

Using Credits from Wetland Mitigation Banks: Instructions to Applicants on Submittal and Template Content for Bank Use Plans

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The Interagency Review Team¹ (IRT) is issuing this paper to provide guidance to permit applicants who wish to use wetland mitigation bank (bank) credits to compensate for unavoidable impacts to wetlands and other aquatic resources, including buffers, associated with their projects. Aquatic resources include but are not limited to wetlands, streams, rivers, other waters, and associated buffers. This paper does not replace or modify any existing laws and policies enforced by the regulatory agencies. The IRT reserves the right to make exceptions to or modify this guidance when doing so would benefit the public interest, the aquatic environment, and/or the banking program in Washington State.

This paper consists of an annotated outline for a report that would serve as the mitigation plan for impact projects. Standard permittee-responsible mitigation plans are not appropriate since the permit applicant is proposing to use bank credits as compensation. We will refer to this report as the Bank Use Plan.

The purpose of the Bank Use Plan is to provide permit decision-makers at the regulatory agencies with sufficient information to decide whether permit applicants have:

1. avoided and minimized aquatic resource impacts to the maximum extent practicable, and
2. provided sufficient compensation for the unavoidable aquatic resource impacts by proposing to purchase, use, or transfer credits from a specific wetland mitigation bank.

Project managers and wetland specialists at the U.S. Army of Corps Engineers (Corps) and Washington State Department of Ecology (Ecology) typically have general knowledge of approved banks in the regions they cover. However, it is up to the permit applicant to provide enough information in their application package to demonstrate how the bank adequately compensates for their specific project's impacts.

The following outline summarizes the type of information that should be included in a Bank Use Plan. To address questions about what to include in the Bank Use Plan or the process of permitting unavoidable impacts using bank credits as compensation, applicants should contact the project manager designated for their region. See below for links to staff and guidance information.

- [Corps Project Managers](#)²
- [Ecology Wetland Specialists](#)³
- General guidance can be found in *Wetland Mitigation in Washington State* -
 - [Part 1: Agency Policies and Guidance](#)⁴
 - [Part 2: Developing Mitigation Plans](#)⁵

¹ The IRT for Washington State includes standing members representing the U.S. Army Corps of Engineers (Corps), U.S. Environmental Protection Agency (EPA), and Washington State Department of Ecology (Ecology). The IRT oversees the certification, implementation, and management of wetland mitigation banks.

² <http://www.nws.usace.army.mil/Missions/Civil-Works/Regulatory/Contact-Us/>

³ <https://ecology.wa.gov/Water-Shorelines/Wetlands/Tools-resources/Contacts-by-subject-region>

⁴ <https://fortress.wa.gov/ecy/publications/summarypages/0606011a.html>

⁵ <https://fortress.wa.gov/ecy/publications/summarypages/0606011b.html>

Directions to Applicants:

- Check Ecology’s map showing the locations of approved banks.⁶ Click on a specific bank to find detailed information including a brief summary of the bank, the bank sponsor’s contact information, and service area. Applicants should contact the bank sponsors directly for additional information on the process of purchasing credits and on the functions provided by the bank.
- The permit applicant must demonstrate that potential impacts to aquatic resources have been avoided and minimized to the maximum extent practicable AND that use of bank credits will provide ecologically appropriate compensation for project impacts. Location of an impact project within a bank’s service area does not guarantee that federal, state, or local regulatory agencies will approve use of bank credits as compensation. Regulatory agencies review and approve specific plans on a case-by-case basis.
- Applicants should communicate with all regulatory agencies early in the permit process and show due caution when considering early purchase of bank credits (reserved credits). Purchase of reserved credits does not provide any guarantee that a project will be authorized under existing regulatory programs. Reserved credits are purchased at the buyer's sole risk.
- If other compensation for aquatic resource impacts is proposed for a project in addition to purchasing bank credits, applicants should describe this in detail in a separate permittee-responsible mitigation plan. Brief mention of the additional compensation and the citation for the permittee-responsible mitigation plan should be included in Section 8 of the Bank Use Plan.
- Before deciding on a compensation option, check with the specific Bank Sponsor to confirm that their bank will have adequate credits available at the time your project is expected to be permitted. Be aware that bank sponsors are not authorized to sell credits that have not yet been released by the IRT. Prospective buyers may request an updated credit ledger from the bank sponsor prior to committing to credit purchase.
- Applicants must include Figures in the Bank Use Plan to provide the necessary information the regulatory agencies need to make a permit decision. The Bank Use Plan Outline includes the minimum figure requirements, additional figures may be necessary.
- Before deciding on a compensation option, check with the regulatory agencies. In some cases, agencies may decide that impacts would be better compensated on or closer to the project site. One agency may require that more bank credits be used, or one or more agencies may determine that the bank will not compensate for the loss of certain functions, and therefore, compensation for those functions must be provided separately. Agencies cannot guarantee that an applicant will be approved to use bank credits prior to review of the complete application package and a permit decision.

