

NAME OF BANK
Mitigation Banking Instrument
County, State

Submitted by:

Submitted to:
Interagency Review Team

Representing:
U.S. Army Corps of Engineers NY District/Philadelphia District
New Jersey Department of Environmental Protection
U.S. Environmental Protection Agency, Region 2
U.S. Fish and Wildlife Service
National Oceanic and Atmospheric Administration, National Marine Fisheries
Service
New Jersey Sports and Exposition Authority

Prepared by:

Submission Date:

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Mitigation Banking Instrument (name of bank)

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NAME OF BANK

MITIGATION BANKING INSTRUMENT

I. INTRODUCTION

This Mitigation Banking Instrument (MBI) describes the establishment, use, operation, and maintenance of the NAME OF BANK (Bank) and has been prepared in accordance with 33 CFR Part 332, the *Final Rule for Compensatory Mitigation for Losses of Aquatic Resources*; (Federal Register, Vol. 73, No. 70, April 10, 2008), the New Jersey Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A, Coastal Zone Management Rules N.J.A.C. 7:7, and Flood Hazard Area Control Act Rules, N.J.A.C. 7:13 (where applicable). This MBI was prepared by BANKER and submitted to the United States Army Corps of Engineers (USACE) and the New Jersey Department of Environmental Protection (NJDEP), co-chairs of the Interagency Review Team (IRT). As Sponsor, BANKER, owner of the property, will construct, operate, and maintain the bank and the bank property.

A. Purpose and Goals. The purpose of this MBI is to set forth the guidelines and responsibilities for the establishment, use, operation, and maintenance of the Bank. The goal of the Bank is to provide compensatory wetland mitigation for unavoidable impacts to waters of the United States and waters of the State, inclusive of wetlands, which result from activities authorized under authorities as detailed in Section II: Authorities provided such activities have met all applicable requirements and are authorized by the appropriate authority. Specific goals include:

This section should include a statement regarding your intent to preserve, enhance, restore and/or create wetlands and/or state open water or intertidal or subtidal shallows while providing compensatory mitigation alternatives for impairments of wetlands and streams associated with authorized impacts within the approved bank service area. Provide a description of each aquatic resource type and amount 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 compensatory mitigation project will address the ecological needs of the watershed, ecoregion, physiographic province, or other geographic area of interest.

B. Location and Ownership of Mitigation Bank. The Bank site is located in INSERT MUNICIPALITY, INSERT COUNTY, New Jersey. The proposed bank site is an INSERT NUMBER OF ACRES parcel on INSERT BLOCK AND LOT. The Bank is owned by INSERT OWNER NAME.

C. Project Description. The Bank Sponsor will establish and/or maintain aquatic habitats and upland buffers at the Bank in compliance with the provisions of this MBI and the Development Plan (Exhibit X) and shall then maintain the Bank in such condition until bank closure. The Bank Sponsor shall be responsible for compliance with this MBI and the Bank Development Plan (BDP) until the Bank is closed in accordance with the Bank Closure Procedures or until all Credits are sold, whichever is later. The Bank area shall consist of a mixture of INSERT THE PROPOSED ECOSYSTEMS OF THE BANK as described in Exhibit X. *This section must describe the need and goals of the bank and must discuss any deficiencies of credits in the service area and/or credit demand.*

D. Baseline Conditions. Information collected for the baseline conditions of the Bank site is presented in the Baseline Conditions Report, (Exhibit X). Site Photographs are presented in Exhibit X. *At a minimum this section must include: topographic data for the site at a minimum of 1 foot intervals (0.5 foot intervals is preferred); identification of existing wildlife usage of the site including fish & benthic resources; column of tidal datums using currently collected tidal data on and adjacent to the site; presence or absence of contamination; an assessment of current vegetation/habitats on site; any other information that clearly depicts the current site conditions; information on the presence or absence of historic preservation properties (this may include a Phase I A report); information on the surrounding land use, presence of absence of threatened and endangered species; historical photos; and any other information necessary to establish a baseline for the site. The New Jersey NJDEP has developed a mitigation checklist that can be used to provide assistance here. The checklist can be found at: https://www.nj.gov/dep/landuse/download/mit_001.pdf. In addition, the applicant should refer to 33 C.F.R. § 332.4(c)5, Baseline Information, and include all information required by USACE.*

E. Establishment and Use of Credits. In accordance with the provisions of this MBI and upon satisfaction of the Success Criteria contained herein, Mitigation Credits (or “Credits” and as defined further herein) determined in accordance with Exhibit X of this MBI will be available to be used as Mitigation in accordance with all applicable requirements for permits issued under Section 401 and 404 of the Clean Water Act (CWA), Section 10 of the Rivers and Harbors Act, the New Jersey Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A, the Coastal Zone Management Rules, N.J.A.C. 7:7, or the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13. The sale, conveyance, or transfer of Credits includes all natural services, functions, and values associated with the resource from which Credits were derived. No Credit may be resold or used in any way in relation to another permit requirement, as compensation for another resource, or to satisfy the requirements of any other program. The number of Credits will become available in accordance with the schedule located at X. If the number of total Credits varies as a result of the approval of the mitigation site plan, the as-built plan, or subsequent monitoring reports, the number of Credits available will be adjusted accordingly in accordance with the terms and conditions contained herein. Once credits are sold in accordance with an approved USACE and/or NJDEP permit they are not transferable through a third-party sale.

F. Review Team. Review of this MBI is being undertaken by the IRT, which consists of the following agencies, though the individual representatives may change. In addition, the bank will become effective upon the signature of the USACE, NJDEP, and Banker.

For Banks in the New York District:

1. *U.S. Army Corps of Engineers, New York District (USACE), Chair*
2. *New Jersey Department of Environmental Protection (NJDEP), Co-Chair*
3. *U.S. Environmental Protection Agency, Region 2 (USEPA)*
4. *NOAA’s National Marine Fisheries Service (NMFS)*
5. *U.S. Fish and Wildlife Service (USFWS), Galloway, NJ, field office*

For Banks in the Meadowlands: All of the above, and;

6. *New Jersey Sports and Exposition Authority*

For Banks in the Philadelphia District:

1. *U.S. Army Corps of Engineers, Philadelphia District (USACE), Chair*
2. *New Jersey Department of Environmental Protection (NJDEP), Co-Chair*
3. *U.S. Environmental Protection Agency, Region 2 (USEPA)*
4. *NOAA's National Marine Fisheries Service (NMFS)*
5. *U.S. Fish and Wildlife Service (USFWS), Galloway, NJ, field office*

Disclaimer. This MBI does not in any manner affect statutory authorities and responsibilities of the signatory Parties (“Parties”) and/or the IRT. It does not warranty the ultimate viability of the Bank as a mitigation tool once created. Further, all Parties acknowledge that the permitting and resource agencies have statutory responsibilities over trust resources that are independent and separate from the actions identified in this MBI. The Parties understand that agency signature to this MBI should not be construed to in any way eliminate the need for consultation between the USACE, NJDEP and resource agencies or to predetermine the nature and extent of recommendations made in any future project consultation. Nor should this MBI be considered to circumscribe or to limit the extent of any potential consultative recommendation made by a resource agency in the future.

Exhibits. The following Exhibits are incorporated as appendices to this MBI:

Exhibit X	Sponsor Qualifications
Exhibit X	Bank Location
Exhibit X	Survey Plan
Exhibit X	Mitigation Bank Design Plan
	Attachment X-1 Functional Value Uplift Assessment
	Attachment X-2 Design Plan Sheets
Exhibit X	Baseline Conditions Report
Exhibit X	HMD: Hazard Wildlife Plan (where applicable)
Exhibit X	Site Photographs
Exhibit X	Aerial of existing site conditions
Exhibit X	Service Area
Exhibit X	Conservation Restriction
Exhibit X	Financial Assurance
Exhibit X	Closure Plan
Exhibit X	Monitoring and Maintenance Plan
Exhibit X	Long Term Monitoring and Maintenance Plan
Exhibit X	Adaptive Management Plan
Exhibit X	Mitigation Credit Ledger
Exhibit X	Regulatory Agency Correspondence

II. AUTHORITIES

The establishment, use, operation, and maintenance of the Bank will be carried out in accordance with the following authorities and guidance:

A. Federal

1. Section 404 of the Clean Water Act (33 U.S.C. § 1344)
2. Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403)
3. Section 404(b)(1) Guidelines for Specification of Disposal Sites for dredged or Fill Material (40 C.F.R. Part 230)
4. Fish and Wildlife Coordination Act (16 U.S.C. § 661 et seq.)
5. Regulatory Program Regulations of the U.S. Army Corps of Engineers, Final Rule (33 CFR Parts 320-332)
6. Memorandum of Agreement between the Environmental Protection Agency and the Department of the Army concerning the Determination of Mitigation Under the Clean Water Act, Section 404 (b)(1) Guidelines (February 6, 1990)
7. Magnuson-Stevens Fishery Conservation and Management Act, P.L. 94-265
8. Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. § 1531 et seq.)

