



**US Army Corps
of Engineers**®

Iowa Mitigation Banking

Last revised: July 2019

A mitigation bank or In-lieu fee program (ILF) is a wetland, stream or other aquatic resource area that has been restored, established, enhanced or preserved for the purpose of providing compensation for unavoidable impacts to aquatic resources permitted under Section 404 of the Clean Water Act (“CWA”) or a similar state or local wetland regulation. A mitigation bank is created when a government agency, corporation, nonprofit organization or other entity (“Bank Sponsor”) undertakes these activities under a formal agreement with a regulatory agency. In-lieu fee programs are generally administered by state governments, local governments, or non-profit non-governmental organizations while mitigation banks are usually (though not always) operated for profit by private entities. Mitigation banks/ILF’s are a form of third-party compensatory mitigation, in which the responsibility for implementation and success is assumed by a party other than the permittee. This transfer of liability has been a very attractive feature for Section 404 permit-holders, who would otherwise be responsible for the design, construction, management, monitoring, ecological success and long-term protection of a permittee-responsible mitigation site.

This package contains procedures and information to initiate the development of new mitigation banking proposals or amendments to existing mitigation banks in the state of Iowa. This package also contains a checklist of requirements for submitting a Prospectus or Mitigation Banking Instrument (“MBI”). In Iowa, the review and approval of mitigation banks is a multi-agency process that involves the following federal and state agencies: the U.S. Army Corps of Engineers (“USACE”) Rock Island District (“District”), the U.S. Environmental Protection Agency, Region VII (“USEPA”), the U.S. Fish and Wildlife Service, Rock Island Field Office (“USFWS”), Iowa Department of Natural Resources (“IDNR”) and Natural Resources Conservation service (“NRCS”). These agencies are referred to jointly as the Interagency Review Team (“IRT”). Setting up a mitigation bank or ILF program can be a very large undertaking for both the applicant and the IRT. For that reason, wetland banks and ILF programs should contain a minimum of 25 acres of wetlands. Stream banks and ILF programs should generate a minimum of 30,000 stream credits. The information in this package does not reflect USACE or IRT policy and should only serve as a starting point for prospective mitigation banks. The IRT will work with the Bank Sponsor throughout the mitigation bank/ILF approval process and decisions will be made based on best available science and site-specific conditions for each individual bank and ILF program. *Specific requirements for each mitigation bank/ILF will be determined on a case-by-case basis and with IRT approval, variation from this guidance is acceptable.

A mitigation bank (Bank) must have an approved MBI signed by the Bank Sponsor and the District prior to being able to provide compensatory mitigation for Department of the Army (DA) CWA Section 404 permits. To the maximum extent possible, Bank sites must be planned and designed to be self-sustaining over time, but some active management and maintenance may be required to ensure their long-term viability and sustainability. All Banks must comply with the standards in the April 2008 Mitigation Rule (“Mitigation Rule”) if they are providing compensatory mitigation for activities authorized by DA permits, regardless of whether they are sited on public or private lands and whether the Bank Sponsor is a governmental or private entity. The Mitigation Rule can be found at 33 CFR Part 332 (https://ribits.usace.army.mil/ribits_apex/f?p=107:150:7661026668069::NO::P150_DOCUMENT_ID:675). Although all Banks must comply with the same standards, each MBI is tailored to the Bank’s site-specific conditions.

The Rock Island District utilizes RIBITS (Regulatory In-lieu Fee and Bank Information Tracking System), a web-based application used to track mitigation banking and in-lieu fee (ILF) sites. RIBITS can be accessed by USACE staff, resource agencies and the public. RIBITS provides information on pending and approved mitigation banks, including MBI's, monitoring reports, credit ledgers, contact information, types of credits available, and service areas. RIBITS also serves as a repository for information and procedures that relate to mitigation banking. RIBITS provides the necessary tools to track ledger transactions, evaluate and process proposed mitigation banks or ILF instruments and review and document mitigation bank successes and failures with ecological success criteria. Once the Bank is approved and signed, a RIBITS username and password may be assigned to the sponsor and further instructions will be provided. RIBITS can be found at the following address: <https://ribits.usace.army.mil>.

The following steps should be utilized to initiate the Mitigation Bank Approval Process:

- 1) Draft Prospectus (optional but preferred) – This optional phase of the approval process is intended to identify potential issues early so that the Sponsor may address those issues prior to the start of the formal review process. The IRT will provide comments back to the sponsor within 30 days of receipt of the draft prospectus.
- 2) Prospectus – The Corps will evaluate the prospectus for completeness, and if necessary, request additional information. If the prospectus is complete, a public notice will be posted within 30 days of receiving the complete prospectus. The public notice comment period is typically 30 days. The IRT will evaluate the prospectus and any comments received during the public notice comment period. The Corps will provide the Sponsor with an initial evaluation letter (providing comments on the likelihood of bank success) within 30 days of the close of the public comment period.
- 3) Draft MBI – After receiving a complete draft MBI, the Corps will distribute the draft instrument to the IRT for a 30 day comment period. The IRT will provide comments to the Corps and seek to resolve any outstanding issues. Within 90 days of the receipt of a complete draft instrument by IRT members, the Corps will notify the sponsor of the status of the IRT review. This notification will include IRT comments and any significant and unresolved issues that need to be addressed in the final MBI.
- 4) Final MBI – The sponsor will submit a final instrument with supporting documentation (track changes document) addressing how each of the IRT comments from step 3 have been addressed. Within 30 days of receipt of the final MBI, the Corps will notify the IRT whether or not the Corps intends to approve the instrument. Within 15 days of the receipt of the Corp's intent to approve notification, any member of the IRT may notify the Corps and other IRT members of their intent to initiate dispute resolution. If, after 15 days, the dispute resolution process is not initiated, the Corps shall notify the Sponsor that the MBI can be approved.
- 5) *A site visit may be conducted during any of the above phases and must be completed before bank approval.

Definitions from 33 CFR Part 332.2:

- *Mitigation banking instrument* means the legal document for the establishment, operation, and use of a mitigation bank.
- *Interagency Review Team (IRT)* means an interagency group of federal, tribal, state, and/or local regulatory and resource agency representatives that reviews documentation for, and advises the district engineer on, the establishment and management of a mitigation bank or an in-lieu fee program.
- *Mitigation bank* means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for impacts authorized by DA permits. In general, a mitigation bank sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are governed by a mitigation banking instrument.
- *Sponsor* means any public or private entity responsible for establishing, and in most circumstances, operating a mitigation bank or in-lieu fee program.
- *Advance credits* means any credits of an approved in-lieu fee program that are available for sale prior to being fulfilled in accordance with an approved mitigation project plan. Advance credit sales require an approved in-lieu fee program instrument that meets all applicable requirements including a specific allocation of advance credits, by service area where applicable. The instrument must also contain a schedule for fulfillment of advance credit sales.
- *In-lieu fee program* means a program involving the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements for DA permits. Similar to a mitigation bank, an in-lieu fee program sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor. However, the rules governing the operation and use of in-lieu fee programs are somewhat different from the rules governing operation and use of mitigation banks. The operation and use of an in-lieu fee program are governed by an in-lieu fee program instrument.
- *In-lieu fee program instrument* means the legal document for the establishment, operation, and use of an in-lieu fee program.
- *Release of credits* means a determination by the district engineer, in consultation with the IRT, that credits associated with an approved mitigation plan are available for sale or transfer, or in the case of an in-lieu fee program, for fulfillment of advance credit sales. A proportion of projected credits for a specific mitigation bank or in-lieu fee project may be released upon approval of the mitigation plan, with additional credits released as milestones specified in the credit release schedule are achieved.

Please contact Trevor Popkin of the Rock Island District USACE at (309) 794-5329 or trevor.e.popkin@usace.army.mil for additional information, questions or concerns.

Iowa Mitigation Banking

Checklist for Proposed Mitigation Bank Sites

Last Revised July 2019

- Does the site contain existing wetlands or other aquatic resource? Please submit a complete wetland delineation, according to the 1987 Wetland Delineation Manual and Midwest Supplement. The delineation is not required for the Prospectus phase, but will need to be submitted with the Draft BI. If the site does contain wetlands or other aquatic resources, those areas may be assigned partial credit by the IRT after assessing the quality of the existing aquatic resources and expected enhanced value.

