Credit Guide for Wetland Mitigation Banks

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For more information contact:

Washington State Department of Ecology - www.ecy.wa.gov
Shorelands and Environmental Assistance Program
P.O. Box 47600
Olympia, WA 98504-7600
Phone: 360-407-6600

U.S. Army Corps of Engineers - www.nws.usace.army.mil
Seattle District, Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-3755
Phone: 206-764-3495

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Credit Guide for Wetland Mitigation Banks

by

Interagency Review Team: Kate Thompson, Kim Harper, Yolanda Holder, Christina Merten, Gail Terzi, Brad Murphy, and Lauren Driscoll

Shorelands and Environmental Assistance Program
Washington State Department of Ecology
Olympia, Washington

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Section 1 Introduction

The Washington State Department of Ecology (Ecology) and the Seattle District U.S. Army Corps of Engineers (Corps), co-chairs of the Interagency Review Team, developed this credit guide to clarify the terms, uses, and measures of credits as they apply to wetland mitigation banking (banking) in the state of Washington. This guide is intended for use by bank sponsors (sponsors), those who use banks to satisfy mitigation requirements, and local, state, and federal agencies that regulate impacts to aquatic resources. This guide is consistent with state and federal rules that apply to wetland mitigation banking[1]. Ecology and the Corps reserve the right to make exceptions to or modify this guide when doing so would benefit the public interest, the aquatic environment, and/or wetland mitigation banks operating in Washington State.

The **Interagency Review Team (IRT)** is an interagency group of federal, state, tribal, and local regulatory and resource agency representatives who are invited to participate in negotiations with the bank sponsor on the terms and conditions of the Mitigation Banking Instrument and oversee the management and operation of the bank. The IRT in the state of Washington is typically **co-chaired**[2] by the Seattle District U.S. Army Corps of Engineers and the Washington State Department of Ecology. For tribal mitigation banks, the Corps is the chair of the IRT. In this guide, the term IRT is used to convey the negotiation between the sponsor and the IRT and the final decision-making authority of the co-chairs.

The term *credit* is used in a variety of ways, with various interpretations and measurements in the compensatory mitigation arena. For the purposes of this guide, a **credit** is defined as a unit of trade representing the increase in the ecological value or services of a bank site, as measured by acreage, functions, or by some other approved and appropriate assessment method. This guide discusses the following credit topics:

- Defining Credits
- Determining Credit Value
- Credit Release and Criteria
- Credit Release Schedule
- Selling Credits
- Tracking Credits
- Credit Use
- Suspension of Credits

The **Mitigation Banking Instrument (MBI)** is the documentation of agency(s) and sponsor concurrence on the objectives and administration of the bank. The MBI describes the physical and legal characteristics of the bank and how the bank will be established, operated, and used.

[1] 33 CFR Parts 325 and 332 and 40 CFR part 230, Compensatory Mitigation for Losses of Aquatic Resources; Chapter 173-700 WAC, Wetland Mitigation Banks

[2] The co-chairs typically consult with the IRT before making final credit decisions.

The MBI clearly lays out the responsibilities, obligations, and time frames that the sponsor and IRT will operate under for a specific wetland mitigation bank. Decisions about credits are made after negotiations between the sponsor and the IRT, and are documented in the MBI.

Definitions for the bolded text in this document are located in Section 8 Glossary of Terms.

Section 2 Defining Credits and Determining Credit Value

This section defines what a wetland mitigation bank credit is and how its value is determined. It provides information on two different methods for determining how many credits a bank may receive and gives general criteria for what constitutes an acceptable crediting method.

2.1 Defining Credits

Credits are the trading medium that is used to represent the ecological gains at a bank site. The gains are typically considered in terms of the lift in functions for wetlands or other aquatic resources that are expected to result from the types of activities implemented at the bank site. The number of credits earned by a bank is therefore based on the quantity and quality of the resources that are **restored, created (established), enhanced, or preserved**. Credits may be measured in terms of acreage, functional units, or some other assessment method.

The number of **potential credits** a bank may earn is determined by the sponsor and IRT during the bank certification process, typically after the site design is developed. This total of potential credits is an estimated amount that may vary depending on actual performance of the bank. Credits are periodically released by the IRT throughout the **establishment period** of a bank, which typically lasts for 10 to 12 years, as **performance standards** are met. Once a potential credit is released by the IRT, it becomes an **available credit**. These available credits can then be sold, used, or transferred by the bank sponsor. If an available credit is sold or transferred to another entity, but isn't associated with a regulatory requirement at the time of purchase it is called a **reserved credit.** Once an available or reserved credit is withdrawn from the bank to meet regulatory requirements for compensatory mitigation it is considered a **debited credit**.

Wetland mitigation bank credits in Washington State are considered to be **universal credits.** Each credit at a particular bank represents the same unit of value rather than a specific habitat type or wetland function. Credits are not divided into categories such as forested wetland credits vs. scrub-shrub wetland credits or water quality vs. wildlife habitat function credits. In general, banks are designed to provide a variety of plant communities, aquatic features, and functions to better address the range of resource impacts that may occur in the **service areas** of the banks.