B. State and Regional (choose appropriate laws and regulations)

1. New Jersey Waterfront Development Act, N.J.S.A. 12:5-3
2. New Jersey Coastal Area Facility Review Act (CAFRA), N.J.S.A. 13:19
3. Wetlands Act of 1970, N.J.S.A. 13:9A
4. New Jersey Coastal Zone Management Rules, N.J.A.C. 7:7
5. New Jersey Tidelands Act, N.J.S.A. 12:3
6. New Jersey Freshwater Wetlands Protection Act, N.J.S.A. 13-9B
7. New Jersey Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A
8. Flood Hazard Area Control Act, N.J.S.A. 58:16A-50
9. Flood Hazard Area Control Act Rules, N.J.A.C. 7:13

III. ESTABLISHMENT OF THE BANK

- A. Implementation.** The Sponsor agrees to perform all necessary work in accordance with the provisions of this MBI to establish and maintain aquatic habitats and associated uplands buffers, as described in Exhibit X until it is demonstrated to the satisfaction of the USACE and NJDEP, in consultation with the IRT, that the project complies with all conditions contained herein.
- B. Project Authorizations.** The Sponsor shall obtain all appropriate permits or other authorizations needed to establish and maintain the Bank prior to performing any work at the site and prior to debiting any Credits. **This MBI does not fulfill, substitute for, or affect such authorization.**
- C. Establishment of the Bank.** Establishment of the Bank will be performed as described herein. The credits will become available in accordance with the schedule specified in Part IV, Sections D through H.
- D. Financial Assurance Requirements.** The Sponsor agrees to provide the following financial assurances for the work described herein. The Sponsor will secure financial assurances, as described below, to cover contingency actions in the event that the Sponsor fails to comply with the terms or to rectify any unforeseen events as determined by the USACE and NJDEP. In addition, the Sponsor shall also be

responsible for providing adequate funding to monitor and maintain the Bank until either all Bank credits have been sold and applied to a permitted project or for a total of 10 years after the date of completion of construction and initial planting, whichever comes last.

Performance Financial Assurance: Prior to the release of any credits by the USACE and NJDEP, the Sponsor must obtain financial assurance that is acceptable to the USACE and NJDEP and names the NJDEP as the obligee. The financial assurances for the construction of the mitigation project will be a Performance Financial Assurance in an amount equal to 115 percent of the estimated cost of construction.

Maintenance Financial Assurance: Prior to the release of any credits by the USACE and NJDEP, the Sponsor must obtain financial assurance that is acceptable to the USACE and NJDEP and names the NJDEP as the obligee. The financial assurances for the monitoring and maintenance costs of the Bank will be a Maintenance Financial Assurance to assure the success of the mitigation through the completion of the monitoring period, equal to 115 percent of the estimated cost of monitoring and maintaining the site, including the cost to replant the mitigation area.

Financial Assurance Release: Upon receipt of the construction completion report, which includes an as-built and planted report and subject to site inspection and approval, the USACE and NJDEP, in consultation with the IRT, may authorize the Sponsor to retire the Performance Financial Assurance. Upon receipt of each written annual monitoring report, showing that the project is meeting yearly performance requirements, subject to site inspection and approval, the USACE and NJDEP, in consultation with the IRT, may annually authorize in writing the Sponsor to reduce the balance of the Maintenance Financial Assurance by 20% of the original total.

- E. Legal Instruments.** The Sponsor shall institute legal instruments in form and substance presented in Exhibit X including a Conservation Restriction and financial assurance. The Conservation Restriction shall be recorded with the County Registrar of Deeds within 60 days of MBI execution and run in perpetuity. The Sponsor shall provide the USACE and NJDEP with written notification that the Conservation Restriction has been submitted to the County Registrar of Deeds for recordation and shall provide documentation of such recordation to NJDEP and the USACE. Under no circumstances may any Credits be released, sold, debited, or credited until the NJDEP and the USACE receives proof of recording of approved Conservation Restriction. The Conservation Restriction may not be altered, amended, assigned, or terminated without written approval of the NJDEP and the USACE, in consultation with the IRT.
- F. Construction Completion Reports.** The Sponsor shall submit a construction completion report to the NJDEP and USACE within 60 days from the completion of construction and planting activities. This report shall include as-built construction drawings and a post-construction report of the wetland mitigation activities on site. The construction completion report shall include all aspects of the final grading and final planting arrangements of the wetland mitigation property, including all deviations from the approved plan. Based on a review of the as-built report to be included in the written notice of completion of project construction, the USACE and NJDEP, in consultation with the IRT, will confirm whether or not the Sponsor's tasks have been performed in accordance with the MBI within 60 days. The Construction Completion report, prepared by the Sponsor shall include the following information:

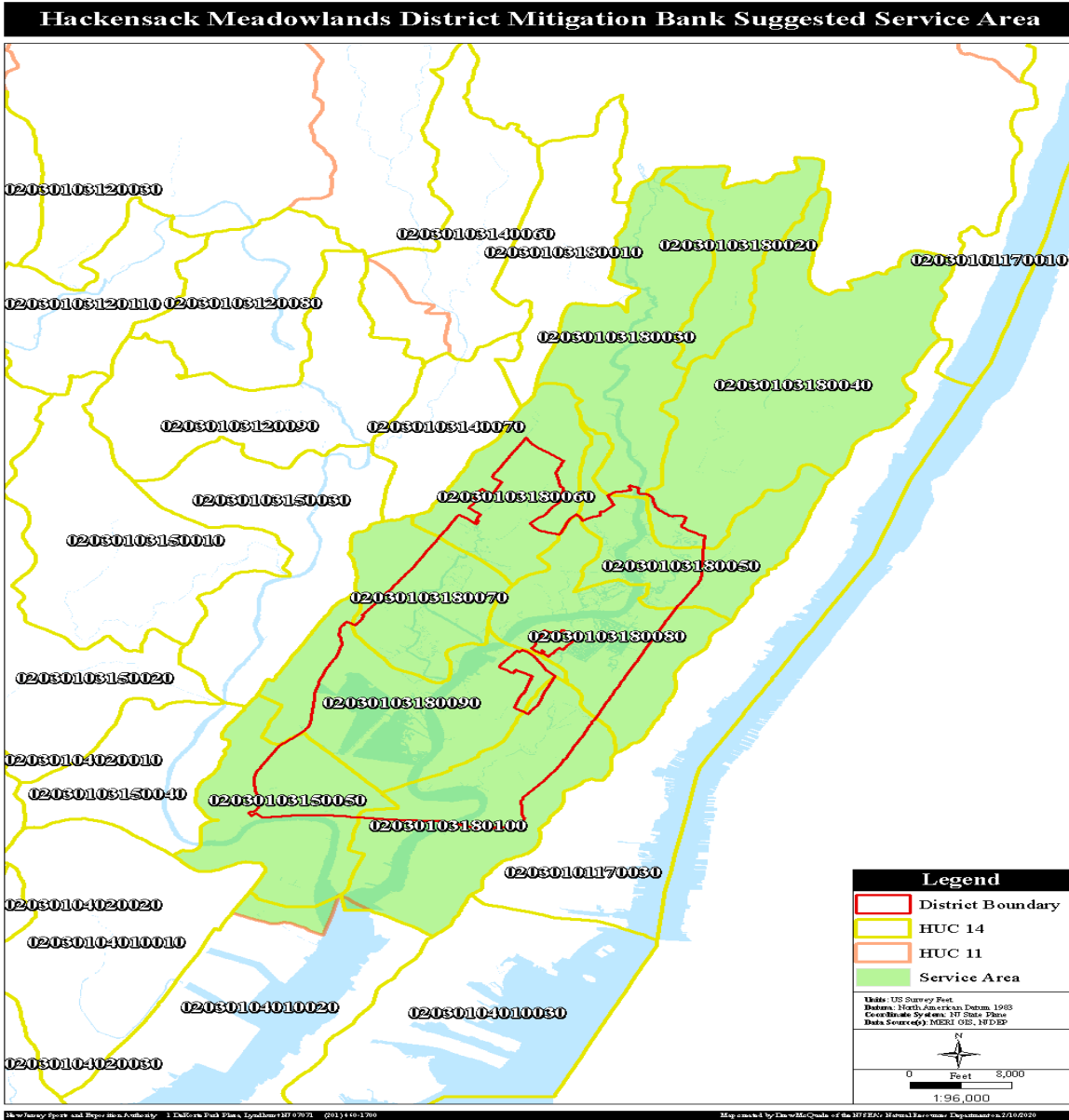
- a. A completed MITIGATION PROJECT COMPLETION CONSTRUCTION FORM (<http://www.state.nj.us/dep/landuse/forms/index.html>) which certifies that the mitigation project has been constructed as designed and that the proposed area of wetland enhancement has been accomplished.
- b. As-built plans which include a final survey that depicts final grades at one-foot contours and a table of the species and quantities of vegetation that were planted including any grasses that may have been used for soil stabilization purposes. It is recommended that a drone flight be provided as part of the construction close out. The Sponsor should provide the aerial images from the drone flight as part of the construction completion report;
- c. Photos of the constructed mitigation project, taken within the current growing season, with a photo location map as well as the GPS waypoints in NJ state plane coordinates NAD 1983;
- d. The permittee shall post the mitigation area with several permanent signs to be depicted on the as-built plans, which identify the site as a mitigation project and that mowing, disturbing, cutting, dumping and draining of the property is prohibited citing regulations; and
- e. The sign shall also state the name of the permittee and the USACE and NJDEP's permit number along with a contact name and phone number.