- Will there be an effect to federally-listed species (or their habitat) covered under the Endangered Species Act of 1987? To guide you through the proper Threatened and Endangered Species consultation procedure, please see the Section 7(a)(2) Technical Assistance webpage (<http://www.fws.gov/midwest/endangered/section7/s7process/index.html>). The webpage provides guidance to help you determine what your action area is, whether endangered species may be found within the action area, and if your project and associated actions may affect listed species. You will also find several tools including IPaC (Information for planning and consultation located at <https://ecos.fws.gov/ipac/location/index>) that can streamline the consultation process, including up-to-date county-specific species lists for all of the states in USFWS Midwest Region and example letters for documenting your findings related to endangered species. For more information, please contact USFWS, Rock Island Field Office, at (309) 757-5800.

- Will there be an effect to state-listed threatened or endangered species (or their habitat)? Please request an Environmental Review with the IDNR to determine the potential effect to state-listed species. See attachment: "Environmental Reviews for Iowa's Natural Resources."

- Are there affected historic properties under Section 106 of the National Historic Preservation Act? A Phase I archeological survey is often required for Bank sites, which is determined during the Prospectus phase of the Mitigation Bank Approval Process. For additional information see: <http://www.iowahistory.org/history/preservation/review-compliance>.

- The site must not contain toxins and contaminants (including, but not limited to, lead shot, dump sites, chemical waste, etc). Please provide a detailed account of past land use and anticipated land use. If the site contains or will contain elements or activities other than natural areas (including, but not limited to, hunting, the use of all-terrain vehicles, etc), describe those components in detail.

- Are there any geologic or hydrologic factors that would cause the site to be unsuccessful or cause a wetland to drain (sand layers, karst topography, sink holes, etc)? Are there any biological factors, such as existing populations of invasive/aggressive/non-native species, which would prevent the Bank from meeting performance standards?

- If there are existing utility easements, right-of-ways or any other encumbrances on the site, please be aware that the acreage of those areas may not be eligible to receive credit.

- Below are resources the IRT uses to assess the suitability of the site and mitigation work plan:
 - NRCS construction standards: See attachments: “Natural Resource Conservation Service Conservation Practice Standard, Wetland Restoration”, “Natural Resource Conservation Service Conservation Practice Standard, Wetland Creation” and “Natural Resource Conservation Service Conservation Practice Standard, Wetland Enhancement”
 - Iowa Soil Surveys: Sites that have existing hydric soils may have a greater chance of success than non-hydric soils. Please see:
<http://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=IA> and <http://icss.agron.iastate.edu/>.
 - Other mapping resources:
Iowa Geographic Map Survey: <http://ortho.gis.iastate.edu/>
LiDAR maps: www.iowadnr.gov/Environment/GeologyMapping/MappingGIS/LiDAR.aspx.
GIS data: <https://geodata.iowa.gov/>.
USGS StreamStats: <https://streamstats.usgs.gov/ss/>.

Iowa Mitigation Banking Checklist and Outline for Prospectus

Last Revised July 2019

Please refer to the cover sheet for procedures related to the submission of a Bank proposal. Please provide the following information and a copy of this checklist with the submission of a Prospectus:

On a cover sheet:

- Bank Name – Use a short name based on a geographic feature, if possible, and incorporate “Wetland Mitigation Bank” and/or “Stream Mitigation Bank” (i.e. “Sandy Creek Wetland Mitigation Bank” or “Sandy Creek Stream Mitigation Bank”)
- Bank Location – County/State/Latitude & Longitude
- Date of revision
- Bank Contacts – name, address, phone number(s) and email for Bank Sponsor, Property Owner and Consultant

In the body of the document:

- The objectives of the proposed Bank
- How the Bank will be established and operated
- Service area
- The general need for and technical feasibility of the Bank
- The ownership arrangements and long-term management strategy for the Bank
- The qualifications of the Bank Sponsor to successfully complete the type(s) of mitigation project(s) proposed, including information describing any past such activities by the Bank Sponsor
- The ecological suitability of the site to achieve the objectives of the Bank, including the physical, chemical and biological characteristics of the site and how it will support the planned types of aquatic resources and functions
- Assurance of sufficient water rights and/or sustainability of the hydrologic source to support the long-term sustainability of the Bank
- Exhibits
 - General location map
 - Location of the Bank site on a USGS topographic map
 - LIDAR map of the site (found at www.iowadnr.gov/Environment/GeologyMapping/MappingGIS/LiDAR.aspx.)
 - Color aerial photographs that reflect current conditions of the Bank site and surrounding properties
 - Color aerial photographs that include the mitigation work plan for the site
 - Soil maps
 - Service area map
 - Wetland Delineations (1987 Manual) (optional at this stage)
 - Phase I Cultural Resources Survey

Prospectus

Proposed Mitigation Bank Name
County, State
Date

Bank Sponsor Name
Bank Sponsor Address
Bank Sponsor Phone
Bank Sponsor E-Mail

Property Owner Name
Property Owner Address
Property Owner Phone
Property Owner E-Mail

Consultant Name
Consultant Address
Consultant Phone
Consultant E-Mail

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Note: Items I-XI are outlined in the Mitigation Rule as being required for a complete Prospectus. The asterisked items () are those that the IRT recommends to be included in the Prospectus in order to begin the discussion of site suitability and sensitive issues early on. The amount of detail required for each section is described below. Items in italics are notes and suggestions only and are not to be included word-for-word in the Prospectus. Items in "Regular" font are requirements for the Prospectus and should be included word-for-word, if applicable.*

I. Introduction

This section should explain what type of Bank (i.e. general use, single entity, etc) the Bank Sponsor is creating and who it will service (i.e. land owners, public entities, developers, etc) within the service area. Briefly describe how the credits will be developed (creation, restoration, enhancement, preservation). If the site had a wetland delineation completed in accordance with the 1987 Wetland Delineation Manual and Midwest Regional Supplement, please include a short summary of that information in this section (i.e. when the investigation was completed and what the results were – resource types and acreages). Although a wetland delineation is not required at this stage it will be required prior to MBI consideration.

Describe the duration of construction (one phase or many) and what the end result will be for creation/restoration, enhancement and preservation acres and the required buffer area. Give a short summary of what types of credits will be generated (emergent, forested, stream, etc) and how credits will be generated.

II. Objectives

The April 10, 2008 Mitigation Rule states the following:

“The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the United States authorized by DA permits.”

The Bank Sponsor has (*number*) objectives for (*Bank name*).

- 1.
- 2.
- 3.
- etc.

Environmental objectives must be included in this section (i.e. Support the national goal of no net-loss of wetlands, Enhance or create additional wildlife habitat, Compensate for wetland and/or stream losses in a manner which contributes to the long-term ecological functioning of the watershed within which the Bank is located, Reduce temporal losses of wetland/stream functions, etc). You may also choose to include economic or business objectives (Generate enough income to construct additional phases, Provide affordable and economically efficient opportunities, etc).

III. Establishment and Operation

Please describe baseline conditions and how the Bank will be established and operated.

A. Legal Description of the Bank Site

Please describe the legal description of the site, current ownership and any mortgages or liens that are on the property. If there is a mortgage or lien on the property, a subordination agreement will have to be put into place prior to the approval of the BI. A subordination agreement ensures that the interests of the BI are above those of the mortgage holder.

B. Site Description

Please describe the current land use, adjacent land uses and baseline information. Include any existing wetland delineations ('87 Manual & Midwest Regional Supplement), soil information, existing hydrology manipulation, existing natural areas, stream assessment, etc. Describe what the environmental lift of the site will be with the proposed Bank. A functional assessment of site conditions may be necessary to determine site suitability and/or potential credit generation.

Please include the language below, ensuring that all is applicable and accurate. Do not just copy and paste; make sure all these items are true for the site. If there are changes to the items below, please let the IRT know so it can be discussed further.

This site is not subject to restoration or enforcement action as a result of an unauthorized activity under Section 404 of the CWA; nor is this site classified as a Converted Wetland under the Wetland Conservation Provisions of the 1985 FSA.

It is our belief that adequate hydrology/natural flow regime relevant to the system under consideration can be restored permanently (*and explain why*).

A thorough examination and inspection of the entire property has been performed with no areas of hazardous concern being found.

The development of this site will not adversely affect federally- or state-listed endangered or threatened species or their habitat or other high quality habitats.

This site does not contain any oak groves, prairies, fens or savannas that would be adversely impacted by the development of this site. (*If the site does include any of these habitats, provide information regarding how they will be protected during the construction and development of the site.*)

This site is not being developed to satisfy local or regional storm water detention requirements.