2.2 Determining Credit Value

The credit value of a bank is generally thought of in terms of the extent of the lift in ecological function that will be achieved at the site. It is not feasible for most bank sponsors or agency regulators to measure actual function levels in this context so we use simpler measures as surrogates to estimate functional increases. Methods vary for determining the number of potential credits a wetland mitigation bank may generate. Regardless of the method used, the total potential credits are an estimate of what the value of the bank will be after it has achieved all of its goals and performance standards.

The method for calculating credits and the number of credits are typically proposed by the bank sponsor and then are negotiated with the IRT prior to final approval. The value of a credit varies among banks because wetland mitigation banks vary in the type and extent of functional lift of resources, and because banks may use differing methods of calculating credits. Within each bank, the same method should be used to calculate both the potential credit value and the number of credits needed to provide compensation for impact projects. That method may change over the life of the bank, if approved by the IRT.

2.2.1 Ratio Method for Determining Credits

The most commonly used method for determining potential credits relies on establishing conversion rates, also called ratios, based on the planned acreage for each mitigation activity proposed for the bank site. For clarity, we refer to this as the Ratio Method in this guide. Mitigation activities generally include some combination of restoration (re-establishment and/or rehabilitation), creation (establishment), enhancement, and preservation, although all of these may not necessarily be undertaken at one bank site. Under this method, the credit unit is usually defined as area of wetland or upland that receives the activity.

The Ratio Method is the default method for determining credits, as described in the Washington State Rule on wetland mitigation banks (WAC 173-700-312 through 173-700-320) and the Federal Rule on compensatory mitigation [33 CFR 332.3(f)(2)]. Sponsors should use this method unless they receive written approval from the co-chairs to use an alternative approach.

As required by the State Rule, credit conversion rates should be within the ranges shown in Table 1 on the next page. These rates are a ratio of area of activity to credit potentially earned. For example, a ratio of 2:1 for re-establishment means that for every two acres of the bank site where wetland is re-established, the bank earns one potential credit. Rehabilitation, enhancement, and preservation of wetlands generally have higher ratios, thus earning less credit than other activities, because they do not increase wetland area. Enhancement also generally has a higher risk of failure associated with it. Uplands generally earn the least credit because they do not directly provide wetland functions. However, the extent to which uplands on the bank site contribute to the protection or functioning of the wetlands or other aquatic resources is factored into the ratios assigned to those upland areas.

Table 1 Credit Conversion Rates for Mitigation Banks

Mitigation Activity	Conversion Rate (Area of Activity:Credit)
Wetlands	
Re-establishment	1:1 to 2:1
Creation (Establishment)	1:1 to 2:1
Rehabilitation of altered processes	2:1 to 3:1
Enhancement of wetland structure	3:1 to 5:1
Preservation in combination with re-establishment, creation, rehabilitation, or enhancement of wetlands	5:1 to 10:1
Preservation alone	Case-by-case
Uplands	
Upland enhancement	3:1 to 10:1
Upland preservation	8:1 to 15:1

Source: WAC 173-700-313 and 173-700-318

Ratios are proposed by the bank sponsors and negotiated with the IRT prior to final approval. Within the ranges, conversion rates are negotiated based on factors such as expected lift in function, expected extent of restoration of ecological processes, likelihood of success, rarity of habitat types, and other considerations. Conversion rates outside of the ranges in Table 1 may be considered by the IRT on a case-by-case basis based on similar ecological considerations.

Advantages of using the Ratio Method to determine credits are that it is simple to understand, easy to apply, and clearly explained in the State Rule. The method can be easily applied to debit projects without complex analysis (see Section 6 Using Bank Credits). The method relies on the Washington State Wetland Rating System[3] for determining the rating of the impact wetlands and assigning appropriate ratios for debiting credits. This rating system is widely used and rapid to apply to debit projects.

The main disadvantage is that this qualitative method relies on inference of function achieved at the bank based on the general categories of the proposed mitigation activities. It does not provide any quantitative estimates of lift in function. Therefore, it is difficult to clearly draw direct connections between the number of potential credits and the expected lift in function. There is no clear scientific basis supporting specific conversion rates for different types of mitigation activities, nor for compensating for different categories of impacted wetlands. This can be an issue for agency reviewers who are trying to determine how much credit is adequate or

[3] Washington State Wetland Rating System for Western Washington, Ecology publication #04-06-025 and Washington State Wetland Rating System for Eastern Washington, Ecology publication #04-06-015.

even whether the type of lift in function provided by the bank is appropriate compensation for functions lost at impact sites. There may be higher confidence on the adequacy of compensation if the impacted wetlands and the bank include wetlands of the same **Hydrogeomorphic classification (HGM)** and wetland rating.

2.2.2 Alternative Methods

Bank sponsors who want to propose alternative methods of credit calculation should coordinate with the IRT early in the bank certification process. The IRT may approve use of an alternative to the Ratio Method if the alternative method is:

- Applicable and appropriate for the Pacific Northwest
- Peer-reviewed to demonstrate an appropriate scientific basis
- Able to be applied consistently to the debit project sites as well as to the bank site

Many banks across the nation use methods that are semi-quantitative estimates of functional lift. They are typically based on regionally-developed function assessment methods where existing and expected wetland functions on the bank site are compared using a set of rapidly-assessed field indicators. Expected functional lift is then usually calculated on a per-acre basis. Some banks maintain separate groups of credit for categories of wetland functions, such as wildlife habitat functions vs. water quality functions, and others to calculate a total amount of credit and then track those as universal credits.

