

# Mitigation Bank Prospectus Review Workbook

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Erin Knauer – Constructed wetlands at an EPR designed Maryland wetland restoration site.

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# Introduction

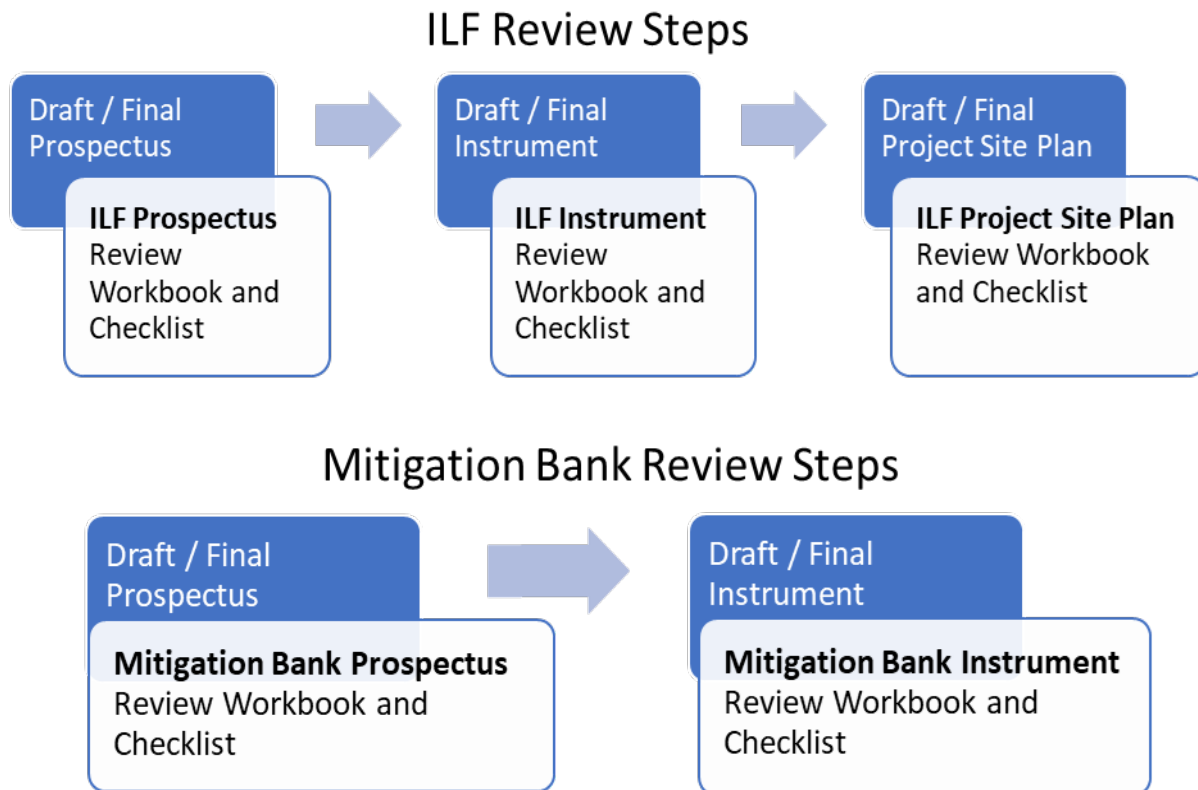
In 2007, the U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) began training federal, state, and tribal members of Interagency Review Teams (IRTs) on the review and approval process for mitigation banks and in-lieu fee (ILF) programs through national and regional courses.<sup>1</sup> In 2008, the Corps and EPA issued joint regulations known as the Mitigation Rule which standardized the review and approval process for mitigation banks and ILF programs. This review workbook and checklist reflect the lessons learned through more than a decade of teaching and learning from participants across the country. This workbook is one of a series of five review workbooks, with one for each of the following: Mitigation Bank Prospectus, Mitigation Bank Instrument, ILF Prospectus, ILF Instrument, and ILF Project Site Plan. Each workbook is accompanied by a checklist that takes the mitigation review elements from each workbook and puts them in a fillable document to help track the IRT members' review progress and comments. Where the review elements are the same for mitigation banks and ILF programs, the corresponding workbooks are the same.

The workbooks provide many references and example practices discussed during the trainings and are organized according to the mitigation elements identified in the Mitigation Rule. Each mitigation element includes the relevant regulatory text, examples of how it is addressed from different District templates or instruments, and a series of questions to help IRT members adequately review all the relevant information needed to understand the proposal. The workbooks and checklists are technical resources to provide an organized structure for reviewing mitigation bank and ILF program proposals and ensuring that all aspects of the Mitigation Rule are considered. The checklist includes each review element question in a table for easily identifying what information has been reviewed and where any comments or questions remain after review. Bank and ILF proposals can often be hundreds of pages long and organized as a single or multiple documents. The checklists have been designed to help track where information is and determine if more information or clarification is needed.

The complete set of five workbooks covers each of the major review steps for a mitigation bank and an ILF program development, as shown below (Figure 1). Bank review starts with the workbook and checklist for the mitigation bank prospectus. The bank prospectus workbook covers the eight review elements from the Mitigation Rule associated with a mitigation bank prospectus. Next is the mitigation bank instrument review workbook, which starts by asking if there are any unresolved questions from the bank prospectus review and then focuses on the 18 elements required for mitigation bank instruments. The ILF proposal review is a bit more complicated, with three workbooks and associated checklists. The ILF program prospectus covers the eight review elements from the Mitigation Rule associated with an ILF prospectus (six in common with the Mitigation Bank Prospectus Workbook). The ILF program instrument workbook differs from the bank instrument review workbook because it only covers 11 review elements needed for establishing the program, five in common with bank instruments, and six that only pertain to ILF program instruments (Figure 1). Lastly, there is the ILF project site plan review workbook that covers 19 review elements, including all 18 elements required for a mitigation bank instrument and one additional element specific to establishing ILF sites.

<sup>1</sup> See: <https://www.conservationfund.org/our-work/conservation-leadership-network/our-services/training-resources-3rd-party-mitigation-interagency-review-team>

Figure 1. Mitigation bank and ILF workbooks and checklists



This workbook and checklist are intended for use by members of the IRT to facilitate the review of a mitigation bank prospectus. The purpose of this prospectus review workbook is to assist IRT reviewers in evaluating whether a proposed bank would be potentially suitable to provide compensatory mitigation for lost aquatic resource functions and services. It is not intended to provide local guidelines and policies or replace any locally developed templates, tools, or guidelines used to prepare and review a bank prospectus.

### Workbook Organization

This workbook and associated checklist cover eight separate review elements described below that are typically associated with a bank prospectus. The checklist includes each review element and its components with space to indicate if each component is addressed (yes/no), is complete (yes/no), the page #s where it is addressed, and space for any comments about the component.

#### Prospectus Workbook Review Elements

1. Objectives of the proposed mitigation bank
2. How the bank will be established and operated
3. Proposed service area(s)
4. General need for and technical feasibility of the proposed bank
5. Proposed ownership arrangements and long-term management strategy for the mitigation bank
6. Qualifications of the Sponsor
7. Ecological suitability of the site to achieve the proposed bank's objectives
8. Assurance of sufficient water rights to support the long-term sustainability of the proposed bank  
(33 CFR 332.8(d)(2)/40 CFR 230.98(d)(2))

The Mitigation Rule does not provide detailed descriptions for all review elements. As a result, many districts and associated states have clarified the requirements in local prospectus templates, outlines, checklists, and guidelines. (Many of these documents may be found on the Regulatory In-Lieu Fee and Banking Information Tracking System [RIBITS] website <https://ribits.ops.usace.army.mil/>). In addition, the eight review elements listed will not all be given equal weight in reviewing the prospectus. Some elements like the assurance of sufficient water rights or ecological suitability may be critical in determining if a proposed bank is potentially suitable to provide compensatory mitigation. For example, ensuring sufficient water rights to establish and maintain a mitigation bank is critical in many western states. In determining which elements are critical to the initial evaluation of a prospectus, consideration should first be given to district/state guidelines and practices.

Note, for the addition of land, a new credit type to an approved bank, a new site to an umbrella bank, or incorporation of a permittee responsible mitigation (PRM) into a mitigation bank, the Sponsor must submit to the Corps a written request for instrument modification accompanied by all appropriate documentation (33 CFR 332.8(g)(1)/40 CFR 230.98(g)(1)). The same elements required in a prospectus for a new bank are typically required of a proposed bank modification involving the addition of land or credit types to an existing bank. Depending on the district and/or state, the process may require review and approval of phase plans and associated permits, but not submittal of a new prospectus. In many districts/states, the mitigation plan for a phased bank provides considerably more detail for the initial phase than for subsequent phases.

# Background

For every permit issued by the Corps under the Clean Water Act (CWA) section 404, adverse impacts to wetlands, streams, estuaries, and other aquatic resources must be avoided and minimized to the extent practicable. For those unavoidable impacts, compensatory mitigation is typically required to replace the loss of wetland, stream, and other aquatic resource functions in the watershed.<sup>2</sup> The term “watershed” used throughout this workbook includes consideration of landscape and seascape perspectives. Compensatory mitigation refers to the restoration, establishment (creation), enhancement, or preservation of wetlands, streams, estuaries, or other aquatic resources in order to offset these unavoidable adverse impacts.

In 2008, the Corps and EPA issued joint regulations known as the Mitigation Rule.<sup>3</sup> These regulations established standards for all compensatory mitigation projects to offset permitted losses under CWA section 404. The Mitigation Rule recognizes three mechanisms for satisfying compensatory mitigation requirements: mitigation banks, ILF programs, and permittee-responsible mitigation (PRM). Equivalent standards are required for all compensatory mitigation projects. This document focuses on reviewing and developing a mitigation bank prospectus.

## Organization of the Mitigation Rule (Corps: 33 CFR 332/ EPA 40 CFR 230)

- The Mitigation Rule is divided into eight sections:
  1. Purpose and general considerations
  2. Definitions
  3. General compensatory mitigation requirements
  4. Planning and documentation
  5. Ecological performance standards
  6. Monitoring
  7. Management
  8. Mitigation banks and in-lieu fee (ILF) programs
- The first seven sections apply to all forms of compensatory mitigation
- The last section establishes standards that apply only to mitigation banks and ILF programs

- **Mitigation Banks:** A mitigation bank is a project where aquatic resource conservation (restoration, establishment, enhancement, or preservation) has been initiated in advance of permitted losses of aquatic resource functions or services. Banks typically provide consolidated compensation for multiple permit actions. With the approval of regulatory agencies, permittees can acquire credits from a mitigation bank to meet their permit requirements for compensatory mitigation. The bank Sponsor (not the permittee) is responsible for the success of the bank project. Banks provide off-site compensation, meaning it is at a location not typically on or immediately adjacent to the permitted impacts. Bank operation is governed by an instrument that the Sponsor drafts, often based on district or state-provided templates, and is subject to review and approval by the Corps and its state and federal counterparts who compose the IRT.

