New Methodology to Guide In-Kind Compensatory Mitigation for Stream Impacts in the Fort Worth District

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Fort Worth District

Regulatory Program Workshop
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US Army Corps of Engineers
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Background

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- As per 33 CFR Part 332, *Compensatory Mitigation for Losses of Aquatic Resources*; Final Rule, dated April 10, 2008, (Federal Register, Vol. 73, No. 70) (Rule**),** compensation mitigation requirements must be commensurate with the amount and type of aquatic resource impacts associated with permit actions.
- Appropriate implementation of compensatory mitigation requirements further supports the national program goals of no net loss of aquatic resource function.

Issue

- USACE has typically shown a preference for in-kind replacement of lost aquatic functions
- On-site ecological limitations for permittee-responsible mitigation (PRM) and lack of true in-kind mitigation bank credits
- In the Fort Worth District, this particularly held true for in-kind replacement of lost stream functions

??Dilemma??

- Allowing for the exclusive continued use of upland buffer and wetland enhancement activities, to offset stream loss, would result in further net loss of overall stream functions within the District's area of responsibility in the state of Texas.

- In an effort to address this issue, the District developed the proposed "50-50" Stream Mitigation Method to help ensure that an appropriate level of compensatory mitigation for stream functions is achieved.

Reason For Action

- Need to provide a greater degree of in-channel replacement of functions for impacted streams whereby compensatory mitigation is typically in-kind and performed to replace lost aquatic functions
- Compensatory mitigation for most projects (except coal mines/reservoirs) occurs primarily through purchase of mitigation bank credits
- Historically stream loss has been largely mitigated through upland plantings located in areas outside of waters of the U.S. (legacy mitigation banks)
  - In a 2-year period approximately 100,000 LF of stream loss in the DFW area mitigated through banks without any in-channel work and minimal riparian work (upland tree plantings)

Transparent Evaluation Process

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- Public meeting held on 25 APR 2013 attended by Federal and state resource agencies, IRT members, bank sponsors, consultants, and stakeholders
- Public notice comment period extended

Evaluation Process

- Wide range of comments received
  - 145 Comments received from
  - 35 Individual commenters
  - 3 Congressional Inquiries
  - 2 Comments to SWD
  - 1 Comment to HQ
- Matrix developed listing similar comments
- Public input used to develop 9 potential alternatives
- Does not modify/affect
  - Section 404(b)(1) 40 CFR Part 230
  - 2008 Compensatory Mitigation Rule 33 CFR Part 332.

Definitions

- **In-Channel Credits/In-Channel Lift**: Mitigation Bank Credits or PRM TXRAM lift generated from work performed in a given stream assessment reach (SAR) which results in a minimum of 50% ecological lift associated with the three TXRAM in-channel core elements. These elements are identified as Channel Condition, In-stream Condition, and Hydrologic Condition.

- **Stream Credits**: Mitigation Bank Credits generated from activities associated with ecological lift achieved through activities that are not associated with in-channel, nor with riparian work.

Definitions (cont.)

- **Riparian Buffer Credits:** Mitigation Bank Credits or PRM TXRAM lift generated from riparian work performed in a given SAR, which results in ecological lift associated with the TXRAM core element identified as Riparian Buffer Condition.

- **In-Kind Mitigation**: Perennial and intermittent stream impacts are to be mitigated with in-kind replacement relative to stream type. Ephemeral stream impacts may be mitigated with either ephemeral or intermittent stream mitigation.