In Washington State, there are currently no approved wetland mitigation banks that use a function-based method for determining credits. However, a new method, known as the Credit-Debit Method, was recently developed by Ecology and is currently being used to evaluate compensatory mitigation requirements. The Credit-Debit Method[4] calculates the number of credits, based on mitigation activities, that can be expected to replace the functions and values that will be lost at a wetland that is filled or damaged. The method is based on the Washington State Wetland Rating System, but it incorporates new concepts in managing wetlands that have emerged since the rating system was published in 2004.

The Credit-Debit Method generates a score for a wetland ranging from 1 to 9 for each of three wetland functions: improving water quality, flood storage and flow reductions, and habitat for plants and animals. The score is based on three aspects of function. These include:

- The potential of the site to provide the function
- The potential of the landscape to maintain each function at the site scale
- The value each function has for society

To calculate the credits for a mitigation site, you multiply the increase in each function score that can be expected when the site is fully functioning by the area in which each mitigation activity is planned for the site. You then add these together to get the total credits, expressed as

[4] Calculating Credits and Debits for Compensatory Mitigation in Western Washington, Ecology Publication #10-06-011 and Calculating Credits and Debits for Compensatory Mitigation in Eastern Washington, Ecology Publication #11-06-015

acre-points. You use the same method for calculating the loss of functions at an impact project site: multiply each function score by the size of the impact and add those subtotals together to get a total debit amount. Calculations may be adjusted depending on the potential risk of failure of a design and the age of the mitigation site when credits are applied to debit projects.

Advantages of the Credit-Debit Method are that it provides a numerical score that allows one to directly compare acre-points lost and gained, and it is based on a rating system that is already widely used and is relatively easy to apply. This method eliminates some of the conjecture associated with the Ratio Method and allows agency reviewers a greater level of confidence in determining appropriate compensatory mitigation. However, the Credit-Debit Method is new and some of the assumptions on which it is based have not been extensively tested.

Section 3 Releasing Credits

The Federal Rule[5] and State Rule[6] contain specific standards sponsors need to meet in order to have credits released for an approved bank project. This section explains this process further and outlines the procedures for requesting the release of credits from the IRT.

3.1 Performance Standards and Credit Releases

Performance standards are measurable criteria for determining if the bank's goals and objectives are being achieved[7]. The performance standards are specified in each bank's MBI. In addition, the MBI contains a credit release schedule that outlines how many credits will be awarded once a particular performance standard is met (contained in Appendix D of the MBI). Credits are released by the IRT as a project meets performance standards**.** Credits cannot be sold until they are released.

3.2 Credit Release Schedule

The sponsor and the IRT negotiate the performance standards and the schedule for the release of credits as part of the MBI approval process.

The State Rule sets the groundwork for these negotiations by establishing maximum percentages of credits to be released once the project achieves specific performance standards (pre-construction, post-construction, and hydrologic).[8] Each of these releases is comprised of either a single performance standard or a whole suite of performance standards. For example, there are

[5] CFR §332.8(o)(9)
[6] WAC 173-700-330 through 173-700-335 and 173-700-410
[7] Refer to the 2006 Joint Agency Guidance on Wetland Mitigation for information on how to write appropriate performance standards
[8] The maximums established in WAC 173-700-331 through WAC 173-700-333 do not apply to those credits generated by banks involving preservation of wetlands.

four separate pre-construction performance standards which all must be met before the sponsor receives a credit release (see Section 3.3).

In addition to the performance standards highlighted in the State Rule, the sponsor and IRT also negotiate additional performance standards that receive credit upon achievement. For example, credits are awarded once vegetation reaches a certain establishment criteria (i.e., survival, percent cover, and stem density) or when the sponsor demonstrates retention of habitat structures on site. However, the release of credits associated with these performance standards cannot result in a credit release larger than the maximums set forth in the State Rule.

Once finalized, the credit release schedule lists the number or percentage of credits released upon achievement of each performance standard. Table 2, on the next page, is an example credit release schedule that includes the specific performance standards contained within the State Rule and other typical performance standards a bank sponsor is required to meet. The percentage of credits released within a specific year as well as the cumulative percentage is shown along the bottom of the table. The percentages highlighted in *red correspond to the maximum amount allowed in the State Rule.