IV. OPERATION OF THE BANK

A. Service Area. The purpose of the Bank is to provide off-site compensatory mitigation for unavoidable impacts to wetland resources associated with regulated activities, as per Section II, Authorities, occurring within the geographic service limits defined by Exhibit G, Service Area. In the service area described below, the mitigation credits from the bank will be expressly limited for use in mitigating impacts to (Insert habitat types that the Bank can provide mitigation for.

For tidal banks within the State of New Jersey, an applicant shall use a HUC 8 to define the service area of the proposed mitigation bank. For proposed banks that use the HUC 8 service area, no further service area justification is necessary. For those banks that seek a service area that differs from the HUC 8, then a detailed service area justification is required. This justification must include both an ecological and an economic justification. See Attached map of New Jersey HUC 8s. This use of the HUC 8 was a decision based on discussion by the IRT and was based on both ecological considerations as well as past decisions by the IRT.

Given the unique geological history of the Hackensack Meadowlands (i.e., that these wetlands developed over centuries within the bed of a former glacial lake, and upstream dam construction and rising sea levels have produced a coastal brackish tidal marsh within the Piedmont physiographic province) these wetlands are unlike any other wetlands within its' HUC 8 watershed. Therefore, for proposed banks within the NJ Meadowlands Region, the following service area is recommended. For proposed banks that utilize this recommended service area, no further justification will be required. For those banks that seek a service area that differs from the recommended service area, then a detailed service area justification is required. This justification must include both an ecological and an economic justification.



B. Site Access. Site access by the IRT shall be at reasonable times. IRT shall notify the Sponsor in advance. Advanced notice shall have no time pre-notification limitations and not require Sponsor approval.

C. Projects Eligible to Use the Bank. All activities by permittees under Section 401 and 404 of the Clean Water Act, the New Jersey Freshwater Wetlands Protection Act Rules, and New Jersey Coastal Zone Management Rules, located within the Service Area of this Bank may be eligible to use this Bank as compensatory Mitigation for unavoidable impacts provided the use of mitigation credits meets the applicable regulation. This Bank may be used to mitigate for impacts in assumed as well as unassumed waters by permittees to mitigate impacts as required by both the USACE and NJDEP.

D. Credit Assessment Methodology. One credit may be used to offset an equivalent acreage of authorized impact. For example, one credit could mitigate for the unavoidable, authorized loss of one acre of wetlands. The use of a bank credit must be specifically reviewed and approved by the USACE and

NJDEP, in consultation with the IRT. Credits are based on an assessment of functional value uplift and mitigation ratios correlated to acres as presented in Table 1 as well as any applicable New Jersey Regulations.

Table 1: Wetland Mitigation Credits:

Mitigation Category	Ratio	Acres	Credits
Restoration/creation	2:1		
Rehabilitation/Enhancement	Case by case *		
Preservation	27:1		
Mitigation Bank Total			

- Enhancement ratios are determined on a case-by-case basis depending on the habitat types and functional assessment. Generally, this ratio begins at 3:1

E. Success Criteria. The Sponsor shall be responsible for ensuring the success criteria for the Bank are achieved. The NJDEP and USACE, in consultation with the IRT, will use monitoring reports, visual observations, along with best professional judgment to evaluate attainment of success criteria and in determining whether part or the entire bank site is successful or whether corrective actions are warranted. The success of the Bank will be measured by performance standards as set forth in Section IV H of this MBI.

F. Schedule of Credit Availability. Upon submittal of all documentation as required by the MBI and subsequent approval by the USACE and NJDEP, in consultation with the IRT, credits will then become available for sale to approved permittees in accordance with the credit totals presented in Section IV D, Table 1. Bank credits shall be available at the rate presented in Section IV H, Table 2. Use of credits within the bank shall be available to both public and private entities (including the Sponsor) at a ratio of one (1) credit withdrawn from the Bank to compensate for one (1) typical acre of wetland impact.

G. Conditions on Debiting. Prior to the sale to approved permittees of any credits, the following requirements will be met: (1) the MBI will be executed by the USACE and NJDEP and the Sponsor; (2) the Bank property will be secured by Conservation Restriction in Exhibit H; (3) financial assurances will be established; (4) all applicable permits will be received authorizing construction; (5) the USACE will issue a letter stating how many credits have been released. The use of a bank credit must be specifically reviewed and approved by the USACE and NJDEP.

H. Provisions for Uses of the Mitigation Bank Area. Subject to the terms of the Conservation Restriction, neither the Sponsor nor the Grantee (NJDEP) of the conservation restriction or long-term fee simple owner shall:

1. Grant additional easements, right of way, or any other property interest in or to the project areas without the written consent of the USACE and NJDEP.
2. Use or authorize the use of areas within the Bank property for any purpose that interferes with its conservation purposes or that is not expressly authorized in both this MBI and any accompanying conservation restriction.

Table 2: Anticipated Wetland Mitigation Credit Release Schedule, subject to achievement of performance standards

Task Completed	Credits Available	Percent Release	Available Credits
Total Potential Credits			
Preservation Credits			
Subtotal Non-Preservation Credits			
Preservation - MBI Approved, Permits Issued, Financial Assurances Provided, CR Recorded, Schedule Provided, Long Term Stewards ID'd, Electronic version provided		100%	
Non-Preservation Credits - MBI Approved, Permits Issued, Financial Assurances Provided, CR Recorded, Schedule Provided, Long Term Stewards ID'd, Electronic version provided		10%	
Establishment of Hydrologic Regime Achieved		10%	
Establishment of Vegetative Community Achieved		10%	
Year 1 Performance Standards Achieved		10%	
Year 2 Performance Standards Achieved		10%	
Year 3 Performance Standards Achieved		15%	
Year 4 Performance Standards Achieved		15%	
Year 5 Performance Standards Achieved		20%	
TOTAL		100%	

I. Performance Standards and Schedule of Credit Availability. The Sponsor shall be responsible for ensuring the success of the Bank establishment activities and goals described in Exhibit X – Mitigation Design. The success of the Bank will be measured by performance standards approved by the USACE and NJDEP, in consultation with the IRT, as set forth in the USACE and NJDEP permits and the MBI. The standards define the conditions under which the Bank would be judged successful and provide monitoring and maintenance requirements to uncover and correct deficiencies. The Bank will be considered successful if the Sponsor demonstrates to the USACE and NJDEP, in consultation with the IRT that the appropriate areas have been mitigated or preserved and the goals of the Bank have been met.