Stream Mitigation Method

- Follows similar logic to the hierarchy prescribed in the Mitigation Rule. Maintains in-kind preference relative to hydrologic classification (ephemeral, intermittent, perennial)

- Incorporates a stepwise sequencing process to appropriately maximize use of mitigation banks with in-channel credits for 50% of required mitigation, based on credit availability

Stream Mitigation Method

- When available, mitigation banks credits derived from in-channel work would be given first priority, followed by banks with credits derived from riparian work, then lastly legacy banks with credits derived from preservation or upland/wetland work

- Permittee responsible mitigation would be last choice in hierarchy, unless demonstrated to be more environmentally preferable than banks (congruent with 2008 Mitigation Rule)

Stream Mitigation Method Hierarchy
Mitigation Banks

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Mitigation Banks

- 1st. A minimum of 50% mitigation from banks with in-channel credits. Remaining mitigation through any combination of riparian buffer credits, or legacy bank, also referred to as “stream credits” (i.e. with little to no in-channel work)

Stream Mitigation Method Hierarchy Mitigation Banks

- 1st. A minimum of 50% mitigation from banks with in-channel credits. Remaining mitigation through any combination of riparian buffer credits, or legacy bank, also referred to as “stream credits” (i.e. with little to no in-channel work)

- 2nd. If in-channel bank credits are not available then a minimum of 50% of required mitigation from banks with riparian buffer credits and remaining mitigation from legacy bank credits

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- 1st. A minimum of 50% mitigation from banks with in-channel credits. Remaining mitigation through any combination of riparian buffer credits, or legacy bank, also referred to as “stream credits” (i.e. with little to no in-channel work)

- 2nd. If in-channel bank credits are not available then a minimum of 50% of required mitigation from banks with riparian buffer credits and remaining mitigation from legacy bank credits

- 3rd. If riparian bank credits are not available, then all mitigation from legacy bank credits

Stream Mitigation Method Hierarchy
Permittee Responsible Mitigation

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- 1st . All mitigation from PRM with a minimum of 50% of the required mitigation achieved through in-channel work. Selection of PRM sites would be based on a watershed approach and would be evaluated in a manner similar to the service area determination published in the District's existing mitigation banking guidelines

Stream Mitigation Method Hierarchy
Permittee Responsible Mitigation

- 1st . All mitigation from PRM with a minimum of 50% of the required mitigation achieved through in-channel work. Selection of PRM sites would be based on a watershed approach and would be evaluated in a manner similar to the service area determination published in the District's existing mitigation banking guidelines

- 2nd. If PRM sites appropriate for in-channel stream work are not available (with concurrence from USACE) riparian buffer only mitigation work would be performed at an approved PRM site and would occur at an increased ratio, with ratios specified for each hydrologic classification

FWD Stream Mitigation Method

Compensatory mitigation alternatives, identified as Alternatives 1 – 5 for stream impacts will be evaluated **sequentially** in the order presented.

FWD Stream Mitigation Method

Ephemeral Streams

Ephemeral Alternative 1. A minimum of 50% of the required mitigation would be achieved through the purchase of ephemeral or intermittent in-channel credits. In the event the full 50% is not available, mitigation would be achieved through the purchase of the maximum number of in-channel credits available. The remaining mitigation could be achieved through any combination of ephemeral or intermittent riparian buffer credits, or stream credits.

FWD Stream Mitigation Method

Ephemeral Streams

Ephemeral Alternative 2. A minimum of 50% of the required mitigation would be achieved through the purchase of ephemeral or intermittent riparian buffer credits. In the event the full 50% is not available, mitigation would be achieved through the purchase of the maximum number of credits available. The remaining mitigation could be achieved through the purchase of ephemeral or intermittent stream credits.

FWD Stream Mitigation Method

Ephemeral Streams

Ephemeral Alternative 3. All required mitigation would be achieved through purchase of stream credits.

FWD Stream Mitigation Method

Ephemeral Streams

Ephemeral Alternative 4. All required mitigation would be achieved through performance of PRM with a minimum of 50% of the required mitigation achieved through in-channel work performed on either an ephemeral or an intermittent reach of stream. The remaining 50% of the required mitigation would consist of ephemeral or intermittent riparian buffer mitigation.

Site selection would follow a watershed approach and would be evaluated on a case-by-case basis in a manner similar to the service area determination approach outlined in the mitigation banking guidelines, announced in the Public Notice CESWF-10-MITB, dated June 16, 2011.

