Mitigation Banking Instrument Batiste Creek Mitigation Bank Liberty County, Texas SWG-2010-00942

Submitted for Approval to: U.S. Army Corps of Engineers Galveston District Environment Protection Agency Region 6 Texas Parks & Wildlife Department

Texas General Land Office Texas Commission of Environmental Quality Natural Resources Conservation Service National Marine Fisheries Service

Submitted by Batiste Woods Mitigation Answers, LLC

April 19, 2024

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I.0 INTRODUCTION

1.1 BANK PURPOSE

The Mitigation Banking Instrument (MBI) created by Batiste Woods Mitigation Answers, LLC (BWMB or Sponsor) is the physical and legal document for the establishment, use, operation, and maintenance of the Batiste Creek Mitigation Bank (BCMB or Bank). The proposed mitigation bank will be used for compensatory mitigation for unavoidable impacts to waters of the United States, including wetlands, that result from activities authorized under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, provided such activities have met all applicable requirements and are authorized by the U.S. Army Corps of Engineers (USACE). The Sponsor is responsible for developing, operating and maintaining the bank subject to the requirements of this MBI; and the Sponsor agrees to satisfy and assume the legal responsibility for the mitigation requirements assigned to a respective permit by USACE.

The proposed BCMB is a wetland mitigation bank located on private land, 1,218.07 acres lying in the Margarita Buye Survey in the South Central Plains Level III Ecoregion. The site is 11.4 miles southwest of the Pine Island Bayou, approximately 2.3 miles north of the intersection of Hwy 90 and PR 103, and 4.75 miles Northeast of the City of Devers in Liberty County, Texas. , Pine Island Bayou Cataloguing Unit USGS 8-digit Hydrologic Unit Code (HUC) 12020007, Devers and Nome USGS Quad (Attachment A, Figure 3). Center Latitude is 30.0568 N and longitude is -94.5167 W.

This MBI serves to ensure compliance with Section 404 of the Clean Water Act 33 USC 1344 et seq, Section 10 of the Rivers and Harbors Act 33 USC 401 et seq and the implementing regulations found at 33 CFR 320-332, which are controlling in any conflict between the MBI and those laws and regulations. The Corps role is regulatory only; the MBI should not be construed as a contract with the Government enforceable at law by the applicant or any third party. The sponsor agrees to the extent allowed by the laws of the State of Texas to defend, indemnify and hold the United States harmless in any action where any party, including the sponsor, the beneficiary or any third party brings a claim, monetary or otherwise, against the United States that relates in any way to the Corps execution of mitigation banking documents for the establishment of this mitigation bank.

1.2 CONTACT INFORMATION

Batiste Woods Mitigation Answers, LLC is the sponsor and the owner of the BCMB property (Attachment N). The Sponsor is responsible for developing, operating, financing and maintaining the bank subject to the requirements of this MBI; and the Sponsor agrees to satisfy and assume the legal responsibility for the mitigation requirements assigned to a respective permit by USACE.

Sponsor and Owner

Batiste Woods Mitigation Answers, LLC. P.O. Box 217 McHenry, MS. 39561 ATTN: Dan Oneal 601-528-0546 Email: <u>danoneal@yahoo.com</u>

Sponsors Agent

Wetland Consulting Services, Inc.

21 Autumn Run

Hattiesburg, MS 39402

Phone: 601=-550-2346

Email: wetlandcs@comcast.net

Conservation Easement Holder

Bayou Land Conservancy 8801 Gosling Road Spring, TX 77381 ATTN: Becky Martinez Phone: 281-576-1634 Email: bmartizen@bayouland

Long Term Steward

Batiste Woods Mitigation Answers, LLC. P.O. Box 217 McHenry, MS. 39561 ATTN: Dan Oneal 601-528-0546 Email: <u>danoneal@yahoo.com</u>

Endowment Fund Managing Entity

Bank of Wiggins P.O. Drawer 67 Wiggins, Mississippi 39577-0067 ATTN: James O. Rabby, President Phone:601-928-5233

1.2.1 OWNER AND SPONSORSHIP INFORMATION

BWMA is a land investment and restoration company whose technical staff includes Certified Wildlife Biologists, Professional Wetland Scientists, and Certified Foresters. In addition, BWMA has construction specialists on staff experienced in wetland construction activities such as heavy equipment operation, vegetation establishment, herbicide application, and contractor management. The Sponsor includes members who currently own and operate two mitigation banks in Mobile District of the USACE, Lower Bay Road Mitigation Bank and Black Creek Swamp Mitigation Bank and one in the Vicksburg District, Deer Creek Road Mitigation Bank. All their banks are current and up to date with all USACE requirements.

1.2.2 SPONSOR AGENT INFORMATION

Wetland Consulting Services, Inc. (WCS) prepared all the MBI's listed in 1.2.1 and currently manages the three Mississippi banks owned by the Sponsor. WCS is in the MBI process in Mobile District with another bank with a separate sponsor in Mississippi. WCS has also completed permittee responsible mitigation projects and has completed wetland delineations and Section 404 Permits with and without mitigation in multiple States and USACE Districts.

2.0 AUTHORITIES

2.1 REGULATORY AUTHORITY

Since the work required to restore/enhance wetlands BCMB site will impact jurisdictional waters of the United States, a Section 404 permit will need to be obtained prior to commencement of work at the site. Once the Mitigation Banking Instrument is approved, the terms and conditions of the Mitigation Banking Instrument will be adopted and the USACE will issue a Nationwide 27 Permit (Wetland Restoration Activities), which has already received programmatic state certifications.

The establishment, use, and operation of the Batiste Creek Mitigation Bank will be carried out inaccordance with the following authorities:

- Clean Water Act (33 USC 1251 et seq.)
- Rivers and Harbors Act (33 USC 403)
- Fish and Wildlife Coordination Act (16 USC 661 et seq.)
- Regulatory Programs of the U.S. Army Corps of Engineers, Final Rule (33 CFR 320-332)
- Guidelines for Specification of Disposal Sites for Dredged and Fill Material (40 CFR 230)
- Memorandum of Agreement between the Environmental Protection Agency and the Department of the Army Concerning Determination of Mitigation Under the Clean Water Act, Section 404(b)1 Guidelines (February 6, 1990)
- Final Rule for the Compensatory Mitigation for Losses of Aquatic Resources issued by the U.S.Army Corps of Engineers and the Environmental Protection Agency (April 10, 2008)
- Water Resources Development Act of 2007-Section 2036: Mitigation for Fish and Wildlife andWetlands Losses
- Section 7 of the Endangered Species Act
- Section 106 of the National Historic Preservation Act"
- Food Security Act of 1985, as amended
- Texas State Water Quality Certification [30 Tex. Admin. Code §279.12 (2001)]
- Texas State Water Quality Standards [30 Tex. Admin. Code § 307 (2000)]
- Texas Parks and Wildlife Code Chapter 14 Powers and Duties Concerning Wetlands