After successful completion of each planning, construction, planting, and monitoring task described in the credit debiting schedule (provided in Table 2 above), the Sponsor shall notify the USACE and NJDEP in writing and with the appropriate reports. In addition to the written notice, the Sponsor will submit photographs of the completed project task along with a photograph location map.

Upon submittal of all appropriate documentation by the Sponsor and completed review of site conditions via site inspection or use of appropriate technology (e.g. drone footage) at the discretion of the USACE and NJDEP. Drone footage should utilize orthoimages of the monitoring sites that have at least 30 cm vertical resolution. Additionally, it is recommended that a 20-megapixel camera flown at 400 ft above ground level

be used for the drone imagery. It is recommended that the flight line overlap is 60%. The USACE and NJDEP will authorize in writing the release of Credits by the Sponsor, taking into consideration recommendations of the IRT, in accordance with the schedule detailed below, provided performance standards have been met. If all milestone task success criteria and performance standards are achieved, the USACE and NJDEP in consultation with the IRT will release all eligible credits in accordance with the credit release schedule. *The MBI should discuss how the Banker proposes to submit the required documents.*

The USACE and NJDEP, in consultation with the IRT and review of site conditions, and to the extent that agency resources allow, strive to confirm within 60 days whether or not the tasks are successfully completed for purposes of releasing credits. The Banker shall not assume approval if the 60 days is not met by the IRT. The IRT will plan to review site conditions for progress via site inspections or use of appropriate technology (e.g. drone footage), prior to receipt of monitoring reports. Confirmation of successful task completion may require a review of site conditions, which may be completed before or after receipt of report. To facilitate this task, the IRT has developed a form that will let the IRT know 60 days prior to the start of monitoring, when a report is expected and if a site inspection is requested and when that site inspection should take place. This would allow the IRT to better plan to ensure that we can receive the monitoring report and conduct a site inspection during the growing season.

Success criteria detailed below will be used to evaluate and assess success of the Bank:

1. **MBI Approval.** Up to ten percent (10%) of anticipated credits and all preservation credits will be available for debiting upon implementation of the following:
 - a. Approval of this MBI by the USACE and NJDEP, in consultation with the IRT;
 - b. Posting of Financial Assurances;
 - c. Recordation of the Conservation Restriction as shown in Exhibit X;
 - d. Submission of a schedule to the IRT that shows that the initial physical and biological improvements will be completed no later than the first full growing season (as defined below);
 - e. Securing of all applicable regulatory permits and approvals;
 - f. Identification of candidate long term stewards; and
 - g. Submission of an electronic version of this MBI, the Mitigation Design Plan and associated Exhibits to the USACE and NJDEP.

Performance standards for restoration, creation, or enhancement:

2. Establishment of **Hydrologic Regime.**

Recommended Performance Standards:

- a. Submission of a construction completion report including as-built plans that document that the target elevations have been achieved across the site.
- b. Tidal: Installation of X number of tidal gauges, upon USACE and NJDEP approval of gauge siting and as shown on monitoring plans.
- c. Freshwater (FWW): Site designed as per approved plans; Documentation that the proposed elevations (using drone or traditional methods for elevation) were achieved; monitoring wells as shown in the approved monitoring plan are in place.

NOTE: This is the first step in the establishment of the hydrologic regime, established to ensure

that in subsequent monitoring years can accurately document that hydrology is being met.

3. Planting of **Vegetative Community** Achieved.

Recommended Performance Standards:

- a. Submittal of construction completion report;
- b. Drone footage of planting, or other technology to show before and after photographs of the site;
- c. Photographs of the completed construction and planting taken with the current growing season;
- d. Submission of monitoring plot locations;
- e. Established fixed photo location points so that photos can be taken from the same point and in the same direction each subsequent year.

4. Year 1 Recommended MINIMUM Performance Standards for Creation, Restoration, and Enhancement Areas (*One Full Growing Season Complete- meaning 365 days from the date of completion of construction to ensure one full growing season*):

Vegetation

Tidal:

- a. Wetlands have at least 70 percent cover of the mitigation plantings or target hydrophytes, which are species native to the area and similar to the ones identified on the mitigation planting plan.
- b. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species.
- c. Aerial photograph, taken during the growing season of the site, showing monitoring locations and percent cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photographs can be taken using drone or fixed wing airline flight, aerial photographs should not include a Google or Bing image.*
- d. Minimal evidence of erosion.

FWW:

- a. Wetlands have at least 70 percent cover of the mitigation plantings or target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan.
- b. Planting Density based on the goals of the mitigation site and the size and type of planting to be utilized. The goal of this performance standard is develop healthy trees above the herbaceous layer. Alternative performance standards may be proposed to meet this goal and will be considered on a case-by-case basis. *NOTE: A banker may identify a scientifically based methodology for determining density of the mitigation bank.*
- c. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species.
- d. Aerial photograph of the site, showing monitoring locations and percent cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using a drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- e. Minimal evidence of erosion.
- f. For all planting woody vegetation, documentation of an increase of 10 percent in height from previous year.

Riparian Zones (as identified under NJ Regulations):

- a. Riparian zones have at least 70 percent cover of the mitigation plantings or target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan.
- b. Planting Density based on the goals of the mitigation site and the size and type of planting to be utilized. The goal of this performance standard is to develop healthy trees above the herbaceous layer. Alternative performance standards may be proposed to meet this goal and will be considered on a case-by-case basis. *NOTE: A banker may identify a scientifically based methodology for determining density of the mitigation bank.*
- c. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species.
- d. Aerial photograph of the site, showing monitoring locations and percent cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using a drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- e. Minimal evidence of erosion
- f. For all planted woody vegetation, documentation of an increase of 10 percent in height from previous year.

Hydrology

Tidal Evidence:

Documentation that the hydroperiod proposed in the approved mitigation bank has been met (i.e. that the marsh plain surface is inundated and drained as designed) by providing continuous marsh plain tidal data, collected at a minimum of 15-minute intervals over a minimum of three lunar cycles from several locations across the site.

FWW Evidence:

An area has wetland hydrology when saturated to the surface or inundated at some point in time during an average rainfall year. Saturation to the surface can be determined by the soil type, soil permeability, and position of the water table during the growing season. In low permeability, poorly drained soils, such as the soils onsite, the water table must be within 12 inches of the soil surface for at least 14 consecutive days during the growing season. The growing season defined by the Natural Resources Conservation Service (NRCS) Climate Analysis for Wetlands (WETS) tables at 50% probability at 28°F is from April 11th to October 30th (203 days). In order to establish the necessary habitat requirements for vernal pool species, ponded water in vernal pools must be present for most years from late February through July.

Soils

Documentation that the site contains hydric soils or there is evidence of reduction occurring in the soil.

5. Year 2 Minimum Recommended Performance Standards

Vegetation

Tidal:

- a. Wetlands have at least 75 percent cover of the target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan. Documentation can include areal coverage and/or photographs of herbaceous plantings shooting from the roots as well as

- include recruits in the coverage.
- b. Demonstration that all plant species in the mitigation area are healthy and thriving.
 - c. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species and that the amount of invasive species from year one has not increased.
 - d. Aerial photograph of the site, showing monitoring locations and % cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
 - e. Minimal evidence of erosion

FWW:

- a. Wetlands have at least 75 percent cover of the target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan
- b. Planting Density based on the goals of the mitigation site and the size and type of planting to be utilized. The goal of this performance standard is to develop healthy trees above the herbaceous layer. Alternative performance standards may be proposed to meet this goal and will be considered on a case-by-case basis. *NOTE: A banker may identify a scientifically based methodology for determining density of the mitigation bank.*
- c. The percent of canopy coverage is increasing every year.
- d. Demonstration that all plant species in the mitigation area are healthy and thriving.
- e. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species and that the amount of invasive species from year one has not increased.
- f. For all planted woody vegetation, documentation of an increase of 10% height from previous year
- g. Aerial photograph of the site, showing monitoring locations and % cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- h. Minimal evidence of erosion.

