**Attachment 12501.3-SPD - Examples for SPD Mitigation Ratio Setting Checklist**

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# Checklist Example 1: one impact site/type with two mitigation sites/types

**Impact(s):** The applicant is proposing to permanently impact 0.3 acre (870 linear feet) of intermittent stream with mature, native riparian vegetation (southern willow woodland).

**Proposed mitigation:** The applicant has proposed to mitigate through: 1) 0.3 acre of on-site, in-kind establishment of intermittent stream by re-aligning the existing stream such that the new alignment would be constructed across existing uplands (prior to grading to reduce elevations appropriately); and 2) 0.6 acre of off-site, out-of-kind enhancement of depressional wetland through a mitigation bank.

**Method:** The project manager has completed one checklist (see below), using column “A” for the on-site, proposed mitigation and column “B” for the off-site proposed mitigation.

**Results:** After completing the checklist columns “A” and “B”, and after discussing the results with the applicant, the project manager has determined the final mitigation ratios to be 1:1 for on-site (0.3 acre, as proposed) and 4:1 for off-site (0.84 acre of enhancement credit). As part of this process, the applicant agreed to increase his/her off-site mitigation from 0.6 acre to 0.84 acre. The project manager then entered the final requirement on the last page of the checklist and added the completed checklist to the administrative record (either as a paper copy in the paper file or as an electronic file in ORM). Alternatively, the project manager and/or applicant could have proposed all on-site mitigation (0.99 acre of establishment) or all off-site mitigation (1.2 acre of enhancement) to mitigate for the proposed impact. Regardless of the outcome of any negotiations, the final mitigation ratio(s) and requirement(s) should be explicitly described in steps 9 and 10 of the checklist.