<sup>2</sup> For some resource types, it may be preferable to site compensatory mitigation projects using geographic units other than watersheds. For example, for vernal pools, landscape units known as vernal pool regions may be preferable; for coral reefs, tidal wetlands, and other marine and estuarine resources, seascape units such as reef complex or littoral drift cell may be preferable. According to RIBITS, projects using seascape or landscape units to site compensatory mitigation projects make up less than 5% of ILF projects.

<sup>3</sup> The appropriate citation from the Code of Federal Regulations associated with the Corps is 33 CFR Part 332 and EPA is 40 CFR Part 230, both are included throughout the workbooks.



- **ILF Programs:** ILF programs are established by a public agency or non-profit organization (the ILF Sponsor) and sell credits to permittees. The Sponsor commits to use those funds to perform mitigation activities. Typically, the Sponsor collects funds from multiple permittees in order to pool the financial resources necessary to build and maintain the mitigation site. The ILF Sponsor is responsible for the success of the mitigation. Like banking, ILF mitigation is also typically off-site; however, unlike banking, the mitigation typically occurs after the permitted impacts. Many districts/states require additional compensation to offset this temporal lag (see 33 CFR 332.3(f)(2)/40 CFR 230.93(f)(2)). Like banks, ILF program operation is governed by an instrument drafted by the Sponsor, often based on district or state-provided templates, and is subject to review and approval by the Corps and the IRT.

**Templates:** Many districts have developed prospectus templates to increase review efficacy. These templates are becoming more commonplace and encouraged by many district and state policies and practices. The IRT staff should be aware of language revision constraints and refrain from commenting on prior, approved language within the templates or providing comments that conflict with the approved template.

- **Permittee-Responsible Mitigation:** PRM is undertaken by a permittee to compensate for aquatic resource impacts resulting from a specific project. The permittee performs the mitigation after the permit is issued but prior to or concurrent with the initiation of permitted impacts. The permittee is responsible (liable) for the implementation, success, and long-term protection and management of the mitigation project. The permit governs the PRM. There is no IRT involvement or instrument associated with PRM, and PRM may occur at the site of the permitted impacts or an off-site location within the same watershed.

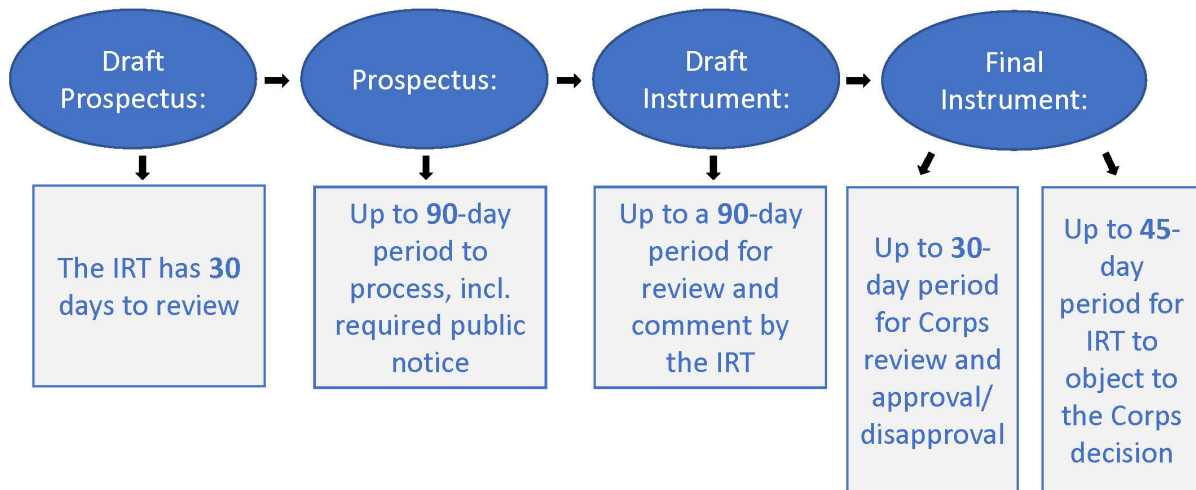
**Mitigation Preference Hierarchy:** The mitigation rule established a preference hierarchy for mitigation credits ((33 CFR 332.3(b)(2) and (3)/40 CFR 230.93(b)(2) and (3)). Under this hierarchy, if the appropriate type (wetland, stream, etc.) of released credits are available from a mitigation bank or released credits from an ILF project in a service area that includes the permitted impact, those credits are generally preferred over advance credits from ILF programs or PRM projects that have not been initiated.

Using released credits from banks and ILF projects is generally a preferred form of compensatory mitigation under the Mitigation Rule because they implement projects in advance of permitted losses, thus reducing temporal losses of functions and uncertainty over project success. Additionally, banks consolidate compensatory mitigation projects where ecologically appropriate, in turn combining resources (including financial as well as agency resources) and scientific and technical expertise. (Note, this may be more of a challenge or even impractical for small PRM projects.) A Bank prospectus may also include descriptions of how the mitigation project will provide offsets under other regulatory authorities such as state counterparts to CWA section 404, CWA section 402, or the Endangered Species Act.

The development of a bank prospectus follows a four-step approval process (see Figure 2). The Sponsor is responsible for preparing and submitting all documentation associated with the bank prospectus to the IRT for review.<sup>4</sup> The timelines depicted in Figure 2 are contingent upon the submittal of complete documents by the Sponsor at each step in the process.

<sup>4</sup> Development and review of ILF program instruments as well, as ILF projects (project sites implemented by an ILF program), follow the same four-step process as the development of bank instruments. An ILF project proposal is required to provide the same information as a bank project.

Figure 2. Bank program development



**Draft Prospectus** submittal is considered an optional step in the Mitigation Rule, although many districts/states require submittal. The purpose is to identify any potential issues (both cautionary elements and potential fatal flaws) with the proposed bank early in the process so the Sponsor can address them prior to the start of the formal process. A robust and timely review of the draft prospectus by IRT members may save agencies and prospective Sponsors resources before a considerable investment is made in a proposal unlikely to be approved.

**Prospectus** submittal is required for all bank proposals. The prospectus provides a summary of the bank proposal at a sufficient level of detail to support informed review and comment by the IRT and the public (33 CFR 332.8(d)(2)/40 CFR 230.98(d)(2)). The Corps will provide the Sponsor with an initial evaluation letter (IEL) stating the potential suitability of the proposal to provide compensatory mitigation. If the proposal is suitable, the Sponsor may be directed to prepare a draft instrument. If the proposal is deemed unsuitable, the Sponsor may revise the prospectus to address the deficiencies and resubmit. An approved prospectus does NOT guarantee approval of a proposed bank.

**Prospectus Review and Public Notice (33 CFR 332.8(d)(4)/40 CFR 230.98(d)(4))**

A prospectus review begins when the Sponsor submits a complete prospectus to the Corps (and IRT). Within 30 days of receipt of a complete prospectus or a requested instrument modification, the district will issue a public notice for the proposal. The public notice is typically for a 30-day comment period and, at a minimum, must include a summary of the prospectus and indicate that the full prospectus is available to the public for review. Many districts will either include the prospectus with the public notice or provide a web link to the prospectus. For modifications of approved instruments, the public notice must summarize and make available to the public whatever documentation is appropriate.

The Corps must notify the Sponsor if the comment period is extended beyond 30 days and explain why a longer comment period is necessary.

Copies of all comments received in response to the public notice must be distributed to the IRT and the Sponsor within 15 days of the close of the public comment period.

### **Initial Evaluation of the Prospectus (33 CFR 332.8(d)(5)/40 CFR 230.98(d)(5))**

After the end of the comment period, the district engineer (Corps) will review the public notice comments received and typically, in consultation with the IRT, provide an initial evaluation letter (IEL) as to the potential of the proposed mitigation bank to provide compensatory mitigation for activities authorized by Department of the Army (Corps) permits. The IEL must be provided to the Sponsor within 30 days of the end of the public notice comment period. If the Corps determines that the proposed mitigation bank has the potential for providing appropriate compensatory mitigation for activities authorized by Corps permits, the IEL will inform the Sponsor that it may proceed with the preparation of the draft bank instrument.

**Note:** The Chair or co-chairs are responsible for determining the prospectus completeness and issuing the initial evaluation letter. These are distinct steps in the bank development process. While some districts/states may comingle these two steps, it should not be done if it results in delays in providing review comments to the Sponsor.

If the Corps determines that the proposed mitigation bank does not have the potential for providing appropriate compensatory mitigation for Corps permits, the IEL must discuss the reasons for that determination. The Sponsor may revise the prospectus to address these concerns and submit the revised prospectus to the Corps. If the Sponsor submits a revised prospectus, a revised public notice will be issued. On several occasions, districts have determined that a proposed bank is not potentially suitable for compensatory mitigation regardless of revision. In those cases, districts and/or Sponsors have withdrawn those proposals from further consideration.

This initial evaluation procedure does not apply to proposed modifications of approved instruments (33 CFR 332.8(d)(5)(iv)/40 CFR 230.98 (d)(5)(iv)).

### **Delays in Prospectus Review**

Delays in the timelines specified in the Mitigation Rule can affect bank planning and feasibility. For example, purchase and sale agreements for land purchases generally allow a limited time period for due diligence/feasibility evaluation. The Sponsor's ability to develop program elements is more difficult when regulatory timelines are not followed.

Review can be delayed for a number of reasons, including:

- Completion of Endangered Species consultation
- Completion of Cultural/Historic resources coordination (Section 106 NHRPA)
- Government to Government coordination (tribal coordination)
- Sponsor's failure to provide necessary information
- The necessary information cannot be secured within the specified timeframe
- IRT members failing to provide timely reviews

Draft Instrument is submitted to the IRT by the Sponsor for review and comment. The IRT Chair or co-chairs are responsible for providing all comments to the Sponsor to be addressed in the final instrument within 90-days of receipt of the complete draft Bank Instrument. Review can be delayed for a number of reasons, including:

- Endangered Species consultation
- Cultural/Historic resources coordination (Section 106 NHRPA)
- Government to Government coordination (tribal coordination)
- Sponsor's failure to provide necessary information
- Necessary information cannot be secured within the specified timeframe

**Final Instrument** is then submitted to the IRT by the Sponsor, along with documentation indicating how the Sponsor addressed previous comments on the draft instrument. Within 30-days of receipt of the complete Bank Instrument, the Corps must notify the rest of the IRT of its intent to approve/disapprove the Final Instrument. If a federal member of the IRT disagrees, they may then object to the Corps decision and initiate a formal dispute resolution process. There is no automatic approval of a bank (or ILF program) instrument.