FWD Stream Mitigation Method

Ephemeral Streams

Ephemeral Alternative 5. In the event an applicant can demonstrate to the satisfaction of the USACE that PRM sites appropriate for in-channel ephemeral or intermittent stream work are not available, riparian only mitigation work along an ephemeral or intermittent reach would be performed at an approved PRM site and would occur at a 2:1 ratio (based on TXRAM lift) to compensate for lack of in-channel work.

Existing Mitigation Banks

- For a period of one (1) year from the date of implementation of the method, approved Mitigation Banks which include the category of “stream credits”, as defined, and specified in their MBIs, will be afforded the opportunity to have their remaining available credits re-classified in accordance with the categories identified above.
- All Mitigation Banks having performed in-channel work will have the opportunity to submit data to demonstrate the extent to which ecological lift has been derived from in-channel work, for each respective stream type.

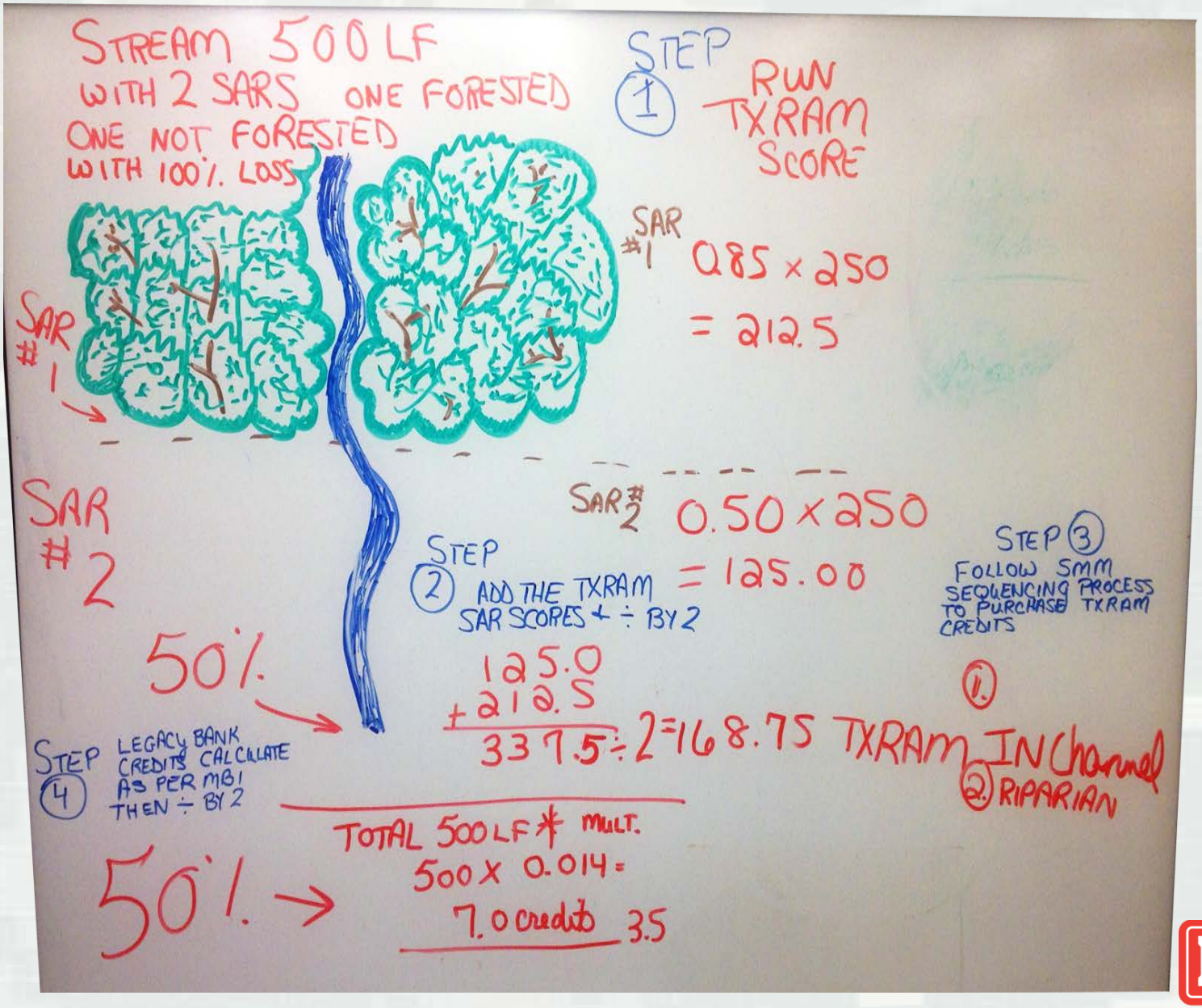
Existing Mitigation Banks (cont.)