**SPD mitigation ratio setting checklist**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | Date: \_\_\_\_\_5/17/2010\_\_\_\_\_\_\_\_ Corps file no.: \_\_\_2010-XYZ\_\_\_\_\_\_\_\_\_ Project Manager: \_\_\_\_\_John Doe\_\_\_\_\_\_\_  Impact site name: \_\_\_\_Tullay Creek\_\_\_\_\_\_\_\_\_ ORM impact resource type: \_\_\_\_\_stream\_\_\_\_\_\_  Impact Cowardin or HGM type: \_\_\_\_riverine-intermittent\_\_\_ Impact area (acres): \_\_\_\_0.3\_\_\_\_\_\_\_\_\_ Impact distance (linear feet): \_\_\_\_\_870\_\_\_\_\_ | | | |
|  |  | Column A:  Mitigation site name: \_\_Tullay Creek\_\_\_  Mitigation type: \_\_\_\_establishment\_\_\_\_\_\_  Resource type: \_\_\_\_\_stream\_\_\_\_\_\_\_\_\_\_  Cowardin/HGM type: riverine-intermittent | Column B (optional):  Mitigation site name: WL bank  Mitigation type: \_\_enhancement\_  Resource type: \_non-tidal WL\_\_  Cowardin/HGM type: palustrine | Column C (optional):  Mitigation site name: \_\_\_\_\_\_\_\_\_\_  Mitigation type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Cowardin/HGM type: \_\_\_\_\_\_\_\_\_ | |
| 2 | **Qualitative impact-mitigation comparison**:  Are impacts less than or equal to 0.5 acre or 300 linear feet? | Circle one: yes / no  Note: steps 2 and 3 are mutually exclusive. Complete either step 2 or 3, as appropriate, then complete the rest of the checklist (steps 4-10).  Ratio adjustment: 0  PM justification: PM justification: impact and mitigation are within the same water body, habitat type, etc., so functional gain and loss would be equal. | Ratio adjustment: +3  PM justification: Functional loss is greater than functional gain since in this case, there is total functional loss and only gain of selected functions via enhancement. | Ratio adjustment:  PM justification: |
| 3 | **Quantitative**  **impact-mitigation comparison**:  Are impacts greater than 0.5 acre or 300 linear feet?  Use Before-After-Mitigation-Impact (BAMI) spreadsheet (attachment 12501.4) (if a district-approved functional/condition method is not available, use step 2 instead). See example in attachment 12501.2. | Circle one: yes / no  Note: steps 2 and 5 are mutually exclusive from step 3. Complete either step 2 or 3, as appropriate, then complete the rest of the checklist (steps 4-10 if step 2 was completed, steps 4, 6-10 if step 3 was completed).  Ratio adjustment from BAMI procedure (attached): | Ratio adjustment from BAMI procedure (attached): | Ratio adjustment from BAMI procedure (attached): |
| 4 | **Mitigation site location**: | Ratio adjustment: 0  PM justification: impact and mitigation would be within the same watershed | Ratio adjustment: 0  PM justification: impact and mitigation would be within the same watershed | Ratio adjustment:  PM justification: |
| 5 | **Net loss of aquatic resource surface area**: | Ratio adjustment: 0  PM justification: establishment | Ratio adjustment: +1  PM justification: enhancement | Ratio adjustment:  PM justification: |