2.2 INTERAGENCY REVIEW TEAM

The Interagency Review Team (IRT) for the Batiste Creek Mitigation Bank is composed of the individuals representing the agencies listed in Table 1 (subject to change):

Table 1: Interagency Review Team Members
--

US Army Corps of Engineers	Phone: 409 766-6322
SWG-RD-P 2000 Fort Point Road	Phone: 409 766-3040
Galveston, TX 77553	
IRT Chair: Sam J. Watson	
Sam J. Watson – <u>Sam.Watson@usace.army.mil</u>	
Gerardo Hidalgo – Gerardo.L.Hidalgo@usace.army.mil	
EPA, Region 6	Phone: 214-665-7459
Wetlands Section (6WQ-EM) - Houston Lab10625 Fallstone Road	Fax: 281-983-2124
	Fax. 201-905-2124
Houston TX 77099 Paul Kaspar - <u>Kaspar.Paul@epa.gov</u>	
Texas Parks & Wildlife Department	Phone: 281 534-0146
TPWD-Dickinson Marine Lab1502 East FM517	Fax: 281 534-0122
Dickinson, Texas 77539	
Mike Morgan - <u>Mike.Morgan@tpwd.texas.gov</u>	
Texas General Land Office Coastal Coordination Council1700	Phone: 512 463-5055
North Congress AvenueAustin, TX 78701-1495	Fax: 512 475-0680
Lee Schroer – <u>Lee.Schroer@glo.tx.gov</u>	
Texas Commission on Environmental Quality	Phone: 512 239-4583
Water Planning & Assessment Division	Fax: 512 239-4420
P.O. Box 13087, Mail Code 150Austin, TX 78711-3087	Tux: 512 257 1120
Brittany Lee - Brittany.Lee@tceq.texas.gov	
Natural Resources Conservation Service	Phone: 254-742-9833
USDA-NRCS Texas	
101 South Main StreetTemple, TX 76501	
Dan Keesee – <u>Dan.Keesee@tx.usda.gov</u>	
National Marine Fisheries Service	Phone: 409 766-3699
4700 Avenue U	Fax: 409 766-3575
Galveston, TX 77550	
Charrish Stevens – Charrish.Stevens@noaa.gov	

2.3 LEGAL RESPONSIBILITY STATEMENT

The Sponsor assumes all legal responsibility for satisfying all mitigation requirements of Department of the Army (DA) permits for which the bank has been utilized, or fees have been accepted (i.e., the implementation, performance, and long-term management of the compensatory mitigation project approved under this agreement). The transfer of liability from permittee to the Sponsor is established by the following: 1) the approval of this MBI by the Sponsor and District Engineer (DE), 2) receipt of acredit transaction report by the DE that is signed and dated by the Sponsor and the Permittee, and 3)the transfer of fees required from the Permittee to the Sponsor.

The responsibility for financial success and risk to the investment initiated by the Bank Sponsor rests solely with the Bank Sponsor. The IRT agencies administer their regulatory programs to best protectand serve the public's interest, and not to guarantee the financial success of banks, specific individuals, or entities. Accordingly, there is no guarantee of profitability for any individual mitigation bank. Bank sponsors should not construe the MBI as a guarantee in any way that the IRT agencies will ensure sale of credits or that the IRT agencies will forgo other mitigation options that may also serve the public interest. Since the IRT agencies do not control the number of banks proposed or theresulting market impacts upon success or failure of individual banks, in depth market studies of the potential and future demand for bank credits are the sole responsibility of the Sponsor.

USACE approval of this Instrument constitutes the regulatory approval required for the Batiste Creek Mitigation 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 Instrument 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 Instrument 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 theInstrument to the contrary.

2.4 OWNERSHIP DOCUMENTATION

Neither this MBI or any DA permit convey any property rights, either in real estate or material, or any exclusive privileges. Furthermore, this MBI or DA permit does not authorize any injury to property, or invasion of rights or any infringements of Federal, state or local laws or regulations. The Sponsor's signature on the MBI is an affirmation that the Sponsor possesses or will possess the requisite property interest to undertake all activities discussed and required in the MBI (33CFR320.4 (g)6).

3.0 MITIGATION PLAN

3.1 OBJECTIVES

Goals and Objective: The goal is to restore and enhance the Riverine Forested Wetland (RFW), and protect the natural stream channel, within the Pine Island Bayou Cataloguing Unit (Attachment A, Figure 5). The restoration and enhancement of the RFW, and any upland buffer will provide additional wetland functions and values not currently realized under the existing conditions and land use (e.g., flood storage, migratory wildlife, habitat for threatened and endangered species or priority conservation species, etc.). In addition, habitat will improve for the native and migratory wildlife via reforestation and herbaceous cover control.

Specifically, the project objectives are to restore, enhance, and to preserve the physical, chemical, and biological functions of a wetland landscape that includes RFW.

- Restoration and enhancement of historic and self-sustaining surface hydrology (e.g., backfilling artificial drainages along existing woods roads).
- Restoration of 964.51 acres and enhancement of 200.52 acres of native RFW through site preparation and reforestation with native forest species.
- Ensuring long term viability and sustainability by implementing specific management strategies such as active and adaptive management, establishment of financial assurances and long term funding mechanisms.
- Providing long term protection through the execution of a perpetual conservation easement and establishment of a long term fund to cover annual expenditures associated with maintenance and management of the Bank.

3.2 SITE SELECTION

Prior to acquisition by Batiste Woods Mitigation Answers LLC, the current owner, the tract was owned by O'Neal Investments, a partner in Batiste Woods Mitigation Answers, LLC. Prior to acquisition by O'Neal Investments, the tract was owned by International Paper Company, who operated the acreage for timber production/timber harvesting of southern pine and hardwood timber.

The review of the site for mitigation bank potential included Geographic Information System analysis (GPS) and online review of ecological systems on this property and adjoining properties. These reviews were utilized to evaluate potential ecological improvement and evaluate current soils, hydrology, precipitation levels, plant species, wildlife utilization, critical habitat and flood data for the area. Following the initial research, a field delineation was conducted to determine the feasibility of the site as a mitigation bank and to determine if an ecological functional gain could be achieved.

The determination was influenced by the amount of wildlife on the property, the Batiste Creek floodplain and the connecting stream, Willow Creek. Both banks of Batiste Creek for the entire length of the bank will be protected by the easements included with the MBI.

3.3 SERVICE AREA

The Sponsor is requesting through this MBI that the BCMB be approved to provide compensatory wetland mitigation credits for USACE wetland permits for areas within which the mitigation bank is authorized. Service areas must be appropriately sized for each credit type to ensure that the aquatic resources provided will effectively compensate for adverse environmental impacts across the entire service areas respectively. The *primary service area* for the Batiste Creek Mitigation Bank is identified as Pine Island Bayou Cataloguing Unit USGS 8-digit Hydrologic Unit Code (HUC) 12020007 (Attachment A Figure 5). The primary service area includes portions of Liberty, Hardin, Polk and Jefferson Counties. Impacts occurring within the primary service area shall be debited on a 1:1 basis.