This site is currently (*insert land use*). This site is (*distance, i.e. several miles*) away from any development and development in this area is not anticipated in the future (*or explain risk of adjacent development and effect on the Bank, if development is anticipated in the future*).

This site does not contain any hydrologic or water quality protection functions that would adversely affect the source, quality, or seasonal distribution of surface of ground water to important habitats.

This site does not contain any important wetlands according to any USACE Special Area Management Plan, USEPA Advanced Identification process, or any areas identified in the Iowa Natural Areas Inventory.

There are no important breeding, foraging, or nesting areas for migratory birds or other wetland-dependent wildlife on site which would be adversely impacted by the Bank.

The development of this site would not violate any state or federal regulations and would not adversely affect any federally-funded wetland conservation projects.

C. Hydrology Restoration

Please describe the proposed methods of wetland hydrology and/or flow regime restoration.

D. Construction

Please describe the proposed methods of any and all construction (i.e. berms, water control structures, bank stabilization, riffle structures, etc) and the structures themselves.

E. Seeding and Planting

Please describe the proposed methods of seeding and planting. In this section or an appendix, include the proposed seeding list, densities, methods and schedule for IRT review.

F. Development Costs

Please outline development costs (i.e. land acquisition, construction, conservation easement, legal fees, etc).

G. Other Mitigation Bank Establishment Costs

Please describe the "other" Bank establishment costs (i.e. long term maintenance fund).

H. Annual Mitigation Costs

Please describe the annual Bank costs (i.e. wetland delineation, taxes, maintenance, etc).

I. Establishment Timeline

Please describe the anticipated establishment timeline.

J. Financial Assurances

Financial assurances should "ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with applicable performance standards.." and "...must be based on the size and complexity of the compensatory mitigation project, the degree of completion of the project at the time of project approval, the likelihood of success, the past performance of the project sponsor and any other factors the district engineer deems appropriate." An executed performance bond must be in place prior to

the approval of the BI. The performance bond must equal 100% of the proposed construction costs, determined by the bonding entity or another third party, to ensure the anticipated costs are as accurate as possible.

A Long-Term Management Fund (LTMF) will be required, to be used for post-Bank closure management and repairs. The fund must be established immediately following the first credit sale and confirmed by the account holder. Fulfillment of the LTMF will be accomplished as credits are sold, but the LTMF must be fully funded prior to Bank closure. Prior to Bank closure, the success of the plant communities, hydrology, channel stability, etc should be well known and established. The fund will allow for the holder of the conservation easement, with IRT approval, to provide needed maintenance and/or repair if the Bank Sponsor or property owner fails to maintain the restored property under the Conservation Easement. The LTMF will be used for maintenance and repair of the Bank ONLY, and not for payment of salaries, real estate taxes, etc.

In this section, please describe proposed financial assurance arrangements (type of account and proposed easement holder). Although 125% of proposed construction cost is the guideline for the long-term management fund, the IRT will determine what amount is necessary for that fund and what percent of each credit sale will be allocated to that fund.

K. Adaptive Management Plan

This section should describe the adaptive management plans for the Bank, including remedial plans for invasive species, seeding (i.e. cultural burn, chemical control, mechanical control, re-seeding to promote natives and discourage invasives, mowing, armoring, etc) and structure repair. Please include a contingency plan in the event that the mitigation credits need to be re-established at a different location due to site failure. Also include security measures that will limit unauthorized motor vehicle or livestock access. Please incorporate the following into this section:

“Should any certified credits that have been debited be deemed as failing during the life of the Bank, every effort will be made to repair those areas. If the Bank Sponsor is unable to repair the certified credits that have been debited on-site, an alternative location may be used to replace the failed certified credits that have been debited.”

L. Determination of Credits and Credit Release Schedule

*Generally, below is the breakdown of wetland credit determination. It can be changed at the discretion of the IRT after reviewing baseline conditions, establishment of the Bank and anticipated environmental lift. *Credit generated from upland buffer cannot account for more than 33% of overall wetland credits.*

Restored/created wetlands – 1:1 (1 acre of restored/created wetland = 1 bank credit)

Enhanced wetlands – 2:1 (2 acres of enhanced wetland = 1 bank credit)

Buffer – 4:1 (4 acres of buffer = 1 bank credit)

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

Restoration means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource.

Enhancement means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

A buffer is required around the perimeter of the proposed site. The buffer width, a minimum of 50 feet, depends on the topography of the proposed site, surrounding land use and other factors affecting the success of vegetative establishment. This can be changed by the IRT after review of the site.

Preservation may be used only if the resources are under threat of destruction or adverse modification (further requirements outlined in 33 CFR Part 332.3(h)) and the quality of the preserved area is commiserate with the requirements of created/restored/enhanced areas. The IRT will determine credit value for preserved aquatic resources after reviewing baseline conditions, methods of preservation and anticipated environmental lift but will generally be - 10:1 (10 acres of preserved wetland = 1 bank credit)

Stream credits will be determined by using the current version of the Iowa Stream Mitigation Method Version located at the link below.

<https://usace.contentdm.oclc.org/utls/getfile/collection/p266001coll1/id/8954>

Generally, below is the credit release schedule for wetland credits. It can be changed at the discretion of the IRT after reviewing anticipated mitigation success and complexity of establishment.

1. Upon Bank Establishment (USACE signing of the BI, recording of an IRT-approved Conservation Easement, confirmation of LTMF account establishment, and acceptable financial assurances as described in the BI), 15% of anticipated credits will be made available for sale.
2. Upon Bank Establishment, USACE approval of as-built drawings (for all construction, structures, and complete seeding of approved species) and confirmation of the use of the LTMF from the Account holder, an additional 15% (a cumulative total of 30%) of anticipated credits will be made available for sale.
3. Upon Bank Establishment, USACE approval of as-built drawings, confirmation of the establishment of the LTMF and USACE-approved documentation indicating the presence of wetland hydrology (including

full supporting monitoring well data and delineations completed according to the '87 Manual and its Supplement) for at least one year, an additional 15% of anticipated credits (a cumulative total of 45%) will be made available for sale.

4. For each following year (beyond the first year that wetland hydrology was documented and approved), when vegetation and hydrology performance standards are met and approved in writing by the USACE, up to 15% of anticipated credits will be approved for sale if unsold, successfully-restored credits are present.

5. After one year has passed from the date of the first credit sale, if wetland hydrology is not present in the majority of years, native plant communities are not developing or if any performance standards are not met on areas that are of sufficient size to cover sold credits, the USACE will require one or more of the following: adaptive management actions, a decrease of credits available for sale, a suspension of credit sales, termination of the BI and/or utilization of financial assurances.

Generally, below is the credit release schedule for stream credits. It can be changed at the discretion of the IRT after reviewing anticipated mitigation success and complexity of establishment.

1. Upon Bank Establishment (USACE signing of the BI, recording of an IRT-approved Conservation Easement, confirmation of LTMF account establishment, and acceptable financial assurances as described in the BI), 15% of anticipated credits will be made available for sale.

2. Upon Bank Establishment, USACE approval of as-built drawings (for all construction, structures, and complete seeding of approved species) and confirmation of the use of the LTMF from the Account holder, an additional 15% (a cumulative total of 30%) of anticipated credits will be made available for sale.

3. For each year following the completion of a stream reach and including one bank full event, when success criteria are met and approved in writing by the USACE, up to 15% of anticipated credits will be approved for sale if unsold, successfully-restored credits are present.

4. After one year has passed from the date of the first credit sale, if the project is not meeting or trending towards performance standards on areas that are of sufficient size to cover sold credits, the USACE will require one or more of the following: adaptive management actions, a decrease of credits available for sale, a suspension of credit sales, termination of the BI and/or utilization of financial assurances.

Credits used by the Bank Sponsor to mitigate any impacts to aquatic resources caused by construction of the Bank must be recorded in the ledger.

IV. Service Area

This section will identify what service area the bank is operating in. There are eight standard service areas for all mitigation banks and In-lieu fee programs across the State of Iowa. A map of service areas and their boundaries can be found as an attachment to this guidance package and also on our website at <https://www.mvr.usace.army.mil/Missions/Regulatory/Wetland-Mitigation/>.

V. Needs Assessment

This section should describe why a Bank is needed in the area and what activities are going on (i.e. farming, commercial development, etc) that would require mitigation.

VI. Technical Feasibility

This section should describe why the proposed site is suitable for mitigation activities. Describe the soils, hydrology, topography, etc. Explain why success is anticipated.