| 6 | **Type conversion:** | Ratio adjustment: 0  PM justification: n,n: no difference between impact and mitigation types | Ratio adjustment: 0  PM justification: intermittent riparian (willow woodland) and depressional wetlands not substantially different in terms of relative value. | Ratio adjustment:  PM justification: |
| 7 | **Uncertainty**: | Ratio adjustment: +0.3  PM justification: +0.1 for permittee-responsible mitigation, +0.2 as mitigation site did not formerly support target aquatic resource. | Ratio adjustment: 0  PM justification: mitigation bank, uncertainty factors not applicable. | Ratio adjustment:  PM justification: |
| 8 | **Temporal loss**: | Ratio adjustment: +3  PM justification: a: No planned delay, impact and mitigation to be constructed simultaneously. b: Both to include mature willow canopy (trees/woodlands), +3 to account for time to achieve full functions. | Ratio adjustment: 0  PM justification: bank, no delay | Ratio adjustment:  PM justification: |
| 9 | **Final mitigation ratio(s):** | Final ratio: \_3.3\_ : 1 (column A)  Proposed impact (total):  \_\_0.3\_ acre  \_870\_\_ linear feet  to  Resource type: \_\_\_\_stream\_\_\_\_\_\_\_\_\_\_  Cowardin or HGM: riverine-intermittent  Required mitigation:  \_0.3\*\_\_ acre  \_900\_\_ linear feet  of  Resource type: \_\_\_\_\_same\_\_\_\_\_\_\_\_\_\_  Cowardin or HGM: \_\_\_\_same\_\_\_\_\_\_\_  Additional PM comments:  \*Applicant proposed alternate, off-site mitigation to account for difference between proposed (0.3 acre establishment, 1:1) and Corps assessment using checklist (0.99 acre establishment, 3.3:1). 0.69 acre of Corps assessment not met = 0.69/0.99\*100 = 70%. 70% of impact unmitigated = 0.21 acre of impact. See column B. | Final ratio: \_4.0\_ : 1 (column B)  Remaining impact: \_\_\_0.21 acre\_  Required mitigation:  \_0.84\_ acre  \_\_\_ linear feet  of  Resource type: \_\_non-tidal WL\_  Cowardin or HGM: palustrine, depressional wetland  Additional PM comments: Applicant originally proposed 0.6 acre of off-site enhancement via bank. Through checklist, I’ve determined requirement should be 0.84 acre. Applicant has agreed to provide 0.84 acre of wetland enhancement credit at XYZ bank. | Final ratio: \_\_ : 1 (column C)  Remaining impact: \_\_\_\_\_\_\_\_\_\_\_  Required mitigation:  \_\_\_ acre  \_\_\_ linear feet  of  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Cowardin or HGM: \_\_\_\_\_\_\_\_\_\_\_  Additional PM comments: |
| 10 | **Final compensatory mitigation requirements:** | PM summary: The final compensatory mitigation requirement for this impact site is 0.3 acre (900 linear feet) of on-site riverine-intermittent stream (realignment of Tullay Creek, mature willow woodland) and 0.84 acre of off-site enhancement of depressional wetland through the XYZ mitigation bank. | | |

# Checklist Example 2: one impact site/type with direct and indirect impacts to vernal pools

**Impact(s):** The applicant is proposing to directly impact 1.5 acres of high quality vernal pool habitat. Indirect impacts to 0.75 acre of high quality vernal pool habitat are also expected to occur.