- Similarly, all Mitigation Banks having performed riparian enhancement work will have the opportunity to submit data to demonstrate the extent to which ecological lift has been derived from riparian work performed within designated riparian buffers as identified in the MBI, for each respective stream type.

- Re-classification of credits in these circumstances would be evaluated as a credit ledger revision and would not require modification of the bank's MBI.

Summary

- This Stream Assessment Method serves to better align with the 2008 Mitigation Rule relative to in-kind stream mitigation
- Consistent with all other Regulations
- Will increase in-kind credit demand, thus creating a market to support a greater number of mitigation banks with in-channel credits
- The preference for in-channel credits will affect legacy banks – slower credit sales. Credits would still remain as viable options.
- Approved mitigation banks with credits currently classified as stream credits (a legacy bank term) which have performed in-channel or riparian work, would be able to request a mitigation credit re-classification and ledger update to accommodate this new methodology


STREAM 500 LF
WITH 2 SARS ONE FORESTED
ONE NOT FORESTED
WITH 100% LOSS
SAR #1
SAR #2
STEP 1 RUN TXRAM SCORE
SAR #1 0.85 x 250
= 212.5
SAR #2 0.50 x 250
= 125.00
STEP 2 ADD THE TXRAM SAR SCORES + ÷ BY 2
125.0
+212.5
337.5 ÷ 2 = 168.75 TXRAM
STEP 3 FOLLOW SMM SEQUENCING PROCESS TO PURCHASE TXRAM CREDITS
1. IN Channel
2. RIPARIAN
50%
STEP 4 LEGACY BANK CREDITS CALCULATE AS PER MBI THEN ÷ BY 2
50% →
TOTAL 500 LF * MULT.
500 x 0.014 =
7.0 credits 3.5

Further Information

- The Fort Worth Stream Mitigation Method can be found at: http://media.swf.usace.army.mil/pubdata/environ/regulatory/pdf/Fort_Worth_District_Stream_Mitigation_Method.pdf

MITIGATION BANKING

U.S. Army Corps of Engineers (USACE)
Fort Worth District

Mitigation Plan Template

This template includes the components required in a mitigation plan as outlined in the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (Federal Register Vol. 73, No. 70; April 10, 2008) and in the Code of Federal Regulations (CFR) Title 33, Part 332.4. A mitigation plan is required as part of compensatory mitigation projects, including permittee-responsible mitigation, mitigation banks, or in-lieu fee programs.

Contents

BACKGROUND FOR MITIGATION PLANS

In a Memorandum of Agreement (MOA) signed February 6, 1990 between the USACE and the EPA, mitigation was defined as a sequential process of avoiding, minimizing, and compensating for adverse impacts to the aquatic ecosystem. Compensatory mitigation is required for unavoidable adverse impacts to the aquatic ecosystem that cannot reasonably be avoided or further minimized in order to replace those aquatic ecosystem functions that would be lost of impaired as a result of a USACE-authorized activity.