# Terminology

**Assessment methodology:** The mechanism or tool used to evaluate the loss of functions or services at the permitted impact site as well as the gain in functions or services provided at the compensation site. Assessment methods vary by aquatic resource type (i.e., wetlands, streams) and between districts/states.

**Bank phases:** A separate segment or stage of bank construction or development. In order to separate a bank into Phases, the Sponsor should demonstrate, to the satisfaction of the IRT, that the initial Phase would be ecologically viable and acceptable as a standalone bank if additional Phases are never constructed. Subsequent Phases must build upon the ecological and aquatic resource functions of the initial Phase.

**Compensatory mitigation methods:** There are four compensatory mitigation methods, restoration, establishment, enhancement, and preservation:

- **Restoration** encompasses two types of actions, re-establishment of aquatic resources in a place where those resources formerly occurred (e.g., prior converted cropland) and rehabilitation of degraded aquatic resources. Much of the stream mitigation implemented involves the rehabilitation of degraded streams;
- **Establishment** (creation) is the development of an aquatic resource where one did not previously occur;
- **Enhancement** is the manipulation of one or more characteristics of an aquatic resource to improve or intensify one or more aquatic resource functions; and
- **Preservation** means removing any threat of destruction or adverse modification to an aquatic resource through appropriate physical and legal mechanisms.

**Credit:** A unit of measure (functional, areal, or other suitable metrics) representing the accrual or attainment of aquatic functions or services at a mitigation site. The measure is based on restored, established, enhanced, or preserved aquatic resources. Credits are the currency that a bank has to trade in.

**District:** Refers to an Army Corps of Engineers (Corps) district office.

**Functions:** Functions are the physical, chemical, and/or biological processes that occur in ecosystems (for example, denitrification or carbon sequestration).

**Hydrologic Unit Codes (HUCs):** A nationwide hierarchical mechanism used to delineate watersheds based on surface hydrologic features. This system first developed by the USGS divides the country into 21 regions (2-digit), 222 subregions (4-digit), 370 basins (6-digit), 2,270 subbasins (8-digit), ~20,000 watersheds (10-digit), and ~100,000 sub-watersheds (12-digit). HUCs are often used in the definition of mitigation bank and ILF program service areas.

**Instrument:** Refers to banking instrument and all associated exhibits/attachments. In some cases, the instrument is all-inclusive; in other cases, the instrument is the framework, and the exhibits/attachments provide the detail on each element (monitoring, site selection, etc.). It may also be referred to as a mitigation banking instrument (MBI), banking instrument (BI), or bank enabling instrument (BEI).

**IRT (Interagency Review Team):** An interagency group of federal, tribal, state, and/or local regulatory and resource agency representatives that reviews documentation for, and advises the co-chairs (Corps district and any other agency chairing the IRT) on the establishment and management of a mitigation bank or an ILF fee program (33 CFR 332.2/40 CFR 230.92). The reference to the IRT or IRT reviewer in this workbook is a reference to the IRT co-chairs (Corps and any other counterpart state, tribal, or federal agency with independent regulatory authority) as well as other IRT members (other federal, tribal, state, or local agency included on the IRT).

**Multiple authority banks:** Also called “joint banks.” These are mitigation banks that provide compensatory mitigation for resource impacts under more than one regulatory authority. Examples include banks that provide compensation for resources regulated under CWA section 404 and the Endangered Species Act. Each regulatory agency has authority over credits providing compensation for impacts authorized under its jurisdiction.

**Resource type:** The type of aquatic resource considered. Examples include wetlands, streams, marine habitats, or subsets like vernal pools, pine savannas, tidal marsh, intermittent streams, lagoons, etc.

**RIBITS:** The national web-based application used by a number of federal agencies to track mitigation bank and in-lieu fee activities. Sponsors and regulators use RIBITS for the management of ledger and reporting activities. To access it, go to: <https://ribits.ops.usace.army.mil/ords/f?p=107:2>

**Service area:** The geographic area within which impacts can be mitigated at a specific bank or ILF Program, as specified in the instrument (33 CFR 332.2/40 CFR 230.92.2).

**Services:** The benefits that human populations receive from the functions provided by ecosystems (for example, flood flow attenuation or water quality improvement).

**Sponsor:** Bank Sponsor; any government or non-profit conservation organization responsible for establishing and operating a bank. The bank Sponsor is responsible for the success of the bank and all associated project sites.

**Subordination agreement (in the context of other interests in property):** In compensatory mitigation, a subordination agreement makes any previously recorded easements, liens, or encumbrances take second place in the mitigation site protection instrument. For example, suppose a mitigation site protection instrument was recorded after a deed to secure a debt, and the land was subsequently foreclosed upon to settle the debt. In that case, the site protection instrument could be terminated. Subordination makes the compensatory mitigation interest the primary property interest (“first in the right”) and allows greater assurance that the mitigation site will withstand adverse actions such as foreclosure.

**Temporal loss:** The time lag between the loss of aquatic resource functions or services caused by the permitted impacts and the replacement of aquatic resource functions or services at the compensatory mitigation site.

**Umbrella bank instrument:** Single mitigation banking instrument that may provide for future authorization of additional mitigation bank sites. As additional bank sites are selected, they must be included in the mitigation banking instrument as modifications to the original instrument (33 CFR 332.8(h)/40 CFR 230.98(h)). These modifications are subject to the prospectus and public notice requirements associated with any proposed mitigation bank.

**Watershed approach:** An analytical and strategic approach for selecting compensatory mitigation projects that consider the needs of a watershed and how the location and types of compensatory mitigation projects within the watershed address those needs. This same approach can be applied to other landscape/seascape units.

# Commonly Used Acronyms

Bank Enabling Instrument (BEI)  
Banking Instrument (BI)  
Compensatory Planning Framework (CPF)  
Environmental Protection Agency (EPA)  
Geographic Information Systems (GIS)  
Hydrologic Unit Codes (HUCs)  
Initial Evaluation Letter (IEL)  
In-lieu fee (ILF)  
Interagency Review Team (IRT)  
Letters of Intent (LOI)  
Long-term management (LTM)  
Mitigation Banking Instrument (MBI)  
Permittee Responsible Mitigation (PRM)  
Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS)  
United States Army Corps of Engineers (Corps or USACE)



# 1. Objectives

Objectives are an essential element of a bank prospectus. Before objectives can be identified, however, the bank's overarching goals need to be specified. A goal is a broad statement of what is intended to be accomplished by

## Objectives

Objectives of the proposed mitigation bank or in-lieu fee program (33 CFR 332.8(d)(2)(i)/40 CFR 230.98(d)(2)(i)).

implementing the proposed mitigation bank, or in other words, the bank's purpose. The goal(s) should provide an overview of the intended result and list the major functions and services to be achieved by the proposed mitigation bank (Ossinger 1999). For example, the overall goal of a proposed mitigation bank might be to restore 100 acres of emergent and forested wetlands to a condition similar to historic wetlands in the watershed, which would provide:

- overwintering habitat for salmonids and breeding habitat for native amphibians,
- flood storage and improvements in water quality for the adjacent stream system, and
- credits to help meet the demand for compensatory mitigation within the program's proposed service area.

Objectives identify the specific components necessary to accomplish the mitigation bank's goal(s). These objectives are typically a list of specific, measurable outcomes used to demonstrate whether (or not) the bank's goals have been achieved. One goal may have several objectives. The goal described in the paragraph above identifies six objectives; the first four are phrased as functions or ecological services (flood flow attenuation, overwintering habitat for salmonids, etc.), and the remaining two relate to banking operations/demand and conservation values. Ossinger (1999) provides a good reference for understanding and identifying goals, objectives, and subsequently the development of enforceable performance standards used to evaluate the attainment of a bank's objectives.

### 1a. Does the prospectus include a description of the aquatic resource type(s) and amount(s) the bank site would provide?

The type and amount of resource(s) provided by the proposed bank should be identified so reviewers can evaluate whether they are consistent with the bank site's compensatory mitigation potential. A prospectus may propose establishing resource types (wetlands or streams) that are not in demand or are unlikely to be required as compensatory mitigation in a service area, for example, restoration of freshwater tidal wetlands in the mid-Atlantic region. While these freshwater tidal systems are important aquatic resources, few permits are issued authorizing impacts on them. For this reason, these types of proposals are generally discouraged and should be reviewed carefully. More intensive management may also be expected for some aquatic resources. For example, fire-dependent systems (i.e., pine savannah habitat on the Gulf Coast and some tidal or brackish marsh habitat along the East Coast) require ongoing management to maintain their condition and function. IRT reviewers should also determine if the proposed resource types and amounts specified in a prospectus are consistent with the local district/state's credit determination mechanism.

1b. Does the prospectus identify the functions and services expected to be provided by the bank site?

The functions and services provided by the proposed bank should be clearly identified to ensure they are relevant to the bank site and its associated watershed/landscape setting. Different resource types provide different functions and services. For example, seasonal palustrine wetland restoration may not provide the same functions or services as tidal wetland restoration.

Descriptions should focus on the functions and services targeted for improvement or preservation by the project and explain why they are appropriate for the site. For example, one of the functions performed by many seasonal wetlands is denitrification. Denitrification and the resulting water quality improvement would be an appropriate goal for a bank site located in a watershed with chronic eutrophic conditions.

1c. Is the bank site located within a watershed or landscape position where it is likely to provide the proposed functions and services?

Consider whether the functions and services identified in the prospectus are realistic for the proposed bank site. Does the site provide an opportunity to replace lost functions or services? Does it provide an opportunity to enhance existing but compromised functions or services? For example, a wetland restoration project located adjacent to a conservation area may be more likely to contribute to biodiversity (function) than a project with no connection to other habitats; restoration of a headwaters seasonal wetland may be more likely to support denitrification (function) than a project located on the mainstem of a river; and floodplain restoration in higher order floodplains may be more likely to contribute to floodwater abatement (service) than a project located on a first-order stream.

## 2. How the Bank will be Established and Operated

The details of how a mitigation bank is established and operated are discussed in the Mitigation Bank Instrument Review Workbook.

### **How the bank will be established**

How the mitigation bank will be established and operated (33 CFR 332.8(d)(2)(ii)/40 CFR 230.98(d)(2)(ii)).

However, the prospectus should provide a high-level overview of the proposed bank site work plan, including location, type of mitigation proposed, general baseline conditions, and a concept plan of the bank layout. This overview should also address the work anticipated for establishing (constructing) and operating (maintaining) the bank. State/district guidelines vary widely in the criteria and level of detail required.

**2a. Does the prospectus provide narrative, mapping (aerial, topo) and/or photographs identifying the bank site location, property boundaries, and other baseline conditions?**

The prospectus should lay out the baseline conditions (the “what” – “where” – “when” – “how” – “why”) with enough detail to allow for an informed evaluation of the proposed bank site. Aerial photographs and/or mapping of the proposed bank site and surrounding area (including adjacent landmarks) should accompany the narrative. Some of the information presented in this discussion may overlap with other elements of the prospectus, including ecological suitability and assurance of water rights. The level of detail and presentation will vary depending on local district/state guidelines, templates, and standards.