**Proposed mitigation:** The applicant has proposed to mitigate direct impacts at a 1.3:1 ratio and indirect impacts at a 1:1 ratio through permittee-responsible re-establishment in the adjacent watershed.

**Method:** The project manager has completed one checklist (see below), using column “A” to calculate direct impact mitigation and column “B” for indirect impact mitigation. The qualitative analysis was utilized, as SPK does not yet have an approved functional assessment method.

**Results:** After completing the checklist columns “A” and “B”, the project manager determined the final mitigation ratios to be 2.6:1 for direct impacts and 2.1:1 for indirect impacts. The project manager then entered the final requirement on the last page of the checklist and added the completed checklist to the administrative record (either as a paper copy in the paper file or as an electronic file in ORM).

**SPD mitigation ratio setting checklist**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | Date: \_\_\_\_\_5/24/2010\_\_\_\_\_\_\_\_ Corps file no.: \_\_\_2010-XYZ\_\_\_\_\_\_\_\_\_ Project Manager: \_\_\_\_\_John Doe\_\_\_\_\_\_\_  Impact site name: \_\_\_\_Placer 530\_\_\_\_\_\_\_\_\_ ORM impact resource type: \_\_\_wetlands adjacent to non-RPWs\_\_\_\_\_\_  Impact Cowardin or HGM type: \_\_\_\_depressional\_\_\_ Impact area (acres): \_\_\_\_1.5 direct, 0.75 indirect\_\_\_\_\_\_ Impact distance (linear feet): \_\_\_\_\_N/A\_\_\_\_\_ | | | |
|  |  | Column A: Direct Impact  Mitigation site name: Limnanthes Ranch  Mitigation type: re-establishment  Resource type: wetlands adj. to non-RPWs  HGM type: depressional | Column B: Indirect Impact  Mitigation site name: Limnanthes Ranch  Mitigation type: re-establishment  Resource type: wetlands adj. to non-RPWs  HGM type: depressional | Column C (optional):  Mitigation site name: \_\_\_\_\_\_\_\_\_\_  Mitigation type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Cowardin/HGM type: \_\_\_\_\_\_\_\_\_ | |
| 2 | **Qualitative impact-mitigation comparison**:  Are impacts less than or equal to 0.5 acre or 300 linear feet? | Circle one: yes / no  Note: steps 2 and 3 are mutually exclusive. Complete either step 2 or 3, as appropriate, then complete the rest of the checklist (steps 4-10).  Ratio adjustment: 0.2  PM justification: Due to differences between vernal pool inoculum in the different locations, the mitigation site is not expected to maintain the range of plant and animal communities (habitat functions) provided by the pre-project impact site. | Ratio adjustment: -0.3  PM justification: Indirectly impacted vps are expected to have an approximately 50% decline in functions. Due to differences between vernal pool inoculum in the different locations, the mitigation site is not expected to maintain the range of plant and animal communities (habitat functions) provided by the pre-project impact site. | Ratio adjustment:  PM justification: |
| 3 | **Quantitative**  **impact-mitigation comparison**:  Are impacts greater than 0.5 acre or 300 linear feet?  Use Before-After-Mitigation-Impact (BAMI) spreadsheet (attachment 12501.4) (if a district-approved functional/condition method is not available, use step 2 instead). See example in attachment 12501.2. | Circle one: yes / no  Note: steps 2 and 5 are mutually exclusive from step 3. Complete either step 2 or 3, as appropriate, then complete the rest of the checklist (steps 4-10 if step 2 was completed, steps 4, 6-10 if step 3 was completed).  Ratio adjustment from BAMI procedure (attached): | Ratio adjustment from BAMI procedure (attached): | Ratio adjustment from BAMI procedure (attached): |
| 4 | **Mitigation site location**: | Ratio adjustment: 1  PM justification: Mitigation will occur outside of the watershed | Ratio adjustment: 1  PM justification: Mitigation will occur outside of the watershed | Ratio adjustment:  PM justification: |
| 5 | **Net loss of aquatic resource surface area**: | Ratio adjustment: 0  PM justification: re-establishment | Ratio adjustment: 0  PM justification: re-establishment | Ratio adjustment:  PM justification: |
| 6 | **Type conversion:** | Ratio adjustment: 0  PM justification: mitigation will be in-kind | Ratio adjustment: 0  PM justification: mitigation will be in-kind | Ratio adjustment:  PM justification: |
| 7 | **Uncertainty**: | Ratio adjustment: +0.4  PM justification: +0.2 for permittee-responsible mitigation, +0.2 for difficult to replace resources | Ratio adjustment: +0.4  PM justification: +0.2 for permittee-responsible mitigation, +0.2 for difficult to replace resources | Ratio adjustment:  PM justification: |
| 8 | **Temporal loss**: | Ratio adjustment: +1  PM justification: mitigation will occur at time of impact, herbaceous species | Ratio adjustment: +1  PM justification: mitigation will occur at time of impact, herbaceous species | Ratio adjustment:  PM justification: |
| 9 | **Final mitigation ratio(s):** | Final ratio: \_2.6\_ : 1 (column A)  Proposed impact (total):  \_\_1.5\_ acre  \_\_\_ linear feet  to  Resource type: \_\_\_\_\_wetland\_\_\_\_\_\_\_\_\_  Cowardin or HGM: \_\_\_\_depressional\_\_\_  Required mitigation:  \_3.9\_\_ acre  \_\_\_ linear feet  of  Resource type: \_\_\_\_\_wetland\_\_\_\_\_\_\_\_\_  Cowardin or HGM: \_\_\_\_depressional\_\_\_  Additional PM comments:  Total direct impacts | Final ratio: \_2.1\_ : 1 (column B)  Remaining impact: \_\_\_0.75\_acre  Required mitigation:  \_1.6\_ acre  \_\_\_ linear feet  of  Resource type: \_\_wetland\_  Cowardin or HGM: depressional  Additional PM comments:  Remaining 0.75 acre of impacts are indirect impacts to vernal pool habitat | Final ratio: \_\_ : 1 (column C)  Remaining impact: \_\_\_\_\_\_\_\_\_\_\_  Required mitigation:  \_\_\_ acre  \_\_\_ linear feet  of  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_  Cowardin or HGM: \_\_\_\_\_\_\_\_\_  Additional PM comments: |
| 10 | **Final compensatory mitigation requirements:** | PM summary: The final compensatory mitigation requirement for this impact site is 5.5 acres of vernal pool habitat at the proposed off-site location. This is an increase of 2.8 acres over the 2.7 acres proposed. | | |