A mitigation plan is required for a general permit, individual permit, mitigation bank, or in-lieu fee program. Final mitigation plans must include the 12 components listed in Part II below. The USACE may require additional information as necessary to determine the appropriateness, feasibility, and practicability of the mitigation project.

The purpose of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the U.S. authorized by USACE permits. The USACE will determine what compensatory mitigation is required based on the practicability of replacing the aquatic functions lost as a result of the permitted activity. Permit applicants are responsible for proposing an appropriate compensatory mitigation option commensurate with the amount and type unavoidable impacts. Compensatory mitigation may be performed using methods of restoration, enhancement, establishment, and in certain cases preservation in order to successfully improve aquatic resource functions.

U.S. Army Corps of Engineers (USACE)
Fort Worth District

Mitigation Bank Prospectus Form

This form includes the information required for a mitigation bank prospectus as outlined in the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (Federal Register Vol. 73, No. 70; April 10, 2008) and in the Code of Federal Regulations (CFR) Title 33, Part 332.8. Please consult instructions included at the end prior to completing this form.

Contents

BACKGROUND FOR A MITIGATION BANK PROSPECTUS

The purpose of a mitigation bank prospectus is to provide an overview of the proposed mitigation bank with sufficient detail to support public and initial interagency review team (IRT) review and comment.

Definition of Mitigation Banking: A mitigation bank is a wetland or other aquatic resource area that has been restored, established, enhanced or preserved, which is then set aside to compensate for future conversions of wetlands and other aquatic resources from development activities. Permittees, upon approval of regulatory agencies, can purchase credits from a mitigation bank to meet their requirements for compensatory mitigation. The value of these "credits" is determined by quantifying the biological functions or acres restored or created. The bank sponsor is ultimately responsible for the success of the project. Mitigation banking is performed "off-site".

All mitigation banks must comply with 33 CFR Part 332.8 if they are to be used to provide compensatory mitigation for Department of the Army (DA) permits. Additionally, in an effort to streamline the evaluation process, proposed banks located within the Fort Worth District are also encouraged to adhere to the Fort Worth District Mitigation Banking Guidance, which can be found at http://www.swf.usace.army.mil/Missions/Regulatory/Permitting/Mitigation.aspx

Mitigation Bank Prospectus Preliminary Review Process. Prior to submitting a prospectus, the sponsor is encouraged to submit a pre-application request form (found at http://media.swf.usace.army.mil/pubdata/environ/regulatory/permitting/applicationforms/USACE_Pre-App_Meeting_Request.doc to the USACE, to schedule a pre-application meeting with the IRT. This meeting will provide an opportunity for sponsors to present their mitigation banking proposals and receive preliminary feedback from IRT members. The sponsor may elect to submit a draft prospectus to the IRT for initial review and comment. Any comments from the IRT and/or the district engineer will be provided to the sponsor within 30 days of submitting the draft prospectus. This review process is optional, but is strongly recommended, as it will allow for the identification potential issues early so that the sponsor may attempt to address those issues prior to the formal review process.

U.S. Army Corps of Engineers (USACE)
Fort Worth District

Mitigation Banking Instrument Template

This template integrates requirements for a mitigation banking instrument as required by 33 CFR 332.8 for a single mitigation bank project. This template is not to be used for an umbrella mitigation bank.

Contents

DESCRIPTION OF A MITIGATION BANKING INSTRUMENT

All mitigation banks require a banking instrument as documentation of agency concurrence on the objectives and administration of the bank. The purpose of the Mitigation Banking Instrument (MBI) is to establish guidelines and responsibilities for the establishment, use, operation, and maintenance of the proposed mitigation bank. The proposed mitigation bank will be used for compensatory mitigation for unavoidable impacts to waters of the United States, including wetlands, that result from activities authorized under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, provided such activities have met all applicable requirements and are authorized by the USACE. Information provided in the prospectus will serve as the basis for establishing the MBI.