⁶ <https://ecology.wa.gov/Water-Shorelines/Wetlands/Mitigation/Wetland-mitigation-banking/Mitigation-bank-projects>

Bank Use Plan Outline/Template

1. Project Description

Provide a brief description of the project and the types of activities that will impact wetlands and other aquatic resources, including buffers. If a more detailed project description is available in other documents in the application package, this section should summarize the project description and cite the more detailed document(s).

- **Figure:** Provide a project vicinity map.

2. Existing Conditions of Wetlands and Other Aquatic Resources

Provide a brief description of the wetlands, buffers, and other aquatic resources on the project site. Include the location, landscape position, size (in acres), vegetation, soils, hydroperiod, source of water, surrounding land uses, and functions. Include the hydrogeomorphic classification and wetland rating as determined by the eastern or western [Washington State rating systems](#).⁷ Information should also be summarized in a table format as shown in Example Tables 1 and 2 below. This is intended to be a summary of existing wetlands and other aquatic resources at the site. The wetland delineation report and any other aquatic resource assessments⁸ should be cited for more detailed descriptions.

- **Figure:** Provide an aerial image with delineated wetland boundaries, aquatic resources (including all ditches), and buffers outlined and labeled.

Table 1. Example: Existing Conditions of Wetlands and Buffers

Resource identifier	Wetland area (acres)	Buffer area (acres)	Ecology rating	Local jurisdiction rating	Cowardin classification	HGM classification
Wetland A	1.01	2.25	IV	4	PEM	Depressional
Wetland B	0.53	1.2	III	3	PSS	Slope
TOTALS	1.54 ac	3.45 ac				

⁷ <https://ecology.wa.gov/Water-Shorelines/Wetlands/Tools-resources/Rating-systems>

⁸ To document what fish may use a specific waterbody or hydrologic unit the Washington State Department of Fish and Wildlife’s SalmonScope geodatabase is a good resource: <http://geo.wa.gov/datasets/1e56a648718543ab952e75ff9971f086>.

Table 2. Example: Existing Conditions of Other Aquatic Resources and Buffers

Resource identifier	Water course area (acre/linear ft) ⁹	Buffer area (acres)	Classification system used ¹⁰	Water type	<u>303(d) Listed (parameters)</u> ¹¹
Stream A	0.021/300	0.7	WDNR	Ns = Non-fish seasonal	None
Stream B	0.17/500	1.72	WDNR	F = Fish	Temperature
TOTALS	0.191 ac/800 lf	2.42 ac			

3. Avoidance and Minimization of Wetland and other Aquatic Resource Impacts

Describe how adverse impacts, both direct and indirect, to wetlands and other aquatic resources will be avoided and minimized by the project to the greatest extent practicable. This should include consideration of project location, design, construction practices, monitoring efforts and/or other relevant factors. If other sites were considered and rejected on the basis of wetland and other aquatic resource impacts, briefly mention them here. If a [Clean Water Act Section 404\(b\)\(1\) Alternatives Analysis](#)¹² was prepared for the project, cite that document here.

Additional information on this topic can be found on [Ecology's Avoiding and Minimizing Wetland Impacts webpage](#).¹³

Summarize measures taken to avoid and minimize impacts to wetlands and other aquatic resources using tables similar to the following examples.

⁹ Report the area of impact in both acres and linear feet. The total acreage will reflect the length and width of these two streams.

¹⁰ This example uses the Washington Department of Natural Resources Stream Typing system <https://www.dnr.wa.gov/forest-practices-water-typing>.