The <u>secondary service area</u> for the Batiste Creek Mitigation Bank is identified as the Lower Neches 12020003 and the Village Cataloguing Unit USGS 8-digit HUC 12020006. The secondary service area includes portions of Polk, Tyler, Hardin, Jefferson, Orange, and Jasper Counties. Impacts occurring within the secondary service area shall be debited on a 1.5: 1 basis (Attached A Figure 5).

The primary and secondary service areas are located within the South Central Plains Level III Ecoregion. The proposed service area does not extend beyond the administrative boundaries of the Galveston District of the Army Corps of Engineers and is entirely within the State of Texas. The mitigation areas will provide credits for forested non-tidal wetland impacts. The Bank will not be utilized to compensate for any impacts which occur on properties or facilities owned or managed by either the U.S. Fish and Wildlife Service (USFWS), the Texas Parks and Wildlife Department (TPWD), U.S. Forest Service, Texas Forest Service, or the National Park Service (NPS). All lands owned, leased, or managed by TPWD are excluded from service area coverage.

Figures shall not take precedent over the text to identify the service area. The proposed services areas are necessary for the economic viability of the Bank.

3.4 SITE PROTECTION INSTRUMENT

A Conservation Easement will be granted to and held by a qualified, not-for- profit land trust accredited by the Land Trust Accreditation Commission, a national accreditation organization. The Sponsor has agreed to allow Bayou Land Conservancy to hold the Conservation Easement to retain or protect the land's natural habitat, wildlife,open-space, scenic, educational, recreational, historical, and cultural values.

To provide such protection, the Sponsor shall execute a perpetual Conservation Easement (Texas Law, Natural Resources Code, Title 8 Chapter 183, and Subchapter A) on all acreage identified as the Bank and the Conservation Easement will be recorded in the Title Records of Liberty County, Texas (Texas Legislature 2005) upon execution of the MBI (Attachment L) and approval by the USACE Galveston District.

If the Sponsor requests transfer of sponsorship of the Bank, the Sponsor recognizes such a transfer will require supplying the pertinent third-party entity information to the IRT. Further, the USACE, in coordination with the IRT retains the right to approve, and/or modify any agreements to transfer the Bank sponsorship

from the Sponsor to another entity or organization.

The Conservation Easement will protect the Bank from activities inconsistent with the purpose of preserving the conservation values of the restored/enhanced areas. The Owner, its heirs, assigns, or purchasers and the Sponsor/Land Steward Entity shall be responsible for protecting lands contained within the Bank in perpetuity in accordance with the terms of the Conservation Easement. The Conservation Easement will protect the Bank from development, or any other activity contrary to its use as a wetland mitigation bank.

3.5 **BASELINE INFORMATION**

The initial review of the site as a potential mitigation bank included desktop and field review of the site. Desktop evaluation included topographic map, National Wetland Inventory Map, Natural Resources Conservation Service (NRCS) soil data review and land use maps. Historical aerials starting in 1952 indicate the Bank area to be in various stages of timber growth.

Terrain

The Bank area is relatively flat with the topographical elevations ranging from U.S. Geological Service (USGS) 40 ft above Mean Sea Level (MSL) to 50 ft MSL. Drainage is generally towards Willow Creek in the south central portion of the property and towards Batiste Creek running through the center of the property east to west.

Soils

Geologic Atlas of Texas indicates the area to be primarily silt and clay, nearly level soils formed in clayey sediments on the Beaumont Formation of the Pleistocene Age. Soils are poorly drained to very poorly drained nearly level flood plain soils with sloping ranging from 0-1%. Soil profiles include mean annual temperature is 18 Degrees C (65 degrees F) and annual precipitation of 46 to 55 inches per year.

The Bank soils as mapped by the NRCS Soil Survey of Liberty County include:

Aris loam (ArIA), Beaumont clay (BeaA), Bevil clay, Evadale Aldine complex (EvdA), Evadale Gist Complex (EvgA), Orcadia Arix complex (OsaA), Simelake clay (SimA) and Vamont clay (VamA).

All of the soils within the boundaries are listed as hydric soils in Liberty County. Soil Map is included (Attachment A Figure 4)

Vegetation

The Bank site historically is native bottomland hardwoods with current habitat including pine plantation, cutover scrub/emergent wetland, stream fringe forested wetlands, linear emergent wetlands (cutover), intermittent streams, and invasive vines and plants.

Representative upland tree species across the property include Water Oak, Sweetgum and Loblolly Pine. Representative wetland trees include Bald Cypress, Overcup Oak, Willow Oak, Water Oak, Laurel Oak, Red Maple, and Black Willow. Undergrowth and mid-story are a mix of Palmetto, Yaupon, American Holly, Blackberry and various grasses and vines. Chinese tallow trees are prevalent in cutover areas.

Hydrology

The hydrology of the Bank is influenced by flooding from Batiste Creek and Willow Creek, connecting tributaries and precipitation accumulation and flow in flats areas and depressions. Willow Creek and Batiste Creek intersect near the center of the property and Willow Creek continues east and then northeast to Pine Island Bayou. In most parts of the Bank, a surface or subsurface accumulation of clay impedes the downward movement of water and produces periods of saturation and inundation in the upper parts of the soil surface, especially in areas of concave topography. The Jurisdictional Determination map (Attachment D) is based upon the approved Jurisdictional Determination (JD) dated May 6, 2016 (SWG-2010-00942; Attachment D). Per the JD, the wetlands were determined to have more than a speculative or insubstantial effect upon chemical, physical, and/or biological integrity on the downstream traditionally navigable water, Pine Island Bayou and as such the wetlands are subject to federal regulation under Section 404 of the Clean Water Act.

3.5.1 THREATENED AND ENDANGERED SPECIES

The habitat improvements the BCMB are proposing will improve wildlife corridors and wildlife habitat within the Bank property. The Bank MBI and Conservation Easement will protect the area within the Bank property lines perpetually through the Sponsor and then the Long Term Steward.

Federally listed threated or endangered species that could be present on the site are listed on the USFWS, Texas Coastal Ecological Services Field Office's (TCES) IPaC Project Number 2023-0076373. The listed species includes birds; piping plover (*Charadrius melodus*), red knot (*Calidris canutus*) and red-cockaded woodpecker (*Picoides borealis*), reptiles; Alligator Snapping Turtle (*Macrochelys temminckii*), and Insects; monarch butterfly (*Danaus plexippus*). According to the TCES there are no critical habitats within the project area under their office jurisdiction. The restoration and enhancement project at BCMB will not have an effect on the listed species. The complete USFWS-TCES IPaC report for the Bank is found in Attachment P.

The Bank will also provide beneficial wildlife habitat improvements and permanent protection to State listed species that inhabit the wetland types found on the bank properties.