Riparian Zone:

- a. Riparian zones have at least 75 percent cover of the mitigation plantings or target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan.
- b. Planting Density based on the goals of the mitigation site and the size and type of planting to be utilized. The goal of this performance standard is to develop healthy trees above the herbaceous layer. Alternative performance standards may be proposed to meet this goal and will be considered on a case-by-case basis. *NOTE: A banker may identify a scientifically based methodology for determining density of the mitigation bank.*
- c. The percent of canopy coverage is increasing every year.
- d. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species.
- e. Aerial photograph of the site, showing monitoring locations and percent cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using a drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*

- f. Minimal evidence of erosion
- g. For all planted woody vegetation, documentation of an increase of 10 percent in height from previous year.

Hydrology

Tidal Evidence:

- a. Documentation that the hydroperiod proposed in the approved mitigation bank has been met (i.e. that the marsh plain surface is inundated and drained as designed) by providing continuous marsh plain tidal data, collected at a minimum of 15-minute intervals over a minimum of three lunar cycles from several locations across the site.
- b. Documentation of any areas where drainage is not properly occurring, the establishment of pools, any areas of undercutting or severe erosion.

FWW Evidence:

An area has wetland hydrology when saturated to the surface or inundated at some point in time during an average rainfall year. Saturation to the surface can be determined by the soil type, soil permeability, and position of the water table during the growing season. In low permeability, poorly drained soils, such as the soils onsite, the water table must be within 12 inches of the soil surface for at least 14 consecutive days during the growing season. The growing season defined by the Natural Resources Conservation Service (NRCS) Climate Analysis for Wetlands (WETS) tables at 50% probability at 28°F is from April 11th to October 30th (203 days). In order to establish the necessary habitat requirements for vernal pool species, ponded water in vernal pools must be present for most years from late February through July.

Soils

Documentation that the site contains hydric soils or there is evidence of reduction occurring in the soil.

6. Year 3 Recommended Performance Standards:

Vegetation

Tidal:

- a. Wetlands have at least 80 percent cover of the target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan. Documentation can include areal coverage and/or photographs of herbaceous plantings shooting from the roots as well as include recruits in the coverage.
- b. Documentation, such as photographs, showing rhizome reproduction of colonizing species such as *Spartina alterniflora* and *Distichlis spicata*.
- c. Demonstration that all plant species in the mitigation area are healthy and thriving.
- d. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species and that the amount of invasive species from year one has not increased.
- e. Aerial photograph of the site, showing monitoring locations and % cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- f. Minimal evidence of erosion.

- g. Conduct a field delineation of the wetlands on site as per N.J.A.C. 7:7-17.13(f)4(v).

FWW:

- a. Wetlands have at least 80 percent cover of the target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan.
- b. Planting Density based on the goals of the mitigation site and the size and type of planting to be utilized. The goal of this performance standard is to develop healthy trees above the herbaceous layer. Alternative performance standards may be proposed to meet this goal and will be considered on a case-by-case basis. *NOTE: A banker may identify a scientifically based methodology for determining density of the mitigation bank.*
- c. The percent of canopy coverage is increasing every year.
- d. Demonstration that all plant species in the mitigation area are healthy and thriving.
- e. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species and that the amount of invasive species from year one has not increased.
- f. For all planted woody vegetation, documentation of an increase of 10% increase in height from previous years.
- g. Aerial photograph of the site, showing monitoring locations and % cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- h. Minimal evidence of erosion.
- i. Conduct a field delineation of the wetlands on site as per N.J.A.C. 7:7A-11.12(g)4.

Riparian Zone:

- a. Riparian zones have at least 80 percent cover of the target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan
- b. Planting Density based on the goals of the mitigation site and the size and type of planting to be utilized. The goal of this performance standard is to develop healthy trees above the herbaceous layer. Alternative performance standards may be proposed to meet this goal and will be considered on a case-by-case basis. *NOTE: A banker may identify a scientifically based methodology for determining density of the mitigation bank.*
- c. The percent of canopy coverage is increasing every year.
- d. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species.
- e. Aerial photograph of the site, showing monitoring locations and % cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- f. Minimal evidence of erosion
- g. For all planted woody vegetation, documentation of an increase of 10% growth.

Hydrology

Tidal Evidence:

- a. Documentation that the hydroperiod proposed in the approved mitigation bank has been met (i.e.

that the marsh plain surface is inundated and drained as designed) by providing continuous marsh plain tidal data, collected at a minimum of 15-minute intervals over a minimum of three lunar cycles from several locations across the site.

- b. Documentation of any areas where drainage is not properly occurring, the establishment of pools, any areas of undercutting or severe erosion.

FWW Evidence:

An area has wetland hydrology when saturated to the surface or inundated at some point in time during an average rainfall year. Saturation to the surface can be determined by the soil type, soil permeability, and position of the water table during the growing season. In low permeability, poorly drained soils, such as the soils onsite, the water table must be within 12 inches of the soil surface for at least 14 consecutive days during the growing season. The growing season defined by the Natural Resources Conservation Service (NRCS) Climate Analysis for Wetlands (WETS) tables at 50% probability at 28°F is from April 11th to October 30th (203 days). In order to establish the necessary habitat requirements for vernal pool species, ponded water in vernal pools must be present for most years from late February through July.

Soils

Documentation that the site contains hydric soils or there is evidence of reduction occurring in the soil.

7. Recommended Year 4 Performance Standards

Vegetation

Tidal:

- a. Wetlands have at least 85 percent cover of the target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan. Documentation can include areal coverage and/or photographs of herbaceous plantings shooting from the roots as well as include recruits in the coverage.
- b. Demonstration that all plant species in the mitigation area are healthy and thriving.
- c. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species and that the amount of invasive species from year one has not increased.
- d. Aerial photograph of the site, showing monitoring locations and % cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- e. Minimal evidence of erosion

FWW:

- a. Wetlands have at least 85 percent cover of the target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan.
- b. Planting Density based on the goals of the mitigation site and the size and type of planting to be utilized. The goal of this performance standard is to develop healthy trees above the herbaceous layer. Alternative performance standards may be proposed to meet this goal and will be considered on a case-by-case basis. *NOTE: A banker may identify a scientifically based methodology for determining density of the mitigation bank*

- c. The percent of canopy coverage is increasing every year.
- d. Demonstration that all plant species in the mitigation area are healthy and thriving.
- e. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species and that the amount of invasive species from year one has not increased.
- f. For all planted woody vegetation, documentation of an increase of 10% growth.
- g. Aerial photograph of the site, showing monitoring locations and % cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- h. Minimal evidence of erosion.

Riparian Zones:

- a. Riparian zones have at least 85 percent cover of the target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan.
- b. Planting Density based on the goals of the mitigation site and the size and type of planting to be utilized. The goal of this performance standard is to develop healthy trees above the herbaceous layer. Alternative performance standards may be proposed to meet this goal and will be considered on a case-by-case basis. *NOTE: A banker may identify a scientifically based methodology for determining density of the mitigation bank.*
- c. The percent of canopy coverage is increasing every year.
- d. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species.
- e. Aerial photograph of the site, showing monitoring locations and % cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- f. Minimal evidence of erosion
- g. For all planted woody vegetation, documentation of an increase of 10% growth.

Hydrology

Tidal Evidence:

- a. Documentation that the hydroperiod proposed in the approved mitigation bank has been met (i.e. that the marsh plain surface is inundated and drained as designed) by providing continuous marsh plain tidal data, collected at a minimum of 15-minute intervals over a minimum of three lunar cycles from several locations across the site.
- b. Documentation of any areas where drainage is not properly occurring, the establishment of pools, any areas of undercutting or severe erosion.