**2b. Does the prospectus discuss the conceptual plan of the bank site, including layout, construction process, and post-establishment operations and maintenance?**

Similar to 2a, the prospectus should lay out the conceptual plan or vision of the bank site, describe how the proposed work will meet the bank site’s stated goals and objectives, and provide enough detail to allow for an informed evaluation of the work plan and post-establishment operations. The narrative should encompass the construction process and long-term maintenance of the bank site(s), including: the type and approximate size and location of each proposed aquatic resource type and other habitats proposed, aquatic functions the bank is anticipated to provide (any target habitat and or species), descriptions of any alterations to hydrology, anticipated grading needs and proposed structures, and a clear understanding of how the design will be self-sustaining post establishment. If this mitigation bank is implemented in phases, the prospectus should detail the proposed phases. The initial phase should be sufficiently large to stand alone and provide meaningful and sustainable compensation even if subsequent phases are not implemented.

As a reminder, the narrative may be presented as a high-level summary. Still, it should touch on each aspect described above to demonstrate a complete and thorough preliminary evaluation of a proposed bank site’s potential. Figures illustrating the conceptual design and preliminary anticipated construction features (backfilled ditches, berms, culverts, or other structures, etc.) should accompany the narrative.

### 3. Proposed Service Area

The proposed service area, also referred to as geographic service area, is defined as the area or areas within which a mitigation bank is authorized to provide compensatory mitigation. A service area may be identified by watershed, ecoregion, physiographic province, and/or other geographic or ecological bases. Districts/states vary in their requirements for defining a proposed bank(s)'s service area, with most relying on watershed-based or ecological rationale. Many districts use the USGS eight (8)-digit Hydrologic Unit Code (HUC) as an organizing unit to define the service area.

**Proposed Service Area**  
The proposed service area (33 CFR 332.8(d)(2)(iii)/40 CFR 230.98(d)(2)(iii)).

**FYI:** For more detailed information on (geographic) service areas, refer to the Banking Instrument Workbook, Element 7: Geographic Service Area.

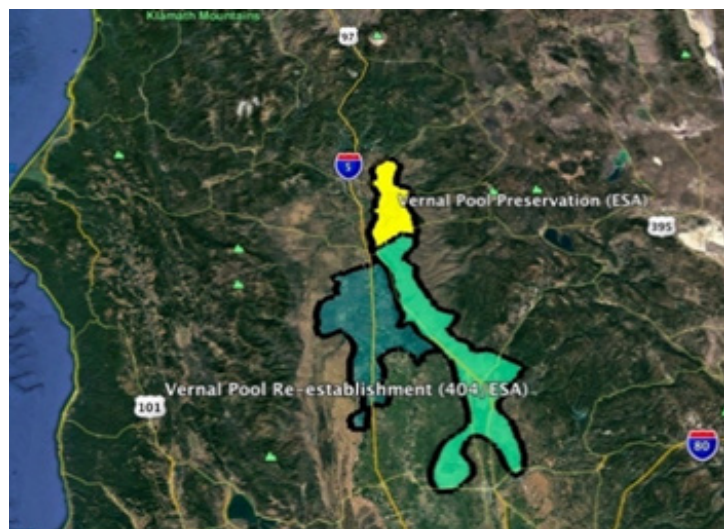
Economic viability may be considered in determining the size of the service area (33 CFR 332.8(d)(6)(ii)(A)/40 CFR 230.98(d)(6)(ii)(A)). The service area is particularly important to the Sponsor because it may affect the bank's viability. If the service area is too small, credit demand may

be insufficient, which may affect the economic feasibility of the bank. Therefore, the IRT Chair or co-chairs and the IRT should strive to provide clear guidance on the appropriate size or limits of the bank service area at the prospectus stage.

3a. Does the bank prospectus appropriately size the service area to ensure that the proposed aquatic resources will effectively compensate for permitted impacts and replace lost functions/services?

For the prospectus, the service area should be appropriately sized to offset permitted impacts and replace lost functions/services. Many districts/states require justification or a rationale for determining the limits and/or ecological appropriateness of the proposed service area and accompanying mapping showing the bank site(s) location and its position within the proposed service area(s) (Figure 3).

Figure 3. Service areas for Meridian Ranch vernal pool mitigation bank.



3b. Does the bank prospectus identify the basis of the service area (i.e., watershed, coastal bay system, ecoregion, species distribution) and provide justification/rationale supporting its location and extent?

The size of the service area may be related to the extent of the functions and services provided by the bank. For example, the distribution of some aquatic resource types (i.e., vernal pools, coniferous bogs) is not based on watershed but on the landscape, elevation, climate, stratigraphy, geomorphology, or species distribution/use of an area by a distinct population (e.g., Atlantic salmon in Maine). A vernal pool bank in Northern California (see Figure 3) might have a service area for vernal pool re-establishment credits and another service area for vernal pool preservation credits. The service area for vernal pool re-establishment considers vernal pool regions defined by the USFWS as well as the associated watershed and presence of listed species. These vernal pool re-establishment credits may be used to offset impacts under the CWA section 404 or the Endangered Species Act. In contrast, the service area for vernal pool preservation credits is based solely on vernal pool regions defined by the USFWS; these are not typically used to offset impacts authorized under CWA section 404.

3c. Does the service area comply with local, district, and/or state requirements (scale, size, or resource type)?

Refer to the local district/state for guidelines (or guidance documents), templates, and/or specific regulations, and to the Mitigation Bank Instrument Review Workbook, Element 7: Geographic Service Area, for more information on mitigation bank proposals that should include in their service area descriptions.

## 4. Need and Technical Feasibility

General need and technical feasibility are identified as required elements in a prospectus under the Mitigation Rule; however, what should be included in this element is not clearly defined in the regulations. A number of districts (e.g., Portland, New Orleans, Fort Worth, Jacksonville, and Norfolk) and states (California) have clarified their interpretation of these terms.

### Need and Technical Feasibility

The general need for and feasibility of the proposed mitigation bank (33 CFR 332.8(d)(2)(iv)/40 CFR 230.98(d)(2)(iv)).

It may be useful for IRT reviewers to evaluate General Need and Technical Feasibility as separate concepts:

- General need refers to the need for the type (s) of compensatory mitigation credits that would be generated by the proposed bank. That need is a consideration of whether there is both a market demand and an ecological resource demand for the type(s) of credits that may be generated by the proposed bank. The lack of an identified need for the proposed bank's credits would not typically be considered a fatal flaw when reviewing a prospectus but more of an additional risk to the Sponsor. Resource scarcity may also be a factor in determining need.

**FYI on Resource Scarcity:** Scarce resources used to be common but are now rare in occurrence. Examples include vernal pools in the Northeast, Atlantic white cedar (*Chamaecyparis thyoides*) on the East Coast, freshwater tidal wetlands in the Pacific Northwest, or eelgrass (*Zostera marina*) in southern California. Suppose a formerly common resource type, like coastal prairie in the states in the Gulf of Mexico Region, has transitioned into degraded forested wetlands through invasion of Chinese tallow tree (*Triadica sebifera*). In that case, it may be more appropriate to consider restoration of coastal prairie habitat rather than utilizing the more commonly available bottomland hardwood credits to offset impacts to these resources.

- Technical feasibility refers to whether, in general, implementation of the bank project is possible given current science and technology and is compatible with project site characteristics (general topography, land use, watershed/landscape characteristics, potential hydrologic regimes, etc.). Technical feasibility also includes consideration of potential constraints to project implementation. For example, using liners or compacted soils may not be considered an appropriate mechanism to establish a wetland hydrologic regime. These artificial features may be compromised by weathering, the effects of tree roots, or the burrowing of animals which may affect the integrity of the desired hydrologic regime on site.

Note: If the initial examination of site conditions shows a proposed bank is not technically feasible, the bank may be considered fatally flawed and, thus, potentially unsuitable for compensatory mitigation. The more detailed analysis in Element 7: Ecological Suitability and Element 8: Assurance of sufficient water rights may also be considered in determining technical feasibility.

An IRT reviewer should also consider whether state or local level plans could preclude a bank's development. For example, State Water Plans, Transportation Improvement Plans, or local transportation master plans may pose conflicts that preclude the establishment of a mitigation bank and should be identified as early in planning as possible. The Hearts Bluff Game Ranch v. U.S. court case (2012) is an example of a state water plan taking precedent over mitigation bank establishment.

***General Need:***

**4a. Does the prospectus provide information on past, current, or anticipated demand for the proposed compensation?**

It is important that the Sponsor consider the potential demand for the mitigation credits that the proposed bank site might provide. IRT reviewers should consider whether the prospectus provides a general discussion of market demand, including current and projected credit demand and availability, and/or related documentation that demonstrates the general need for the mitigation bank. This discussion should not be a detailed market analysis, which may contain proprietary information. Additionally, some prospectuses will consider other mitigation programs (other banks, ILFs, etc.) within or adjacent to their targeted bank site(s) and the credit types available from these other programs as part of their analysis of need/demand. The prospectus should include any state or local government requirements, guidelines, and/or templates in determining the demand for proposed compensation in a given bank site. (e.g., Wisconsin Wetland Conservation Trust prospectus (Wisconsin Department of Natural Resources [WI DNR] 2013). Suggested references may include past permit data (Corps regulatory program data), data on current and past mitigation bank and ILF activity in the area (RIBITS), local wetland inventories for cities within the proposed bank site area, protected wetlands within the area, identification of the types of aquatic resources likely to be impacted by future development, etc. The Portland District Prospectus Template (2019) is a good example of this approach.

If an IRT observes that there does not appear to be sufficient need for the bank or the type of credits it would provide, they should communicate this to the Sponsor so they can evaluate the financial feasibility of the project.

**4b. Is the proposed scale of the bank (expected number of credits) appropriate for the expected market demand?**

The prospectus should address whether the size and expected number of credits to be generated by the bank site appears appropriate to the anticipated market demand. Why does this matter? If credit availability far exceeds demand, it may discourage the development of new banks utilizing current science, technology, and standards and could affect the funding of monitoring and maintenance activities for existing banks. If there isn't enough demand for the credits, there is the risk of a bank failing to fully comply with its instrument. Although infrequent, failing to comply with an instrument may lead to a claim on financial assurances and may call into question the long-term viability of the bank. A default by a bank before achieving all performance standards may pose the risk of loss of compensatory mitigation for all the permits that entailed the purchase of credits at the bank. In examining the proposed scale of the bank, IRT reviewers should also consider historic and current demand for the type of credits the proposed bank would generate. If the IRT has concerns with the scale of the bank, it should be sufficient for the bank Sponsor to provide documentation to support the need for mitigation credits within the region.

