# FINAL PROSPECTUS

## CARPENTER FARMS UMBRELLA MITIGATION BANK

## QUEEN ANNE'S COUNTY, MARYLAND

## SPONSOR:



4243 Jackson Street The Plains, VA 20198

#### SUBMITTED TO:

## **Baltimore District Interagency Review Team**

## Representing:

US Army Corps of Engineers, Baltimore District

US Environmental Protection Agency, Region 3

US Fish and Wildlife Service, Chesapeake Bay Field Office Ecological Services

National Oceanic and Atmospheric Administration, National Marine Fisheries Service

US Department of Agriculture, Natural Resource Conservation Service

MD Department of Natural Resources

Maryland Department of the Environment

Maryland Historical Trust

#### PREPARED BY



8808 Center Park Drive, Suite 205 Columbia, MD 21045

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#### 1. INTRODUCTION

Acre Investment Management, LLC (ACRE), as Bank Sponsor, proposes to prepare and submit an Umbrella Mitigation Banking Instrument (UMBI) for the Carpenter Farms Umbrella Mitigation Bank (CFUMB) in accordance with 33 CFR 332, Compensatory Mitigation for Losses of Aquatic Resources ("Mitigation Rule") as well as Code of Maryland Regulations (COMAR) 26.23.04 (Nontidal Wetland Mitigation). The purpose of this prospectus is to outline the development of an UMBI, which will govern the establishment, use, operation, maintenance, and closure of the umbrella mitigation bank by establishing guidelines and responsibilities for use by Federal Clean Water Act and State of Maryland permit applicants where appropriate within the approved service area of the UMBI.

The Bank Sponsor proposes to use a combination of restoration, enhancement, rehabilitation, and preservation of aquatic resources (wetlands and streams) and uplands for the purpose of generating compensatory mitigation credits for unavoidable impacts under Clean Water Act Sections 404/402/401, Rivers and Harbors Act Section 10, Maryland Nontidal Wetlands Protection Act, and Maryland Waterway Construction Law. The Bank Sponsor proposes to manage the development, release, and use of mitigation credits under the proposed UMBI with approval by the Interagency Review Team (IRT). Mitigation credits will be generated on a site-specific basis and approved by the IRT and may be used as compensatory mitigation for jurisdictional impacts within the Geographic Service Area (GSA) for each mitigation site. Mitigation site-specific details including GSA, mitigation type, release schedule, etc. for each site (Bank Site) under the proposed UMBI will be provided as part of Site-Specific Mitigation Plans included as Addenda to the approved UMBI.

The CFUMB is proposed on property owned by Carpenter Farms, LLC, consisting of eleven (11) contiguous parcels totaling more than 1,600 acres in Queen Anne's County, MD. Preliminary evaluations were conducted to capture the full extent of mitigation potential opportunities within the CFUMB. These evaluations resulted in the identification of three potential bank sites: North, Central, and South (Figure 1). The North Bank Site (NBS) is the first mitigation site identified for inclusion in the proposed UMBI. The NBS Final Prospectus, including a Conceptual Mitigation Plan, is included as **Addendum 1** to this document. As the additional bank sites are developed, addenda for these sites will be prepared and submitted to the IRT for review and approval.

The UMBI will establish a framework and eliminate redundancy in administration as individual bank sites are added facilitating the focus of review on technical issues related to the development, implementation, and success of individual bank sites as they are added. The roles and responsibilities will be outlined, including responsibilities related to review of future site-specific mitigation plans within the UMBI.