Table 2 Example performance standard and credit release schedule

	Pre-Construction Credits[9]	Year 0 Credits[10]	Year 1 Credits	Year 3 Credits[11]	Year 5 Credits	Year 7 Credits	Year 10 Credits[12]	Total Credits
Objective 1. Administrative Protections								
1A MBI Signed	2.80							2.80
1B Conservation Easement Recorded	2.80							2.80
1C Financial Assurances Completed	2.80							2.80
1D Long-Term M & M Fund Established	2.80							2.80
1E Environmental Documentation, Permits, & Authorizations Submitted	2.80							2.80
Objective 2. Hydrology								
2A Grading As-built		5.50						5.50
2B Establish Wetland Hydrology (wetland determination)				6.00				6.00
2C Minimum Wetland Acreage (wetland delineation)					7.00		3.00	10.00
Objective 3. Vegetation								
3A Planting Plan As-built		5.25						5.25
3B Cover of Invasive Species			1.00	1.25	2.00	2.50	1.00	7.75
3C Zero Tolerance Invasive Species			1.00	1.25	2.00	2.50	1.00	7.75
3D PEM % Cover			1.00	2.00	2.50	3.00	1.00	9.50
3E PSS % Cover				2.00	2.50	3.00	1.00	8.50
3F Tree Density				2.25	3.00	3.50	1.00	9.75
3G PFO % Cover				2.25	3.00	3.50	1.00	9.75
Objective 4. Wildlife								
4A Habitat Features As-built		5.25						5.25
4B % of Habitat Features Remaining							1.00	1.00
Total Credits Available in the Period	**14.0**	**16.0**	**3.0**	**17.0**	**22.0**	**18.0**	**10.0**	**100.0**
Percentage of Credits Available	14%	16%	3%	17%	22%	18%	10%	
Cumulative Percentage of Credits Available	*14%	*30%	33%	*50%	72%	90%	*100%	

If this schedule needs to change due to problems with the bank or because the bank will not achieve all performance standards, an amendment to the MBI appendices may be necessary. Amendments to the MBI appendices require an exchange of letters between the co-chairs and the bank sponsor. The letters would acknowledge the reason for the change in the credit release schedule and contain the new schedule for the remainder of the establishment period.

[9] WAC 173-700-331 states that up to 14% of the total potential credits for the bank may be released at pre-construction

[10] WAC 173-700-332 states that up to 30% of the total potential credits for the bank may be released when the bank is constructed and the IRT approve the as-built

[11] WAC 173-700-333 states that up to 50% of the total potential credits for the bank may be released when the hydrologic performance standard(s) has been attained

[12] WAC 173-700-334 outlines the criteria for final credit release

3.3 Criteria for Releasing Credit

The sponsor has the responsibility to document achievement of performance standards to the IRT's satisfaction. This documentation must be scientifically defensible and understandable. The State Rule outlines minimum requirements the sponsor must meet in order to receive the maximum credit releases shown in Table 2.

- Pre-construction, also known as *administrative credits*
    - All signatory agencies and the bank sponsor(s) have signed the MBI
    - Establishment and recording of the site's permanent protection mechanism (e.g., conservation easement)
    - The co-chairs have proof of the establishment of the financial assurances required by the MBI, including long-term management and maintenance
    - The sponsor(s) has obtained and submitted all necessary environmental documentation, permits, and authorizations for site construction
- As-built approval, also known as *Year 0*
    - Approval by the IRT of as-built plans that reflect the final grading and planting of the site
    - Inspection of the as-built condition of the site by the IRT
- Hydrologic conditions
    - Approval by the IRT of monitoring report(s) that show attainment of hydrologic performance standards for the site
    - Inspection of hydrologic conditions of the site by the IRT
- Attainment of final performance standards

The MBI will identify what documentation the IRT must approve prior to the release of credits.

In general, a minimum of 10% of the overall credits are held until the final year of monitoring. Also, the MBI generally requires that a minimum of 60% of all possible credits have been awarded prior to the release of the final group of credits. This requirement ensures that a majority of the performance standards agreed to in the MBI will be met before the site moves to long-term management.

In addition to meeting final performance standards, the bank sponsor must also provide the following to the IRT in order to receive the final release of credits:

- Submittal and approval of the final long-term management and maintenance plan
- Proof of full funding of the long-term management and maintenance account
- Identification and approval of the long-term steward for the bank

3.4 Process for Releasing Credits

The sponsor's step-by-step process for requesting and receiving a release of credits follows this sequence:

1. Sponsor submits a monitoring report and/or performance standard documentation.
2. The IRT reviews the submittal, schedules, and conducts a site inspection.
3. The co-chairs notify the sponsor via e-mail or letter whether they approve the submittal or if they need additional information.
4. If the co-chairs approve the submittal, the sponsor will submit a letter requesting release of the appropriate credits, as documented in the MBI.
5. The co-chairs respond with a letter authorizing release of the credits.
6. The sponsor updates the credit **ledger** with the addition of the newly released credits and submits the ledger to the IRT within 30 days (see Section 5 Tracking Credits).

3.5 Reasons for Delayed Credit Release

The IRT must receive and approve the documentation that shows achievement of performance standards before they can release credits. Monitoring reports and performance standard documentation must be objective as possible and accurately represent on-the-ground conditions of the entire bank site. Reports are part of the official project file and the IRT use the reports to track compliance with the MBI and permits for the bank project. The IRT will delay credit release if insufficient information is reported or if the information does not accurately represent on-the-ground conditions. This delay in credit release will continue until the sponsor submits and the IRT approves of the revised documentation.

Based on the information provided in the performance standard documentation, the IRT conducts a site inspection to confirm information or to answer any questions raised during their review. The co-chairs will schedule the bank site inspection after receipt and review of the performance standard documentation. The date of the inspection will depend on IRT's schedules and appropriate conditions to conduct a field visit.