Older banks may be operating under previous and outdated guidelines and thus exempted from incorporating current mitigation practices and standards (performance standards, monitoring requirements, long-term management funding, etc.). Some of these older banks have extensive credit inventories based on these outdated standards and practices. Excessive credit availability may prevent the establishment of new banks, and because these credits may be based on outdated standards, they may not fully offset permitted losses. This is relevant because district/state requirements for compensatory mitigation are periodically revised to incorporate new research, monitoring findings, and lessons learned, and these older banks typically are not obligated to comply with these more current guidelines, regulations, or standards.

**FYI:** In a 2017 examination of RIBITS data, IWR staff found more than 400 operational mitigation banks across the country that were approved prior to the issuance of the 2008 Mitigation Rule; many were approved in the 1990s (see Martin NMEBC Long-term management & Funding for Mitigation Banks May 2017).

Note, there is uncertainty associated with projecting future demand. For example, future regulatory changes could reduce the demand for compensation or, alternatively, could markedly increase the demand for mitigation credits. Similarly, changes in homebuilding, roadbuilding, or any number of industrial sectors can lead to increased or decreased permit applications for impacts, increasing or decreasing the demand for compensatory mitigation.

#### 4c. Does the project address ecological resource needs within the watershed in which the bank site is located?

The prospectus should identify any watershed, estuary, or conservation plans with which it is compatible. The prospectus should briefly identify and address any ecological impairments or chronic environmental problems (water quality, flooding, etc.) that the bank site could help address. The prospectus should also identify any national, regional, or local benefits the bank might provide and any current or potential threats to the resource types (development, pollution, alteration, etc.) that the bank would help abate or offset within the proposed bank site's watershed or landscape. Note, this coverage should be introductory and overarching, with more detail expected in subsequent elements, including Element 5: Ownership Arrangements and Element 7: Ecological Suitability.

#### ***Technical Feasibility:***

#### 4d. Does the prospectus address the technical feasibility of the proposed bank?

The prospectus should identify proposed methods to implement the bank project. For example, if the bank entails wetland restoration, the prospectus should consider whether the existing soils are compatible with wetland re-establishment/re-habilitation (i.e., hydric) or if additional measures (compaction, geotechnical materials, soil amendments, etc.) would be required to better ensure an appropriate hydrologic regime. If the prospectus identifies artificial features to make a site compatible with the proposed concept design, this should be considered a red flag and examined more closely.



A prospectus should identify the current and proposed water sources that would support the bank's aquatic resources, including any past hydrologic manipulations and how they might be addressed or reversed. The prospectus should briefly describe the current and intended vegetation community(ies) on the bank site, whether there are any known invasive species in the vicinity of the bank, and how any known invasive species would be managed. Existing topographic data are often key to evaluating the technical feasibility of a proposed bank site. The best and most useful topographic analyses are based on LIDAR (Laser Imaging, Detection, and Ranging) or an on-site survey. Ultimately, LIDAR data should be confirmed with an on-site survey in the draft instrument phase.

Consider whether the prospectus addresses the proposed construction work and its feasibility, for example, by describing or providing conceptual construction plans for areas of intended earthwork (i.e., ditch backfill, berm/levee removal, spoil removal, excavation) of the proposed bank site.

#### 4e. Does the prospectus identify any constraints that would limit the mitigation potential of the proposed bank?

The prospectus should provide a general list of possible constraints with brief discussions on how the constraints may limit the bank's mitigation potential. Constraints will be covered more in-depth in Element 5: Ownership Arrangements and Element 7: Ecological Suitability; however, the assessment of technical feasibility and identification of fatal flaws would include a description of any constraints that would limit construction, site-protection, or long-term sustainability of the bank. If an existing (approved) or proposed mitigation bank or ILF program overlaps with one or more of the proposed bank site's service areas, the prospectus should evaluate if and how this existing mitigation may limit/affect the demand for mitigation credits that would be provided by the proposed bank site. Other constraints affecting a bank site's potential may include stakeholder interests, including those of local and tribal governments (such as fishing rights), existing adjacent land uses, roadways, utility lines, stormwater outfalls, liens, easements, or encumbrances on the property, property access, inability to acquire property and/or provide long-term protection, presence of state and/or federally listed species (restoration activities may provide habitat enhancement opportunities as well), and extent of historic properties.

## 5. Ownership Arrangements

The concept of ownership arrangements, as identified in the Mitigation Rule and as interpreted by districts/states, includes the following considerations for a proposed bank:

- Ownership – Bank ownership will influence the long-term protection mechanism or site protection instrument used for the bank
- Other property interests – These other interests may include other easements (drainage, utility, open space, conservation, etc.), financial interests (such as contracts, liens, and mortgages), and severed rights (mineral, oil and gas, timber)
- Proposed long-term protection mechanism – The site protection mechanism used to legally protect the proposed bank site (conservation easement, declaration of restrictions, transfer of title, conservation land use agreement, etc.)
- Proposed long-term management strategy – How the Sponsor intends for the bank site to be managed once banking operations have ceased and the bank moves into long-term management.

### Ownership Arrangements

The proposed ownership arrangements and long-term management strategy for the mitigation bank (33 CFR 332.8(d)(2)(v)/40 CFR 230.98(d)(2)(v)).

**FYI:** For more detailed information on long-term protection mechanisms, refer to the Banking Instrument Review Workbook, Element 6: Site Protection Instrument.

### 5a. Does the prospectus identify how the proposed bank will manage site ownership arrangements?

The prospectus may undertake a range of potential ownership arrangements for a bank site, including:

- Fee simple ownership – The bank Sponsor owns the bank and bank property in full.
- Mitigation easement – An increasingly common mechanism where the bank Sponsor does not own the land but secures (through purchase or donation) from the landowner the right to develop and operate a mitigation bank on the property.
- Joint ownership, Limited Liability Partnerships, or Limited Liability Corporations – This is a common mechanism for mitigation banks. It can enable multiple parties to combine their lands into a single bank, and it also may limit each of the partners or members in the corporation's personal liability.
- Government ownership (federal, state, local, or tribal ownership) – This is becoming an increasingly common mechanism. However, ownership by federal or state agencies can complicate the long-term protection of the bank property. The prospectus should identify any portion of the bank that would occur on public lands and the public entity that owns the land.

Note, the prospectus should also address the possibility of transfer of bank ownership. This is becoming more common in banking as banks are consolidated under fewer owners.

5b. Does the prospectus identify the form of long-term site protection mechanism proposed (conservation easement, declaration of restrictions, etc.) for a bank site?

Each type of long-term protection or site protection mechanism (conservation easement, declaration of restrictions, title transfer, conservation land use agreement, etc.) proposed for future bank sites has different considerations (Wood and Martin 2016). The mechanism used depends upon land ownership (discussed in 5a above). Most districts/states prefer conservation easements where the landowner (grantor) gives responsibility to another party, the easement holder (or grantee), to enforce the easement, including any land use restrictions or prohibitions. Conservation easements are more durable than deed restrictions (Wood and Martin 2016). However, easements may not be feasible in cases where there are no conservation-based or compatible organizations to hold the easement. In some cases, easements cannot be legally recorded over some state lands, such as subtidal or intertidal areas. Similarly, easements cannot be recorded over federal-owned lands. These considerations are discussed further in Wood and Martin (2016).

5c. Does the prospectus identify any existing easements or other property restrictions?

Any easements or other property restrictions recorded on the deed prior to recording the site protection instrument would be considered primary interests. These easements, such as drainage, utility, or rights of way, would be unaffected by the site protection instrument and could be exercised unless they are subordinated to the site protection instrument. This is the real estate concept of “first in time, first in right”.

Most districts/states require the prospectus (or associated exhibits) to include information on easements and other interests. This information may take the form of a preliminary title report, title commitment, or title insurance. Typically, maps are also required which depict the property’s boundaries and the location and extent of any easements on the bank property.

5d. Does the prospectus or associated exhibits identify any other interests in the property (financial, mineral/timber, water rights)? If so, does the prospectus (or associated exhibits/attachments) explain how those other interests may affect the bank site?

All other interests may not be identified in a preliminary title report or title commitment; however, most are identified as exceptions (exclusions) in a title insurance policy. It is vital that the prospectus (or more often exhibits to the prospectus) identify all other interests on the bank property, including a copy of the associated legal documents.

Exercising some interests (for example, timbering or mining minerals on site) could adversely affect the bank site. Many districts require Sponsors to submit information identifying these other interests in the bank property, including how they might affect the bank and how the Sponsor plans to address these interests (for example, by purchasing subsurface or timber rights, excluding those lands from the bank site, etc.). Wood and Martin (2016) discuss these other interests further.

5e. If the site is located on public lands, does the prospectus identify any additional long-term protection measures? Do they seem sufficient?

As noted in 5a and 5b, it may not be possible to record a conservation easement or other restriction on federal- or state-owned lands, so consideration may need to be given to other measures to protect the site

that are either already in place or may be overlaid on existing mechanisms. The Mitigation Rule identifies Federal Facility Management plans (such as Forest Management plans, Integrated Natural Resource Management Plans, etc.) as one such mechanism (33 CFR 332.7(a)(1)/40 CFR 230.97(a)(1)). Management plans are typically reviewed and revised periodically, so by themselves may not provide the necessary long-term protection of a bank site. In a number of cases, a second mechanism, like a conservation land use agreement, may be developed and executed between the regulatory agency and the federal landowner to provide an additional, more durable mechanism (Wood and Martin 2016).

5f. Does the prospectus identify the proposed long-term management arrangements, including the party(ies) responsible for long-term management?

The prospectus should describe the long-term management strategy for the proposed bank site, including:

- Whether the Sponsor or the landowner (if different) would be the long-term manager of the bank once it has closed
- Whether the responsibility for long-term management can be transferred
- The intended mechanism for financing long-term management (i.e., endowment, trusts, appropriations)
- The expected long-term management activities needed to maintain ecological functions and services provided by the bank

## 6. Qualifications

Qualifications are a necessary component of a prospectus that establishes whether the parties responsible for the bank proposal have the appropriate credentials and experience to complete the mitigation project(s) they have proposed. While all district/state guidance includes qualifications as necessary criteria to include in a complete prospectus, there is wide variation in the detail of information required.

Some districts/states reiterate the Mitigation Rule, which focuses on the Sponsor's qualifications and past experience in mitigation projects or related activities. Others also require identification and experience of the consultants working with the Sponsor, some combination of owner and Sponsor identification and legal arrangement between parties (if not the same entity), or in the case of the Charleston District, a breakdown of identities for the bank owner/legal entity, bank Sponsor, conservation or other easement holders, and long-term bank stewards (the Charleston District combines qualifications and ownership arrangement elements). An IRT reviewer should refer to their local district/state guidelines for more information.

### Qualifications

The qualifications of the Sponsor to successfully complete the type(s) of mitigation project(s) proposed, including information describing any past such activities by the Sponsor (33 CFR 332.8(d)(2)(vi)/40 CFR 230.98(d)(2)(vi)).