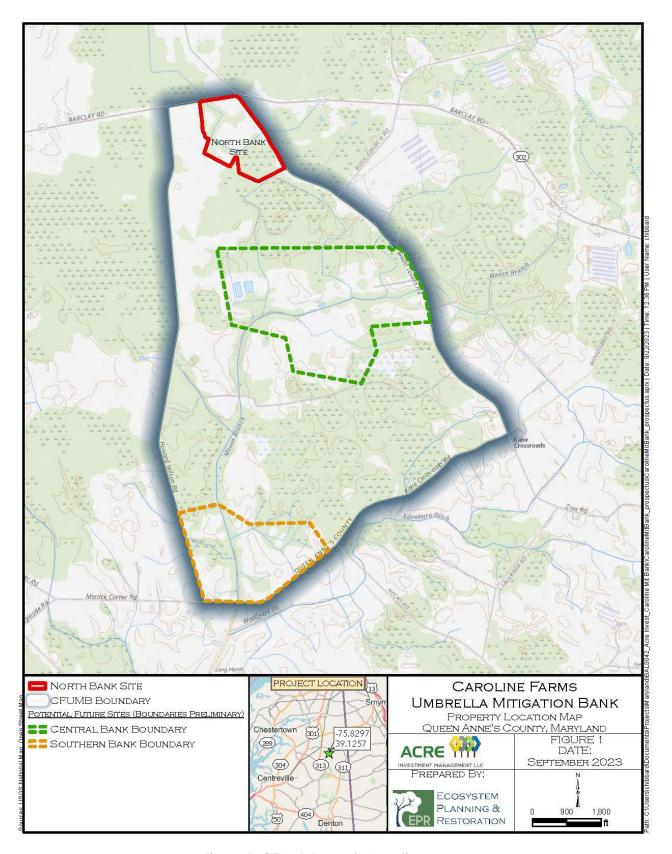


Figure 1: CFUMB Property Location Map.



## 2. GOALS/OBJECTIVES OF THE UMBI

The goal of the UMBI is to establish the framework for restoring, rehabilitating, enhancing, and/or preserving non-tidal wetlands, riparian systems, streams, and contiguous buffer corridors, as well as uplands, and their functions, services, and values to compensate for unavoidable and permitted Waters of the U.S. and/or Waters of the State (wetland and stream) impacts. The Bank Sponsor's goals in establishing the UMBI include:

- Streamline Clean Water Act Sections 404/402/401, Rivers and Harbors Act Section 10, Maryland Nontidal Wetlands Protection Act, and Maryland Waterway Construction Law permit evaluation processes by providing compensation in advance for unavoidable wetland, stream, water quality, etc., impacts resulting from improvement projects by various permittees.
- Provide high function and value, advanced compensatory mitigation based on a watershed approach.
- Restore and preserve resources based on environmental priorities and relative probability of successfully achieving self-maintaining ecological uplift.
- Support mitigation priorities established in the US Army Corps of Engineers (USACE)/ Environmental Protection Agency (EPA) Mitigation Rule (33 CFR Part 332 and 40 CFR Part 230), the Maryland Department of Environment (MDE), and Maryland Department of Natural Resources (MDNR).
- Achieve efficiencies for ACRE, permit applicants, and the entire IRT review process by eliminating repetitive practices and redundant review processes thereby reducing costs and addressing permitting priorities in a more expedient time frame.

Compensatory mitigation for jurisdictional impacts in Maryland has primarily been provided under a typical permittee-responsible mitigation (PRM) framework. This framework generally results in smaller ecologically insignificant projects that result in temporal delays with respect to the replacement of loss of the wetland and stream functions, services, and values. Future jurisdictional impacts will continue to require compensatory wetland and stream mitigation and/or water quality improvements, and there is currently a lack of suitable mitigation banks. Establishment of mitigation sites under this proposed UMBI will provide a means to develop advanced mitigation that is ecologically significant and prevents the temporal loss of wetland and stream functions, services, and values.

#### 3. ESTABLISHMENT AND OPERATION OF THE UMBRELLA MITIGATION BANK INSTRUMENT

The UMBI will be developed by the Bank Sponsor in coordination with the USACE, MDE and the IRT, and will contain detailed information governing the establishment, use, operation, and maintenance of the Umbrella Mitigation Bank. The Umbrella Mitigation Bank will include all mitigation sites that fall (or will fall) under the UMBI, including the NBS and future, proposed Bank Sites. The UMBI and the development and operation of individual Bank Sites documented in future UMBI Addenda will be in accordance with the Mitigation Rule requirements.

The Bank Sponsor will develop wetland and/or stream mitigation and water quality improvement projects on land owned by Carpenter Farms, LLC in Queen Anne's County



Maryland to comply with Section 404/402/401 and Section 10 permit requirements and related state laws and regulations. Mitigation sites/projects that will be included as part of the UMBI will be referred to as "Bank Sites." Bank Sites may be comprised of one or more land parcels and may include one or more mitigation types (wetland or stream and either restoration, enhancement, or preservation, for example) and a variety of mitigation functions/values. Each Bank Site will be subject to the terms of the UMBI as well as site-specific final mitigation plans.

Once mitigation credits are available through ratification of the UMBI, approval of the EFMS and/or future mitigation Bank Sites in accordance with this UMBI and the Mitigation Rule, compensatory mitigation can be accomplished through the withdrawal of credits. Credit withdrawals require final approval from the USACE and MDE, in consultation with the IRT.

