# **Attachment 12512-1 – Compensatory mitigation site evaluation checklist.**

|  |  |
| --- | --- |
| 1 | Date: Corps file no.: Project name: Project Manager:  |
|  |  | Column A: | Column B: | Column C: |
| 2.a | Mitigation site name:  |  |  |  |
|  | Location figure(s): |  |  |  |
| 2.b | Mitigation objective(s) to improve:  |  |  |  |
| 2.c | Proposed Mitigation method: |  |  |  |
| If enhancement, list function(s) to be increased:Function 1: Function 2 (if applicable): Function 3 (if applicable): |  |  |  |
| 2.d | Primary type(s) of site treatment:  |  |  |  |
| 2.e | Aquatic resource type (Cowardin system): |  |  |  |
| 2.f | Hydrology:  |  |  |  |
| 2.g | FCAM classification used: FCAM Subclass(es):  |  |  |  |
| 2.h | Vegetation classification system used: Vegetation class(es)/subclass(s): |  |  |  |
| 2.i | Vernacular/common name of proposed type of aquatic resource, if appropriate:  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3 | **Watershed Planning and Prioritization**a. Are mitigation proposal objectives aligned with the objective(s) of one or more appropriate watershed plans?  | Enter: [ ]  yes / [ ]  no/ [ ]  N/ARelevant watershed plan objective(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Cite watershed plan(s), including title, preparer, and date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Cite applicable parts of plan(s) (by page number):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Enter: [ ]  yes / [ ]  no/ [ ]  N/ARelevant watershed plan objective(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Cite watershed plan(s), including title, preparer, and date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Cite applicable parts of plan(s) (by page number):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Enter: [ ]  yes / [ ]  no/ [ ]  N/ARelevant watershed plan objective(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Cite watershed plan(s), including title, preparer, and date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Cite applicable parts of plan(s) (by page number):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 4 | **Watershed Analysis, Landscape Connectivity**a. Would the type of aquatic resource proposed for mitigation help sustain and improve the overall watershed profile of the watershed?b. Following project completion, would the site connect to existing stream network and/or wetlands complex such that the site would not be ecologically isolated?c. Would the site reduce gap(s) in stream network and/or wetlands complex? | Enter: [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  noOverall step acceptable? [ ]  yes / [ ]  no PM justification: | Enter: [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  noOverall step acceptable? [ ]  yes / [ ]  no PM justification: | Enter: [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  noOverall step acceptable? [ ]  yes / [ ]  no PM justification: |
| 5a | **Site Potential for Proposed Method of Mitigation**Is establishment or re-establishment proposed? If yes, complete 5a(a-d). If not, skip to step 5b.a.The site is not an aquatic resource.b. The site is not high quality terrestrial habitat *(e.g., natural land cover with few observed stressors)*c. The site is in close proximity to an aquatic resource in good functional condition.*For proximal site, consider FCAM scores.*d. For re-establishment, is there evidence the type of proposed aquatic resource was present historically on site? |  [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  no PM justification: |  [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  no PM justification: |  [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  no PM justification: |
| 5b | **Site Potential for Proposed Method of Mitigation**Is rehabilitation or enhancement proposed? If yes, complete 5b(a-d). If not, skip to step 5c.a. The site is a degraded aquatic resource.b. For rehabilitation, would increase most, if not all, functions.c. The site has stressors/impacts that can be remedied in a practicable manner via proposed actions (see 2.d).  *Complete* ***Table 1*** *below****.***d. For enhancement, mitigation work at the site will not change the type of aquatic resource or degrade its functioning and condition. | [ ]  yes / [ ]  no[ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  noOverall step acceptable?  [ ]  yes / [ ]  noPM justification: | [ ]  yes / [ ]  no[ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  noOverall step acceptable?  [ ]  yes / [ ]  noPM justification: | [ ]  yes / [ ]  no[ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  noOverall step acceptable?  [ ]  yes / [ ]  noPM justification: |
| 5c | **Site Potential for Proposed Method of Mitigation**Is preservation proposed? If yes, complete 5c(a-f). If not, skip to step 6.a. Does preservation of the proposed aquatic resources provide important physical, chemical, or biological functions for the watershed? *Attach FCAM scores, if available.* b. The aquatic resources to be preserved contribute significantly to the ecological sustainability of the watershed.c. Preservation is determined by the district engineer to be appropriate and practicable.d. The resources are under threat of destruction or adverse modifications.e. Proposed preservation would be done in conjunction with aquatic resource restoration, establishment, and/or enhancement activities.f. The preserved site will be permanently protected through an appropriate real estate or other legal instrument (e.g., easement, title transfer to state resource agency or land trust). | [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  noPM justification: | [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  noPM justification: | [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  noPM justification: |