#### 6a. Does the prospectus identify the parties (Sponsor and/or agent) that will undertake the work?

The prospectus should, at a minimum, identify the Sponsor and any other parties involved in the development and operations of the proposed bank. This might also include the agent or consultant conducting the design, construction, monitoring and/or management, and permitting services for the proposed bank.

Regardless of the manner and detail of credentials, the qualification documentation should ensure that the individual or entity signing the prospectus and banking instrument has the authority to do so on behalf of the bank Sponsor. Proof may include a copy of an entity's operating agreement, an agreement between the individual and the Sponsor, or a notarized letter from the landowner and/or the Sponsor authorizing an agent or consultant.

Note, parties with other legal arrangements associated with the bank, like a bank owner, easement holder, and long-term steward, are generally identified under the ownership arrangement element.

#### 6b. Does the prospectus list the Sponsor and/or agent's prior mitigation or restoration experience (including design, implementation, and monitoring) and describe past activities related to this type of compensatory mitigation?

The intention of the qualifications element in the prospectus is to establish if the Sponsor and/or agent has the appropriate credentials and experience to design and implement the proposed bank. As such, some type of past compensatory mitigation or aquatic restoration experience is necessary. If a Sponsor and/or agent has no previous experience in compensatory mitigation or aquatic restoration activities, the bank/mitigation project may be at a much higher risk of failure.

6c. Does the prospectus distinguish between the qualifications of the Sponsor and agent/consultant?

This may become important if a Sponsor replaces their agent. A replacement should have the appropriate qualifications and previous mitigation and/or restoration experience to competently assume the associated responsibilities of its predecessor.

6d. Is the Sponsor and/or agent qualified?

As mentioned in 6b, whether or not the Sponsor and/or agent is qualified to conduct the proposed project affects the likelihood of success of the proposed bank.

## 7. Ecological Suitability

Determining whether a proposed bank is ecologically suited to meet its objectives is critical when evaluating a prospectus. The Mitigation Rule does not provide detailed considerations when assessing ecological suitability at the prospectus stage. However, the site selection portion of the Mitigation Rule, applicable to all mitigation projects (including PRM, mitigation banks, and ILF projects), provides clarification.

Despite considerable variability in the format and organization of district/state prospectus templates and guidelines, all require the prospectus to document how the proposed bank site addresses the mitigation site selection factors presented below.

### **Ecological Suitability**

For a proposed mitigation bank, the prospectus must also address:

(A) The ecological suitability of the site to achieve the objectives of the proposed bank, including the physical, chemical, and biological characteristics of the bank site and how the site will support the planned types of aquatic resources and functions (33 CFR 332.8(d)(2)(vii)(A)/40 CFR 230.98(d)(2)(vii)(A)).

**Mitigation Rule - Site Selection:** The mitigation site must be ecologically suitable for providing the desired aquatic resource functions. In determining the ecological suitability of the bank site, the following factors should be considered:

- Hydrologic conditions, soil characteristics, and other physical and chemical characteristics
- Watershed-scale features, such as aquatic habitat diversity, connectivity, and other landscape-scale functions
- Size and location of the mitigation site relative to hydrologic sources and other ecological features
- Compatibility with adjacent land uses and watershed management plans
- Reasonably foreseeable effects the mitigation bank site(s) will have on ecologically important aquatic or terrestrial resources, cultural sites, or habitat for federal or state listed species
- Other relevant factors include, but are not limited to: development trends, anticipated land use changes, habitat status and trends, relative location of impact and mitigation sites in the stream network, local/regional goals for restoration/protection of particular habitat types or functions (i.e., habitat corridors, habitat for species of concern), water quality goals, floodplain management goals, and the relative potential for chemical contamination of aquatic resources

33 CFR 332.3(d)(1)/40 CFR 230.93(d)(1)

When evaluating a bank site's ecological suitability, consideration should be given to the physical, chemical, and biological criteria, which are often interrelated. For example, when reviewing a proposed stream mitigation bank site's hydrologic regime, the contributing channel condition (physical), water quality (chemical), and biota (biological) are all related components to be considered. Figure 4 provides examples of various physical, chemical, and biological elements and their associated measurement approaches.

Figure 4. Physical, biological, and chemical elements and typical measurements



7a. Does the prospectus identify historic ecological characteristics of the site?

The prospectus should provide a robust characterization of the ecological characteristics of the site; it might include ecological features like a historic plant or aquatic resource communities and associated hydrologic regimes (if available), historic land uses, and alterations to the site (disturbances or alteration of plant communities, hydrologic regimes, soils, stream channel morphology, etc.). This is especially important if the proposed bank would re-establish aquatic resources that previously occurred at the proposed bank site. The historical context of a proposed bank site may assist in evaluating the likelihood of successful restoration/re-establishment. There is a high chance of re-establishing wetlands on cropland that was previously wetland, depending on the degree of anthropogenic disturbance (i.e., creating drainage channels and changing the site's topography).

Characterization of ecological features is often inferred from historic information (aerial images, narratives, maps, etc.). Except for some relict hydric soil indicators that may be present, physical evidence of historic community types is often rarely available. Streams are the exception, as the channel is generally still present, albeit altered or relocated. See also question 7b.

7b. Does the prospectus summarize current conditions for the bank site and surroundings?

Summaries of current conditions typically include information on land use, current zoning, vegetation, hydrologic regime, soils on and adjacent to the proposed bank site, historic properties, impaired waters (e.g., CWA 303(d)-listed streams), rare, threatened, or endangered (RTE) species, etc. This may be especially relevant if the proposed bank would entail rehabilitation of currently degraded aquatic resources on the bank site. Current conditions may also include any known financial or real estate encumbrances (mortgages, liens, rights-of-way, servitudes, easements, etc.) that could affect the potential of the bank site to meet its objectives on the property.

The prospectus should provide enough detail for a reviewer to evaluate if the conditions/components are compatible with the bank site's objectives. For example, a wetland mitigation bank prospectus should discuss the site's previous and recent use, such as agricultural production. Cropland often includes areas with hydric soil, which may increase the likelihood of successful wetland re-establishment. When describing land use, the prospectus should also consider activities on adjacent lands, including previous, current, and



future uses. If adjacent lands are already conserved, would the bank site expand or buffer these protected lands or habitats for RTE species?

Alternately, an IRT reviewer may consider whether adjacent land uses such as residential development, landfills, or active/abandoned mines are compatible with the bank site's objectives and whether the aquatic resources on the proposed bank site would be buffered or protected from any adjacent incompatible activities or uses.

Finally, IRT reviewers should consider whether the proposed bank addresses the causes of any current (or future, for preservation) degradation. In other words, will the proposed bank address causes of degradation and/or impairments in the bank site or larger watershed?

**7c. Does the prospectus identify any existing hydrologic disturbances or alterations on/adjacent to the proposed bank site (including those the Sponsor may not be able to manage or control)?**

Hydrologic disturbances or alterations may be present on the proposed bank site or off-site such as upstream of the bank site or adjacent lands.

Hydrologic alterations on-site may include ditches and drainage, surface or groundwater withdrawal, and/or impoundments. Addressing these alterations--for example, by eliminating surface drainage, water withdrawals, or removing impoundments--may present opportunities for aquatic resource restoration or enhancement. However, in some cases, the proposed bank Sponsor may not have the necessary ownership, water rights, or other legal authority to alter drainage or water withdrawals needed to re-establish or rehabilitate the intended aquatic resources on the proposed bank site. This, in turn, would affect whether a site is ecologically suitable (see Element 8: Assurance of Sufficient Water Rights questions 8c and 8d). Engineered structures supporting the hydrologic regime of the proposed bank, like dams or weirs, may be necessary for restoring, establishing, or enhancing the proposed aquatic resource, but they will also require periodic maintenance and management. Ultimately, an IRT reviewer should ask if the current/proposed site's hydrologic regime is sustainable for the proposed bank site (see question 4d. of Element 4: Need and Technical Feasibility).

Off-site hydrologic alterations, including drainage, water withdrawals, water diversions, and/or impoundments, may also affect the suitability of the proposed bank site. In areas with extensive regional drainage networks—for example, in agricultural regions of the mid-Atlantic and Mid-West--removing ditches or drainage features on-site may not provide a sufficient hydrologic regime for the intended aquatic resource because too much water is being diverted regionally (lowering the water table) by ditch/drainage features. Similarly, ongoing groundwater withdrawals on adjacent lands for agriculture or development activities, especially on sites underlain by more pervious substrates like limestone, may result in insufficient hydrology to sustain restoration efforts. Alterations to an adjacent river system, including impoundments, levees, and diversions, could affect a proposed bank site if the proposed hydrologic regime primarily depends upon overbank flooding. Future development upstream of a proposed bank site can increase the amount of impervious surface, resulting in flashier and greater peak flows following storm events and reductions in base flows due to reduced infiltration, complicating hydrologic restoration/establishment on the bank site. Other changes in adjacent land use, like timbering or conversion to agriculture, may result in changes in hydrologic and sediment inputs into the bank site. Consideration should also be given to the effects of climate change, which may result in changes to precipitation rates and storm event intensity

and frequency, and to sea level rise which could affect the viability of tidal compensation including tidal marshes, sea grass, kelp, and shellfish beds.

**7d. Does the prospectus include or refer to reference data (on-site or off-site reference areas, narratives, and historic or ecologic data)?**

Reference data should be part of the preliminary assessment and characterization of the bank site. Data may be qualitative or quantitative, take the form of narratives or raw data from one or more sites, and/or may vary between site-specific or regional data. These data can help reviewers evaluate the potential uplift and suitability of proposed mitigation measures for the bank site, which in turn may increase the confidence in the technical feasibility of the proposed bank. At the prospectus stage, the expectation should be that a Sponsor provides readily available and/or publicly accessible data (such as USGS stream gauge data, reference curves, and in some cases, wetland hydrologic data from certain resource types, like vernal pools in California or mineral flats in Virginia). Refer to local state/district guidelines and practices for more on any reference data requirements.

Reference data are often used to characterize the best attainable target aquatic resource type(s) (St. Paul District Corps of Engineers 2019). Because of historic landscape and watershed alterations and adjacent land uses, it may not be possible or even advisable to attempt to restore aquatic resources to an unaltered or pre-settlement condition. IRT reviewers should look at the proposal in light of the best attainable conditions given regional landscape alterations.

**7e. Does the prospectus identify any factors that may contribute to the site's long-term sustainability?**

A site may be considered more sustainable because of adjacent land uses, through design/land management measures (is the resource self-sustaining? are there structures or measures required for maintenance?), hydrologic elements (refer to Element 7 question 7c for additional discussion of hydrologic considerations), and/or financial and site protection mechanisms.