If a performance standard is not fully met within the timeline identified in the MBI, the sponsor should identify the specific standards in their monitoring reports and propose adaptive management actions needed to meet the performance standard. A sponsor can also request a delay in credit release until the performance standard is met. The sponsor should understand that the delay in meeting one performance standard often affects other performance standards and may cause a delay in overall credit releases for the project. If the site begins to show difficulties in meeting multiple performance standards, the IRT will work with the sponsor to approve an adaptive management plan to address the problems at the site. Review of the monitoring reports and performance standard documentation will assist the IRT in determining the appropriate level of adaptive management activities.

Section 4 Selling Credits

This section defines the different types of credit transactions that can take place at a bank. It explains when credits are eligible for sale and provides criteria the sponsor considers when determining credit price and policies.

4.1 Sale, Use, or Transfer of Credits

Credits are withdrawn from the bank when a sale, use, or transfer occurs. The most common credit transaction is a credit sale involving an exchange of money between the sponsor and a third party (e.g., a permittee authorized to impact an aquatic resource). Alternatively, the sponsor can use the credits from the bank to satisfy their own mitigation requirements. The sponsor can also transfer a credit to a third party without exchanging money.

4.2 Credits Eligible for Sale

Credits are available for sale, use, or transfer after the co-chairs confirm in writing that the bank has achieved specific performance standards and releases the credits. The sponsor is prohibited from selling credits that have not been released.

4.3 Credit Sale Price and Procedures

The sponsor determines the price of a credit and their internal procedures for selling credits. The IRT is not involved with determining the price of credits or how a sponsor manages the business side of banking. Below are some considerations that sponsors take into account when pricing and selling credits from their bank.

Credit Price

- Market Value: the sponsor may take into consideration the cost for **permittee-responsible mitigation** in the area when determining credit price. The price will also reflect what applicants are willing to pay for a credit.
- Recouping Investment Cost: the sponsor will factor into the credit price how much was spent to establish the bank and the expense for management and maintenance of the site.
- Competition/Market Demand: The price of a credit may be affected by the presence of other banks or **in-lieu fee programs** in the area that share a similar service area.

Credit Sale Procedures

- Sale Procedures: the sponsor determines the structure of credits sales, such as price. The prices may vary based on the client or the amount of credits purchased. The sponsor decides if they will refund a client if credits are not used.

- Sale Reservations or Deposits: the sponsor may allow clients to reserve credits or ask for a deposit to secure the desired amount. The sponsor decides how many credits and the length of time they are willing to hold credits.
- Documentation: the sponsor must provide a bill of sale to the permittee that documents the credit purchase but they decide the format for the documentation. The permittee must submit the bill of sale to the regulatory agencies prior to impacting aquatic resources.

Applicants interested in purchasing credits should speak directly to the bank sponsor to determine credit price and sale process.

4.5 Credit Sales to Meet Regulatory Requirements

A permit applicant should coordinate with local, state, tribal, and/or federal agencies to determine if bank credits are appropriate compensation. Regulatory agencies may authorize the use of bank credits to compensate for impacts to aquatic resources and their buffers.

When considering the use of a bank credit to meet a permit requirement, the applicant should contact the sponsor to determine the price and availability of credits. Applicants can request an updated credit ledger from the sponsor prior to finalizing the purchase. Some sponsors may allow an applicant to reserve credits or make a down-payment on credits prior to permit approval to ensure the credits are available when needed.

Credits are considered reserved when a credit is sold and there is no specific regulatory requirement at the time of purchase. Reserved credits may be used to fulfill a future permit action, if approved for use by the appropriate regulatory agencies. However, purchase of reserved credits does not provide any guarantee that a project will be authorized to use bank credits under existing regulatory programs. Reserved credits are purchased at the buyer's risk.

Applicants typically must submit proof that credits have been purchased to the permitting agencies prior to impacting aquatic resources. Applicants should work with the sponsor and permitting agencies to make sure they have the proper paperwork to satisfy permit conditions.

4.6 Credit Sales for Non-regulatory Purposes

Individuals or organizations can voluntarily purchase credits for non-regulatory purposes. The types of organizations that might purchase credits for this use include land trusts, conservation organizations, non-profit organizations, citizen's groups, and the general public. These groups may choose to purchase credits at a bank because it benefits the goals of their organization. For example, a salmon recovery organization might purchase credits at a bank that includes stream and riparian restoration.

Section 5 Tracking Credits

This section provides an overview of how credits are tracked throughout the life of a bank. Tracking the use of banks is necessary to ensure the ecological success of the state's banking program. To protect the environment and avoid additional losses of wetland resources and function, credit use must be monitored to ensure that bank credits aren't overdrawn.

Multiple levels of regulatory authorities track credits in Washington State. Since wetlands are regulated on the local level in addition to the state, tribal and federal levels, there is no single regulatory entity that has oversight or that tracks all wetland impacts and mitigation. A potential exists for the same bank credits to be sold for use on more than one project. If there is not an accurate method for tracking the use of credits, the co-chairs may not know when credits are used only for local permits. Tracking credits on a ledger ensures that the same credit is not used to meet compensatory mitigation requirements for multiple projects. The **ledger** documents the credit releases and withdrawals for each bank, similar to keeping track of money in a checking account.