# Checklist Example 3: shallow seasonal wetland, one impact site/type with two mitigation sites/types

**Impact(s):** The applicant is proposing to permanently impact 0.4 acre of shallow seasonal wetlands, which contain no vernal pool species.

**Proposed mitigation:** The applicant has proposed to mitigate through either: 1) on-site, in-kind establishment of seasonal wetlands constructed in existing uplands (prior to grading to reduce elevations appropriately); or 2) off-site, in-kind mitigation bank.

**Method:** The project manager has completed one checklist (see below), using column “A” for the on-site, proposed mitigation and column “B” for the off-site proposed mitigation.

**Results:** After completing the checklist columns “A” and “B”, and after discussing the results with the applicant, the project manager has determined the final mitigation ratios to be 1.65:1 for on-site seasonal wetland establishment **OR** 1:1 for off-site seasonal wetland mitigation bank establishment credit.

**SPD mitigation ratio setting checklist**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | Date: \_\_\_\_\_5/17/2010\_\_\_\_\_\_\_\_ Corps file no.: \_\_\_2010-XYZ\_\_\_\_\_\_\_\_\_ Project Manager: \_\_\_\_\_John Doe\_\_\_\_\_\_\_  Impact site name: \_\_\_\_ SF Impacted Wetland \_\_\_\_\_\_\_ ORM impact resource type: \_\_\_\_\_seasonal wetland\_\_\_\_\_\_  Impact Cowardin or HGM type: \_\_\_\_ palustrine - emergent \_\_\_ Impact area (acres): \_\_\_\_0.4\_\_\_\_\_\_\_\_\_ Impact distance (linear feet): \_\_\_\_\_n/a\_\_\_\_\_ | | | |
|  |  | Column A:  Mitigation site name: \_\_Project site\_\_\_  Mitigation type: \_\_\_\_establishment\_\_\_\_\_\_  Resource type: \_\_\_\_\_seasonal wetland\_\_\_  Cowardin/HGM type: palustrine emergent | Column B (optional):  Mitigation site name: SF bank  Mitigation type: \_\_enhancement\_  Resource type: seasonal wetland\_  Cowardin/HGM type: palustrine estuarine | Column C (optional):  Mitigation site name: \_\_\_\_\_\_\_\_\_\_  Mitigation type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Cowardin/HGM type: \_\_\_\_\_\_\_\_\_ | |
| 2 | **Qualitative impact-mitigation comparison**:  Are impacts less than or equal to 0.5 acre or 300 linear feet? | Circle one: yes / no  Note: steps 2 and 3 are mutually exclusive. Complete either step 2 or 3, as appropriate, then complete the rest of the checklist (steps 4-10).  Ratio adjustment: 0  PM justification: impacts and mitigation sites are the same habitat type, so functional gain and loss would be equal. | Ratio adjustment: 0  PM justification: impacts and mitigation sites are the same habitat type, so functional gain and loss would be equal. | Ratio adjustment:  PM justification: |
| 3 | **Quantitative**  **impact-mitigation comparison**:  Are impacts greater than 0.5 acre or 300 linear feet?  Use Before-After-Mitigation-Impact (BAMI) spreadsheet (attachment 12501.4) (if a district-approved functional/condition method is not available, use step 2 instead). See example in attachment 12501.2. | Circle one: yes / no  Note: steps 2 and 5 are mutually exclusive from step 3. Complete either step 2 or 3, as appropriate, then complete the rest of the checklist (steps 4-10 if step 2 was completed, steps 4, 6-10 if step 3 was completed).  Ratio adjustment from BAMI procedure (attached): | Ratio adjustment from BAMI procedure (attached): | Ratio adjustment from BAMI procedure (attached): |