As discussed in question 7b, adjoining land use such as conservation or development can affect a bank site's long-term sustainability. Adjacent conserved lands may better ensure that a bank site is more resilient in the face of existing and future threats such as climate change. If an adjacent conserved land is also managed for the same aquatic resource type as the proposed bank, they may share similar management goals or even be managed jointly. Alternately, incompatible land uses like adjoining development may encroach or alter the contributing hydrology to the bank site or impact the proposed bank site (for example, by encouraging local disturbances or invasive species development).

The prospectus should recognize if any engineering structures or land management measures are necessary to maintain aquatic resources. Structures may include weirs, water control structures, or irrigation that require some degree of maintenance and management. Examples where land management activities are necessary include vernal pool systems in central and southern California that may require chemical/mechanical/grazing measures to maintain native plant community and structure, bog turtle (RTE) habitat in the mid-Atlantic that requires livestock management to maintain boggy low vegetation conditions, prescribed burns of pine savanna in the Southeast and Gulf coasts, and invasive species management which occurs throughout the United States.

It is not too early in the bank development process for the prospectus to identify potentially appropriate short-term financial assurance mechanisms. Financial assurance amounts are typically based on a more complete project proposal, not the conceptual design found in most prospectus. Element 5 of the Mitigation Bank Instrument Review Workbook provides additional information on short-term financial assurances.

The prospectus should discuss the mechanism proposed for long-term management and associated financing (not detailed management actions or funding amounts). Long-term management needs and the associated costs of management (supplies, labor) can help inform the selection of sites where the cost of long-term management can be better controlled. Locating a bank site next to a conserved area can reduce the amount of fencing (and the associated expense) needed to secure the bank site. Minimizing engineered features like concrete culverts, dams, weirs, and pumps can reduce the cost of long-term management of the bank site. Refer to question 5f in Element 5: Ownership Arrangements in this workbook and Element 12 in the Long-Term Management in the Bank Instrument Review Workbook.

Durable long-term protection of a bank site is critical to the sustainability of a proposed bank site. Several different mechanisms can be used alone or in combination to provide meaningful site protection (see Element 5: Ownership Arrangements question 5b). It is vital that other interests in the proposed bank site property, like existing easements, severed rights, liens, mortgages, etc., be identified early in the bank development process (see Element 5: Ownership Arrangements questions 5c and 5d). If a bank site does not have durable long-term protection that prevents activities incompatible with bank operations, then the effort and resources spent in the design and implementation of the bank proposal may be wasted.

**7f. Does the prospectus discuss factors that would limit the compensatory mitigation potential of the proposed bank? Are measures proposed to address those limitations?**

Factors limiting the mitigation potential of the bank site may include any watershed, physical, chemical, or biological elements that would constrain construction, site protection, management of the bank site, wetland function, etc. Are there any factors that may complicate a proposed bank's design, development, and/or implementation? For example, adjacent development activities may limit the amount of property available to implement the bank and/or the types of mitigation activities that can occur on the property.

Consider whether the prospectus explains how the aquatic resources on the bank site would be protected from potentially adverse adjacent land uses, for example, through buffers and easements.

**7g. Does the prospectus address the bank site's ecological connectivity to other adjacent conserved areas (if there are any)?**

Those conserved areas might include other protected natural resource habitats or corridors (i.e., other mitigation banks, national wildlife refuges, areas already under conservation easement, or state wildlife management areas). Does the prospectus consider whether the bank site is compatible with any existing local or regional plans (local master plans, transportation improvement plans, zoning) and conservation plans (species recovery, watershed management, wildlife habitat action plan, Special Area Management Plans (SAMPs)?

## 8. Assurance of Sufficient Water Rights

The Mitigation Rule requires that a bank Sponsor and/or agent provide assurance of sufficient water rights for their proposed mitigation project(s). Why is this needed, and what is the basis for this requirement?

### ***A Primer on Water Regulation in the United States:***

Water regulation in the United States occurs at the federal, state, and tribal levels. At the federal level, the “original” owner is the federal government resulting in water owned by the government or a private owner. There are two main types of water regulation at the state level: prior appropriation and riparian doctrines. There are two additional types of water rights in place, a hybrid system containing parts of the two stated doctrines and federal reserved rights, which pertain to Native Americans.

- ***Prior appropriation rights:*** Most states spanning from Texas to the west coast abide by prior appropriation, a ‘first come, first right to water’ outlook, whereby access to water is determined by order of rank of the rights to use water in a system (i.e., the first user of the water source). The individual or entity with first rights may consume and use the water as long as it is applied to beneficial use, with subsequent individuals/entities in line for water usage. Beneficial use is a state’s interpretation of the appropriate use of water, which may apply to domestic, agricultural, industrial, or recreational settings, amongst other options (National Agricultural Law Center, University of Arkansas accessed January 2021). The prior appropriation doctrine allowed settlers to divert water from its natural course, and thus a senior appropriator would not need to own the land adjacent to a watercourse to stake their claim and use this water for their beneficial use. This doctrine is still practiced today in a number of western states and is a debated issue as it allows senior appropriators unlimited use of water even in times of water shortages and prolonged droughts.
- ***Riparian rights:*** Typically applied in states with abundant water sources, like along the east coast of the United States, riparian ownership is based on land ownership; you must own the parcel of land adjacent to a watercourse, including streams, lakes and/or ponds (National Agricultural Law Center, University of Arkansas website). If you are not a riparian landowner, you have no rights and no water access. Riparian landowners have the right to make “reasonable use” of a water system, which under natural uses includes drinking and watering livestock and garden, and under artificial uses includes irrigation/ agriculture and industry. A notable difference to prior appropriations doctrine, under the riparian doctrine, a landowner does not have to use the water in order to retain their right to it, since their right to use is tied to land ownership. Modern-day application of the riparian doctrine has many states taking on control of water use and distribution under a permit system. This allows states to strategize and project water usage for times of drought or water shortages.

### **Water rights**

For a proposed mitigation bank, the prospectus must also address:

Assurance of sufficient water rights to support the long-term sustainability of the bank (33 CFR 332.8(d)(2)(vii)(B)/40 CFR 230.98(d)(2)(vii)(B)).

- *Hybrid system:* In some states, elements of prior appropriation and riparian are combined to function in accordance with the state’s water needs and availability.
- *Federal reserved rights:* Water rights for Native American reservations and public lands are established by federal law. The rank order of priority for water use and water quantity (over other appropriators) is determined by the date of the reservation’s establishment and the quantity necessary “to fulfill the purpose of the reservation” (National Agricultural Law Center, University of Arkansas website).

Regulations have been and continue to be developed in response to increasing demand for and access to water exceeding local water supplies. This is more of an issue in the western states, where years of drought and decreased water availability are exacerbated by the strain of existing water regulations that result in unequal access to water.

***Hydrologic Disturbances and Other Influences:***

Hydrologic disturbance consists of any scenario where the water on or flowing into a bank site may be manipulated, interrupted, diverted, reduced or even eliminated the water from flowing into the site. The source of hydrology and disturbance can be wide-ranging. Examples include diverting upstream hydrology for agricultural (irrigation) or industrial purposes, either through ditching or channel alteration, municipal stormwater management directing storm flows away from or into the site, or utilities/other entities diverting groundwater that may have otherwise surfaced at the site as groundwater seeps. It may also include water rights situations, where an individual or entity claims rights to the hydrology either on-site or upstream under prior appropriation rights or if they own the land adjacent to the bank site via riparian rights. An IRT reviewer should consider the hydrologic sources/inputs to the proposed bank site and if there may be any potential disturbance to this water supply from adjacent landowners, utilities, or other entities. Additionally, an on-site hydrologic disturbance may include any temporary or long-term structural management requirements (i.e., weirs, levees, ditches, etc.) proposed on a bank site.

***Current and Future Assurance of Water Availability:***

It is important for the contributing drainage area and all sources of hydrology available to a site to be identified since, as noted in the previous element, possible disturbances may affect the current and future availability of hydrology. Equally important in the west are downstream water rights. If a bank requires a water diversion to establish or sustain the site, appropriative water rights may be required. Understanding the seniority of the water rights may affect bank establishment and operation.

An IRT reviewer may also consider if the hydrology source(s) is sufficient to support the proposed bank in the long-term. Is it a sustainable source? Is it at risk of a third-party water rights claims, diversion, or even damming? IRT reviewers may benefit from reviewing historic hydrology of the site to determine whether the source of hydrology for the site is stable, whether it is ephemeral, seasonal, or perennial. Consider whether the watershed and/or site has experienced (prolonged) drought or changes in precipitation patterns and seasonality. Finally, are there any on-site hydrologic disturbances, such as previously mentioned structural management requirements, proposed for the bank site? How do these affect the water availability for the site in the long-term?

8a. Has the prospectus identified the hydrologic source(s) available to the proposed bank site?

The document should identify what hydrologic source(s) are available for use at the bank site. As mentioned previously, these sources may include the stream channel, groundwater, or stormwater flows.

8b. Does/do the source(s) provide a seasonal or continuous hydroperiod for the site? What are the hydrologic input(s) and output(s) for the site (precipitation, tidal, overbank flooding, evapotranspiration, groundwater, etc.)?

The site should have a long-term sustainable hydrologic source. The hydroperiod of each source should be provided to ensure a sustainable water supply for the proposed bank site in the long-term, whether provided by one source or a cumulative/combo of sources. This is also a good opportunity to determine if any structural management requirements have been proposed that allow the site to maintain hydrologic input and if the structure(s) proposed would be temporary or permanent fixtures.

8c. Does the prospectus discuss the history of the hydrologic source(s) to the proposed bank site?

Site context is important as it provides a good understanding of what aquatic resources may have been present in the past and the type and quantity of hydrologic input that sustained this aquatic resource. For example, wetland areas have historically been ideal land types to convert to arable land, with hydrologic inputs (streams and seeps) managed through ditching, diversion, and/or plugging with drainage tiles. If evidence of hydrologic input is present, reverting an agricultural field back to a wetland area can be successful if historic hydrology input (quantity and type) is also restored. For stream realignment, in addition to hydrologic inputs, consideration should be given to the geologic context, including stratigraphy, permeability of layers, and type of substrate present (cobble, bedrock, sands, etc.).

8d. Does/do the source(s) have any disturbances, encumbrances, or limitations to availability or use, and have these been identified and discussed in the prospectus?

The prospectus should identify and provide explanations for any potential limitations, as described in Hydrologic Disturbances and Other Influences on water availability or use for the bank site, as this needs to be considered to determine if a sufficient supply of sustainable long-term hydrology is available.

8e. Does the Sponsor have necessary water rights to establish and manage the site sustainably in the long-term?

Similar to 8c., the prospectus should identify and discuss what water rights are relevant to the site, and if the Sponsor has control over these rights/water usage. If a Sponsor is leasing water rights, for example, do the legal agreements between the Sponsor and holder of water rights ensure long-term hydrology availability for the site? On a separate note, do the water regulations for the site consider a bank site a beneficial or reasonable use of water? Has the Sponsor accounted for the legality of water use for their proposed bank site? For areas where appropriative rights are applied, how does the bank rank compare to other users in the system? Is there a risk of water not being available due to more senior rights holders exercising their rights?