| 6 | **Site Potential for Sustained Ecological Performance over Time**a. Does site have natural buffer of suitable width to attain mitigation objectives listed in step 2.b above? b. Does site have appropriate hydrology (as demonstrated by a water budget) to meet proposed mitigation site criteria listed in step 2 above?c. Does site have appropriate soils to meet proposed mitigation site criteria listed in step 2 above?d. Is site free of known contaminants? | Enter:[ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  noPM justification: | Enter:[ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  noPM justification: | Enter:[ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  noPM justification: |
| 7 | **Risk and Uncertainty**a. Would all existing and anticipated stressors from Table 1 be resolved and therefore unlikely to jeopardize the mitigation proposal?b. Does proposed site include necessary water rights, as necessary, to ensure hydrology?c. Would the proposed mitigation be free of structures which would require on-going maintenance and incompatible uses (for example, on-going requirement to maintain channel capacity)?d. Do local planning documents/policies envision the surrounding natural landscape as open space such that landscape-scale connectivity would be maintained or improved (in other words, no zoning changes or planned development are anticipated which would pose a barrier to natural drainage and the movement of wildlife )? | Enter: [ ]  yes / [ ]  no List  *unresolved* existing and/or anticipated stressor(s) and describe magnitude of effect:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_[ ]  yes / [ ]  no / [ ]  N/A[ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  noPM justification: | Enter: [ ]  yes / [ ]  no List  *unresolved* existing and/or anticipated stressor(s) and describe magnitude of effect:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_[ ]  yes / [ ]  no / [ ]  N/A[ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  noPM justification: | Enter: [ ]  yes / [ ]  no List  *unresolved* existing and/or anticipated stressor(s) and describe magnitude of effect:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_[ ]  yes / [ ]  no / [ ]  N/A[ ]  yes / [ ]  no [ ]  yes / [ ]  no Overall step acceptable? [ ]  yes / [ ]  noPM justification: |
| 8 | **Final Evaluation**a. List number of final overall “yes” and “no” answers above (acceptable or not). Total answers should be five (5) unless a watershed plan is not available (in that case 4). Most steps must be acceptable for a mitigation proposal to be found environmentally acceptable; however, in some cases, a single “no” may render a proposal unacceptable. | Number of steps that would be acceptable (“yes” answers at bottom of each step): \_\_\_\_Number of steps that would **not** be acceptable (“no” answers at bottom of each step): \_\_\_\_In summary, are activities in column A appropriate for this site?: [ ]  yes / [ ]  no PM Justification: | Number of steps that would be acceptable (“yes” answers at bottom of each step): \_\_\_\_Number of steps that would **not** be acceptable (“no” answers at bottom of each step): \_\_\_\_In summary, are activities in column B appropriate for this site?: [ ]  yes / [ ]  no PM Justification: | Number of steps that would be acceptable (“yes” answers at bottom of each step): \_\_\_\_Number of steps that would **not** be acceptable (“no” answers at bottom of each step): \_\_\_\_In summary, are activities in column C appropriate for this site?: [ ]  yes / [ ]  no PM Justification: |
| 9 | **Overall conclusions:** |  |

|  |
| --- |
| **Table 1. Stressor List for step 5b above.** Review proposed mitigation site and mitigation project design. Check observed stressors in column 1. Check stressors in column 2 that can be reduced or eliminated via proposed mitigation actions in step 2.d. Describe the magnitude of each observed stressor and explain whether it can be reduced or eliminated. *Note: project design features are intended to reduce or eliminate existing and future onsite disturbance (stressors), and improve aquatic resource functions. Also note: Project design features that reduce or eliminate site disturbance (stressors) will improve the ecological condition of the site. A site in good condition functions at levels comparable to its aquatic resource type at reference sites.* |
| **Example water quality stressors:** | **1. Observed** | **2. To be reduced/**  **eliminated** | **3. PM explanation (if appropriate)** |
| Point source discharges features (outfall, discharge pipes) | [ ]  | [ ]  |  |
| Obvious unnatural concentrations of salts (salt encrustation) | [ ]  | [ ]  |  |
| Unnatural odors, foam, oil sheen | [ ]  | [ ]  |  |
| Formation of heavy algal mats | [ ]  | [ ]  |  |
| Turbidity in water column | [ ]  | [ ]  |  |
| Other: | [ ]  | [ ]  |  |
| **Example hydrologic regime stressors:** |  |  |
| Agricultural tiles, siphons or pumps | [ ]  | [ ]  |  |
| Ditches, dikes, levees or berms | [ ]  | [ ]  |  |
| Other water control structures | [ ]  | [ ]  |  |
| Other: | [ ]  | [ ]  |  |
| **Example physical structure stressors:** |  |  |
| Evidence livestock or feral animals trampling and substrate compaction | [ ]  | [ ]  |  |
| Past dredging and fill activity | [ ]  | [ ]  |  |
| Off road vehicle use | [ ]  | [ ]  |  |
| Plowing and disking | [ ]  | [ ]  |  |
| Dumping of trash | [ ]  | [ ]  |  |
| Other: | [ ]  | [ ]  |  |
| **Example vegetation stressors:** |  |  |
| Invasive species  | [ ]  | [ ]  |  |
| Mechanical plant removal or mowing | [ ]  | [ ]  |  |
| Intensive grazing by livestock or feral animals | [ ]  | [ ]  |  |
| Chemical vegetation control | [ ]  | [ ]  |  |
| Intentional burning | [ ]  | [ ]  |  |
| Other: | [ ]  | [ ]  |  |