| 4 | **Mitigation site location**: | Ratio adjustment: 0  PM justification: impact and mitigation would be within the same watershed | Ratio adjustment: 0  PM justification: impact and mitigation would be within the same watershed | Ratio adjustment:  PM justification: |
| 5 | **Net loss of aquatic resource surface area**: | Ratio adjustment: 0  PM justification: establishment | Ratio adjustment: 0  PM justification: establishment | Ratio adjustment:  PM justification: |
| 6 | **Type conversion:** | Ratio adjustment: 0  PM justification: n,n: no difference between impact and mitigation types | Ratio adjustment: 0  PM justification: n,n: no difference between impact and mitigation types | Ratio adjustment:  PM justification: |
| 7 | **Uncertainty**: | Ratio adjustment: +0.4  PM justification: +0.1 for permittee-responsible mitigation, +0.2 as mitigation site did not formerly support target aquatic resource, +0.1 for planned vegetation maintenance | Ratio adjustment: 0  PM justification: mitigation bank, uncertainty factors not applicable. | Ratio adjustment:  PM justification: |
| 8 | **Temporal loss**: | Ratio adjustment: +1.25  PM justification: Delay of 5 months between impact and mitigation construction, mitigation = herbaceous. | Ratio adjustment: 0  PM justification: bank, no delay | Ratio adjustment:  PM justification: |
| 9 | **Final mitigation ratio(s):** | Final ratio: \_1.65\_ : 1 (column A)  Proposed impact (total):  \_\_0.4\_ acre  \_n/a\_\_ linear feet  to  Resource type: \_\_\_\_seasonal wetland\_\_\_  Cowardin or HGM: palustrine-emergent  Required mitigation:  \_0.66\_\_ acre  \_n/a\_\_ linear feet  of  Resource type: \_\_\_\_\_same\_\_\_\_\_\_\_\_\_\_  Cowardin or HGM: \_\_\_\_same\_\_\_\_\_\_\_  Additional PM comments:  On-site mitigation of same type | Final ratio: \_1\_ : 1 (column B)  Remaining impact: \_\_0.4 acre\_  Required mitigation:  \_0.4\_ acre  \_n/a\_\_ linear feet  of  Resource type: seasonal wetland  Cowardin or HGM: palustrine-emergent  Additional PM comments: Mitigation bank (as an alternative mitigation option). 1:1 used since step 5 was not used. | Final ratio: \_\_ : 1 (column C)  Remaining impact: \_\_\_\_\_\_\_\_\_\_\_  Required mitigation:  \_\_\_ acre  \_\_\_ linear feet  of  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Cowardin or HGM: \_\_\_\_\_\_\_\_\_\_\_  Additional PM comments: |
| 10 | **Final compensatory mitigation requirements:** | PM summary: The impact to 0.4 acre of fill in a shallow seasonal wetland can be mitigated by either on-site wetland establishment, **OR** by purchasing credits in a wetland establishment bank in the same watershed/service area. The amount required for on-site establishment is 0.66 acre to satisfy the mitigation requirements. The amount for off-site wetland bank credits is 0.4 acre of establishment credits.  After further communication with applicant, the final requirement will be for on-site establishment of 0.66 acre. | | |