All mitigation banks must comply with 33 CFR Part 332.8 if they are to be used to provide compensatory mitigation for a Department of the Army (DA) permits.

Draft Mitigation Banking Instrument Review Process: The Fort Worth District Interagency Review Team (IRT) does not have a mechanism to accept electronic submittals. Therefore, all documents are to be submitted hard copy to each IRT member. In addition, to expedite record keeping, the USACE requests that all documents are saved to a disc to be included in each hard copy submittal. Upon receipt of a complete draft instrument, the

CONSERVATION EASEMENT AGREEMENT

THE STATE OF TEXAS §
§ KNOW ALL PERSONS BY THESE PRESENTS:
COUNTY OF _____ §

This Conservation Easement Agreement (this "Agreement") is executed as of _____ (the "Effective Date"), by and between _____ ("Grantor"), and _____ ("Grantee").

Recitals:

A. Grantor is the record owner of fee simple title to certain parcels of real property consisting of _____ acres located and situated in _____ County, Texas and more particularly described in **Exhibit "A"** (legal description of the "Property") attached hereto and made a part hereof. The Property is also referenced in Permit No. _____ Compensatory Mitigation Plan dated _____ and entitled _____.

B. Grantee is qualified to hold a conservation easement, and is either:

(a) a governmental body empowered to hold an interest in real property under the laws of this State or the United States; or

(b) a charitable, not-for-profit or educational corporation, association, or trust, qualified under Section 501(c)(3) and Section 170(h) of the Internal Revenue Code of 1986, as amended, the purposes or powers of which include one or more of the Purposes described in **Recital D** below.

C. The preservation of the Property is a condition of the Department of the Army Section 404 permit and/or Mitigation Bank Project Number _____, dated _____, or a revision thereof (the "Permit"), and attached hereto as **Exhibit "B"**. The Permit and/or Mitigation Banking Instrument (MBI) attached hereto as **Exhibit "C"** requires certain restrictions to be placed on the Property in order to provide compensation for unavoidable adverse impacts to waters of the United States. It is the intent of this Agreement and the Conservation Easement granted herein to assure that the Property will be retained and maintained forever in the vegetative and hydrologic condition described in the success criteria of the Mitigation Plan (MP), attached hereto as **Exhibit "D"**. Any activities not included in the Permit or MBI that may be conducted on the Property and that will affect the vegetative and hydrologic conditions outlined in the success criteria of the MP, must be approved in writing by the United States Army Corps of Engineers (the "USACE"), Fort Worth District, Regulatory Branch, prior to initiation. The Conservation Easement granted by this Agreement is created pursuant to the Texas Uniform Conservation Easement Act of 1983 contained in Chapter 183 of the Texas Natural Resources Code.

D. WHEREAS, the purpose of the Conservation Easement includes but is not limited to one or more of the following (the "Purposes"):

(a) retaining or protecting natural, scenic, or open-space aspects of the Property;

(b) ensuring the availability of the Property for recreational, educational, or open-space use;

(c) protecting natural resources;

(d) maintaining or enhancing air and water quality;

U.S. Army Corps of Engineers (USACE)
Fort Worth District

Financial Assurances Guidance Document

This document discusses the requirements for financial assurances within the USACE Regulatory Program as it relates to compensatory mitigation.

DESCRIPTION OF FINANCIAL ASSURANCES

Financial assurances are a required item in a mitigation plan for compensatory mitigation projects (including mitigation banks). Financial assurances must be sufficient to ensure a high level of confidence that a mitigation project will be successfully completed, in accordance with its performance standards. Financial assurances provide funds to undertake contingency or remedial actions in the event of technical failure or sponsor/permittee default.