## a. Establishment of the Umbrella Mitigation Bank and Bank Sites

- i. <u>Establishment of the Umbrella Mitigation Bank</u>: The Bank Sponsor will obtain all appropriate environmental documentation, permits, or other authorizations needed to establish and maintain the Umbrella Mitigation Bank. The UMBI will not fulfill or substitute for such authorization, but would rather fulfill authorization for establishment, use, operation, and maintenance of an Umbrella Mitigation Bank to be administered by the Sponsor.
- ii. <u>Establishment of Future Bank Sites and UMBI Addenda</u>: The Bank Sponsor will obtain all appropriate environmental documentation, permits, or other authorizations needed to establish and maintain future Bank Sites under the UMBI. The UMBI would not fulfill or substitute for such authorizations. The UMBI and site-specific Addenda or mitigation plans would fulfill authorization for the establishment, use, operation, and maintenance of Bank Sites to be administered via the UMBI.
- iii. Perpetual Protection/Real Estate Provisions: Property subject to the UMBI and authorized by the USACE and MDE as a mitigation Bank Site will be protected in perpetuity and preserved through management agreements, plat and restrictive covenants with third party enforcement, or conservation easements, and/or Declaration of Restrictive Covenants on a project-by-project basis, unless otherwise approved by the USACE and MDE. Conservation Easements are the preferred method for protecting the bank property and will be used when possible. These provisions will conform to the Mitigation Rule with the language modified on a caseby-case basis to allow for existing elements such as road/utility easements, road/bridge/utility crossinas, hike/bike trails, and other activities that are pertinent to each site proposed for bank use.
- iv. <u>Financial Assurances</u>: The Bank Sponsor will provide the required financial assurances for each Bank Site. The Bank Sponsor will provide the required financial assurances for each Bank Site, including but not limited to performance and/or monitoring and maintenance bonds, escrows, letters of credit or casualty insurance. The amount and form of the required financial assurances is subject to written approval of the



IRT. The financial assurances will be maintained, renewed, extended, or replaced so that it remains effective until the IRT determines that a Bank Site is successful in accordance with its approved Performance Standards and that its financial assurance is eligible for release. Financial assurances related to the Catastrophic Event Fund and Long-Term Management Fund will not be released. They will be held after bank closure to cover long-term expenses. Financial assurances will be during the review of each addendum and cover any new site and project proposed under this UMBI.

## b. Operation of Umbrella Mitigation Bank and Bank Sites

- i. <u>Umbrella Mitigation Bank Geographic Service Area</u>: The Geographical Service Area (GSA) is the designated area wherein a mitigation bank can reasonably be expected to provide appropriate compensation for impacts to streams and wetlands and other aquatic resources. The Bank Sponsor, in consultation with the IRT co-chairs, will establish separate GSAs for each individual Bank Site as they are proposed. Each Bank Site will have a primary service area and may also have an additional secondary service area as proposed and approved by the IRT. Primary and secondary service areas will be based on USGS 8-Digit HUCs, and will also consider physiographic regions, EPA ecoregions, major drainage basins, and/or other relevant considerations as appropriate. For individual Bank Sites, the GSA will be presented to the USACE, MDE, in coordination with the IRT, for approval. Use of a Bank Site to compensate for impacts beyond its GSA may be considered on a case-by-case basis by the regulatory agency requiring the mitigation (USACE and/or MDE).
- ii. Preliminary Draft Prospectus: A Preliminary Draft Prospectus will be developed by the Bank Sponsor and submitted to the IRT for each Bank Site. The purpose of the Preliminary Draft Prospectus is to provide basic site information and solicit preliminary approval from the IRT for each new Bank Site, pending acceptance of the Site-Specific Mitigation Plan/UMBI Addendum (described in Section iii). The Preliminary Draft Prospectus will contain information such as:
  - Location of the site, including maps, physiographic province, river basin, watershed, hydrologic unit, ecoregion.
  - Site condition including present/recent land use and adjacent area land use.
  - Ownership of the bank site and status of land exchange/control by the Bank Sponsor; encumbrances, utility easements, etc. on the land.
  - Preliminary Site Plan and functional goals.
  - Available Monitoring Reports (for previously approved consolidated mitigation sites).
- iii. <u>Site Specific Mitigation Plans/UMBI Addenda</u>: Site Specific Mitigation Plans/UMBI Technical Addenda will be developed by the Bank Sponsor and submitted to the USACE and MDE, for the USACE's distribution to the IRT, for each proposed Bank Site.