FWW Evidence:

An area has wetland hydrology when saturated to the surface or inundated at some point in time during an average rainfall year. Saturation to the surface can be determined by the soil type, soil permeability, and position of the water table during the growing season. In low permeability, poorly drained soils, such as the soils onsite, the water table must be within 12 inches of the soil surface for at least 14 consecutive days during the growing season. The growing season defined by the Natural Resources Conservation Service (NRCS) Climate Analysis for Wetlands (WETS) tables at 50%

probability at 28°F is from April 11th to October 30th (203 days). In order to establish the necessary habitat requirements for vernal pool species, ponded water in vernal pools must be present for most years from late February through July.

Soils

Documentation that the site contains hydric soils or there is evidence of reduction occurring in the soil.

8. Year 5 Recommended Performance Standards:

Vegetation

Tidal:

- a. Wetlands have at least 85 percent cover of the target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan. Documentation can include areal coverage and/or photographs of herbaceous plantings shooting from the roots as well as include recruits in the coverage.
- b. Demonstration that all plant species in the mitigation area are healthy and thriving.
- c. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species and that the amount of invasive species from year one has not increased.
- d. Aerial photograph of the site, showing monitoring locations and % cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- e. Minimal evidence of erosion.
- f. Conduct a field delineation of the wetlands on site as per N.J.A.C. 7:7-17.13(f)4(v).

FWW:

- a. Wetlands have at least 85 percent cover of the target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan.
- b. Planting Density based on the goals of the mitigation site and the size and type of planting to be utilized. The goal of this performance standard is to develop healthy trees above the herbaceous layer. Alternative performance standards may be proposed to meet this goal and will be considered on a case-by-case basis. *NOTE: A banker may identify a scientifically based methodology for determining density of the mitigation bank.*
- c. The percent of canopy coverage is increasing every year.
- d. Demonstration that all plant species in the mitigation area are healthy and thriving.
- e. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species and that the amount of invasive species from year one has not increased.
- f. For all planted woody vegetation, documentation of an increase of 10% growth.
- g. Aerial photograph of the site, showing monitoring locations and % cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- h. Minimal evidence of erosion.
- i. Conduct a field delineation of the wetlands on site as per N.J.A.C. 7:7A-11.12(g)4.

Riparian Zone:

- a. Riparian zones have at least 85 percent cover of the target hydrophytes, which are species native to the area and similar to ones identified on the mitigation planting plan.
- b. Planting Density based on the goals of the mitigation site and the size and type of planting to be utilized. The goal of this performance standard is to develop healthy trees above the herbaceous layer. Alternative performance standards may be proposed to meet this goal and will be considered on a case-by-case basis. *NOTE: A banker may identify a scientifically based methodology for determining density of the mitigation bank.*
- c. The percent of canopy coverage is increasing every year.
- d. Demonstrate that the restoration, creation, and/or enhancement area is less than 10 percent occupied by invasive or noxious species.
- e. Aerial photograph of the site, showing monitoring locations and % cover of vegetative and non-vegetative cover of the site, and identification of any areas that may need corrective action. *NOTE: Aerial photograph can be taken using drone or fixed wing airline flight, aerial photograph should not include a Google or Bing image.*
- f. Minimal evidence of erosion.
- g. For all planted woody vegetation, documentation of an increase of 10% growth.

Hydrology

Tidal Evidence:

- a. Documentation that the hydroperiod proposed in the approved mitigation bank has been met (i.e. that the marsh plain surface is inundated and drained as designed) by providing continuous marsh plain tidal data, collected at a minimum of 15-minute intervals over a minimum of three lunar cycles from several locations across the site.
- b. Documentation of any areas where drainage is not properly occurring, the establishment of pools, any areas of undercutting or severe erosion.

FWW Evidence:

An area has wetland hydrology when saturated to the surface or inundated at some point in time during an average rainfall year. Saturation to the surface can be determined by the soil type, soil permeability, and position of the water table during the growing season. In low permeability, poorly drained soils, such as the soils onsite, the water table must be within 12 inches of the soil surface for at least 14 consecutive days during the growing season. The growing season defined by the Natural Resources Conservation Service (NRCS) Climate Analysis for Wetlands (WETS) tables at 50% probability at 28°F is from April 11th to October 30th (203 days). In order to establish the necessary habitat requirements for vernal pool species, ponded water in vernal pools must be present for most years from late February through July.

Soils

- a. Documentation that the site contains hydric soils or there is evidence of reduction occurring in the soil.
- b. Demonstration that the goals of the wetland mitigation project including acreage as stated in the approved mitigation proposal and the permit, have been satisfied.
- c. The site is a wetland, based on the water budget in the approved mitigation proposal, as documented through, when appropriate, relevant tidal data, photographs, and field observation notes collected

throughout the monitoring period. At the end of the fifth growing season, submit a final wetland delineation of the wetland mitigation project which shows the exact acreage of wetlands in the mitigation area.

9. Other areas

Open Water areas, success shall be evaluated as follows:

- a. The proposed hydrologic regime as specified in the Mitigation Design Plan, which proves the mitigation site is a wetland, has been satisfied; and,
- b. That the goals of the wetland mitigation project including acreage of open water area as stated in the approved wetland mitigation proposal and the permit, have been satisfied. At the end of the fifth growing season, submit a final wetland delineation of the wetland mitigation project which shows the exact acreage of open water areas in the mitigation area.

Mudflat areas, success shall be evaluated as follows:

- a. The proposed hydrologic regime as specified in the Mitigation Design Plan, which proves the mitigation site is a wetland, has been satisfied;
- b. The mudflat show evidence that the area is being used by wildlife;
- c. That the goals of the wetland mitigation project including acreage of open water area as stated in the approved wetland mitigation proposal and the permit, have been satisfied. At the end of the fifth growing season, submit a final wetland delineation of the wetland mitigation project which shows the exact acreage of mudflats in the mitigation area; and,
- d. Documentation that the site is stable and that no undercutting is occurring.

Preservation Areas shall be deemed successful upon satisfaction of criteria established in Section H.1., MBI Approval. Preservation standards are met upon MBI approval, permit issuance, financial assurances provided and recordation of the Conservation Restriction. These areas should be included in all monitoring reports and long-term monitoring reports to ensure that the area is being maintained in accordance with the conservation restriction. The monitoring should note any changes to the amount of invasive species within the area as well as any dumping or ATV usage on site. If there is fencing around the area, the condition of the fence should be noted.

V. MAINTENANCE AND MONITORING OF THE BANK

- A. Maintenance Provisions.** The Sponsor agrees to perform all work necessary to maintain the Bank consistent with the approved Mitigation Bank Design Plans (Exhibit X) and the Mitigation Monitoring/Maintenance Plan (Exhibit X). The Sponsor shall continue with such maintenance activities until closure of the bank.
- B. Monitoring Provisions.** The Sponsor agrees to perform all necessary work to annually monitor the Bank to demonstrate compliance with the success criteria established in the MBI in accordance with the Monitoring and Maintenance Plan (Exhibit X). The Sponsor agrees to monitor the bank under

yearly monitoring in accordance with the MBI for a minimum of 5 years or until all performance standards are met, whichever comes last. The monitoring period shall begin no sooner than 365 days from the date of the completion of planting. Upon successful completion of the monitoring under the performance standards, the Sponsor agrees to monitor the Bank in accordance with the Long-Term Monitoring plans as detailed in Exhibit X.

The Sponsor shall provide annual monitoring reports to the USACE and NJDEP on or before December 31 regarding the status of the Bank and to identify any problems requiring corrective action. USACE will provide copies of these reports to all other IRT members. In order to facilitate a timely review of both the site and the monitoring report within a specific monitoring year, the Sponsor shall submit the Monitoring Notification Form, which will let the IRT know 60 days prior to the start of monitoring, when a report is expected and if a site inspection is requested and when that site inspection should take place. This would allow the IRT to better plan to ensure that we can receive the monitoring report and conduct a site inspection during the growing season.