# Conclusion

As discussed in the introduction to the Mitigation Bank Prospectus Review Workbook, the preliminary focus when reviewing a bank prospectus is to determine whether the proposed bank is potentially suitable to provide appropriate compensatory mitigation. A good start for determining if a proposal is potentially suitable is for the IRT member to follow the guidance provided in each element of this prospectus review workbook and review and respond to the associated checklist questions. Once a prospectus is determined suitable by the IRT, the Sponsor may begin the next step in the mitigation bank process, drafting a mitigation bank instrument. An approved prospectus does not guarantee that a subsequent bank instrument will be approved.

It is the responsibility of the IRT Chair or co-chairs in consultation with IRT members to determine whether a prospectus is potentially suitable. The Chair or co-chairs, in turn, depend on individual IRT members to provide their expertise (knowledge and experience). So, it is incumbent for the IRT members to give a thoughtful and timely review of the prospectus.

In cases where the information provided in the prospectus is insufficient for the IRT Chair or co-chairs to make their determination—for example, if the Sponsor has not secured or accounted for other important interests in the bank property (such as timber or mineral rights), the Sponsor will need to provide additional effort and/or information to address or resolve these issues. For these cases where additional information is needed, it is the responsibility of the IRT Chair or co-chairs and members to discuss the situation clearly and comprehensively with the Sponsor. In these discussions, it is essential to distinguish between necessary information and information that is useful but not critical to a potential suitability determination.

In cases where the IRT Chair or co-chairs determines that some aspect of the proposal is fatally flawed (for example, extensive groundwater withdrawal around a proposed bank site resulting in an insufficient/unsustainable hydrologic regime for proposed wetland restoration), the IRT Chair should advise the Sponsor of the fatal flaw(s) before the Sponsor undertakes the additional expense of developing a bank instrument.

# References

This includes literature referenced in the workbook as well as a sampling of prospectus outlines, templates, and instructions issued by districts and states across the United States that were reviewed and at times referenced in this prospectus review workbook. This list was current as of January 2022; however, bank instruments, templates, and tools will be revised over time.

Baltimore District, U.S. Army Corps of Engineers (USACE). 2018. Information Required for a Complete Mitigation Bank Prospectus. [https://ribits.ops.usace.army.mil/ords/f?p=107:150:4026675501498::NO::P150\\_DOCUMENT\\_ID:6134](https://ribits.ops.usace.army.mil/ords/f?p=107:150:4026675501498::NO::P150_DOCUMENT_ID:6134)

California Multi-Agency Product Delivery Team. 2010. Checklist: Prospectus for Mitigation Banks. <http://www.spd.usace.army.mil/Portals/13/docs/regulatory/banking/checklist.pdf>

Charleston District, USACE. Mitigation Bank Prospectus Template. [https://ribits.ops.usace.army.mil/ords/f?p=107:150:4026675501498::NO::P150\\_DOCUMENT\\_ID:47828](https://ribits.ops.usace.army.mil/ords/f?p=107:150:4026675501498::NO::P150_DOCUMENT_ID:47828)

Fort Worth District, USACE. 2013. Mitigation Bank Prospectus Form.

Jacksonville District, USACE. 2021. Instructional Companion for the Jacksonville District Mitigation Banking Instrument Template. [https://ribits.ops.usace.army.mil/ords/f?p=107:150:4026675501498::NO::P150\\_DOCUMENT\\_ID:93213](https://ribits.ops.usace.army.mil/ords/f?p=107:150:4026675501498::NO::P150_DOCUMENT_ID:93213)

The National Agricultural Law Center, Division of Agriculture Research and Extension, University of Arkansas System. Water Law: An Overview. Accessed January 2021. <https://nationalaglawcenter.org/overview/water-law/>

New Orleans District, USACE. 2016. Prospectus Template.

Norfolk District, USACE and Virginia DEQ. 2018. Complete Prospectus /Proposal Checklist. [https://ribits.ops.usace.army.mil/ords/f?p=107:27:14131302048545::NO::P27\\_BUTTON\\_KEY:10](https://ribits.ops.usace.army.mil/ords/f?p=107:27:14131302048545::NO::P27_BUTTON_KEY:10)

Ossinger, M. 1999. Success standards for wetland mitigation projects – a guideline. Washington State Department of Transportation, Environmental Affairs Office. 31pp

Portland District, USACE and Oregon Department of State Lands. 2019. Oregon Mitigation Bank Prospectus Template.

St. Paul District, USACE. 2019. Target hydrology and performance standards for compensatory mitigation. Regulatory Branch Guidance, Version 6.0 <https://www.mvp.usace.army.mil/Missions/Regulatory/Mitigation/>



U.S Fifth Circuit Court of Appeals Decision. 2012. Hearts Bluff Game Ranch LLC v. United States. 13pp.

Wood, C. and S. Martin 2016. Compensatory Mitigation Site Protection Instrument Handbook for the Corps Regulatory Program. Institute for Water Resources White Paper. 21pp. [https://www.iwr.usace.army.mil/Portals/70/docs/iwrreports/Site Protection Instrument Handbook August 2016.pdf?ver=2016-08-29-082816-237](https://www.iwr.usace.army.mil/Portals/70/docs/iwrreports/Site%20Protection%20Instrument%20Handbook%20August%202016.pdf?ver=2016-08-29-082816-237)

# APPENDIX A: REVIEW CHECKLIST

# Mitigation Bank Prospectus Review Checklist

The Mitigation Bank Prospectus Review Checklist reflects the content of each element of in the Mitigation Bank Prospectus Review Workbook. For each element, the checklist asks whether the question was addressed (yes/no), whether the narrative is complete (yes/no), and the page number(s) of the narrative. A comment section for reviewer input is also included.

Review Elements Questions	Addressed (Y/N)	Complete (Y/N)	Page #(s)	Reviewer Comments
<b>1. Objectives of the Proposed Bank</b>				
1a. Does the prospectus include a description of the aquatic resource type(s) and amount(s) the bank site would provide?				
1b. Does the prospectus identify the functions and services expected to be provided by the bank site?				
1c. Is the bank site located within a watershed or landscape position where it is likely to provide the proposed functions and services?				
<b>2. How the Bank will be Established and Operated</b>				
2a. Does the prospectus provide narrative, mapping (aerial, topo), and/or photographs identifying the bank site location, property boundaries, and other baseline conditions?				
2b. Does the prospectus discuss the conceptual plan of the bank site, including layout, construction process, and post-establishment operations and maintenance?				

<b>Review Elements Questions</b>	<b>Addressed (Y/N)</b>	<b>Complete (Y/N)</b>	<b>Page #(s)</b>	<b>Reviewer Comments</b>
<b>3. Proposed Service Area</b>				
3a. Does the bank prospectus appropriately size the service area to ensure that the proposed aquatic resources will effectively compensate for permitted impacts and replace lost functions/services?				
3b. Does the bank prospectus identify the basis of the service area (i.e., watershed, coastal bay system, ecoregion, species distribution) and provide justification/rationale supporting its location and extent?				
3c. Does the service area comply with local, district, and/or state requirements (scale, size, or resource type)?				
<b>4. Need and Technical Feasibility</b>				
4a. Does the prospectus provide information on past, current, or anticipated demand for the proposed compensation?				
4b. Is the proposed scale of the bank (expected number of credits) appropriate for the expected market demand?				
4c. Does the project address ecological resource needs within the watershed in which the bank site is located?				
4d. Does the prospectus address the technical feasibility of the proposed bank?				
4e. Does the prospectus identify any constraints that would limit the mitigation potential of the proposed bank?				
<b>5. Ownership Arrangements</b>				
5a. Does the prospectus identify how the proposed bank will manage site ownership arrangements?				

<b>Review Elements Questions</b>	<b>Addressed (Y/N)</b>	<b>Complete (Y/N)</b>	<b>Page #(s)</b>	<b>Reviewer Comments</b>
5b. Does the prospectus identify the form of long-term site protection mechanism proposed (conservation easement, declaration of restrictions, etc.) for a bank site?				
5c. Does the prospectus identify any existing easements or other property restrictions?				
5d. Does the prospectus or associated exhibits identify any other interests in the property (financial, mineral/timber, water rights)? If so, does the prospectus (or associated exhibits/attachments) explain how those other interests may affect the bank site?				
5e. If the site is located on public lands, does the prospectus identify any additional long-term protection measures? Do they seem sufficient?				
5f. Does the prospectus identify the proposed long-term management arrangements, including the party(ies) responsible for long-term management?				
<b>6. Qualifications</b>				
6a. Does the prospectus identify the parties (Sponsor and/or agent) that will undertake the work?				
6b. Does the prospectus list the Sponsor and/or agent's prior mitigation or restoration experience (including design, implementation, and monitoring) and describe past activities related to this type of compensatory mitigation?				
6c. Does the prospectus distinguish between the qualifications of the Sponsor and agent/consultant?				
6d. Is the Sponsor and/or agent qualified?				

<b>Review Elements Questions</b>	<b>Addressed (Y/N)</b>	<b>Complete (Y/N)</b>	<b>Page #(s)</b>	<b>Reviewer Comments</b>
<b>7. Ecological Suitability</b>				
7a. Does the prospectus identify historic ecological characteristics of the site?				
7b. Does the prospectus summarize current conditions for the bank site and surroundings?				
7c. Does the prospectus identify any existing hydrologic disturbances or alterations on/adjacent to the proposed bank site (including those the Sponsor may not be able to manage or control)?				
7d. Does the prospectus include or refer to reference data (on-site or off-site reference areas, narratives, and historic or ecologic data)?				
7e. Does the prospectus identify any factors that may contribute to the site's long-term sustainability?				
7f. Does the prospectus discuss factors that would limit the compensatory mitigation potential of the proposed bank? Are measures proposed to address those limitations?				
7g. Does the prospectus address the bank site's ecological connectivity to other adjacent conserved areas (if there are any)?				
<b>8. Assurance of Sufficient Water Rights</b>				
8a. Has the prospectus identified the hydrologic source(s) available to the proposed bank site?				
8b. Does/do the source(s) provide a seasonal or continuous hydroperiod for the site? What are the hydrologic input(s) and output(s) for the site (precipitation, tidal, overbank flooding, evapotranspiration, groundwater, etc.)?				
8c. Does the prospectus discuss the history of the hydrologic source(s) to the proposed bank site?				

Review Elements Questions	Addressed (Y/N)	Complete (Y/N)	Page #(s)	Reviewer Comments
8d. Does/do the source(s) have any disturbances, encumbrances, or limitations to availability or use, and have these been identified and discussed in the prospectus?				
8e. Does the Sponsor have necessary water rights to establish and manage the site sustainably in the long-term?				