3.5.2 CULTURAL RECOURSES

A Phase One archaeological survey was conducted in June of 2018 to review the Bank property for registered historic places and to verify no sites on the property would be eligible for listing in the National Register of Historic Places. The Phase One survey included targeted surface inspections, 212 shovel tests and 18 exploratory backhoe trenches. No archaeological or historic sites or artifacts were found within the project boundary. The Army Corps of Engineers staff archaeologist and the State Historic Preservation Office concurred with these findings. Their approval letters are found in Attachment P.

3.5.3 WATERS OF THE U.S. DELINEATION

A determination and delineation of wetland and waters of the U.S. (WOUS) was completed within the bank boundaries site using the standard techniques described in detail in the 1987 Corps Wetlands Delineation Manual with the Atlantic and Gulf Coast Plain Regional supplement. H&T Environmental transected the site to establish wetland and upland habitat areas (Table 2), wetland habitat types, vegetation and soil profile. The wetland delineation report and a jurisdictional determination (JD) request was sent to the USACE, Galveston District. The report was reviewed and site visits were completed by H&T Environmental, Inc. (H&T) and USACE to finalize the wetland and stream assessment at the BCMB. The approved jurisdictional determination can be seen in Attachment D.

Based on the wetland delineation and the JD the proposed BCMB contains:

200.52 acres of jurisdictional wetlands (listed in Table)

- 95.23 acres forested
- 102.48 acres scrub shrub
- 2.78 acres emergent

964.51 acres non-wetlands

Other Waters of the U. S. at the site include:

- 40,605 linear feet of stream (51.18 acres)
- Unnamed tributaries (0.35 acres)

Table 2: Wetland Delineation Identification

Wetland ID	ACRES	Wetland ID	ACRES
1A	5.00	18A	0.01
18	5.36	20A	1.52
1C	0.28	21A	0.14
2A	0.71	BB1	31.42
3A	4.03	WB1	19.05
3B	0.69	WB2	44.76
4A	5.81	BT1	0.10
6A	0.30	BT3	0.13
7A	32.20	BT4	0.37
8A	1.22	WT1	0.29
9A	1.81	WT2	0.84
10A	6.54	WT3	5.19
11A	13.80	WT4	0.63
12A	10.40	WT5	0.12
13A	0.33	WT6	0.90
14A	0.34	WT7	3.83
15A	0.01	WT8	0.45
16A	0.02	WT9	1.89
17A	0.03		
Total Wetland	200.52		
Perennial RPW	51.18		
Intermittent Non RPW	0.35		
Total JD Waters	252.05		

During the jurisdictional determination site review, it was determined the 964.51 acres of non- wetlands exhibited hydric soil characteristics including low chroma and concretions throughout the different horizons, as well as FACU, FAC and FACW vegetation. The areas were deemed non-wetlands based on lack of hydrology due to ditching along multiple logging roads and beds for silvaculture. The area is cutover due to silvaculture activities and is currently scrub shrub wetlands.

3.5.4 WETLAND FUNCTIONAL ASSESSMENT (HGM)

Wetlands

The wetland assessment and potential wetland mitigation credits were determined using the Baseline Hydrogeomorphic Assessment to Riverine Wetlands (HGM) Method utilizing the USACE Galveston Districts HGM Functional Assessment Worksheet. Determination of Baseline information was completed by H&T Environmental; Inc. (H&T) and confirmed by WCS. WCS identified 23 wetland assessment areas (WAA) within the 200.52 acres of wetlands (Table 3). The baseline Functional Assessment Report and USACE approval letter is found in Attachment E.

WAA	ACRES	TSDSW FCI	MPAC FCI	RSEC FCI	TSDSW FCU (FCI*Acres)	MPAC FCU (FCI*Acres)	RSEC FCU (FCI*Acres)
1A	5.00	0.88	0.94	0.90	4.41	4.71	4.48
1B	5.36	0.83	0.94	0.88	4.46	5.05	4.70
1 C	0.28	0.83	0.94	0.88	0.23	0.26	0.25
2A	0.71	0.88	0.94	0.90	0.63	0.67	0.64
3A	4.03	0.83	0.94	0.88	3.35	3.79	3.53
3B	0.69	0.83	0.94	0.88	0.57	0.65	0.60
4A	5.81	0.88	0.98	0.90	5.13	5.71	5.21
6A	0.3	0.88	0.98	0.90	0.26	0.30	0.27
7A	32.2	0.83	0.94	0.88	26.80	30.32	28.23
8A	1.22	0.83	0.98	0.88	1.02	1.20	1.07
9A	1.81	0.83	0.98	0.88	1.51	1.78	1.59
10A	6.54	0.88	0.94	0.90	5.77	6.16	5.86
11A	13.8	0.83	0.94	0.88	11.49	13.00	12.10
12A	10.4	0.88	0.94	0.90	9.18	9.79	9.33
13A	0.33	0.83	0.94	0.88	0.27	0.31	0.29
14A	0.34	0.88	0.94	0.90	0.30	0.32	0.30
15A	0.01	0.88	0.94	0.90	0.01	0.01	0.01
16A	0.02	0.88	0.94	0.90	0.02	0.02	0.02
17A	0.03	0.88	0.94	0.90	0.03	0.03	0.03
18A	0.01	0.83	0.94	0.88	0.01	0.01	0.01
20A	1.52	0.83	0.94	0.88	1.27	1.43	1.33
21A	0.14	0.83	0.98	0.88	0.12	0.14	0.12
BB1	31.42	0.83	1.00	0.88	26.15	31.42	27.54
WB1	19.05	0.88	0.94	0.90	16.82	17.94	17.08
WB1	44.76	0.83	1.00	0.30	37.26	44.76	39.24
BT1	0.1	0.83	0.94	0.88	0.08	0.09	0.09
BT3	0.13	0.83	0.94	0.88	0.11	0.12	0.11
BT3	0.13	0.83	0.94	0.88	0.33	0.36	0.33
WT1	0.37	0.88	0.98	0.30	0.24	0.29	0.25
WT2	0.29	0.83	1.00	0.88	0.70	0.84	0.23
WT2 WT3	5.19	0.83	0.94	0.88	4.58	4.89	4.65
WT3	0.63	0.88	0.94	0.30	0.52	0.62	0.55
WT5	0.03	0.83	0.98	0.88	0.11	0.02	0.11
WT6	0.12	0.88	0.94	0.90	0.79	0.85	0.81
WT6 WT7	3.83	0.88	0.94	0.90	3.19	3.61	3.36
WT8	0.45	0.85	0.94	0.88	0.40	0.42	0.40
WT9		0.88	0.94				1.69
WI9	1.89	0.88	0.94	0.90	1.67	1.78	1.69
TOTAL ALL WAA							
TSDSW PHYSICAL	169.79						
MPAC BIOLOGICAL							
RSEC CHEMICAL	176.93						
	1, 0.00						

Table 3: Functional Assessment for Identified Wetland Areas

The baseline functional capacity index (FCI) for all not wetland areas was assigned as a zero.