From The Code of Federal Regulations, Title 33, Part 332.3 (n):

1. The district engineer shall require sufficient financial assurances to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with applicable performance standards. In cases where an alternate mechanism is available to ensure a high level of confidence that the compensatory mitigation will be provided and maintained (e.g., a formal, documented commitment from a government agency or public authority) the district engineer may determine that financial assurances are not necessary for that compensatory mitigation project.
2. The amount of the required financial assurances must be determined by the district engineer, in consultation with the project sponsor, 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. Financial assurances may be in the form of performance bonds, escrow accounts, casualty insurance, letters of credit, legislative appropriations for government sponsored projects, or other appropriate instruments, subject to the approval of the district engineer. The rationale for determining the amount of the required financial assurances must be documented in the administrative record for either the DA permit or the instrument. In determining the assurance amount, the district engineer shall consider the cost of providing replacement mitigation, including costs for land acquisition, planning and engineering, legal fees, mobilization, construction, and monitoring.
3. If financial assurances are required, the Department of the Army (DA) permit must include a special condition requiring the financial assurances to be in place prior to commencing the permitted activity.
4. Financial assurances shall be phased out once the compensatory mitigation project has been determined by the district engineer to be successful in accordance with its performance standards. The DA permit or instrument must clearly specify the conditions under which the financial assurances are to be released to the permittee, sponsor, and/or other financial assurance provider, including, as appropriate, linkage to achievement of performance standards, adaptive management, or compliance with special conditions.
5. A financial assurance must be in a form that ensures that the district engineer will receive notification at least 120 days in advance of any termination or revocation. For third-party assurance providers, this may take the form of a contractual requirement for the assurance provider to notify the district engineer at least 120 days before the assurance is revoked or terminated.

Mitigation Banking Guidelines

US Army Corps
of Engineers
Fort Worth District

Public Notice

Number: CESWF-10-MITB

Activity: Fort Worth District Mitigation Banks

Date: June 16, 2011

The purpose of this public notice is to inform you of mitigation banking guidelines being adopted by the U.S. Army Corps of Engineers, Ft. Worth District.

Regulatory Program

Since its early history, the U.S. Army Corps of Engineers has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the U.S. Army Corps of Engineers Regulatory Program.

Section 10

The U.S. Army Corps of Engineers is directed by Congress under Section 10 of the Rivers and Harbors of 1899 (33 USC 403) to regulate *all work or structures in or affecting the course, condition or capacity of navigable waters of the United States*. The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

Section 404

The U.S. Army Corps of Engineers is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the *discharge of dredged and fill material into all waters of the United States, including wetlands*. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

Contact

Name: Mr. Brent Jasper

Phone Number: (817) 886-1733

- Preservation
- Monitoring Requirements
- Long-Term Hydrology
- Credit Release Schedule
- Service Area

US Army Corps of Engineers ®
Fort Worth District

Public Notice

Number: CESWF-12-MITB

Activity: Fort Worth District Mitigation Banks

Date: August 6, 2012

The purpose of this Public Notice is to inform you of both existing and proposed mitigation banking guidelines described herein.

Regulatory Program

Since its early history, the U.S. Army Corps of Engineers has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the U.S. Army Corps of Engineers Regulatory Program.

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Contact

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- Recently Disturbed Sites
- Financial Assurances
- Stream Credits
- Design Plans for Stream Mitigation Projects
- Consultant Qualifications/Experience
- Modification of Existing MBIs
- Reference Sites
- Preservation Only Mitigation Banks

- Use of Index of Biotic Integrity (IBI)
- Performance Based Credit Releases
- RIBITS Ledger
- Irrigation and Monitoring
- Abstract / Title Search
- Funding of Long-Term Endowmnet
- CE Holder Qualifications / Experience
- Stream Mitigation Buffers

Next Set of Guidelines

- Require a Phase I environmental assessment for the prospectus
- Establish invasive species requirements
- Establish performance standards for forest restoration (# of initial plantings, % survival, diversity, ?)
- How to document bank full events

Next Set of Guidelines (cont.)

- Braided Channels (define)
- Establish minimum cost per linear foot of stream restoration for short-term financial assurances
- Baseline date needs to be within 2 years of prospectus submittal
- Stream Preservation??