Monitoring shall be in the form of both transect and plot based monitoring. The number of transects and monitoring shall be random and based on the size of the project as well as the number of ecosystem types on the project. To ensure random plot locations the locations of the plot must be reviewed and approved by the IRT prior to the start of the monitoring. The monitoring plots must be representative of the variety of vegetative community type proposed on the mitigation bank, and the number of monitoring plots based on scientific methods.

Monitoring will be conducted until such time that the USACE and NJDEP, in consultation with the IRT have determined that performance standards have been attained. The minimum period for monitoring is five years; however, it may be necessary to extend this period if the bank does not achieve performance standards within that time period. The final monitoring report shall be due on or before December 31st of the last year of monitoring which may be as early as the 5th year following completion of construction and planting but not earlier.

If the Bank is not closed as of the date of USACE and NJDEP's acceptance of the final monitoring report, in consultation with the IRT, the Sponsor shall continue to provide annual monitoring reports to the USACE and NJDEP on the long-term success of the Bank and to identify any problems requiring corrective action. Any such corrective action shall be taken in accordance with Part V, Section E, of the MBI. The long-term monitoring will continue until all Bank credits have been sold or the bank has been closed, whichever comes later. The Bank will be protected in perpetuity by recording a Conservation Restriction on the restricted property.

- C. Reports.** The Sponsor shall submit reports that include as-built drawings and a post-construction report of the mitigation activities within 60 days from the completion of construction and planting activities. The as-built drawings and report shall include all aspects of the planting arrangements of the mitigation site. In addition, the Sponsor shall submit to the USACE and NJDEP copies of the annual monitoring report on the status of the wetland mitigation activities, prepared during the growing season, no later than December 31st of each of the monitoring years following initiation of the wetland planting activities in accordance with the permits. The first monitoring report shall be submitted after the plants over winter and complete a full growing season. The Sponsor shall submit an electronic copy and one hard copy of the reports to both the USACE and NJDEP, and other IRT

members. These reports shall include the results of the Monitoring and Maintenance Plan (Exhibit X) including:

- a. A site plan showing all grading and planting changes made during the year that is the subject of the report.
- b. A detailed narrative summarizing the condition of the Bank and all regular maintenance activities.
- c. Identification of plant species, along with their estimated relative frequency and percent cover, along transects using plots measuring one-meter square with at least one representative transect located in each habitat type within the mitigation site. The location of each monitoring transect shall be identified on the plan view of the as-built drawings of the project.
- d. Vegetation cover maps for each growing season.
- e. Photographs showing all representative areas of the mitigation site taken at least once each year during the period between June 1 and November 1 (site photos and aerials).
- f. Information demonstrating compliance or noncompliance with the performance standards as set forth in the MBI.
- g. Observed faunal utilization, if any.
- h. Fixed photo location photos. The monitoring reports should always include the construction complete photo as well as each yearly photo from the same point, that way there is a record of the sites progress in one report.
- i. The monitoring report does not need to restate the history of the project each year. For example, the year one report may include a summary of the project and how and when construction was complete, as well as the monitoring methodology. Then each year, for this background information, you can refer to the year one monitoring report for the details.

After demonstrating that the success criteria have been met, the Sponsor shall continue to provide long term monitoring reports to the USACE and NJDEP on the long-term success of the Bank and to identify any problems requiring corrective action, until such time as USACE, in consultation with the IRT, has determined that performance standards have been maintained. The long-term monitoring should also contain conditional assessments for structures the bank relies on INSERT SPECIFIC STRUCTURES HERE. Any such action shall be taken in accordance with Exhibit J.

D. Accounting Procedure. Upon demonstration to the satisfaction of the USACE and NJDEP, in consultation with the IRT that success criteria have been met in any calendar year, the USACE shall notify the Sponsor of the release of bank credits.

The Sponsor shall submit a statement to the USACE and NJDEP each time credits are debited, including the USACE permit number and the HUC 11 in which the impacts occurred. In addition, by December 31 the Sponsor shall submit an annual ledger to the USACE and NJDEP showing all transactions at the Bank for the previous reporting period (including the beginning and end balance of available credits), cumulative tabulation of all transactions to date (including all additions and subtractions to date), permitting impacts for each resource type, and any other changes in credit availability (see Exhibit X, Mitigation Credit Ledger). Semi-annual ledgers and transaction reports shall be submitted to the USACE and NJDEP as long as credits remain in the Bank and the Bank remains operational. In association with maintenance of the ledger the Sponsor shall also maintain a file of all approval letters and transactions referenced in the ledger. The ledgers must meet the reporting requirements of 33 § C.F.R. § 332.8(q)(1). In addition, in accordance with 33 § C.F.R.

332.8(d)(6)(ii)(C), the Sponsor acknowledges the legal responsibility for providing the compensatory mitigation lies with the Sponsor that once a permittee secures credits from the sponsor.

- E. Contingency Plans/Corrective Actions/Adaptive Management Plan.** Should any report or site inspection identify conditions requiring corrective action, the Sponsor, in consultation with the USACE and NJDEP and the IRT, shall determine the cause of the condition and propose corrective measures. Prior to the Sponsor commencing corrective action, the Sponsor shall submit a detailed proposal for such actions to the USACE and NJDEP.
- F. Long-Term Management.** Long-term management shall be the responsibility of the Bank Sponsor. Long-term management will begin after the 5th year performance criteria are met and continue until all bank credits are sold or the Bank is closed whichever comes later. Once the fifth-year success criteria have been met, those success criteria must continue to be achieved on a yearly basis until Bank closure. The Bank will be protected in perpetuity by a recorded Conservation Restriction (Exhibit H). The Bank will be transferred to a Charitable Conservancy or governmental body in accordance with N.J.A.C. 13:8b-1 et seq. and N.J.A.C. 13:9b-1 et seq., and approved by the USACE and NJDEP in accordance with Exhibit I.
- G. Bank Closure.** Upon completion of Long-Term Management responsibilities identified in Exhibit I, the Sponsor shall request approval to close the Bank. The Bank will not be closed until such time as the USACE and NJDEP, in consultation with the IRT, approve the bank closure in writing.

VI. RESPONSIBILITIES OF THE IRT

- A.** The USACE and NJDEP, in consultation with the IRT, agree to provide appropriate oversight in carrying out provisions of this MBI.
- B.** The USACE and NJDEP, in consultation with the IRT, agree to review and provide comments on all project plans, monitoring reports, credit review reports, contingency plans, and necessary permits for the Bank within 60 days to the extent that agency resources allow.
- C.** The USACE and NJDEP will conduct compliance inspections in consultation with the IRT, as necessary, and determined by the USACE and NJDEP in consultation with the Sponsor, to verify credits available in the Bank, assess site conditions, and recommend corrective measures (if any) to the Sponsor, until the terms and conditions of this MBI, the Mitigation Design Plan, and regulatory permits have been determined to be fully satisfied or until all credits have been sold, whichever is later to the extent that agency resources allow.

VII. OTHER PROVISIONS

- A. Notices.** Any notice required hereunder shall be deemed given: (i) if sent by first class or certified mail, return receipt requested on the third day following deposit with the U.S. Postal Service; or (ii) if sent by a commercial overnight courier on the next day following deposit with the courier, to the parties as follows:

To the Bank Sponsor:

NY USACE To IRT:

c/o the U.S. Army Corps of Engineers – New York District Regulatory Branch
Room 16-402
26 Federal Plaza
Jacob K. Javits Federal
Building
New York, NY 10278
Attention: Chief, Regulatory Branch
CENAN-R-Permit-App@usace.army.mil

Philadelphia USACE

c/o the U.S. Army Corps of Engineers- Philadelphia Regulatory Branch
100 Penn Square East
Wanamaker Building
Philadelphia, PA 19107

To NJDEP:

New Jersey Department of Environmental Protection
c/o Ms. Jill Aspinwall
Bureau of Program Development
Mail Code 401-07B
PO Box 420
401 East State Street 7th floor
Trenton, NJ 08625-0420

If these parties change, appropriate notification will be made to each respective party.