3.6 MITIGATION WORK PLAN

The Sponsor will implement work plans to restore and enhance the wetland habitat at the BCMB. Hydrologic restoration will take place on 964.51 acres and enhancement will be completed on 200.52 acres. The Hydrology improvement consists of removing or dismantling, and or filling existing unnatural drainage features and regrading secondary roads that have eroded and hold precipitation runoff and returning flood water from Willow and Batiste Creek.

BCMB ACTIVITY	AREA	ESTIMATED COMPLETION	PERFORMANCE STANDARD
MBI Completion & Approval	All WAA's	Year 1	IRT Approval
Record Conservation Easement Letter of Credit Established	All WAA's	Year 1 (Approval of MBI)	Completed and filed with County, Financial Entity approved by IRT
Noxious Species Removal	All WAA's	Year 1 & 2	<5% Years 1-7 (Canopy), <2% Years 8-10 (Canopy) <5% (other layers)
Wetland Hydrology Restoration Construction Activities (Section 3.6.1)	Road Site 1 - 5,955 LF, WAA Areas: 12A, 16A, BB1, WNW 16-20 Road Site 2 - 2,252 LF, WAA Areas: WB2, WNW 13-15 Road Site 3 4,837 LF, WAA Areas: 9A, 10A, WB2, WNW 6, 17 & 18 Road Site 4 - 2,017 LF, WAA Areas: 3A, 4A, WB1, WNW21 Road Site 5 - 3,699 LF, WAA Areas: WNW Secondary Road Sites - 6,000 (+/-) LF Pine Bed Removal 156 acres, WAA Areas: WNW 6, 9, 10, 11, 15, 16 & 17	Year 1 & 2	Each WAA is inundated (flooded or ponded) or the water table is ≤12 inches below the soil surface for ≥14 consecutive days during the growing season at a minimum frequency of 5 years in 10 (≥50% probability)
Site Preparation for planting Restoration and Enhancement Areas includes; Row Chopping, burning and herbicide applications, Noxious Species Removal	All WAA's	Year 2 & 3	
Tree Planting	All WAA's	Year 2 & 3 (or first winter after restoration and site preparation complete)	Initial Planting 300 per acre Year 5 >/= 150 per acre Year 10 >/= 120 per acre
Monitoring as per BLH Guidelines	All WAA's	Yearly as per BLH Guidelines	Wetland Hydrological Standards Present, Canopy species per BLH standard at 10 years. Financial Standard current as per MBI. Conservation Easement protocols enforced. Noxious Species <2% Years 8- 10 (Canopy) <5% (other layers) Roads Maintained

Table 4: Mitigation Work Plan

3.6.1 Restoration

Annual rainfall and usage of the floodplain will allow restoration of the natural occurring sheet flow across the property. Currently rainfall and sheet flow are channeled into the existing drainage along interior roads (Figure 8). After approval of the MBI eighteen thousand - eight hundred and twenty one (18,821) feet of drainage ditches cut alongside the existing roads (Main Roads 1-5) will be filled using heavy equipment (approximately 9 acres). Fill material will be the existing side cast materials from when ditches were excavated. Best management plans will be in place to reduce potential runoff from disturbed soils. This will include hay bales or silt fencing. Wetland seed mix will be spread over fill areas to aide in erosion control. Seed mix will be species listed in Table 9, Section 3.6.2

Bedded pines (approximately 156 acres) were removed using typical timber harvesting equipment. Beds will be removed by heavy equipment to surrounding topographical levels. Forest/hunting roads (Secondary Roads) will be leveled in areas where excessive ponding is occurring and maintained to prevent future ponding and flow (approximately 6,025 LF).

Existing roads will be adequate for the equipment used for the restoration and enhancement activities, no additional roads are planned during the restoration process.

Residual timber materials and stumps will remain as woody debris to provide temporary wildlife habitat, potential nutrients during decay and to lessen runoff from precipitation events. Any micro-topographical areas created by restoration work will remain to provide a more natural topography similar to adjacent existing wetlands. Work areas are listed in Table 6.

Table 5: Restoration Areas Plan

	ACDEC		
WAA	ACRES	CURRENT NON WETLAND HABITAT	PROPOSED WETLAND HABITAT
WNW-1	34.29	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-2	32.09	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-3 *	29.29	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-4	38.99	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-5	56.29	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-6 *	27.09	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-7 *	15.39	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-8	13.20	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-9	12.59	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-10	36.39	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-11	48.09	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-12	56.09	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-13	29.19	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-14	27.89	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-15 *	9.89	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-16	60.49	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-17	21.29	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-18 *	21.29	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-19	27.29	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-20	7.49	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-21 *	24.19	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-22 *	40.29	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-23	25.19	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-24 *	42.59	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-25	52.69	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-26	21.49	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-27	33.99	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-28	41.89	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-29	38.59	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WNW-30 *	38.99	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
TOTAL	964.51		

* WAA with monitoring well

Once restoration activities are completed herbicide will be applied to noxious tree and shrub species throughout the restoration site. Row chopping where required will be utilized to remove large areas of less desirable species such as sweet gum and undesirable species such as tallow. Chop and spray methodology will also be used to eliminate undesirable species remaining in areas with adjacent desirable stands. Controlled burning will be used in conjunction with these other methods or to assist in accessing severely overgrown areas and preparing the site for replanting.

Planting of desirable bare root seedlings or saplings will commence once all restoration and herbicide applications are complete. Preferred canopy species are listed in Table 8. Supplemental herbaceous and shrub species plantings may not be necessary due to the potential for extensive natural regeneration. The year 2 assessment or year 3 site review will determine the amount of desirable natural regeneration and serve as a guide for any plantings necessary. Additional shrub and herbaceous species that will be planted, if required, will be from the selection listed in Table 8 and Table 9.

3.6.2 Enhancement

The forested, scrub/shrub and emergent wetland habitats had been reduced due to silviculture activities. Vegetation was typical of that for a recent cut over and contained Chinese tallow, willow oak, sweetgum, dwarf palmetto and black willow. The slope was 0-1% and exhibited seasonal or year round soil saturation

and ponding. The soil profile and hydrological systems were in place requiring only enhancement activities for the area identifies as WAA's in Table 7.