# Checklist Example 4: Scenario: ephemeral stream, one impact site and one mitigation site (ILF)

**Impact(s):** The applicant is proposing to permanently impact 0.3 acre (1276 linear feet) of ephemeral stream with mature, native xeroriparian vegetation (mesquite, palo verde, etc).

**Proposed mitigation:** The applicant has proposed to mitigate through: 1) 0.3 acre of off-site, out-of-kind restoration of riparian gallery with cottonwood, willows and adjacent wetlands at an in-lieu fee program.

**Method:** The project manager has completed one checklist (see below)

**Results:** After completing the checklist column “A”, and after discussing the results with the applicant, the project manager has determined the final mitigation ratio to be 1:1 (0.3 acre, as proposed).

**SPD mitigation ratio setting checklist**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | Date: \_\_\_\_\_\_\_\_6/2/2010\_\_\_\_\_\_\_\_\_\_\_\_ Corps file no.: \_\_\_\_\_\_\_2010-XYZ\_\_\_\_\_\_\_\_\_\_\_\_\_ Project Manager: \_\_\_\_Jane Dough\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Impact site name: \_\_\_\_\_\_\_\_Unnamed wash\_\_\_\_\_\_\_\_\_\_\_\_ ORM impact resource type: \_\_\_\_\_\_\_ephemeral stream\_\_\_\_\_\_\_\_\_\_\_\_\_  Impact Cowardin or HGM type: \_\_\_\_\_riverine\_\_\_\_\_\_\_\_\_\_\_\_ Impact area (acres): \_\_\_\_\_\_\_\_\_0.3\_\_\_\_\_\_\_\_ Impact distance (linear feet): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |
|  |  | Column A:  Mitigation site name: \_Powers Butte site\_  Mitigation type: \_\_\_restoration\_\_\_\_\_\_\_  Resource type: stream & adjacent wetland  Cowardin/HGM type: \_riverine (riparian gallery with cottonwood, willows and adjacent wetlands)\_ | Column B (optional):  Mitigation site name: \_\_\_\_\_\_\_\_\_\_  Mitigation type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Cowardin/HGM type: \_\_\_\_\_\_\_\_\_ | Column C (optional):  Mitigation site name: \_\_\_\_\_\_\_\_\_\_  Mitigation type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Cowardin/HGM type: \_\_\_\_\_\_\_\_\_ | |
| 2 | **Qualitative impact-mitigation comparison**:  Are impacts less than or equal to 0.5 acre or 300 linear feet? | Circle one: yes / no  Note: steps 2 and 3 are mutually exclusive. Complete either step 2 or 3, as appropriate, then complete the rest of the checklist (steps 4-10).  Ratio adjustment: -0.5  PM justification: The mitigation site generally provides more functions than the impact site. Therefore the adjustment was set at -0.5. | Ratio adjustment:  PM justification: | Ratio adjustment:  PM justification: |
| 3 | **Quantitative**  **impact-mitigation comparison**:  Are impacts greater than 0.5 acre or 300 linear feet?  Use Before-After-Mitigation-Impact (BAMI) spreadsheet (attachment 12501.4) (if a district-approved functional/condition method is not available, use step 2 instead). See example in attachment 12501.2. | Circle one: yes / no  Note: steps 2 and 5 are mutually exclusive from step 3. Complete either step 2 or 3, as appropriate, then complete the rest of the checklist (steps 4-10 if step 2 was completed, steps 4, 6-10 if step 3 was completed).  Ratio adjustment from BAMI procedure (attached): | Ratio adjustment from BAMI procedure (attached): | Ratio adjustment from BAMI procedure (attached): |
| 4 | **Mitigation site location**: | Ratio adjustment: 0  PM justification: impact and mitigation would be within the same watershed | Ratio adjustment:  PM justification: | Ratio adjustment:  PM justification: |
| 5 | **Net loss of aquatic resource surface area**: | Ratio adjustment: 0  PM justification: The mitigation is focused on restoration or re-establishment of the aquatic resources | Ratio adjustment:  PM justification: | Ratio adjustment:  PM justification: |
| 6 | **Type conversion:** | Ratio adjustment: 0  PM justification: There is a slight difference in the functions at the impact and mitigation sites; however neither site supports highly valuable or rare habitat types. | Ratio adjustment:  PM justification: | Ratio adjustment:  PM justification: |
| 7 | **Uncertainty**: | Ratio adjustment: 0  PM justification: Uncertainty for in-lieu fee programs has already been factored in to the proposal and the cost per acre. | Ratio adjustment:  PM justification: | Ratio adjustment:  PM justification: |
| 8 | **Temporal loss**: | Ratio adjustment: 0  PM justification: Mitigation would occur prior to impacts. Much of the vegetation at the mitigation site has already begun to be established. | Ratio adjustment:  PM justification: | Ratio adjustment:  PM justification: |
| 9 | **Final mitigation ratio(s):** | Final ratio: 1 : 1 (column A)  Proposed impact (total):  0.3 acre  1276 linear feet  to  Resource type: stream  Cowardin or HGM: riverine, ephemeral  Required mitigation:  0.3 acre  n/a linear feet  of  Resource type: river  Cowardin or HGM: riverine, intermittent  Additional PM comments:  The calculated ratio came out as 0.5:1, but without a functional assessment, 1:1 is the minimum ratio allowed under the 2008 mitigation rule. | Final ratio: \_\_ : 1 (column B)  Remaining impact: \_\_\_\_\_\_\_\_\_\_\_  Required mitigation:  \_\_\_ acre  \_\_\_ linear feet  of  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Cowardin or HGM: \_\_\_\_\_\_\_\_\_\_\_  Additional PM comments: | Final ratio: \_\_ : 1 (column C)  Remaining impact: \_\_\_\_\_\_\_\_\_\_\_  Required mitigation:  \_\_\_ acre  \_\_\_ linear feet  of  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Cowardin or HGM: \_\_\_\_\_\_\_\_\_\_\_  Additional PM comments: |
| 10 | **Final compensatory mitigation requirements:** | PM summary:  1:1 ratio used, as step 5 was not completed (no functional/condition assessment). The final compensatory mitigation requirement for this impact site is 0.3 acre of restoration at the Powers Butte in-lieu fee program site. | | |