VII. Real Estate Ownership

This section should describe the ownership arrangements at the site and if there are any mortgages or liens on the property, as well as the Conservation Easement holder, if known.

VIII. Long-Term Management

This section should describe the Long-Term Management responsibilities and plan.

IX. Sponsor Qualifications

This section should describe the Bank Sponsor and their qualifications (i.e. technical abilities, past experience, etc).

X. Ecological Suitability of the Site

This section should describe why the proposed site is ecologically suitable and how it fits into the surrounding area, watershed needs and ecosystem functions. Please include information about positive and adverse impacts from the Bank.

XI. Assurance of Sufficient Water Rights

This section should describe the water rights in this area, as well as assurance that the hydrologic source will support the long-term sustainability of the Bank.

XII. Signatures

This section must include the Bank Sponsor's signature(s). If applicable, the property owner and consultant should sign, but it is not required.

XIII. List of Exhibits

Iowa Mitigation Banking Checklist and Outline for the BI

Last Revised July 2019

Please refer to the Cover Sheet for procedures related to the submission of a Bank proposal.

The BI describes, in detail, the physical and legal characteristics of the Bank, including how it will be established, operated and managed. It is from the Draft BI that a Final BI is prepared, incorporating all comments provided by the IRT. The Final BI is the document by which the District determines whether to approve or deny the establishment of the Bank. If the District intends to approve the BI, signatures of IRT agencies will be requested. *Please include a redline/strikeout or track changes version to document where previous comments have been addressed throughout the BI.

Please provide the following information and a copy of this checklist with the submittal of a BI:

On a cover sheet:

- Bank Name – Use a short name based on a geographic feature, if possible, and incorporate “Wetland Mitigation Bank” and/or “Stream Mitigation Bank” (i.e. “Sandy Creek Wetland Mitigation Bank” or “Sandy Creek Stream Mitigation Bank”)
- Bank Location – County/State/Latitude & Longitude
- Date of revision
- Bank Contacts – name, address, phone number(s) and email for Bank Sponsor, Property Owner and Consultant

In the body of the document:

- Objectives of the Bank
- Site selection
- Site protection instrument
- Baseline information
- Determination of credits and credit release schedule
- Mitigation work plan
- Maintenance plan
- Performance standards
- Monitoring requirements
- Long-term management plan
- Adaptive management plan
- Financial assurances
- Service area
- Accounting procedures
- A provision stating that legal responsibility for providing the compensatory mitigation lies with the Bank Sponsor once a permittee secures credits
- Default and closure provisions
- Reporting protocols

Required Exhibits

- General location map of the site
- Current map of the site on USGS topographic maps using 1-foot contours
- LIDAR map of the site (found at www.iowadnr.gov/Environment/GeologyMapping/MappingGIS/LiDAR.aspx)
- Color aerial photographs that reflect current conditions of the site and surrounding properties
- Color aerial photographs that reflect the mitigation work plan for the site
- Soil maps
- Seeding lists for wetland, buffer, etc
- Warranty Deed and other Real Estate documents
- Conservation Easement
- Service area map
- Other exhibits, such as NRCS determinations or other relevant documents
- Wetland Delineation (1987 Manual)
- Phase I Cultural Resources Survey

Below is a template and additional information for the BI.

When the BI is considered Final, the Bank Sponsor must email an electronic copy and mail a hard copy to the District, with the appropriate signatures (Bank Sponsor, Property Owner and Consultant). The District will then solicit signatures from the IRT.

Mitigation Bank Instrument

Proposed Mitigation Bank Name
County, State
Date

Bank Sponsor Name
Bank Sponsor Address
Bank Sponsor Phone
Bank Sponsor E-Mail

Property Owner Name
Property Owner Address
Property Owner Phone
Property Owner E-Mail

Consultant Name
Consultant Address
Consultant Phone
Consultant E-Mail

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Note: The amount of detail required for each section for the BI is described below. Items in italics are notes and suggestions only and are not to be included word-for-word in the BI. Items in regular font are requirements for the BI and should be included word-for-word, if applicable.

I. Introduction

This section should explain what type of Bank (i.e. general use, single entity, etc) the Bank Sponsor is creating and who it will service (i.e. land owners, public entities, developers, etc) within the service area. Briefly describe how the credits will be developed (creation, restoration, enhancement, preservation). If the site had a wetland delineation completed, please include a short summary of that information in this section (i.e. when the investigation was completed and what the results were – resource types and acreages).

Describe the duration of construction (one phase or many) and what the end result will be for creation/restoration, enhancement and preservation acres and the required buffer area. Give a short summary of what types of credits will be generated (emergent, forested, stream, etc).

II. Objectives

The April 10, 2008 Mitigation Rule states the following:

“The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the United States authorized by DA permits.”

The Bank Sponsor has (*number*) objectives for (*Bank name*).

- 1.
- 2.
- 3.
- etc.

Environmental objectives must be included in this section (i.e. Support the national goal of no net-loss of wetlands, Enhance or create additional wildlife habitat, Compensate for wetland and/or stream losses in a manner which contributes to the long-term ecological functioning of the watershed within which the Bank is located, Reduce temporal losses of wetland/stream functions, etc). You may also choose to include economic or business objectives (Generate enough income to construct additional phases, Provide affordable and economically efficient opportunities, etc). Specific objectives must identify the resource type(s) and amount(s) that will be provided, the method of compensation (i.e. restoration, establishment, enhancement and/or preservation) and the manner in which the resource functions of the Bank will address the needs of the watershed, ecoregion, physiographic province or other geographic area of interest.

III. Site Selection

Banks shall be appropriately sited and designed to ensure that natural hydrology and landscape position will support long-term sustainability and function as a self-sustaining system. This section should describe the factors considered during the site selection process and include consideration of watershed needs and practicability of accomplishing ecologically self-sustaining aquatic resource restoration, establishment, enhancement and/or preservation at the Bank. Discuss how the site is ecologically suitable for providing the desired aquatic resource functions by describing:

- a. The hydrological conditions, soil properties, native seed source, and other physical and chemical characteristics.*
- b. The watershed-scale features such as aquatic habitat diversity, habitat connectivity, existence of threatened or endangered species related to prior habitat loss and other landscape scale functions.*
- c. The size and the location of the site relative to hydrologic sources and other ecological features.*
- d. The compatibility with adjacent land uses and any existing watershed management plans.*
- e. The reasonably foreseeable effects the Bank will have on ecologically important aquatic resources, cultural resources or habitat for federally- or state-listed threatened and endangered species.*
- f. Other relevant information including potential chemical contamination, impacts from land use changes within the watershed and the proximity to the location of other mitigation banks, ILF mitigation sites or protected conservation areas.*

IV. Site Protection Instrument

This section should describe the ownership, legal arrangements and instrument that will be used to ensure the long-term site protection of the Bank. Include the draft real estate instrument as an appendix to the BI. Generally, site protection is accomplished through the use of conservation easements, deed restrictions or restrictive covenants and, where applicable, establishes an appropriate third party (governmental or non-profit resource agency) to enforce site protections and provide the third party the resources necessary to monitor and enforce the site protections.

The long-term site protection instrument must, to the extent appropriate and practicable, prohibit incompatible uses that might jeopardize the objectives of the Bank. The long-term site protection instrument must contain a provision requiring a 60-day advance notification to the district engineer (DE) before any action is taken to void or modify the site protection instrument, including transfer or title or, or establishment or any other legal claims over, the Bank site.

If the site is being held by a mortgage or any liens, a Subordination Agreement will need to be put in place. This will ensure that the interests of the IRT and BI are above that of the mortgage holder. If the land is held free and clear, a Subordination Agreement will not be required.

V. Baseline Information

This section should describe the ecological characteristics of the site, which may include historic and existing plant communities, historic and existing hydrology, existing soil conditions and existing hydro-system connectivity between the aquatic resource and other waters, including tributaries connection to receiving waters. This section should also include a delineation of waters of the United States on the site, using the 1987 USACE Wetland Delineation Manual and Midwest Supplement. Baseline information must be documented. Post-construction conditions will be compared with baseline conditions to establish the amount of environmental lift that occurred.