WAA	ACRES	CURRENT WETLAND HABITAT	PROPOSED WETLAND HABITAT
1A	5.00	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
1B	5.36	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
1C	0.28	Emergent Wetland Cutover < 20 canopy	Forested Hardwood Bottom Wetland
2A	0.71	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
3A	4.03	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
3B	0.69	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
4A	5.81	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
6A	0.30	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
7A	32.20	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
8A	1.22	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
9A	1.81	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
10A	6.54	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
11A	13.80	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
12A	10.40	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
13A	0.33	Emergent Wetland Cutover < 20 canopy	Forested Hardwood Bottom Wetland
14A	0.34	Emergent Wetland Cutover < 20 canopy	Forested Hardwood Bottom Wetland
15A	0.01	Emergent Wetland Cutover < 20 canopy	Forested Hardwood Bottom Wetland
16A	0.02	Emergent Wetland Cutover < 20 canopy	Forested Hardwood Bottom Wetland
17A	0.03	Emergent Wetland Cutover < 20 canopy	Forested Hardwood Bottom Wetland
18A	0.01	Emergent Wetland Cutover < 20 canopy	Forested Hardwood Bottom Wetland
20A	1.52	Emergent Wetland Cutover < 20 canopy	Forested Hardwood Bottom Wetland
21A	0.14	Emergent Wetland Cutover < 20 canopy	Forested Hardwood Bottom Wetland
BB1	31.42	Mixed Hardwood Riparian	Forested Hardwood Bottom Wetland
WB1	19.05	Mixed Hardwood Riparian	Forested Hardwood Bottom Wetland
WB2	44.76	Mixed Hardwood Riparian	Forested Hardwood Bottom Wetland
BT1	0.10	Mixed Forest Pine and Hardwood	Forested Hardwood Bottom Wetland
BT3	0.13	Mixed Forest Pine and Hardwood	Forested Hardwood Bottom Wetland
BT4	0.37	Mixed Forest Pine and Hardwood	Forested Hardwood Bottom Wetland
WT1	0.29	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WT2	0.84	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WT3	5.19	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WT4	0.63	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WT5	0.12	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WT6	0.90	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WT7	3.83	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WT8 WT9	0.45	Scrub Shrub Cutover Scrub Shrub Cutover	Forested Hardwood Bottom Wetland
WI9	1.89	Scrub Shrub Cutover	Forested Hardwood Bottom Wetland

Table 6:Enhancement Areas Plan

The enhancement activities will be removal of noxious and invasive species as described in 3.6.1. Selective cutting, row chopping, and hand clearing will be utilized so desirable species in advanced growth stages and desirable species from natural recruitment can remain in their current state. Once site preparation is complete planting will occur to obtain the density and species variety desired. No more than 25 percent of any one tree species will be planted. Bare root, or containerized seedlings will be purchased from a local source. Preferred species are listed in Table 8. Substitute species, if needed due to supply, will be chosen from preferred species. Supplemental herbaceous and shrub species plantings may occur to meet the Year 2-3 Performance Standard (See Section 3.9) but may not be necessary due to the potential for extensive natural regeneration. The year 2 assessment or year 3 site review will determine the amount of desirable natural regeneration and serve as a guide for any plantings necessary. Additional shrub and herbaceous species that will be planted, if required, will be from the selection listed in Table 9 and Table 10.

Table 7: Preferred Tree Species

Species	Scientific Name	Mast	WIS
Nuttall Oak	Quercus texana	Hard	FACW
Willow Oak	Quercus phellos	Hard	FAC
Cherrybark Oak	Quercus pagoda	Hard	FACW
Overcup Oak	Quercus lyrata	Hard	OBL
Water Oak	Quercus nigra	Hard	FAC
Sw amp Chestnut	Quercus michauxii	Hard	FACW
Baldcypress	Taxodium distichum	Soft	OBL
Drummond Red Maple	Acer rubrum	Soft	FAC
American Em	Ulmus americana	Soft	FAC
Mayhaw	Crataegus aestivalis	Soft	OBL
Water Tupelo	Nyssa sylvatica (biflora)	Soft	OBL
Sw eetgum	Liquidambar styraciflua	Soft	FAC
Blackgum	Nyssa sylvatica	Soft	FAC
Sw eetbay	Magnolia virginiana	Soft	FACW

Table 8: Preferred Shrub Species

Alnus serrulata	Lyonia lucida)smanthus americanus	Myrica cerifera
Cephalanthus occidentalis	Sabal minor	Crataegus aestivalis	Sabal palmetto
Arundinaria gigantea	Cornus amomum	llex coriacea	llex amelanchier
Forestiera acuminata	Hypericum galioides	Leucothoe racemosa	ltea virginica
llex glabra	Illicium floridanum	Styrax americana	
Baccharis glomeruliflora	Cornus foemina	Callicarpa americana	

Table 9: Preferred Herbaceous Species

Aquatic milkw eed	Asclepias perennis	Small-fruit beggartick,	Bidens mitis
Small-spike falsenettle	Boehmeria cylindrica	Mexican water-hemlock	Cicuta maculata
Millet beakrush	Rhynchospora miliacea	Smartw eed spp.	Polygonum spp.
Water pimpernel	Samolus valerandi	Bur-reed spp.	Sparganium spp.
Sw amplily	Crinum americanum	Pickerel w eed	Pontederia cordata
Buglew eed	Lycopus	airlike mock bishop-w ee	Ptilimnium capillacium
Lizard's tail	Saururus cernuus	Ferns	Osmunda Woodwardia

3.7 CREDIT DETERMINATION

Wetland credits will be expressed as functional capacity units (FCU's) based on the USACE-Galveston District's Riverine Forested interim hydrogeomorphic (iHGM) wetland functional assessment model. Wetland functional lift was estimated by subtracting baseline FCUs from those FCUs projected to result from implementation of the mitigation work plan. Projected FCUs for each of the Bank's wetland assessment areas (WAA's) was estimated from existing variable subindices of a reference forested wetland that were adjusted according to anticipated conditions with the Bank. Attachment F contains a detailed analysis by WAA. All projected estimates of future Riverine Forested iHGM model variable subindices and FCUs are not being approved by the USAE-Galveston District or IRT as part of the MBI authorization.

FUNCTIONAL UNIT	BASELINE	PROJECTED	LIFT
TSDWW PHYSICAL	140.13	825.6	685.47
MPAC BIOLOGICAL	105.82	904.11	798.29
RSEC CHEMICAL	151.38	879.66	728.28

Table 10: Credit Calculations

3.8 MAINTENANCE PLAN

The Sponsor agrees to perform all necessary work to maintain the Mitigation Bank consistent with the maintenance criteria established in the Mitigation Bank Restoration Plan. The Sponsor shall continue with such maintenance activities until closure of the Mitigation Bank. Upon closure of the Mitigation Bank, the Sponsor shall implement the management requirements established in the Long- Term Management Plan. Deviation from the approved Mitigation Bank Restoration Plan is subject to review and written approval by the IRT, acting through the Chair. There should be little maintenance once successful construction of the bank is complete. After construction and planting is completed the maintenance plan will be based on plot based monitoring. Groundwater wells will be installed to evaluate hydrology.