# Checklist Example 5: impact to fen habitat, one impact site with one mitigation site

**Impact(s):** The applicant proposes to impact 0.26 acre of fen wetland.

**Proposed mitigation:** The applicant has proposed to mitigate through rehabilitation of 0.6 acre of filled fen wetland.

**Method:** The project manager has completed one checklist.

**Results:** After completing the checklist and after discussing the results with the applicant, the project manager has determined the final mitigation ratio to be 4.8:1 for the fen impacts. After consultation with the applicant, the applicant agreed to rehabilitate an additional 0.65 acre of fen wetland within the ski resort area to offset impacts. The project manager then entered the final requirement on the last page of the checklist and added the completed checklist to the administrative record (either as a paper copy in the paper file or as an electronic file in ORM).

**SPD mitigation ratio setting checklist**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | Date: \_\_6/17/2010\_\_\_\_ Corps file no.: \_\_2010-123-JBD\_\_ Project Manager: \_\_Jane B. Doe\_\_  Impact site name: \_\_\_\_Yowza Fen \_\_\_\_\_\_\_\_\_ ORM impact resource type: \_\_\_\_\_non-tidal wetland\_\_\_\_\_\_  Impact Cowardin or HGM type: \_\_palustrine \_\_\_ Impact area (acres): \_\_\_\_0.26\_\_\_\_\_\_\_\_\_ Impact distance (linear feet): \_\_\_\_\_\_\_\_\_ | | | |
|  |  | Column A:  Mitigation site name: Ski Area Filled Fen  Mitigation type: \_rehabilitation\_\_\_\_\_\_  Resource type: non-tidal wetland\_\_\_\_\_\_\_\_  Cowardin/HGM type: palustrine | Column B (optional):  Mitigation site name:  Mitigation type: \_\_\_  Resource type: \_ \_\_  Cowardin/HGM type: | Column C (optional):  Mitigation site name: \_\_\_\_\_\_\_\_\_\_  Mitigation type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Cowardin/HGM type: \_\_\_\_\_\_\_\_\_ | |
| 2 | **Qualitative impact-mitigation comparison**:  Are impacts less than or equal to 0.5 acre or 300 linear feet? | Circle one: yes / no  Note: steps 2 and 3 are mutually exclusive. Complete either step 2 or 3, as appropriate, then complete the rest of the checklist (steps 4-10).  Ratio adjustment: +2  PM justification: impact and mitigation are within the same watershed, habitat type, etc., but rehabilitation does not result in functional gain, so functional loss would be greater than functional gain. | Ratio adjustment:  PM justification: | Ratio adjustment:  PM justification: |
| 3 | **Quantitative**  **impact-mitigation comparison**:  Are impacts greater than 0.5 acre or 300 linear feet?  Use Before-After-Mitigation-Impact (BAMI) spreadsheet (attachment 12501.4) (if a district-approved functional/condition method is not available, use step 2 instead). See example in attachment 12501.2. | Circle one: yes / no  Note: steps 2 and 5 are mutually exclusive from step 3. Complete either step 2 or 3, as appropriate, then complete the rest of the checklist (steps 4-10 if step 2 was completed, steps 4, 6-10 if step 3 was completed).  Ratio adjustment from BAMI procedure (attached): | Ratio adjustment from BAMI procedure (attached): | Ratio adjustment from BAMI procedure (attached): |
| 4 | **Mitigation site location**: | Ratio adjustment: 0  PM justification: impact and mitigation would be within the same watershed | Ratio adjustment:  PM justification: | Ratio adjustment:  PM justification: |
| 5 | **Net loss of aquatic resource surface area**: | Ratio adjustment: +1  PM justification: rehabilitation | Ratio adjustment:  PM justification: | Ratio adjustment:  PM justification: |
| 6 | **Type conversion:** | Ratio adjustment: 0  PM justification: n,n: no difference between impact and mitigation types | Ratio adjustment:  PM justification: | Ratio adjustment:  PM justification: |
| 7 | **Uncertainty**: | Ratio adjustment: +0.4  PM justification: +0.1 for permittee-responsible mitigation, +0.3 mitigation site difficult-to-replace resource. | Ratio adjustment:  PM justification: | Ratio adjustment:  PM justification: |
| 8 | **Temporal loss**: | Ratio adjustment: +1.4  PM justification: Delay of 8 months +0.4, herbaceous, +1. | Ratio adjustment: 0  PM justification: | Ratio adjustment:  PM justification: |
| 9 | **Final mitigation ratio(s):** | Final ratio: \_4.8\_ : 1 (column A)  Proposed impact (total):  \_\_0.26\_ acre  \_\_\_ linear feet  to  Resource type: non-tidal wetland\_\_\_\_\_  Cowardin or HGM: palustrine  Required mitigation:  \_1.25\_\_ acre  \_\_\_ linear feet  of  Resource type: \_\_\_\_\_same\_\_\_\_\_\_\_\_\_\_  Cowardin or HGM: \_\_\_\_same\_\_\_\_\_\_\_  Additional PM comments: | Final ratio: \_\_ : 1 (column B)  Remaining impact: \_\_  Required mitigation:  \_\_ acre  \_\_\_ linear feet  of  Resource type: \_\_\_  Cowardin or HGM:  Additional PM comments: | Final ratio: \_\_ : 1 (column C)  Remaining impact: \_\_\_\_\_\_\_\_\_\_\_  Required mitigation:  \_\_\_ acre  \_\_\_ linear feet  of  Resource type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Cowardin or HGM: \_\_\_\_\_\_\_\_\_\_\_  Additional PM comments: |
| 10 | **Final compensatory mitigation requirements:** | PM summary: The final compensatory mitigation requirement for this impact site is 1.25 acres. Applicant will rehabilitate 1.25 acres of fen wetland previously filled within the resort area. | | |