buffer

- Removed the Special Note about areas of open water, as this note is not applicable to Vernal Pool Systems
- Replaced the map in Figure 4 with a Vernal Pool specific example
- Table 7- removed the reference to open water
- Table 8- revised language to clarify procedure
- Added a new example within Figure 5 to show an AA that does not have 100% buffer
- Table 10- Changed “naturalized” to “non-native” to be consistent with other CRAM modules

Attribute 2: Hydrology

Metric 1- Water Source

- Added language to clarify local watershed evaluation

Attribute 3: Physical Structure

Metric 1- Structural Patch Richness

- Worksheet 4- Added language regarding 3 m^2 minimum patch size
- Table 15- Adjusted bins to better reflect distribution of raw scores for VP Systems. Changed A to ≥ 12, B to 9-11, C to 7-8, and D to ≤ 6
- Patch Type Definitions for Vernal Pool Systems- Added clarification to some patch type definitions, particularly regarding the potential location of each patch within the pools or entire AA
- Changed the name of the "Drainage branches" patch type to "Drainage confluence" to clarify the feature described, and updated the definition

Metric 2- Pool and Swale Density

- Changed method to measure long and short axes rather than cardinal directions
- Changed calculations so that shorter axes are not weighted more heavily, rather all measurements of pools and swales are summed and divided by the sum of transect lengths for overall percentage of pool and swale density
- Figure 6- Created new figure to show long axis and perpendicular (short) axis
- Worksheet 5- Added new fields for the practitioner to record the transect length and the length crossing a pool or swale
- Table 16- Adjusted bins to better reflect distribution of raw scores. Changed A to an average of 36-100%, B to an average of 26-35%, C to an average of 16-25%, and D to an average of 0-15%

Metric 3- Topographic Complexity

- Reduced the total number of pool replicates from 6 to 3
- Added text to metric description to clarify the procedure
- Table 17- removed "Macro" from title, removed "mima-mounds" from description and changed to "mounds"
- Figure 7- added this new figure to illustrate macro and micro topographic features
- Figure 8- added this new figure to illustrate topographic features in plan view
- Figure 9- updated the previous line-drawing profiles to these profiles that better illustrate the features, and also include plants for scale. Added an additional option for a score of C
- Worksheet 6a- moved this worksheet to this section to allow a location for practitioners to draw sketches of the topographic profile of the pools
- Table 18- Revised scoring narrative to clarify roles of breaks in slope and changes in depth along with micro-topography. Added the second scoring option for C
- Table 19- Adjusted bins to better reflect distribution of raw scores. Changed A to ≥ 10, B to 8-9, C to 7, and D to ≤ 6

Attribute 4: Biotic Structure

Metric 1- Horizontal Interspersion and Zonation

- Reduced the total number of pool replicates from 6 to 3
- Figure 8- moved text from the figure caption to the metric description
- Worksheet 7a- moved this worksheet to this section to allow the practitioner to sketch the interspersion
- Worksheet 7- reduced the number of pool replicates from 6 to 3
- Table 21- Adjusted bins to better reflect distribution of raw scores. The value for A did not change. Changed B to 9-10, C to 7-8, and D to ≤ 6

Metric 2- Plant Community

Submetric A- Number of Co-dominant Species

- Added clarification that upland islands are excluded from vegetation cover estimates
- Reduced total number of pool replicates from 6 to 3
- Updated Worksheet 8 to allow practitioners to indicate which of the three pools each species was a co-dominant
- Table 22- Adjusted bins to better reflect distribution of raw scores. Changed A to ≥ 5, B to 4, C to 3, and D to ≤ 2

Submetric B- Percent Non-native Species

- Table 23- Adjusted bins to better reflect distribution of raw scores and to be in alignment with other modules. Changed A to 0-15%, B to 16-30%, C to 31-45%, and D to 46-100%

Submetric C- Vernal Pool Endemic Species Co-Dominants

- Added two new Southern California endemic species (Marsilea vestita subsp. vestita and Eryngium pendletonense) to the Endemic List (Appendix I)
- Table 24- Adjusted bins to better reflect distribution of raw scores. Changed A to ≥ 7, B to 5-6, C to 3-4, and D to 0-2