¹¹ <https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d> and to determine what designated beneficial uses are for a specific water body refer to <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A>

¹² <https://www.epa.gov/cwa-404/section-404b1-guidelines-40-cfr-230>

¹³ <https://ecology.wa.gov/Water-Shorelines/Wetlands/Mitigation/Avoidance-and-minimization>

Table 3: Example: Avoided, Minimized, and Expected Impacts to Wetlands

Wetland Identifier	Total Wetland Area (acres)	Potential Fill in Wetland Prior to Avoiding and Minimizing (acres)	Proposed Fill in Wetland (acres)	Avoidance and Minimization
A	1.01	0.08	0.03	Stormwater outfall designed to minimize impacts to wetland.
B	0.46	0.46	0.46	Impacts unavoidable – no practicable methods for reducing wetland impacts in this area while still meeting project goals for improved safety.
C	5.88	2.43	0.95	A retaining wall will be constructed along the entirety of this wetland to avoid and minimize impacts. A new embankment will be constructed that will extend the wall an additional 10 feet to the west. This additional 10 feet is required to meet the flow (head) requirements to allow the embankment to function properly.
D	2.43	0.40	0	Impacts to wetland avoided entirely by changing road alignment to widen toward the median.
TOTALS	9.78	3.37	1.44	

Table 4: Example: Avoided, Minimized, and Expected Impacts to Other Aquatic Resources and Buffers

Resource Identifier	Impact area before ¹⁴ (acres/linear ft)	Impact area after ¹⁵ (acres/linear ft)	Temporarily Impacted Area (acres/linear ft)	Buffer Impact Area (acres)	Indirect Impact Area (acres/linear ft)	Avoidance and Minimization
Stream A	0.07 ac/200 lf	0.02 ac/57 lf	0	0.1 ac	0	Bridge used for crossing, bridge abutments in stream
Stream B	0.06 ac/180 lf	0	0	0.5 ac	0	Design altered to avoid stream altogether. Road path chosen to minimize need for clearing large conifers. Temporary road will be decommissioned and replanted at end of project.
Totals	0.13 ac/380 lf	0.02 ac/57 lf	0 ac/0 lf	0.6 ac	0 ac/0 lf	

¹⁴ before = prior to any avoidance and minimization measures implemented.

¹⁵ after = expected impact after avoidance and minimization measures implemented.

Notes to Applicants:

Examples of impact avoidance/minimization for several types of development include:

- Commercial facility: Minimizing new impervious surface, using pervious surfaces for parking lots, using infiltration to treat stormwater, enhancing wetland buffers, providing appropriate water quality treatment, reducing the project footprint from the original proposal, using native landscape plants, using integrated pest management techniques, using other low impact development measures, etc.
- Road Widening: widening asymmetrically to avoid wetlands or other aquatic resources, widening toward the road median, using retaining walls to reduce sideslopes, minimizing new impervious surface by lane re-striping, using road shoulder-installed filters for water quality treatment, locating stormwater treatment facilities outside of wetlands, etc.
- Residential Development: Retaining native vegetation where possible, infiltrating roof runoff, using pervious surfaces for driveways, using other low impact development measures, enhancing wetland buffers, and etc.

4. Unavoidable Aquatic Resource Impact Acreage

Summarize the acreage of unavoidable aquatic resource impacts expected using tables similar to the following examples.

- **Figure:** Proposed site plan with impacts to wetlands, aquatic resources, and buffers outlined and labeled.

Table 5: Example: Expected Impacts to Wetlands

Wetland Identifier	Wetland Area (acres)	Permanently Filled Wetland Area (acres)	Temporarily Impacted Wetland Area (acres)	Indirect Impact Area (acres)	Cowardin Classification	HGM Classification	Ecology Rating	Local Jurisdiction Rating
A	1.01	0.03	0	0	PEM	Depressional	IV	4
B	0.46	0.46	0	0	PEM	Depressional	IV	4
C	5.88	0.95	0.52	0	PSS	Riverine	III	3
TOTALS	7.35	1.44	0.52	0				

5. Impacted Wetland and Aquatic Resource Functions

Describe the wetland and other aquatic resource functions that are expected to be lost or altered; include the potential indirect and/or temporary impacts to the remaining wetlands and other aquatic resources. The discussion can be divided into groups of functions such as water quality, hydrologic, and habitat. If a more detailed function description is available in other documents in the application package, this section should simply summarize the functions that will be affected and cite the more detailed document(s). If monitoring has been done or is available to characterize the baseline conditions of stream reach to be impacted summarize the existing conditions and the proposed alterations to the stream conditions.¹⁶