VI. Determination of Credits

*This section should describe the number and types of credits to be provided at the Bank with a brief rationale for this determination. Wetland credit types shall be identified to the Cowardin class and, in the absence of a functional assessment method, determined based on a combination of land area and method of compensation. Required upland buffers next to wetlands that provide habitat connectivity and other ecological functions may also general compensatory mitigation credits because of their contribution to the ecological functions of the overall mitigation bank. Generally, below is the breakdown of wetland credit determination. It can be changed at the discretion of the IRT after reviewing baseline conditions, establishment of the Bank and anticipated environmental lift. *Credit generated from upland buffer cannot account for more than 33% of overall wetland credits.*

Restored/created wetlands – 1:1 (1 acre of restored/created wetland = 1 bank credit)

Enhanced wetlands – 2:1 (2 acres of enhanced wetland = 1 bank credit)

Buffer – 4:1 (4 acres of buffer = 1 bank credit)

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

Restoration means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource.

Enhancement means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

A buffer will be required around the perimeter of the proposed site. The buffer width, a minimum of 50 feet, depends on the topography of the proposed site, surrounding land use and other factors affecting the success of vegetative establishment. This can be modified by the IRT after review of the site.

Preservation may be used only if the resources are under threat of destruction or adverse modification (further requirements outlined in 33 CFR Part 332.3(h)). The IRT will determine credit value for preserved aquatic resources after reviewing baseline conditions, methods of preservation and anticipated environmental lift but will generally be - 10:1 (10 acres of preserved wetland = 1 bank credit)

Stream credits will be determined by using the current version of the Iowa Stream Mitigation Method Version located at the link below.

<https://usace.contentdm.oclc.org/utills/getfile/collection/p266001coll1/id/8954>

VII. Credit Release Schedule

This section describes the credit release schedule, which is tied to achievement of specific milestones.

Generally, below is the credit release schedule for wetland credits. It can be changed at the discretion of the IRT after reviewing Bank success and complexity of establishment.

1. Upon Bank Establishment (USACE signing of the BI, recording of an IRT-approved Conservation Easement, confirmation of LTMF account establishment, and acceptable financial assurances as described in the BI), 15% of anticipated credits will be made available for sale.
2. Upon Bank Establishment, USACE approval of as-built drawings (for all construction, structures, and complete seeding of approved species) and confirmation of the use of the Long-Term Management Fund (LTMF) from the Account holder, an additional 15% (a cumulative total of 30%) of anticipated credits will be made available for sale.
3. Upon Bank Establishment, USACE approval of as-built drawings, confirmation of the establishment of the LTMF and USACE-approved documentation indicating the presence of wetland hydrology (including full supporting monitoring well data and delineations completed according to the '87 Manual and its Supplement) for at least one year, an additional 15% of anticipated credits (a cumulative total of 45%) will be made available for sale.
4. For each following year (beyond the first year that wetland hydrology was documented and approved), when vegetation and hydrology performance standards are met and approved in writing by the USACE, up to 15% of anticipated credits will be approved for sale if unsold, successfully-restored credits are present.
5. After one year has passed from the date of the first credit sale, if wetland hydrology is not present in the majority of years, native plant communities are not developing or if any performance standards are not met on areas that are of sufficient size to cover sold credits, the USACE will require one or more of the following: adaptive management actions, a decrease of credits available for sale,

a suspension of credit sales, termination of the BI and/or utilization of financial assurances.

Generally, below is the credit release schedule for stream credits. It can be changed at the discretion of the IRT after reviewing anticipated mitigation success and complexity of establishment.

1. Upon Bank Establishment (USACE signing of the BI, recording of an IRT-approved Conservation Easement, confirmation of LTMF account establishment, and acceptable financial assurances as described in the BI), 15% of anticipated credits will be made available for sale.
2. Upon Bank Establishment, USACE approval of as-built drawings (for all construction, structures, and complete seeding of approved species) and confirmation of the use of the LTMF from the Account holder, an additional 15% (a cumulative total of 30%) of anticipated credits will be made available for sale.
3. For each year following the completion of a stream reach and including one bank full event, when success criteria are met and approved in writing by the USACE, up to 15% of anticipated credits will be approved for sale if unsold, successfully-restored credits are present.
4. After one year has passed from the date of the first credit sale, if the project is not meeting or trending towards performance standards on areas that are of sufficient size to cover sold credits, the USACE will require one or more of the following: adaptive management actions, a decrease of credits available for sale, a suspension of credit sales, termination of the BI and/or utilization of financial assurances.

Credits used by the Bank Sponsor to mitigate any impacts to aquatic resources caused by construction of the Bank must be recorded in the ledger.

VIII. Mitigation Work Plan

This section should include detailed written specifications and work descriptions for the Bank, including, but not limited to, the geographic boundaries of the project, construction methods and sequence, source(s) of water, including connections to existing waters and uplands, methods for establishing the desired plant community, plans to control invasive plant species, the proposed grading plan, soil management and erosion control measures. The following resources can be used in the development of a stream mitigation plan and performance standards: "Iowa Stream Mitigation Method Version 2.0", available at

<https://usace.contentdm.oclc.org/utills/getfile/collection/p266001coll1/id/8954>

"Natural Stream Channel Design Review Checklist", available at

[https://www.epa.gov/sites/production/files/2015-](https://www.epa.gov/sites/production/files/2015-07/documents/ncd_review_checklist.pdf)

[07/documents/ncd_review_checklist.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/ncd_review_checklist.pdf) and "A Function-Based Framework for Stream Assessment & Restoration Projects", available at:

https://www.epa.gov/sites/production/files/2015-08/documents/a_function_based_framework_for_stream_assessment_3.pdf.

IX. Maintenance Plan

This section should include a description and schedule of maintenance requirements to ensure the continued viability of the Bank once initial construction is completed. Please include the invasive species management plan, maintenance of water control structures, vegetation management methods (i.e. mowing, cultural burns) and other management plans. Also, it must be stated that short-term maintenance and management will be at the Bank Sponsor's expense (since the LTMF specified in the Financial Assurances section is only to be used for long-term management).

X. Performance Standards

This section should describe the ecological, administrative and adaptive management standards that will be used to determine whether the Bank is achieving its objectives. The standards must be based on attributes that are objective and measurable. They must be based on the best available science and able to be measured or assessed in a practicable manner. The standards should take into account the expected stages of the aquatic resource development process in order to allow early detection of potential problems and appropriate adaptive management. The use of reference aquatic resources (least disturbed and exhibits the highest levels of functions in the service area) is encouraged to establish performance standards. This approach can help ensure that the performance standards are reasonably achievable, by reflecting the range of variability exhibited by the regional class of aquatic resources as a result of natural processes and human influences. Generally, below are the performance standards the IRT has approved for various habitats. This list is not inclusive and the following items are flexible, depending on site-specific conditions. If there are additional performance standards that apply to your site, add those in, and if there are items below that do not apply or cannot be accomplished, please discuss with the IRT.

Restored wetlands shall meet the minimum requirements for inundation and/or soil saturation as defined in the '87 Manual and Midwest Supplement.

Monitoring of hydrology, as specified below, shall apply to all restored wetland areas. Monitoring of vegetation, as specified below, shall apply to all Bank areas (including buffers and restored wetland areas). If at any point before the Bank is closed, the IRT determines that one or more of the following performance standards are not or will not be met, the IRT will terminate credit sales, reduce credit acreages and/or values, or require adaptive management actions.

A. Hydrology

1. Hydrology shall meet the minimum requirements as defined in the '87 Manual and Midwest Supplement (Secondary indicators of geomorphic position and-FAC neutral test cannot be used to confirm hydrology). This requirement includes soil saturation (within 12 inches of ground surface), inundation or combination of

saturation and inundation for at least 14 consecutive days during the growing season in the majority of years. Hydrology will be monitored by the Bank Sponsor, utilizing at least one groundwater monitoring well in each separate wetland basin, wetland type, and with any change of landscape position by someone trained in the use of the '87 Manual and Midwest Supplement, with data provided to the IRT to establish the acreage of wetlands being restored for the purpose of certifying the credits at the Bank.

2. The groundwater monitoring wells will be placed along the inside edges of the buffer areas and on the highest areas of the site in an attempt to confirm the presence of wetland hydrology at those areas. Additional observation wells may be required if questions arise as to the presence or absence of wetland hydrology in an area. Automated data loggers are the preferred method of monitoring groundwater wells.

3. All groundwater monitoring wells will be constructed and installed according to the Corps' "Technical Standard for Water-Table Monitoring of Potential Wetland Sites" technical note (ERDC TN-WRAP-05-2, June 2005).