Credits are tracked on the bank ledger and this section will outline what is reported on the ledger, the ledger submittal requirements, and when to submit ledgers. Please note that this section outlines requirements for credit tracking for the Corps and Ecology. Requirements for submittal of the ledger may vary for local IRT agencies for the specific bank. It is the responsibility of the sponsor to determine what submittal and tracking requirements exist for the County or City where the bank project is located.

5.1 Reporting on Credit Transactions

Each wetland mitigation bank credit that is released, sold, used, or transferred is required to be recorded on the bank's ledger. Sponsors must keep separate ledgers for each bank that they are responsible for. The current template for ledgers and an instruction sheet is posted on Ecology's website[13]. The general information recorded on the ledger includes, but is not limited to, the following:

- Bank contact information
- Date of ledger
- Date of transactions
- Information for person/organization making credit purchase
- Permit information
- Location of impact project
- Information on wetland resource being impacted
- Number of wetland mitigation bank credits debited, reserved, or released

[13] http://www.ecy.wa.gov/programs/sea/wetlands/mitigation/banking/index.html

5.2 Submittal of the Ledger

Each bank is required to submit a ledger to the IRT. The ledger must be submitted within thirty days of any credit receipt, sale, use, or transfer. A ledger is also required to be submitted on an annual basis. The annual ledger should be submitted by February 1st for the previous year's transactions (January 1-December 31).

5.3 Recording Credits at the County Auditor's Office

When a credit is withdrawn from a bank to meet specific permit requirements the bank sponsor is required to record the credit sale at the auditor's office of the county in which the bank is located. The credit sale document that is recorded at the county auditor's office must include the bank name, bank parcel number(s), project name, project location, permit number, permit date, date of credit transaction, number of credits withdrawn, and impact acreage.. Once a document is recorded at the auditor's office, the auditor will stamp the document with a unique tracking number that indicates where the document is stored in their files. This stamped document is the legal recording at the county which provides confirmation of the transfer and use of bank credits. The information at the auditor's office will be accessed by the co-chairs in the event that an audit is required for a bank project.

The recording of credit withdrawals can be done as soon as a transaction is complete or on a quarterly basis; however, some permits may require that recording occur sooner. Whenever the credit withdrawal is recorded at the auditor's office, the sponsor must submit a copy of this transaction (with auditor's stamp) to the co-chairs within thirty days of the recording.

The permittee that is using bank credits to meet their regulatory mitigation requirements may also have to submit copies of the information recorded as part of the proof that the credits have been officially withdrawn from the bank. It is the responsibility of the permittee to submit the information that is required to the agency contact listed in their permit.

Section 6 Using Bank Credits

This section provides information to help applicants determine if an impact project is located within the service area of a bank. It discusses how bank credits are calculated and outlines the information needed by the regulatory agencies to determine if the bank is appropriate mitigation. It identifies the responsibilities of an applicant proposing the use of bank credits to satisfy mitigation requirements and the responsibilities of the bank sponsor once the credit is sold.

6.1 Bank Availability

An applicant considering the use of credits to offset mitigation requirements first needs to determine if their project is located within the service area of a bank. Ecology's banking

website[14] contains a map of all approved and pending wetland mitigation banks in Washington State. Each project featured on the map is linked to a description of the bank, its service area map, and contact numbers.

Another source of information is the U.S. Army Corps of Engineers' Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS)[15], which is an interactive web-based tracking system. RIBITS allows the public and governmental entities to track the status of Corps approved banks. The website allows the public to identify those banks that provide a given type of compensatory mitigation (wetland, stream, or species) and presents detailed information on each bank including an electronic copy of the MBI.

For additional information applicants can also contact the bank sponsor or the regulatory agencies with jurisdiction over the impact project (e.g., the project manager with the Corps and the wetland specialist at Ecology).

6.2 Service Area

A wetland mitigation bank service area is the designated geographic area within which the bank can reasonably be expected to provide, and is authorized to provide, appropriate compensatory mitigation for **unavoidable** impacts to wetlands and other aquatic resources. The service area boundary is determined through negotiations between the IRT and the sponsor as part of the bank approval process. Applicants can work with both the bank sponsor and the permitting agencies to help them determine if their impact is located within the service area of a bank. It is important to check the local regulations where the impact project is located to determine if the use of bank credits is allowed to satisfy mitigation requirements within that jurisdiction.

Impact projects located within a bank's service area are eligible to apply to use credits from that bank to compensate for authorized impacts.[16] However, location within the service area does not provide a guarantee that the impacting project will receive authorization to use bank credits. To use the bank as a source of compensatory mitigation an applicant seeking a permit must obtain the approval of each regulatory agency with jurisdiction over the impacting project.

Impact projects located outside of the service area require authorization from the IRT in addition to the appropriate regulatory agencies. Use of a bank to compensate for impacts located outside of the designated service area is made on a case-by-case basis, where it is determined to be ecologically appropriate and environmentally desirable compared to other mitigation alternatives.