The UMBI Addenda will include the following detailed information on each Bank Site as per CFR 332.4(c)(2)-(14):

- a. <u>Objectives:</u> A description of the resource type(s) and amount(s) that will be provided, the site-specific geographic service area, the method of compensation (i.e., restoration, establishment, enhancement, and/or preservation), and the way in which the resource functions of the compensatory mitigation project will address the needs of the watershed, ecoregion, physiographic province, or other geographic area of interest.
- **b.** <u>Site selection factors considered:</u> A description of the factors considered during the site selection process, including consideration of watershed needs, on-site alternatives where applicable, and the practicality of accomplishing ecologically self-sustaining aquatic resource restoration, establishment, enhancement, and/or preservation at the compensatory mitigation project site.
- c. <u>Site protection instrument</u> (conservation easement, declaration of restrictive covenants, title transfer, etc.): A description of the legal arrangements and instrument, including site ownership that will be used to ensure the long-term protection of the compensatory mitigation project site. Recordation of a conservation easement with a conservation easement holder may result in an additional credit yield of up to 5%.
- **d.** <u>Baseline information:</u> A description of ecological characteristics of the proposed mitigation Bank Site, including descriptions of historic and existing plant communities, and mitigation site(s) or the geographic coordinates for those site(s), and other site characteristics appropriate to the type of resource proposed as compensation. The baseline information will also include a delineation of existing Waters of the United States (wetlands, streams, and other aquatic resources) on the proposed Bank Site.
- **e.** <u>Determination of credits</u>: Description of the number of credits to be provided, including a brief explanation of the rationale for this determination.
- f. <u>Mitigation work plan</u>: A detailed written specification and work descriptions for the mitigation Bank Site, including, but not limited to, the geographic boundaries of the project; construction methods, timing, 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, including elevations and slopes of the substrate; soil management; and erosion control measures. For stream compensatory mitigation projects, the mitigation work plan may also include other relevant information, such as planform geometry, channel form (e.g., typical channel cross-sections), watershed size, design discharge, and riparian area plantings.



- g. <u>Maintenance plan</u>: A description and schedule of maintenance requirements to ensure the continued viability of the resource once initial construction is completed.
- h. <u>Performance standards</u>: Ecologically based, measurable, and repeatable standards used to determine whether the project is achieving its objectives as established or approved by the IRT.
- i. <u>Monitoring & reporting requirements</u>: A description of the parameters to be monitored in order to determine if the compensatory mitigation project is on track to meet performance standards and if adaptive management is needed. A schedule for monitoring and reporting on monitoring results must be included.
- **j.** <u>Long-term management plan</u>: A description of mitigation Bank Site management after meeting all performance standards to ensure long-term sustainability of the site, including long-term financing mechanisms, if appropriate, and the party responsible for long-term management.
- k. Adaptive management plan: A management strategy to address unforeseen changes in site conditions or other components of the mitigation project, including the party or parties responsible for implementing adaptive management measures. The plan will guide decisions for revising compensatory mitigation plans and implementing measures to address both foreseeable and unforeseeable circumstances that adversely affect compensatory mitigation success.
- I. <u>Financial assurances</u>: The Sponsor shall provide sufficient Financial Assurances to ensure that aquatic functions will be restored, established, and/or maintained at each Mitigation Bank Site.
- m. <u>Credit release schedule</u>: The credit release schedule should reserve a share of total credits for release only after full achievement of ecological performance standards. All credit releases must be approved by the USACE and MDE, in consultation with the IRT, based on a determination that required milestones have been achieved.
- n. Bank Closure: Bank closure provisions will be clearly spelled out in the UMBI.

#### 4. MITIGATION RATIOS AND ESTABLISHMENT AND USE OF CREDITS

The UMBI will outline mitigation credit ratios agreements between the Bank Sponsor and the IRT. The UMBI will outline compensation ratios and/or other IRT-approved wetland or stream crediting scenarios (such as the Maryland Stream Mitigation Framework (MSMF)) based on anticipated ecological uplift for specific wetland classifications and stream uses. This will be based on coordination with and approval by the USACE and MDE, in consultation with the IRT.