4. Groundwater hydrology will be determined by the monitoring of groundwater monitoring wells and saturation. Wetland credits available for sale will be limited to areas at or below the elevation of the highest area with confirmed wetland hydrology in normal rainfall years. When drought conditions exist (D2 through D4 according to the USDA's drought monitor map located at <https://droughtmonitor.unl.edu/>) during the majority of a growing season, the IRT may consider releasing credits when hydrology has not been met (D0 and D1 will not be considered drought conditions). *Drought exception will not be considered during the first full growing season and will only be considered after hydrology has been documented.

B. Vegetation (A reference reach representative to the proposed Bank site may be used to sample for vegetation characteristics and utilized for plant species composition and seeding rates, tree and shrub densities and vegetative structure.)

1. Plant species and cover will be qualitatively and quantitatively measured in each plant community by a trained wetland delineator.

2. Based upon the national List of Plant Species that Occur in Wetlands: Midwest Region, more than 50% of the dominant plant species within each vegetative community of the restored wetland areas of the bank for which credit is sought shall be provided by species designated as obligate (OBL), facultative wetland (FACW), or facultative (FAC). Dominance is defined in the '87 Manual and Midwest Supplement.

3. All restored wetlands will be planted with the seed mix and rate shown in Exhibit ___. Prior to Bank closure, 75% or greater of the aerial coverage shall be dominated by healthy native hydrophytic plants.

4. Each (*acre of emergent wetland/emergent plant community*) must contain at least 15 vegetative species. (*Diversity by acre or plant community will be decided based on topography of the land and mitigation work plan.*)

5. At bank closure, each acre of forested wetland must contain at least 100 trees with live growth above 5 feet. Each acre must contain 5 native species, 2 of which are to be hard mast producing. No one species can account for more than 20% of the overall total tree number. (*This may change depending on desired forest type; shrubs may be permissible as well.*)

6. If, at any time during the monitoring period, the total number of live trees falls below 100 per acre, supplemental planting shall be completed within the same or following growing season. The monitoring report following the supplemental planting shall document the plantings and the resulting number of live trees per acre. All planting shall be completed to ensure compliance with the diversity and density requirements, described above

7. The understory of the forested areas shall reach 70% total vegetative cover by the end of the monitoring period. The percent coverage of native hydrophytic (FAC, FACW, OBL) vegetation within the mitigated wetland shall be a minimum of 50% of the total vegetative species.

9. Buffers must have at least 75% aerial coverage of native perennial species and contain a minimum of 5 native species per ½ acre. The buffers will be planted with the seed mix and rate shown in Exhibit ___.

10. Non-native, aggressive, invasive species will account for no more than 20% aerial coverage in any 50-foot by 50-foot area of riparian buffer. Non-native, aggressive, invasive species include, but are not limited to, reed canarygrass, phragmites, purple loosestrife, garlic mustard, flowering rush, Canada thistle, purple crown vetch, autumn olive, hairy cupgrass, leafy spurge, glossy buckthorn, amur honeysuckle, morrow's honeysuckle, tatarian honeysuckle, bell's honeysuckle, Eurasian water milfoil, Japanese knotweed, common buckthorn, and multiflora rose, or others determined by the IRT. Any 50-foot by 50-foot riparian buffer areas that have more than 20% aerial coverage of non-native, aggressive, invasive species will receive only 50% of the credit otherwise available for that type of wetland or buffer. Once the Banker provides documentation that the non-native, aggressive, invasive species in a previously

infested area have been controlled and subsequently make up less than 20% of that area's coverage, The IRT will restore full wetland credits to that area. *Areas generating riparian buffer credit are limited to no more than 20% aerial coverage of non-native, aggressive, invasive species in any 50-foot by 50-foot area. Areas generating wetland buffer credit are limited to no more than 5% aerial coverage of non-native, aggressive, invasive species in any 50-foot by 50-foot area.

11. If the total aerial coverage of non-native, aggressive, invasive species exceeds 5% of the total restored wetland acreage and/or 20% of the total buffer acreage, all credit sales will cease until the non-native, aggressive, invasive species are effectively controlled.

C. Soils. Due to the time lag between the restoration of wetland hydrology and the development of some hydric soil characteristics, no specific soil measurements, beyond saturation and water table, will be used as performance standards. If visible erosion is present that may adversely affect wetland hydrology or vegetation, credit values will be reduced or credit sales will cease until the erosion is repaired.

Stream Performance Standards

The following resources can be used in the development of a stream mitigation plan and performance standards: "Iowa Stream Mitigation Method Version 2.0", available at <https://usace.contentdm.oclc.org/utis/getfile/collection/p266001coll1/id/8954>

"Natural Stream Channel Design Review Checklist", available at https://www.epa.gov/sites/production/files/201507/documents/ncd_review_checklist.pdf and "A Function-Based Framework for Stream Assessment & Restoration Projects", available at: https://www.epa.gov/sites/production/files/2015-08/documents/a_function_based_framework_for_stream_assessment_3.pdf.

A. At a minimum and where applicable based on site conditions and restoration plans, quantitative performance standards should be developed for the following components: bank height ratio, entrenchment ratio, large woody debris index, bank full velocity, evolution of channel type, meander width ratio, lateral erosion rate, percent riffle, pool-to-pool spacing ratio, depth variability, bed material composition, floodplain connectivity, flow dynamics, bed form diversity, and riparian vegetation.

XI. Monitoring Requirements

This section should describe the parameters to be monitored and monitoring methods and procedures in order to determine if the Bank is on track to meet performance standards or if adaptive management is needed. A schedule for monitoring and reporting the results to the DE must be included. Monitoring must occur for a period not less than five years after final construction and planting for emergent habitat and ten years for forested habitat. Stream mitigation monitoring must be accomplished annually after a bank full event has occurred; the length of monitoring will depend on the complexity and design of the site. Extending the monitoring period may be required depending on resource type or adaptive management measures occurring after initial site work (i.e. planting of additional trees, adjustments/armoring of berms, etc).

XII. Long-Term Management

This section should describe how the Bank will be managed, after performance standards have been achieved, to ensure the long-term sustainability of the resource, including long-term financing mechanisms and the party responsible for long-term management. If the Bank Sponsor transfers the long-term management responsibilities for the Bank to a land stewardship entity, such as a public agency, non-governmental organization or private land manager, it must be approved by the IRT. Generally, the entity is identified prior to approval of the BI. In this instance, the Bank Sponsor will be responsible for long-term management until the Bank Sponsor identifies a long-term stewardship entity and that entity is approved by the District and IRT.

XIII. Adaptive Management

This section should describe the management strategy to address unforeseen changes in site conditions or other components of the Bank, including the parties responsible for implementing adaptive management measures. The adaptive management plan should guide decisions for revising mitigation work plans and implementing measures to address both foreseeable and unforeseen circumstances that adversely affect Bank success. Circumstances that may qualify for adaptive management include an inability to construct the Bank in accordance with the approved mitigation work plans, monitoring or other information reveals the Bank is not progressing towards meeting its performance standards, possible remedial measures that result in site modifications, design changes, revisions to maintenance requirement or revised monitoring requirements.

XIV. Financial Assurances

This section should describe financial assurances (for both construction and long-term management) to be provided and how they are sufficient to ensure a high level of confidence that the Bank will be successfully completed, in accordance with its performance standards. The amount of financial assurances, approved by the DE, will be determined by the size and the complexity of the Bank site, the degree of completion of the Bank at the time of approval, the likelihood of success, the past performance of the Bank Sponsor and any other factors the USACE deems appropriate. The rationale for determining the amount of the required financial assurances must be documented in the BI and may include planning and engineering, legal fees, mobilization, construction, monitoring and maintenance.

The financial assurances may be in the form of performance bonds, escrow account or other appropriate instruments approved by the DE. The financial assurances must be in the form that ensures the DE will receive notification at least 120 days in advance of any termination or revocation. For performance bonds or letters of credit, a standby trust account must be established. All amounts paid by the financial assurance provider must

be paid directly to the standby account for distribution by the account trustee in accordance with USACE instructions.

The BI must clearly specify the conditions under which the financial assurances are to be released to the Bank Sponsor and/or other financial assurance provider.

Generally, the IRT requires that the LTMF equals 125% of proposed construction and management costs (including structures, seeding, invasive species management, etc).