¹⁶ The agencies may require additional baseline information to characterize proposed impacts to streams. Tools for obtaining additional information on streams include: the EPA Region 10 In-stream Biological Monitoring Handbook for Wadable Streams in the Pacific Northwest, or EPA’s Rapid Bioassessment Protocols: <https://www.epa.gov/wqc/rapid-bioassessment-protocols-use-streams-and-wadeable-rivers-periphyton-benthic>, or the more recent EPA developed Stream Function Assessment method adopted for use in Oregon and applicable in Washington: [https://www.oregon.gov/dsl/WW/Documents/Stream_Function_Assessment_Method_\(SFAM\)_v_1.0_User%20Manual.pdf](https://www.oregon.gov/dsl/WW/Documents/Stream_Function_Assessment_Method_(SFAM)_v_1.0_User%20Manual.pdf)

- Water Quality Functions – Briefly describe characteristics of wetlands and other aquatic resources relative to water quality functions such as water movement, vegetation extent as it relates to potential for slowing and filtering water (e.g., extent of grazing), extent of ponding, opportunity to improve water quality and so on. Describe how these functions will be affected by the project.
- Hydrologic Functions – Briefly describe characteristics of wetlands and other aquatic resources relative to the ability and opportunity of the wetland to store water. Describe how these functions will be affected by the project.
- Habitat Functions – Briefly describe characteristics of wetlands and other aquatic resources relative to habitat functions such as interspersions of habitats, corridor connectivity, plant species richness, buffer condition, etc. Describe how these functions will be affected by the project.

Notes to applicants:

- All applicants should use the Washington State Wetland Rating System and submit the rating forms and accompanying maps/drawings for all wetland impact projects requiring a Section 401 Water Quality Certification. [Rating methods for both western and eastern WA¹⁷](#) are available on our webpage. Applicants may use other wetland function assessments in addition to the rating system, at their discretion, but they should not substitute for the rating system.
- If the project will entirely eliminate a wetland and/or other aquatic resources, then assume that all functions will be lost. If a wetland or other aquatic resource will be partially filled or otherwise affected, discuss the extent to which existing functions will be lost. Include a discussion of the potential indirect and/or temporary impacts to the remaining aquatic resource area, if any.
- Fill or clearing in a wetland or other aquatic resource buffer may result in indirect impacts that could also require compensatory mitigation. Even temporary clearing of forested or shrub areas in wetlands or other aquatic resources or their buffers may have long-term indirect impacts to aquatic resources and may require mitigation. Also, functions are not evenly distributed throughout a wetland or other aquatic resource area. For example, a wetland may be mostly forested with some disturbed emergent patches along the edges. If the project will only fill those emergent patches, then habitat functions may be less affected than if forested areas were eliminated. However, in this example, indirect impacts to habitat in the forested areas may result and should be accounted for.

6. Wetland and Other Aquatic Resource Compensation Site Selection Rationale

Identify which bank you intend to use credits from, confirm that your project is located within the service area for that bank, and that there are credits available for sale at the bank. Also determine if the bank provides the appropriate kind of credits to compensate your aquatic resource impacts.

- **Figure:** Provide a map that shows the location of the impact project, location of the bank site, and the associated service area.

Provide rationale for selecting the bank as compensation. This discussion may include such points as:

- whether the development project will affect critical wetland or other aquatic resource functions that should be replaced on-site and, if so, have on-site compensation opportunities been considered (consult with agency project managers to determine the presence of critical functions);
- how the wetland and other aquatic resource compensation needs of the impact site correspond with the purpose, goals, and objectives of the bank;

¹⁷ <https://ecology.wa.gov/Water-Shorelines/Wetlands/Tools-resources/Rating-systems>

- if the impact site is located outside of the Bank’s Service Area, provide a clear rationale for use of the Bank site, including a description of all efforts made to find compensation opportunities closer to the impact site.

7. Wetland and Other Aquatic Resource Functions Compensated at Wetland Mitigation Bank

Describe the functions that are expected to be provided at the bank from which credit use is proposed. This information should be obtained directly from the bank sponsor or the bank’s Mitigation Banking Instrument (MBI). Describe how the functions and wetland types (e.g., freshwater/estuarine, HGM type, landscape setting) and other aquatic resources of the bank relate to the functions and wetland types and other aquatic resources that are expected to be affected by the project. This section should demonstrate how credits from the selected bank will provide adequate compensation for project impacts, so be sure to provide appropriate detail.

For ease of comparison, please discuss the bank’s functions in the same way as the impact wetland’s functions – grouped as water quality, hydrologic, and habitat functions. For stream and other aquatic resource functions be sure to use the same stream typing and other methods for characterizing impacts and aquatic resource functions at the bank.