The UMBI will also outline the Bank Sponsor's responsibility for accounting of credits and debits in the UMBI. A ledger will be developed for each mitigation site and will be coordinated through the IRT. Accounting procedures for the site will be in accordance with the Federal Mitigation Rule. Each credit for mitigation will be comprised of an appropriate accounting metric determined in consultation with the IRT consistent with the terms of the UMBI and/or site-specific Addenda.

Use of credits from Bank Sites approved under the Umbrella Mitigation Bank to offset wetland and stream impacts authorized by USACE and MDE wetland/waterway permits must be in compliance with the Federal and State statutes and regulations, including:

- Sections 401 and 404 of the Clean Water Act (33 U.S.C 1344)
- Sections 9 and 10 of the Rivers and Harbors Act of 1899 (33 U.S.C 401 and 403)
- Maryland Nontidal Wetlands Protection Act, Environmental Article, Annotated Code of Maryland, Title 5, subtitle 9
- MD Waterway Construction Law, Environmental Article, Annotated Code of Maryland Title 5, subtitle 5
- Nontidal Wetlands, Code of Maryland Regulations (COMAR) 26.23
- Construction on Nontidal Waters and Floodplains, COMAR 26.17.04
- National Environmental Policy Act (NEPA) and all other applicable Federal and State legislation, rules, and regulations.

#### a. Credit Determination

Credits for all proposed wetland mitigation Bank Sites will be determined based on mitigation type employed (restoration of wetlands, enhancement, preservation, etc.), and enumerated by acres (or fractions thereof) by mitigation type of wetlands created (open water, emergent, scrub- shrub, forested, etc.). The measure of aquatic functions will be based on resources restored, enhanced or preserved. The Bank Sponsor proposes a 1:1 ratio for wetland restoration (re-establishment), with anticipated higher ratios for enhancement (re-habilitation) and preservation, both to be determined on a case-by-case basis. Additionally, the Bank Sponsor may also propose wetland mitigation credits for terrestrial resources that provide important support functions to the aquatic mitigation habitat elements and/or the watershed as a whole (e.g., buffers, preservation, or enhancement). The wetland credits will be based on the IRT accepted method of credit determination. The number of stream mitigation credits created by development of mitigation Bank Sites will be determined by anticipated functional uplift, by linear feet of each activity, and/or on the basis of an IRT- approved method of calculating functional uplift, and corresponding credit ratios for those activities, such as the Function-Based Framework for Stream Assessment and Restoration Projects (Harman & Starr, 2012) or other agency developed protocols.

#### b. Credit Release Schedule

The Bank Sponsor will recommend withdrawal of credits for permitted impacts within the defined GSA of a specific Bank Site based on agreed-upon Bank Site site-specific credit release



schedules. Final approval from the permitting agencies, USACE, and MDE, will be required regarding use and withdrawal of mitigation credit from the UMBI.

For Bank Sites under the UMBI, the Bank Sponsor proposes the following credit release schedule as a guideline schedule for all mitigation Bank Sites established under the UMBI, unless otherwise approved as part of a Final Mitigation Plan:

Milestone	Standard Credit Release Schedule		Accelerated Credit Release Schedule (RGL #19-01)	
	Credit Received	Cumulative %	Credit Received	Cumulative %
Initial Credit Release	15%	15%	25%	25%
Construction Credit Release	Up to 15%	30%	Up to 25%	50%
1st monitoring report (Year 2)	Up to 20%	50%	Up to 10%	60%
2 <sup>nd</sup> monitoring report (Year 3)	Up to 10%	60%	Monitoring report submittal required with no associated credit release	
3 <sup>rd</sup> monitoring report (Year 5)	Up to 10%	70%	Up to 20%	80%
4 <sup>th</sup> monitoring report (Year 7)	Up to 10%	80%	Monitoring report submittal required with no associated credit release	
5 <sup>th</sup> monitoring report (Year 10)	20%	100%	20%	100%

If the Sponsor elects to adhere to the accelerated credit release schedule the Sponsor shall provide adequate Financial Assurance, in an amount approved by the IRT, to provide a high degree of confidence that the ecological performance standards will be achieved.

Note that credits cannot be released until all milestones included in Federal Guidelines have been met, such as financial assurances, site protection mechanisms, and approved permits. All credits cannot be released until after Year 5.