[14] http://www.ecy.wa.gov/programs/sea/wetlands/mitigation/banking/index.html
[15] http://ribits.usace.army.mil
[16] WAC 173-700-500

6.3 Debit Ratios

The most common method for determining how many credits are required to satisfy compensatory mitigation requirements is the Ratio Method (See Section 2.2.1). This method relies on the Washington State Wetland Rating System for determining the rating of the impact wetlands and assigning appropriate ratios for debiting credits.

Debit ratios used to determine compensation requirements for impact projects are generally lower with banks than those ratios required for permittee-responsible mitigation. The debit ratios are lower because banks are built prior to impacts, which reduce the risk of mitigation failure and temporal loss. In addition, debit ratios are lower because bank credits already include adjustments based on the site's overall ecological benefit. As discussed in Section 2.2.1, a conversion rate is applied to determine the number of potential bank credits that can be generated at the site. The conversion rate is based on the area of each planned mitigation activity proposed at the bank site and the expected lift in function. One credit at a bank is not necessarily equal to one acre on the ground. In most cases, one credit from a bank represents more than one acre at the bank site.

The regulatory agencies with jurisdiction over the impact project determine the final number of credits required to satisfy the mitigation needs of a permit action. MBIs for banks include a table that provides recommended debit ratios for determining the amount of credits needed. However, each regulatory agency makes their own decision about the appropriate number of credits needed to satisfy their mitigation requirement. Table 3 shows the approximate number of bank credits typically required to compensate for each acre of wetland impacted. Each bank may have a different set of ratios so it is important to check the specific bank's MBI for this information.

Table 3 Typical Debit Ratios

Resource Impact	Bank Credits:Impact Acreage
Wetland, Category I	Case-by-Case
Wetland, Category II	1.2:1
Wetland, Category III	1:1
Wetland, Category IV	0.85:1

6.4 Applicant Responsibilities

If a permit applicant proposes to use bank credits, they need to coordinate with the regulatory agencies for their impact project to help them determine whether the use of bank credits is a mitigation option. The IRT has developed a bank use plan[17] that outlines the information that

[17] http://www.ecy.wa.gov/programs/sea/wetlands/mitigation/banking/use.html

regulatory agencies need to help make this determination. The plan is an annotated outline for a report that would serve as the mitigation plan for impact projects proposing to use bank credits.

To receive approval to use the bank, the applicant must demonstrate to the satisfaction of the appropriate regulatory agencies that the project complies with all applicable requirements pertaining to **mitigation sequencing** and that purchasing credits from the bank would be in the best interest of the environment.

Applicants should contact bank sponsors directly to ensure that credits are available and for additional information on the process for purchasing credits and credit prices.

Applicants should communicate with the regulatory agencies early in the permit process and use caution when considering early purchase of bank credits. Agencies cannot guarantee that an applicant will receive approval to use bank credits or that an impact will be authorized prior to review of the complete application package and permit decision.

Applicants are responsible for reporting credit purchases to regulatory agencies that have approved the project and mitigation.

6.5 Bank Sponsor Responsibilities

When credits are sold from the bank, the bank sponsor assumes responsibility for accomplishing and maintaining the compensatory mitigation requirements associated with the impacting project. In addition, the sponsor cannot sell credits for an out-of-service area use without the written approval of the co-chairs. For more information on bank sponsor responsibilities for tracking and reporting of credits refer to Section 5 Tracking Credits.

Section 7 Suspending Credits

When a wetland mitigation bank is not fully compliant with its MBI, there are a number of actions the IRT can take. These actions may range from simply requesting additional information from the sponsor concerning a problem at the bank to the extreme of permanently terminating banking operations. The actions the IRT takes will depend on the type of problems that arise and whether the bank sponsor responds to the problems in an appropriate and timely manner. It is the intent of the IRT to work cooperatively with bank sponsors to solve problems in establishing and managing banks. Frequent and open communication between the IRT and the sponsor will help avoid the need for actions such as suspending credits.

7.1 Definition of Credit Suspension

During the period that a bank is out of compliance with its MBI, the IRT may decide to suspend credits[18]. Credit suspension means that unsold available credits are made unavailable until the deficiencies are corrected. Thus the sale, transfer, and use of available credits are temporarily suspended.

7.2 Reasons for Suspending Credits

When problems arise at mitigation banks, the IRT works with the bank sponsors to identify steps to address the issue. For example, if a bank site is not meeting one or more performance standards, the IRT may request that a sponsor develop and implement an adaptive management plan to correct the problem. Similarly, the IRT may request revisions to a monitoring plan if problems in monitoring protocols become apparent. The IRT will generally choose to suspend credits only if a deficiency is not adequately addressed or a serious violation of the MBI is committed.

Suspension of credits is triggered by material default of the MBI by the bank sponsor[19]. Examples of material default may include, but are not limited to:

- Failure to adequately monitor or report on the condition of the bank
- Failure to implement required contingency plans or remedial actions
- Failure to maintain current financial assurance mechanisms
- Failure to maintain an accurate credit ledger
- Sale of unavailable credits

Minor violations of the MBI can result in credit suspension if the bank sponsor is not responsive or the problem is not corrected in a timely manner.