Depending on how active or passive the management of the mitigation bank is, 10-15% of each credit sale will be required to be placed into the LTMF until it equals 125% of proposed construction costs. Alternatively, the The Nature Conservancy has a Long-Term Management Fund Estimator that can assist in calculating LTMF costs (<https://www.conservationgateway.org/ConservationPlanning/ToolsData/Documents/Long-Term%20Stewardship%20Calculator%20Factsheet.pdf>)

With IRT approval, the LTMF may be invested to generate returns to offset the cost of maintenance and inflation. The IRT does not endorse any particular investment firm. The National Fish and Wildlife Foundation has a mitigation endowment fund that has been used as an investment vehicle for LTMF's. (<https://www.nfwf.org/whatwedo/idea/Pages/long-term-stewardship.aspx>)

Please include the following in your BI:

All construction must be completed within one year of the signing of the BI. The Bank Sponsor may request a deadline extension for delays that are attributable to acts, events, causes or occurrences not within the Bank Sponsor's control. If the Bank Sponsor fails to complete construction within one year and there has been no deadline extension, the USACE may terminate the BI and/or the Grantee of the Conservation Easement may proceed against the LTMF.

If the Bank Sponsor fails to complete the required maintenance and monitoring in any given year or fails to execute the Adaptive Management Plan (as required), the USACE may curtail the credit sales until the Bank Sponsor provides written evidence of performance of required maintenance and monitoring and the USACE confirms performance. If the Bank Sponsor fails to respond to written USACE notice of deficiencies within 120 days, the IRT may terminate the BI and the Grantee of the Conservation Easement may draw on the LTMF for maintenance and monitoring.

The Bank Sponsor must provide an annual report showing the beginning and ending balances of the LTMF. The report should include information on the amount of required financial assurances and status of those assurances, including their potential expiration. This report must be submitted to the USACE and IRT on an annual basis as part of the annual report. The report will serve as part of the administrative record for the Bank.

XV. Service Area

This section will identify what service area the bank is operating in. There are eight standard service areas for all mitigation banks and In-lieu fee programs across the State of Iowa. A map of service areas and their boundaries can be found as an attachment to this guidance package and also on our website at <https://www.mvr.usace.army.mil/Missions/Regulatory/Wetland-Mitigation/>.

XVI. Accounting Procedures

This section should describe the accounting procedures for the Bank. For the use of credits, the USACE will determine the number and type(s) of credits required to compensate for the authorized impacts. The BI must contain a provision requiring the Bank Sponsor to establish and maintain a ledger to account for all credit transactions. Each time a credit transaction occurs, the Bank Sponsor must notify the USACE and IDNR

and provide them with a copy of the purchase receipt and updated ledger. The Bank Sponsor must also keep the ledger in RIBITS up to date. The Bank Sponsor must compile an annual ledger report showing the beginning and ending balance of available credits and permitted impacts for each resource type, including types of credits debited, all additions and subtractions of credits, and any other changes in credit availability (e.g., additional credits released, credit sales suspended). This ledger report must be submitted to the USACE and IRT on an annual basis as part of the annual report. The ledger report will serve as part of the administrative record for the Bank.

XVII. Default and Closure Provisions

This section describes the default and closure provisions. Please include the following in your BI:

If at any time the IRT determines that one or more of the performance standards are not or will not be met, the Bank Sponsor fails to complete the required maintenance and/or monitoring in any given year, the Bank Sponsor fails to implement the Adaptive Management Plan (as required) or the Bank Sponsor fails to respond to written USACE notice of deficiencies within 120 days, the IRT may terminate the BI and the Grantee of the Conservation Easement may draw on the LTMF for maintenance and monitoring.

If termination of the BI becomes necessary, the Bank Sponsor will continue to be responsible for restoring or creating any credits that have already been sold. With 120 days notice, the Bank Sponsor can terminate the BI if enough credits have been successfully restored at the Bank site to cover all sold credits.

XVIII. Reporting Protocols

This section should describe the reporting protocols. Information obtained during monitoring of the Bank must be supplied to each member of the IRT to be used for the certification of the credits available in the bank and to assess the restoration success. Please include the following in your BI:

- A. The Bank Sponsor and IRT will jointly inspect the site on an annual basis until all the credits are sold or this BI is terminated. During those years in which, a) all or required portions of the site have been determined to have met the required performance standards, and b) the Bank Sponsor has requested certification of credits, the District will prepare a letter stating the credits which are available. This letter will also be used to notify the Bank Sponsor as to the IRT's observations of the site in relation to the performance standards.
- B. The Bank Sponsor will prepare a mid-year letter report to each member of the IRT on the status of the bank. This letter report will notify the IRT of any changes to the plan, general status of hydrology and the vegetative communities, and remedial and management measures taken. The mid-year letter report will be submitted to the IRT by July 31 of each year. Photographic documentation at

established photo points of the Bank's progress will be provided to the IRT in the mid-year report.

C. The Bank Sponsor will prepare an annual report at the end of each year. This report will be submitted to each member of the IRT by December 31st of each year. This report will detail the results of the vegetative and hydrologic monitoring in each vegetative community, a chart showing year-by-year trends with hydrology and vegetation for each vegetative community, concise and effective presentation of the status of the site in relation to each performance standard, the ratios and acreage of each type of vegetative community on the site, data from the groundwater observation wells, representative photos, maps showing all successfully-restored wetlands and all photo locations, the maintenance actions taken by the Bank Sponsor in the previous growing season, and needed maintenance or actions. The first report will also contain a description and plan of all construction, a one-foot contour topography map, the elevation of each monitoring well, planting lists, explanation of any significant deviations from the original design or planting plan, corrective measures, erosion control measures, a map showing the locations of groundwater observation wells, maps showing all areas proposed for buffers and for wetland restoration, and photographs taken at each photo point. The annual report will be completed utilizing the Rock Island District's Standard Mitigation Monitoring Form and according to Regulatory Guidance Letter 08-03: Minimum Monitoring Requirements for Compensatory Mitigation Projects Involving Restoration, Establishment, and/or Enhancement of Aquatic Resources, unless superseded by another USACE-approved preferred method.

D. Once credits will no longer be sold, the Bank Sponsor will submit a final report to the IRT as to the status of the bank and include all items required in the annual report, as well as a statement justifying its closure. If at the end of this period the Bank Sponsor desires to shift the long-term management and/or ownership of this site to another entity, the Bank Sponsor will provide the documentation showing that the new entity accepts the receipt of the site and the Conservation Easement. Any change in long-term management and/or ownership must be approved by the IRT and cannot be made without written approval from the USACE.

XIX. Signatures

This section includes signature and date pages for all signatories. Please include the following signature pages (name for each agency will be provided to you), with the Bank name included in a page header:

Bank Sponsor, Property Owner and Consultant

Branch Chief, Regulatory Branch, U.S. Army Corps of Engineers, Rock Island District