#### c. Annual Report

The Bank Sponsor will prepare an annual report at the end of each year after the execution of the UMBI and will describe the condition of the Umbrella Mitigation Bank as a whole. The UMBI will outline annual reporting requirements related to documentation of all credits used and balance of credits remaining until all credits have been utilized or the UMBI agreement is terminated. The Bank sponsor will track mitigation credits and all other credits withdrawn for the programs. All credits withdrawn should be included in the leger, with a column



listing the program. The report will summarize the credits withdrawn by Bank Site(s), the corresponding withdrawn percentage, and the remaining credits by type. The actual credit withdrawal summary will reference consistency or inconsistency with the established credit release schedule in relation to the success criteria. If inconsistencies are identified during the annual reporting period, the Bank Sponsor will coordinate with the USACE, MDE, and the IRT to remedy the situation. Annual reports on the Umbrella Mitigation Bank will be submitted each year until termination of the UMBI and will be submitted to the USACE electronically and uploaded to RIBITS for IRT review.

#### 5. MAINTENANCE AND MONITORING OF BANK SITES

The Bank Sponsor agrees to establish and maintain the mitigation Bank Sites and ownership until the banking activity is terminated or a third-party organization adopts the long-term site management/maintenance responsibilities. The Bank Sponsor will propose future, ecologically sustainable mitigation Bank Sites, and will avoid establishing Bank Sites that require regular or intensive maintenance. The Bank Sponsor accepts full responsibility for any required maintenance activities that may be necessary related to achievement of performance standards, such as addressing invasive species control, tree/vegetation replacement, or structure repair. Any required maintenance activities proposed by the Bank Sponsor will be coordinated through USACE and MDE, in consultation with the IRT, prior to execution.

The Bank Sponsor understands that banking activity can only be terminated through coordination and approval by the USACE and MDE, in consultation with the IRT. As part of the Bank Sponsor's required maintenance, the Bank Sponsor will monitor all Bank Sites over a 10-year period, and recommend maintenance activities related to performance standards, or other possible maintenance activities such as repairing broken fences, cleaning up trash or vandalized areas, among others. The Bank Sponsor will continue to submit regular Mitigation Monitoring Reports to the USACE, MDE, and the IRT describing site conditions in relation to the performance standards outlined in the UMBI and/or Site-Specific Final Mitigation Plans. Additionally, the Bank Sponsor will be responsible for developing an adaptive management plan, in coordination with the IRT, if the site fails to achieve the goals and objectives laid out in the Final Mitigation Plan. The UMBI will define site "close-out" procedures, Bank Sponsor/USACE/MDE/IRT responsibilities related to close- out and will define a timeline for acceptable termination of maintenance activities.

## a. Monitoring

The UMBI will outline the Bank Sponsor's requirements with respect to monitoring the Bank Sites and to demonstrate compliance with the established success criteria. The Bank Sponsor will be obligated to complete the Bank Site site-specific monitoring requirements. Monitoring goals and schedules will be developed and submitted for each Bank Site as documented in Site Specific Final Mitigation Plans. Monitoring procedures, duration, and reporting criteria, and scope will also be outlined in the UMBI.



The most recent version of the IRT-approved performance standards and monitoring protocol at the time the individual mitigation project is approved will be used. It is anticipated that any non-tidal wetlands restoration, enhancement, rehabilitation, or creation sites incorporated into the Umbrella Mitigation Bank will be monitored per the 2022 Ecological Performance Standards and Monitoring Protocol for Nontidal Wetland Mitigation Banks and In-Lieu Fee Sites In Maryland. Stream restoration, enhancement, rehabilitation, or creation monitoring will use the most recent IRT-approved monitoring protocol and performance standards at the time of the individual mitigation project is approved. Monitoring will occur until bank closure. Bank closure will not occur until all credits have been debited. Interim monitoring may be required by the Bank Sponsor after the bank has been deemed successful and all performance standards have been met, until all mitigation credits are debited. Interim monitoring shall be done according to the interim monitoring requirements until all mitigation credits are debited. At that time, the Bank Sponsor will recommend site closure and commencement of long-term management. Monitoring reports will be prepared by the Bank Sponsor (for the required monitoring years) summarizing findings and will be made available to the IRT electronically or by hard copy as requested and will be uploaded to RIBITS.

## b. Long-Term Management

The UMBI will outline the Bank Sponsor's commitment to implementing long-term management measures towards maintaining the ecological integrity of their mitigation Bank Sites and managing and maintaining these sites in perpetuity as functioning wetlands, streams, or other aquatic systems after meeting all performance standards. After mitigation bank closure, the Bank Sponsor will either continue to ensure long-term sustainability or may assign its long-term management and maintenance responsibility to a third party approved by the IRT (e.g., nonprofit entity, state conservation agency or a land trust), who would be responsible for the long-term conservation goals and managing the lands in perpetuity.