7.3 Process for Suspending Credits

The co-chairs, after consultation with the IRT, will notify the bank sponsor in writing of the credit suspension and post the suspension status on their agency websites. Credits will remain suspended until the co-chairs notify the bank sponsor, in writing, that the suspension has been lifted. If a bank remains in a prolonged period of suspension (greater than 90 days) during which the sponsor shows little or no progress toward correcting the deficiencies, the co-chairs may take additional enforcement action such as directing financial assurances or terminating the MBI and any subsequent banking operations.

[18] See WAC 173-700-603

[19] All MBIs for banks approved in Washington State include specific information on default procedures. An example of typical default language can be found in the MBI templates at http://www.ecy.wa.gov/programs/sea/wetlands/mitigation/banking/guidance.html.

Suspension will not apply to credits that were sold or transferred by the sponsor prior to the date of suspension. This includes:

- Debited credits – credits sold for a specific project that receives a permit from a regulatory agency to use the bank as mitigation for impacts to an aquatic resource
- Reserved credits – credits sold with no specific project identified at the time of purchase

Upon notification of suspension, sponsors must provide the co-chairs with an updated ledger reflecting that credits have been suspended. In addition, bank sponsors must provide the co-chairs with documentation of all credits that were sold or transferred prior to the suspension, including those not yet debited. For credits that are not yet debited, the sponsor must provide the name of the buyer or transferee, date of the sale or transfer, and number of credits sold or transferred.

7.4 Process for Ending Suspension of Credits

To end credit suspension, the sponsor must provide adequate documentation to the IRT of how and when the deficiency was corrected. Once the IRT determines that the bank sponsor has taken adequate action to correct the problem, the co-chairs will provide written notification to the bank sponsor ending the credit suspension. At that point, the credits are once again available for sale, use, or transfer. The sponsor must provide the IRT with an updated ledger reflecting the status change. The co-chairs will update the status of the bank on their agency websites.

Section 8 Glossary of Terms

Acre-point: Unit for measuring functions gained at a mitigation bank or lost at a debit project site. Used as the currency measure in the Credit-Debit Method.

Available credit: A credit that has been released by the Interagency Review Team after a bank meets the performance standards specified in the Mitigation Banking Instrument.

Bank sponsor (sponsor): Any public or private entity responsible for establishing and, in most circumstances, operating a bank.

Co-chairs: The agencies which jointly oversee and regulate the implementation and operation of wetland mitigation banks. In the state of Washington, the Corps and Ecology serve as the co-chairs of the Interagency Review Team (IRT). The Corps and Ecology convene and consult with the IRT in carrying out the provisions of the Mitigation Banking Instrument. For banks proposed by tribal governments, the Corps chairs the IRT.

Creation (establishment): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions.

Credit: A unit of trade representing the increase in the ecological value of the bank site as measured by acreage, functions, or by some other assessment method.

Debited credit: An available credit that has been withdrawn from the bank to meet regulatory requirements. A reserved credit that has been used to meet a regulatory requirement.

Debit project: Those projects that use credits from a bank to fulfill regulatory requirements for compensation of impacts. These projects may require more than one regulatory approval under federal, state, and local rules.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment period: The period during which a mitigation bank is constructed and formally monitored. It begins with signature of the MBI and ends when all the performance standards have been achieved and provisions for long-term management and maintenance have been arranged.

Hydrogeomorphic classification (HGM): A system used to classify wetlands based on the position of the wetland in the landscape (geomorphic setting), the water source for the wetland, and the flow and fluctuation of the water once in the wetland. An HGM wetland class is the

highest level in the hydrogeomorphic classification of wetlands. There are six basic hydrogeomorphic classes including depressional, tidal fringe, slope, riverine, lake fringe, and flat.

In-Lieu Fee program (ILF): A program involving the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements.

Interagency Review Team (IRT): An interagency group of federal, state, tribal, and local regulatory and resource agency representatives who are invited to participate in negotiations with the sponsor on the terms and conditions of the mitigation banking instrument.

Ledger: Document that shows what credits have been awarded and what credits have been debited for tracking purposes.

Mitigation Banking Instrument (MBI): The documentation of agency and sponsor agreement on the objectives and administration of the bank. The MBI describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

Mitigation sequencing: Sequentially avoiding impacts, minimizing impacts, and compensating for remaining unavoidable impacts to wetlands or other aquatic resources

Performance standards: Measurable criteria for determining if the mitigation bank goals and objectives are being met. Performance standards document a desired state, threshold value, or amount of change necessary to indicate that a particular function is being performed or structure has been established as specified in the design.

Permittee-responsible mitigation: An aquatic resource restoration, establishment, enhancement, and/or preservation activity undertaken by the permittee to provide compensatory mitigation. The permittee retains full responsibility for the mitigation success.

Potential credit: A credit anticipated to be generated by a mitigation bank but not yet available for use.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Reserved credit: An available credit that has been withdrawn from the bank but which is not associated with a specific regulatory requirement at the time of purchase. 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.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Service area: The designated geographic area in which a bank can reasonably be expected to provide appropriate compensation for unavoidable impacts.

Unavoidable: Adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.

Universal credit: A term indicating that each credit at a particular bank represents the same unit of value rather than varying units such as specific habitat types or wetland functions. For example, credits are tracked as one category rather than water quality credits vs. habitat credits.