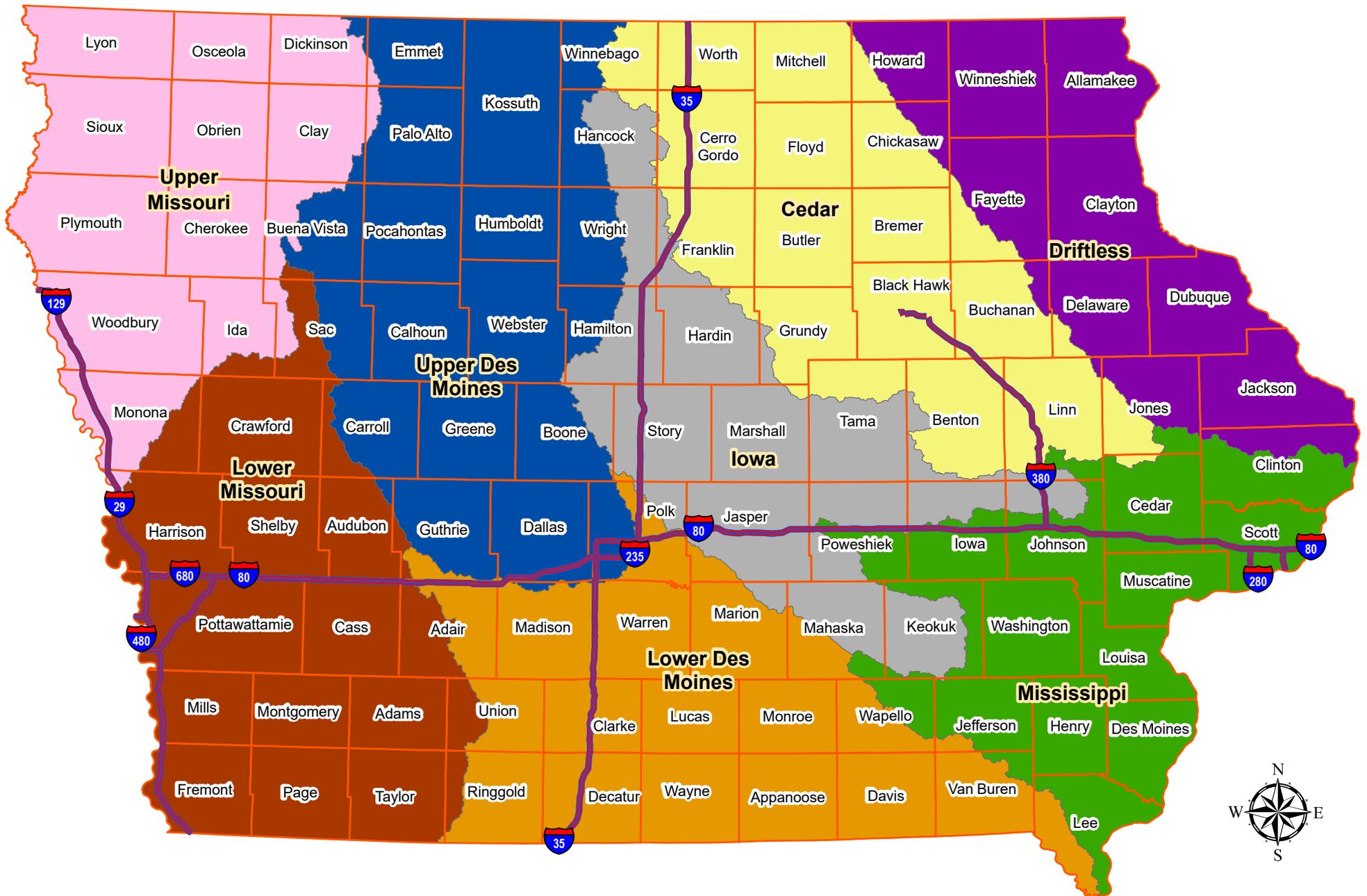
Director, Water Wetlands and Pesticides Division, U.S. Environmental Protection Agency

*Supervisor, Rock Island Ecological Services Field Office, U.S. Fish and
Wildlife Service
State Conservationist, USDA Natural Resources Conservation Service
Director, Iowa Department of Natural Resources*

XX. List of Exhibits

ATTACHMENTS

Mitigation Bank Service Areas in Iowa



Environmental Reviews for Iowa's Natural Resources

Last Revised: July 2019

In response to a request for Environmental Review for Natural Resources, the Iowa Department of Natural Resources will search their records for state- and federally-listed endangered or threatened species, rare natural communities, sensitive habitat, and state lands and waters in a proposed project area.

In order to provide a thorough review, a complete request for an environmental review must include:

- ◇ A narrative which describes the proposed project;
- ◇ Current land use details;
- ◇ Legal description (Section, Township, Range) of the project area;
- ◇ A map and/or aerial photo which includes the proposed project area;
- ◇ Additional information such as preliminary plan sets may be helpful in the review process.

To expedite the review of projects with a large physical footprint, such as wind energy developments or pipeline projects, the Iowa Department of Natural Resources recommends that a GIS shape file of the project boundary is included with the request for review. The shape file must be projected in NAD 83, UTM Zone 15N.

Reviews can take approximately 4-6 weeks. There is not a charge for these reviews.

The Department accepts requests for review via postal mail or SLER@dnr.iowa.gov. Questions about the Environmental Review process may be directed to the Program Coordinator at 515-725-8464.

Environmental Review for Natural Resources
Conservation and Recreation Division
Iowa Department of Natural Resources
502 E 9th St. Des Moines, IA 50319-0034

The letter of review does not constitute a permit. Other permits may be required from the Iowa Department of Natural Resources or other state or federal agencies in advance of beginning work on the project.

For more information about state lands and waters, please refer to the Sovereign Lands Construction Permit program webpage at: <https://www.iowadnr.gov/Environmental-Protection/Land-Quality/Sovereign-Lands-Permits>

According to Iowa Administrative Code 481A and 481B, a person shall not take, possess, kill, trap or ensnare, transport, import, export, process, sell or offer for sale, buy or offer to buy, nor shall a common carrier transport or receive for shipment, any species plant or animal on the state list.

Compensatory Mitigation Rule Timeline for Bank or ILF Instrument Approval*

	Event	# of Days**	
Phase I	Optional Preliminary Review of Draft Prospectus	30	DE provides copies of draft prospectus to IRT and will provide comments back to the sponsor within 30 days.
Sponsor Prepares and Submits Prospectus ~DE must notify sponsor of completeness w/in 30 days of submission~			
Day 1** Complete Prospectus Received by DE			
Phase II	Public notice must be provided within 30 days of receipt of a complete prospectus	30	
Day 30			
	30-Day Public Comment Period	30	
Day 60			
	DE must provide the sponsor with an initial evaluation letter within 30 days of the end of the public comment period.	30	15 DE distributes comments to IRT members and sponsor within 15 days of the close of the public comment period.
Day 90			
Sponsor Considers Comments, Prepares and Submits Draft Instrument ~DE must notify sponsor of completeness w/in 30 days of submission~			
Day 1 Complete Draft Instrument Received by IRT Members			
Phase III	30-day IRT comment period begins 5 days after DE distributes draft instrument to IRT members	30	
Day 90			
	DE discusses comments with IRT and seeks to resolve issues ~ # of days variable~	60	90 Within 90 days of the receipt of a complete draft instrument by IRT members, the DE must notify the sponsor of the status of the IRT review.
Sponsor Prepares Final Instrument ~Sponsor provides copies to DE and all IRT members~			
Day 1 Final Instrument Received by DE & IRT			
Phase IV	DE must notify IRT members of intent to approve/not approve instrument within 30 days of receipt.	30	
Day 30			
	Remainder of time for initiation of dispute resolution process by IRT members	15	45 IRT members have 45 days from submission of final instrument to object to approval of the instrument and initiate the dispute resolution process.
Day 45			
INSTRUMENT APPROVED/NOT APPROVED, or DISPUTE RESOLUTION PROCESS INITIATED			

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Total Required Federal Review (Phases II-IV): ≤225 Days

*Timeline also applies to amendments

**The timeline in this column uses the maximum number of days allowed for each phase.

Compensatory Mitigation Rule Timeline for Bank or ILF Instrument Dispute Resolution*

		# of days**		
Day 1**	Final Instrument Received by DE and IRT			
Day 30	DE must notify IRT members of intent to approve instrument within 30 days of receipt.	30	45	IRT members have 45 days from submission of final instrument to object to approval of the instrument and initiate the dispute resolution process.
Day 45	IRT members then have 15 days to notify DE and other IRT members of their objection by letter	15		
Day 75	If an objection is received, the DE must respond within 30 days	30	150	The DE's response must be sent to all IRT members, and may either indicate an intent to disapprove the instrument as a result of the objection, or provide a modified instrument that attempts to address the objection.
Day 90	If not satisfied, IRT member may forward the issue to IRT Agency HQ*** for review****	15		IRT member must object within 15 days of the notification of intent from the DE. The DE must hold in abeyance the final action.
Day 110	Within 20 days, IRT Agency HQ may request further review by the Assistant Secretary of the Army, Civil Works	20		The requesting IRT Agency HQ must also notify the ASA(CW) if further review will not be requested.
Day 140	ASA(CW) has 30 days to review the draft instrument and advise the DE on how to proceed with the final action	30		The ASA(CW) must immediately notify requesting Agency HQ of the final decision.
Day 150	Remainder of time for notification of the sponsor of the final decision	10		The DE must notify the sponsor of the final decision within 150 days of receipt of the final instrument.

*Timeline also applies to amendments.

**The timeline in this column uses the maximum number of days allowed for each phase.

***IRT Agency HQ refers to the Assistant Administrator for Water, U.S. EPA, the Assistant Secretary for Fish and Wildlife and Parks, U.S. FWS, or the Undersecretary for Oceans and Atmosphere, NOAA.

****While this step is available only to EPA, NOAA and FWS, other IRT members who do not agree with the DE's final decision do not have to sign the instrument or recognize the mitigation bank or in-lieu fee program for purposes of their own programs and authorities.

Total maximum time for dispute resolution process ≤ 150 days

~ EPA/Corps draft 4/02/08