- Year 1 into year 2 do semi annual inspections of the monitoring plots to determine initial success of hydrological and vegetative modifications. Observe for reoccurrence of noxious species and schedule additional herbicide applications or mechanical removal.
- Year 3 to 5 review monitoring well data, determine success of planting and review where natural regeneration is not sufficient and plan supplemental planting. Observe for reoccurrence of noxious species and schedule additional herbicide applications or mechanical removal.
- Remainder of monitoring period, yearly review for plant survivorship and/or species composition to meet performance standards, utilize Adaptive Management Plan if required. Observe for reoccurrence of noxious species and schedule additional herbicide applications or mechanical removal.
- Signs will be placed along the periphery of the bank to discourage trespassing. If damage occurs due to trespass steps will be taken by the Sponsor to mitigate any damage and to prevent further trespass in the future. The roads will be maintained to allow access to the bank by monitoring crews. Additional activities may include replacement of signage, clearing of vegetation from roads. Any clearing of vegetation would solely be on an as needed basis to provide ATV passage at a maximum, but all efforts will be made to minimize impacts wherever possible.

3.9 PERFORMANCE STANDARDS

Performance standards, as used in this Instrument, refer to measurable physical (including hydrological), chemical and/or biological attributes that are used to determine if the compensatory mitigation is meeting the restoration objectives for the bank.

- The Sponsor shall record a conservation easement with the <u>Liberty</u> County Clerk that has been approved by the USACE in coordination with the IRT and provide a copy of the recorded conservation easement to the USACE SWG Regulatory Division Chief, prior to initial credit release.
- The Sponsor shall establish and execute financial assurances, approved by the USACE in coordination with the IRT, and provide copies of the respective executed documentation to the USACE SWG Regulatory Division Chief prior to initial credit release.
- The Sponsor shall establish and execute the long-term management fund, approved by the USACE in coordination with the IRT, and provide copies of the respective executed documentation to the USACE SWG Regulatory Division Chief prior to the initial credit release.
- The Sponsor shall fully fund the long-term management endowment and provide copies of the respective documentation to the USACE SWG Regulatory Division Chief, within 7 years of the date the MBI is signed by the USACE.
- Within three calendar years of the date the MBI is signed by the USACE, the Sponsor must provide the USACE and IRT an as-built report with plan drawings (to scale) that include elevations and horizontal distances, and a signed statement demonstrating that construction and planting is complete and compliant with the MBI.
- Deep rooted sedge (Cyperus entrerianus), Macartney rose (Rosa bracteate), trifoliate orange (Poncirus trifoliata), privets (Ligustrum spp), elephant ear (Colocasia esculenta), cogon grass (Imperata cylindrica), Chinese tallow (tradica sebifera), and all species listed by the most current Texas Department of Agriculture Noxious and Invasive Plant List (Title 4, Part 1, Chapter 1'9, Subchapter T, 19300 of the Texas Administrative Code) must comprise no more than 5 percent (5%) absolute cover of the herbaceous, shrub-sapling, or tree strata.
- Sponsor shall submit all monitoring, transaction, and other reports on time in accordance with the requirements of this MBI.
- The Sponsor shall conduct the hydrologic improvements in accordance with the specifications of the MBI. To assess hydrologic improvements, the Sponsor will install, maintain, and monitor continuous water level recorders at locations indicated in the MWP. Hydrographs produced from data collected will be correlated to the field indicators sampled and be provided in all monitoring and credit release reports. This will include documentation of precipitation conditions (normal,

wet, dry) during anual monitoring periods using a National Food Security Act Manual WETS analysis, the Palmer Drought Severity Index, or other suitable metric.

 Once an area is credited, the sponsor shall maintain wetland conditions as determined by the applicable parameters described in the local Regional Supplement to the Wetland Delineation Manual (U.S. Army Corps of Engineers, 2010) and in conjunction with data collected from the monitoring wells and water level recorder described in MWP.

3.9.1 SWG Riverine Forested Wetlands Performance Standard

- Within three (3) Calendar years of Bank Authorization Date, the Sponsor must achieve a
 minimum stocking density of 400 stems per acre consisting of native bottomland hardwood tree
 species listed in Table 4, with ≥3 different species representing ≥5% composition of the stand.
- After five (5) years from the Bank Authorization Date, all wetland assessment areas must achieve a minimum density of 400 stems per acre of native bottomland hardwood tree species identified in the planting list (Table 4), with a minimum of 4 species representing ≥5% composition of the stand, and ≥11% absolute cover within the sapling-shrub stratum.
- After 5 years from Bank Authorization Date, woody species richness must be ≥ 9 species throughout the Bank.
- After five (5) years from the Bank Authorization Date, all wetland assessment areas must contain less than 15% non-vegetated open water. Non-vegetated open water will be removed from the creditable acreage of the bank.
- Within seven (7) Calendar years of the Bank Authorization Date, the Sponsor must achieve a minimum stocking density of 250 stems per acre of which ≥150 stems per acre are desirable species (oak, hickory, cypress, maple and/or elm), with ≥4 different species representing ≥5% composition of the stand, and have ≥34% woody coverage of native woody vegetation that is ≥3 ft in height. Woody species richness must be ≥9 species across the bank.
- Within twelve (12) Calendar years of the Bank Authorization Date, the Sponsor must achieve a minimum stocking density of 100 stems per acre of which ≥60 stems per acre are desirable species (oak, hickory, cypress, maple and/or elm), with ≥5 different species representing ≥5% composition of the stand, and have ≥67% woody coverage of native woody vegetation that is ≥ 3 ft in height. Species richness of native woody species will be ≥ 9 species across the bank.

3.10 MONITORING REQUIREMENTS

Monitoring and reporting requirements are to be in accordance with USACE Regulatory Guidance Letter (RGL)08-03 "Minimum Monitoring Requirements for Compensatory Mitigation Projects Involving the Restoration, Establishment, and/or Enhancement of Aquatic Resources". Reports presenting documentation of monitoring findings will be submitted to the USACE by January 31st of each year for the first (15) years following signature of the MBI or until all performance standards have been met., whichever is later. The sponsor will perform the monitoring of the ecological conditions of the proposed Bank Site and provide a report on the performance of the ecological performance standards.

- Establish monitoring plots, 1 plot for every 32 acres of wetland restoration (30 plots) includes one groundwater well per 100 acres (9 plots), WAA's – WNW 4,6,7,15,18,21,22,24 & 30
- Establish monitoring plots, 1 plot for every 9 acres of wetland enhancement (23 plots)
- Perform HGM assessments in years 2, 3, 7 and 10 (for credit release)
- Plots will represent habitat by credit type developed

Data collected from restoration plots will include HGM scores, monitoring data from groundwater wells, and soil profile. Data collected from enhancement plots will include IHGM scores. Hydrology data will be reported in tabular and graphic form to provide evidence that the site is developing wetland hydrology.

Additional monitoring will include annual inspections and random quarterly site visits to ensure road maintenance is being completed, hunting leases are not violated, signage is in place, invasive species control is adequate (< 5%) and to note any issues the USACE should be notified about.