The Bank Sponsor anticipates typical long-term management provisions for Bank Sites may include invasive species control, upkeep of physical barriers such as fences and gates, collection/removal of excessive trash, repair of vandalized structures, action to ensure stream stability (including in-stream structures) and rectification of trespass impacts, for example. Fence and gate maintenance and repair frequency will be dependent on trespass and access control issues, as well as whether grazing is utilized as a vegetation management technique and to what extent. Grazing may also be discouraged by use of fencing based on its incompatibility with the goal of achieving mitigation objectives. Case-by-case long-term management opportunities will be determined through coordination with the USACE and MDE, in consultation with the IRT.

The Bank Sponsor's approach to the long-term management of the Bank Site(s) will be to conduct periodic site examinations after the ten-year monitoring period and achievement of performance standards to determine stability and ongoing trends of the created, restored, enhanced, or preserved resources. The Bank Sponsor or Long-Term Steward will observe/assess the Bank Site's condition, degree of erosion, invasion of exotic species, fire hazard, stream stability, in-stream structure stability, and/or other aspects that may warrant management



actions. The objective of the long-term management plan will be to conduct periodic site investigations to identify any issues that arise and implement adaptive management strategies to determine what actions will be most appropriate for individual Bank Sites, if required.

#### c. Assurance of Success

The UMBI will outline the Bank Sponsor's responsibility for assuring the success of the restoration, creation, enhancement, and preservation activities at the Bank Sites, and for the overall operation, maintenance, and management of the Umbrella Mitigation Bank. If a Bank Site is assigned to a third party, that third party will be required to assure the success of the Bank Site per the UMBI agreement with the mechanism of assurance to be determined by the USACE and MDE, in consultation with the IRT.

## d. Accounting Procedures

The UMBI will outline all mitigation tracking requirements /responsibilities of the Bank Sponsor. The monitoring section of the UMBI will outline requirements related to tracking debits related to permitted projects and any mitigation accrued when success criteria are met as specified in the UMBI. The cumulative total area of impacts to wetlands/streams/aquatic resources permitted to use credits from the Umbrella Mitigation Bank shall not exceed the total area of wetlands/streams/aquatic resources created by the mitigation Bank Sites. If the Umbrella Mitigation Bank and/or the Bank Sites is constructed in phases, the accounting credits shall duly reflect this phasing of work. A ledger for tracking debits, available credits, and permitted projects will be submitted to the USACE, MDE, and the IRT. The Bank Sponsor will submit the ledger annually.

## e. Default, Contingency/Adaptive Management/Remedial Action Plan

The Bank Sponsor will develop necessary contingency/adaptive management plans and implement appropriate remedial actions in coordination with the USACE and MDE if a Bank Site is not on a trajectory to meet performance criteria or permit requirements. A general contingency/remedial action plan will be developed for the UMBI, and if necessary, for individual Bank Sites addressing site-specific existing or proposed conditions. The adaptive management plan will establish the framework by which the Bank Sponsor will proceed to correct deficiencies identified on a given Bank Site. Before considering any adaptive management changes, the Bank Sponsor, in coordination with the IRT, will consider whether such actions will help ensure the continued viability of a Bank Site's biological resources. In that remedial actions cannot be fully determined at this time or at the time of the preparation of the site-specific Final Mitigation Plan, the Bank Sponsor retains the right to adaptively manage required amendments to the remedial action plans, as appropriate, upon identification of remedial needs in the future, and with approval from the IRT.

If the Bank Sponsor or the IRT determines that a Bank Site is operating at a deficit, or has failed to meet the success criteria, the USACE and MDE, in consultation with the IRT and the Bank



Sponsor, will determine what remedial actions are necessary to correct the situation. In the event the Bank Sponsor fails to implement necessary remedial actions within one growing season (by November 1 of the following year) after notification by the USACE and/or MDE of necessary remedial action to address any failure in meeting the success criteria, the IRT will notify the Bank Sponsor and the appropriate authorizing agencies and direct appropriate remedial actions. As determined by the USACE and/or MDE, in coordination with the IRT and the Bank Sponsor, if conditions at the Bank Site do not improve or continue to deteriorate within one growing season from the date that the need for remedial action was first identified in writing to the Bank Sponsor by the USACE or MDE, the IRT may suspend credit transactions for that Bank Site until the deficiencies are corrected.