8. Wetland and Other Aquatic Resource Functions Not Compensated at the Wetland Mitigation Bank

Describe the functions that will be affected by the project that are not expected to be compensated for by the bank. This may include functions that are not provided by the bank or functions that a regulatory agency has determined must be replaced within or near the project area. Examples include water quality improvement, groundwater recharge, flood storage, riparian habitat, spawning habitat, and others. If there are functions or aquatic resource types that will not be addressed by the bank, then explain how these functions and aquatic resources will be otherwise compensated – cite other documents that describe this mitigation. This may include restoration of temporarily impacted areas on-site as well. Alternatively, it is possible that a specific bank will not compensate for every function of the affected wetland or other aquatic resource but there will be a net gain in other functions that could justify that loss. If so, explain the reasoning that leads to that conclusion.

9. Proposed Mitigation Credits

Show the mitigation ratios that were used to calculate the total number of bank credits needed to compensate for the project impacts. MBIs for all banks include a table that provides recommended mitigation ratios for determining the amount of credits needed. Table 6 is an example from one MBI that shows the ratios used to determine the number of bank credits typically required from that bank to compensate for each acre of permanent loss of wetland by Category. These ratios are not the same for all banks, check the specific bank’s MBI for this information.

Table 6: Example: Credits Recommended for Wetland Impacts

Category of Impacted Wetland	Credit Recommended per Impact Acre
I	Case-by-Case
II	1.25:1
III	1:1
IV	0.85:1

If proposed ratios for determining the credits needed differ from those suggested in the MBI for the selected bank, provide the rationale for this. Factors that may affect the actual number of bank credits needed to compensate for an adverse impact to wetlands and other aquatic resources include:

- whether the impact is permanent or temporary,
- the extent to which the functions are affected due to indirect impacts,
- whether some of the functions affected by a project are compensated elsewhere,
- the extent to which the functions provided at the bank differ from the impacted functions,
- out-of-service area requests based on the distance from the impact location and type of impact,
- and other factors.

Compensation for impacts to Category I wetlands by bank credits will be determined by the regulatory agencies on a case-by-case basis. This is due to the high level of functioning or variety of special characteristics these wetlands provide. Applicants should consult with agency staff early in the permitting process to discuss mitigation ratios. For other credits types provided at the bank, such as Fish Conservation Credits, applicants should coordinate with the appropriate regulatory agency to determine the compensation required.

Show the number and types of credits that are proposed to be purchased, used, or transferred from the bank. If more than one wetland is impacted, it is helpful to use a table such as the following example to show the credit calculations.

Based on the example below, the applicant is proposing to purchase 1.36 credits from the wetland mitigation bank to compensate for 1.44 acres of permanent fill in wetlands.

Table 7: Example: Wetland Mitigation Bank Credits Proposed for Use by Impact Project

Wetland	Total Wetland Area (acres)	Permanently Filled Wetland Area (acres) ¹⁸	Ecology Rating	Credit Needed per Impact Acre ¹⁹	Credit Proposed for Use
A	1.01	0.03	IV	0.85	0.025
B	0.46	0.46	IV	0.85	0.39
C	5.88	0.95	III	1	0.95
TOTAL	7.35	1.44			1.36

¹⁸ In this example, the temporary impacts to the palustrine emergent wetlands listed in Table 3 will be compensated by restoring those areas on-site following construction.

¹⁹ Find recommended credit use ratio table (similar to Example Table 6) in the MBI of the bank you are using credits from or propose alternative ratios.

Notes to applicants:

- The number of credits awarded per acre of a bank site is determined during bank certification. Credits generated at the bank vary depending on the expected lift in functions that could result from the actions undertaken at the bank site. Credits earned by a bank are grouped into one pool and considered 'universal', because there is no way of pinpointing which acre on the site, or which action is represented by which credit.
- A Universal Credit typically represents more than one acre on the ground and represents the sum of all functional lift activities at the site. The ratios shown in Example Table 6 are suggested ratios for the number of universal credits that should be purchased, used, or transferred for each acre of wetland impacted.

10. Credit Purchase or Transfer Timing

This section should note the anticipated timing of purchase, use, or transfer of the credits and any other details regarding credit use that may be relevant to the permit process. It is not necessary to disclose credit costs or specific financial arrangements made between the applicant and bank sponsor. If purchasing credits, the final sale should generally not occur until the permits relevant to the wetland or other aquatic resource impacts have been issued. Prior to impacting wetlands or other aquatic resources, applicants typically must submit proof of purchase (e.g., bill of sale) or transfer of credits to the regulatory agencies as part of their permit conditions.