- B. Compliance with Laws.** At all times and in perpetuity as to the ongoing management, maintenance and remediation of the Bank, the Sponsor shall be subject to and shall comply with Sections 401 and 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, the New Jersey Freshwater Wetlands Protection Act Rules, Coastal Zone Management Rules, and all other applicable federal, state and local laws, rules and regulations in the establishment, construction, management, and maintenance of the Bank, as well as in the sale of credits in the Bank. The MBI shall be governed by and construed in accordance with the laws of the United States and the State of New Jersey.
- C. Severability.** In the event that one or more of the provisions contained in the MBI are held to be invalid, unenforceable or illegal in any respect, such invalidity, unenforceability or illegality shall not affect the other provisions hereof, and the MBI shall be construed as if such provision(s) were not contained herein. Should the essential understanding of the parties hereto be lost by the removal of such provision(s), then the parties hereto shall negotiate in good faith to amend the MBI as necessary to avoid such invalidity, unenforceability or illegality, while still preserving the essential understanding of the parties hereto. It is the parties' intention and belief that the MBI follows State

and Federal law. To the extent that a section of this MBI is ambiguous, or to the extent that a section of this MBI is found by a non-appealable judicial body to be inconsistent with Federal law or Federal guidance, or to the extent that a section of this MBI would require an action inconsistent with Federal law or guidance, then that section should be re-interpreted so as to be consistent with Federal law and/or Federal guidance, or if not possible, then stricken.

- D. Force Majeure.** The Sponsor will not be responsible for Bank failure that is attributed to events of Force Majeure. Force Majeure is defined as flood, drought, disease, regional pest infestation, tornado, hurricane, earthquake, fire, or other action which has an irreparable material and detrimental impact on much of the Bank over which the Sponsor or any entity controlled by the Sponsor has no control. The Sponsor shall bear the burden of demonstrating: (a) the event was caused by circumstances beyond the control of the sponsor and/or any entity controlled by the sponsor, including its contractors and consultants; (b) that neither the sponsor nor any entity controlled by the sponsor, including its contractors and consultants, could have reasonably foreseen and prevented such an event; and (c) the irreparable material, detrimental impact, or sponsor's inability to perform its obligations under this MBI was caused by such circumstances. The USACE and NJDEP, in consultation with the IRT, will determine whether the Sponsor has adequately demonstrated the findings list in (a)-(c) of this section. The USACE and NJDEP will then issue a decision in writing. If the Force Majeure events do not preclude the Sponsor from resuming bank operations, then it shall not be relieved of its obligations under this MBI. Any impact to future credit releases or numbers of credits available for sale shall be discussed and determined by the IRT at that time.
- E. Dispute Resolution.** Resolution of disputes about application of the provisions of the MBI shall be in accordance with 33 C.F.R. § 332.8(e). For instance, per Section 332.8(e)(1), within 15 days of receipt of USACE's notification of intent to approve this MBI or an amendment, senior officials of agencies represented on the IRT may notify USACE and the other IRT members by letter if they object to the approval of the proposed final MBI or amendment. The letter must include an explanation of the basis for the objection, and, where feasible, offer recommendations for resolving the objections. Per § 332.8(e)(2), USACE must then respond within 30 days of receipt of the letter. The response, which will be provided to all IRT members, may: indicate an intent to disapprove the MBI or amendment as a result of the objection; indicate an intent to approve it despite the objection; or provide a modified MBI or amendment that attempts to address the objection. Per § 332.8(e)(3), within 15 days of this response, IRT members of the three federal agencies who are not satisfied with USACE's response may follow the remaining resolution steps outlined in § 332.8(e). Per § 332.8(e)(3), other IRT members who do not agree with USACE's final decision need not sign the MBI or amendment, and do not have to recognize the proposed mitigation bank for purposes of their own programs and authorities.
- F. Validity, Modification, and Termination of the MBI.** The MBI will become valid on the date of the last signatory's signature. The MBI may only be amended or modified in accordance with the processes outlined in 33 C.F.R. § 332.8(d), (g). If USACE determines that the mitigation bank is not meeting performance standards or the terms of this MBI, appropriate action will be taken. Examples of appropriate action include, but are not limited to, suspension of credit sales, adaptive management, decreasing, available credits, utilizing financial assurances, and terminating the MBI.

- G. Specific Language of MBI Shall Not Be Controlling.** The language of any permit or authorization issued by a USACE or NJDEP related to the Bank shall take precedence over the language of this MBI. Otherwise, to the extent that specific language in the MBI changes, modifies, or deletes terms and conditions contained in those documents that are incorporated into the MBI by reference, and that are not legally binding, the specific language within this MBI shall be controlling.
- H. Instrument not a Contract.** USACE approval of this MBI constitutes the regulatory approval required for the Bank to be used to provide compensatory mitigation for Department of the Army permits pursuant to 33 C.F.R. § 332.8(a)(1). This MBI is not a contract between the Sponsor or Property Owner and USACE or any other agency of the federal government. Any dispute arising under this MBI will not give rise to any claim by the Sponsor or Property Owner for monetary damages. This provision is controlling notwithstanding any other provision or statement in the MBI to the contrary.
- I. Transfer of Mitigation Responsibility.** In consideration of the Sponsor's agreement to be bound by the terms of this MBI, the USACE, NJDEP and other IRT agencies acknowledge that upon approval of a proposal by a Permittee to secure Bank credits through a contract with this Sponsor to satisfy all or part of the compensatory mitigation requirements for that USACE and/or NJDEP permit, a fully executed contract between the Sponsor and the Permittee shall act to transfer to this Bank the responsibility for the required compensatory mitigation to be provided by the Bank in accordance with the permit(s). The Sponsor will supply to the permittee a voucher indicating credits have been deducted from the Bank ledger and applied to the permittee's permitted action by name and permit number as proof of mitigation credit acquisition to be shared with the permitting agencies as required. An updated bank credit ledger will be provided by the Sponsor to the USACE and NJDEP documenting the transaction.

Entire MBI. This MBI, along with any related permits issued by USACE or NJDEP, constitute the intentions of the parties and supersede any prior written and verbal agreements among them with respect to the subject matter hereof.

IN WITNESS WHEREOF, the parties hereto have caused their authorized representatives to execute this MBI as of the date indicated below.

SPONSOR

By: _____

Print Name: _____

Title: _____

Date: _____

IN WITNESS WHEREOF, the parties hereto have caused their authorized representatives to execute this MBI as of the date indicated below.

U.S. ARMY CORPS OF ENGINEERS – NEW YORK DISTRICT

By: _____

Print Name: _____

Title: _____

Date: _____

IN WITNESS WHEREOF, the parties hereto have caused their authorized representatives to execute this MBI as of the date indicated below.

U.S. ARMY CORPS OF ENGINEERS – PHILADLPHIA DISTRICT

By: _____

Print Name: _____

Title: _____

Date: _____

IN WITNESS WHEREOF, the parties hereto have caused their authorized representatives to execute this MBI as of the date indicated below.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: _____

Print Name: _____

Title: _____

Date: _____

IN WITNESS WHEREOF, the parties hereto have caused their authorized representatives to execute this MBI as of the date indicated below.

U.S. ENVIRONMENTAL PROTECTION AGENCY - REGION 2

By: _____

Print Name: _____

Title: _____

Date: _____

IN WITNESS WHEREOF, the parties hereto have caused their authorized representatives to execute this MBI as of the date indicated below.

U.S. FISH AND WILDLIFE SERVICE

By: _____

Print Name: _____

Title: _____

Date: _____

IN WITNESS WHEREOF, the parties hereto have caused their authorized representatives to execute this MBI as of the date indicated below.

NATIONAL MARINE FISHERIES SERVICE

By: _____

Print Name: _____

Title: _____

Date: _____

MONITORING NOTIFICATION FORM

Name of Bank:

Name of Person Completing this form:

Date Monitoring expected to begin:

Date Monitoring report expected to be submitted to IRT:

Anticipated Site inspection date:

Please check what applies:

Year 1 Monitoring

Year 2 Monitoring

Year 3 Monitoring

Year 4 Monitoring

Year 5 Monitoring

Credit release anticipated