Following implementation of remedial measures and at the written request of the Bank Sponsor, the IRT will perform a compliance visit to determine whether identified remedial actions have been implemented successfully and, if necessary, lift the suspension on credit transactions for that Bank Site.

#### 6. RESPONSIBILITY OF THE IRT

The IRT will be co-chaired by a representative of the USACE, Baltimore District and the MDE. The IRT shall facilitate establishment of the UMBI and facilitate reaching consensus on future individual Bank Sites. It is anticipated that members of this Umbrella Mitigation Bank's IRT team will include participants from:

- U.S. Army Corps of Engineers, Baltimore District;
- US Environmental Protection Agency;
- US Fish and Wildlife Service;
- Maryland Department of the Environment;
- Maryland Critical Area Commission;
- Maryland Historical Trust;
- National Marine Fisheries Service; and,
- Maryland Department of Natural Resources.

In coordination with the USACE and MDE, the IRT will be responsible for providing appropriate oversight in carrying out the provisions of the UMBI. The IRT agency representatives agree to use their best efforts to review and provide comments on the UMBI, and subsequent site-specific mitigation Prospectuses, Draft and Final Mitigation Plans/UMBI Addenda, monitoring reports, success criteria, credit review reports, accounting ledgers, and remedial action plans for individual Bank Sites. The USACE and MDE retain final authority for approval of the UMBI and site-specific Addenda. The IRT will also be responsible for adhering to time frames defined in the Mitigation Rule.

The UMBI will outline and define the USACE and MDE roles, as co-chairs of the IRT, regarding their responsibility for initiating IRT conflict resolution regarding UMBI development or use of a mitigation Bank Site for purposes of Section 404, Section 10 and other related state permit compliance when consensus cannot be reached. The UMBI will also establish timeframes for IRT comment periods and USACE and MDE final decisions.



#### 7. SPONSOR QUALIFICATIONS

ACRE Investment Management, LLC (Bank Sponsor) operates GreenTrees, the leading carbon reforestation project in the United States, and Conservation+, one of the largest Nutrient Mitigation Bank operations in the Commonwealth of Virginia. To date, GreenTrees has over 136,000 acres of bottomland hardwood reforestation, comprising of 600+ landowners, ranging from 7 acres to 3,500 acres in size. GreenTrees has been issued approximately 6.3m mtCO2e. These volumes have been verified by independent third-party verifiers approved under American Carbon Registry. Conservation+ operates over 12 nutrient mitigation banks in the Commonwealth of Virginia. ACRE works with landowners to help develop a portfolio approach to land management looking at all the tools available to deliver both conservation and restoration uplift values.

Ecosystem Planning and Restoration (EPR) (Bank Consultant) is a leading provider of environmental restoration services within the Eastern United States. EPR has extensive experience in the designing, permitting, and implementing stream and wetland restoration projects, including full delivery and mitigation bank projects. In the firms' collective personnel experience, we have initiated over 500 projects in the past eight years, restoring hundreds of miles of stream and thousands of acres of wetlands, and implemented numerous water quality and stormwater projects in twelve different states, representing a wide range of conditions and challenges. EPR staff have capabilities in natural resource assessments inventories (e.g., wetland delineation, forest stand delineation, threatened and endangered species assessment), watershed assessment, design development, TMDL/PRP credit reduction calculations, community involvement, hydrologic and hydraulic modeling, construction-ready design plan set preparation, project report documentation, permit application preparation, construction bid document preparation and bidding, construction oversight and/or management, regulatory close-out, pre- and post-construction monitoring, and project evaluation.

### 8. MISCELLANEOUS

The UMBI will address other administrative or technical elements related to the Umbrella Mitigation Bank establishment, use, operation, and maintenance through coordination with the IRT. Other potential elements that will be addressed in the UMBI that are not part of this prospectus may include, but is not limited to:

- Effective Date of UMBI and amendment/modification process/approval requirements
- Dispute resolution process
- Authorities
- Process for IRT participation termination
- Delays/Defaults
- Force Majeure
- Catastrophic Events
- Eminent Domain
- Notice
- Counterparts



- Binding nature of agreement
- Third Party Beneficiaries
- Governing Laws
- UMBI Amendments
- IRT Contracts
- Responsibility for Compensatory Mitigation