3.11 LONG TERM MANAGEMENT PLAN

The Sponsor will develop a long term management and maintenance strategy consistent with the ecological goals of the Bank to preserve the habitat benefits achieved. Upon the closure of the BCMB (final release of credits and fulfillment of MBI requirements), the responsibility of site maintenance will be retained by;

Batiste Woods Mitigation Answers, LLC. PO Box 217 McHenry, MS 39561

The Sponsor will also institute a non wasting endowment fund at Bank Plus (Picayune Mississippi Branch), 115 Williams Ave., Picayune, MS 39466 for \$593,258.00. This fund will be established and maintained through an escrow account managed by Batiste Woods Mitigation Answers, LLC., 1402 Turtle Creek Drive, Lufkin, TX 75904, to fund the long term management and maintenance actions. The amount of financial assurances needed for long-term bank management is based on the anticipated annual cost of maintenance items submitted by the Sponsor (Table 13). Once fully funded the endowment is expected to generate \$23,730.00 annually in revenue assuming a 4 percent return on the investment. Unused funds will be reinvested into the endowment with approval by the IRT. The primary source of funding for this endowment will be from mitigation credit sales.

The IRT will be notified in a timely manner should the Sponsor decide to sell the property or relinquish responsibility for the site to a Long Term Steward.

Table 11: Long Term Maintenance Cost Estimates

							Number o	of Units					Total
Tasl		Expenditure	Labor/ Source		Specification	Unit	Project Coord.	Biologist	Item	Cost/	Total	Recurr	Annual
							(\$100/hr.)	(\$80/hr.)		Item	Cost	Interval	Cost
nspect boundary lines		annual	staff	Boundary line ins	pection and maintenance	L. hours		18	0.00	\$80.00	\$1,440.00	1	\$1,440.00
nspect boundary lines		annual	staff	Boundary line ins	pection and maintenance	Miles			300.00	\$0.56	\$166.50 1		\$166.50
Indesirable vegetation	n control	annual	contr.	Invasive/exotic sp	pecies control	Acres			60.00	\$90.00	\$5,400.00 1		\$5,400.00
Beaver Control		annual	contr.	Monitor and cont	rol adverse beaver activity	Animal			20.00	\$75.00	\$1,500.00 1		\$1,500.00
General Inspections		annual	staff	General Inspection	ons	L. hours		20	0.00	\$100.00	\$2,000.00 4		\$8,000.00
General Inspections		annual	staff	General Inspection	ons	mileage			300.00	\$0.56	\$166.50 4		\$666.00
Road Maintenance		annual	contr.	Road mainteance	e and repair - 8.0 +/- miles of roads	Miles			8.32	\$130.00	\$1,081.60 1		\$1,081.60
											Annual Ma	intenance Cost	\$18,254.10
											Adn	ninistration Fee	\$3,650.82
											C	ontingency Fee	\$1,825.41
otal Fund Deposit	\$593,258.25										Total Annual Cost		\$23,730.33
dministration Fee	20%										Endowment starting Principle		\$593,258.25
Contigency Fee	10%												
let Interest Rate*	4.00%												
Net interest is interest	t less inflation												
lote: Property tax is n	ot calculated in the	formula											

Table 12: Long Term Financial Assurance Schedule

Achievement	Financial Assurance %	Financial Amount (\$)
Fund Developed	0%	\$0.00
Initial Credit Release	20%	\$118,651.65
Year 2 Monitoring Credit Release	20%	\$118,651.65
Year 4 Monitoring Credit Release	20%	\$118,651.65
Year 7 Monitoring Credit Release	20%	\$118,651.65
Year 10 Monitoring Credit Release	20%	\$118,651.65
Total Long Term Funded	100%	\$593,258.25

Notwithstanding economic indicators, projections, or future performance, the Sponsor remains legally and financially responsible for maintaining the Bank pursuant to the DA Permit Conditions including this MBI.

3.12 ADAPTIVE MANAGEMENT PLAN

The Bank is designed to be constructed and maintained in a manner that requires only routine maintenance. Annual monitoring and credit release reviews provide the opportunity to observe if the Bank is meeting the performance standards listed in Sections 3.9.1 and 3.9.2. These reviews will also determine of the Bank is not in compliance, or trending towards non-compliance. Possible issues that can affect the Bank include catastrophic weather events, wildfire following drought conditions, and prolific infestation of invasive species. The adaptive management plan shall, at a minimum, identify the cause of the non- compliance, the remedial measures necessary, and a timeline for implementing said measures to bring the Bank into compliance. To the extent practicable, the Corps and the IRT shall approve or disapprove the adaptive management plan within forty-five (45) days of receipt, provided that sufficient information and acceptable measures are contained within the plan.

In the event that the IRT determines that the Sponsor is not complying with the terms of the MBI and the Sponsor either does not provide the adaptive management plan within the time frames specified above or does not implement the features of the adaptive management plan with the time frames specified therein, all or a portion of the funds in the construction or endowment account shall be release to the third party designated by the sponsor during the bank establishment process to effect necessary corrections or acquire equivalent ecological value elsewhere. Unless funds are released to a Third Party, the Financial Assurance accounts shall not be utilized for corrective actions.

3.13 FINANCIAL ASSURANCES

The Sponsor will be responsible for financial assurances for the Bank. These assurances may be phased out once the compensatory mitigation project has been determined by USACE to be successful in accordance with its performance standards.

This financial assurance should be sufficient to provide for maintenance and operation of the bank's activities, monitoring, reporting, and any remedial actions that might be necessary. Site-specific considerations, such as the position of the bank within the watershed, normal hydrology, soils, type and extent of site development activities proposed, and expected relative ease or difficulty of achieving the performance standards, may affect the size of the financial assurance. Failure to maintain an adequate financial assurance shall constitute good cause for suspending or terminating operation of the bank.

The purpose of the financial assurances is to ensure a high level of confidence that the compensatory mitigation project will be successfully completed in accordance with work plans in Section 3.6.1 and 3.6.2 and applicable performance standards listed in Section 3-9. To accomplish this goal, sufficient funds to perform the restoration and enhancement work and ensure its success is guaranteed by a letter of credit included in this MBI. The financial instrument, after deemed appropriate by the Corps, will be in place prior to commencement of any permitted activity at the Mitigation Bank. This financial assurance should be sufficient to provide for maintenance and operation of the bank's activities, monitoring, reporting, and any remedial actions that might be necessary.

The amount of financial assurances needed for initial construction and long- term bank maintenance is based on a breakdown submitted by the Sponsor and listed in Table 13 14 and 15. The release of funds to the sponsor or designated third party would occur if the IRT determined the Bank was not in compliance with the standards set forth in Section 3.9.

In the event of default, the USACE may provide written notification of non-compliance to the Sponsor, the third party beneficiary, or entity responsible for distributing the funds in accordance with the financial assurances to facilitate required mitigation activities. The third party beneficiary will collect the funds necessary to correct the deficiency and take corrective action.

Table 13: Financial Assurance for Construction and Short Term Monitoring

Financial Assurance for Batiste Creek Mitigation	on Bank				
Planted Acreage BLH Restore	964.51				
Planted Acreage BLH Enhance	200.52				
Seedlings (Total)	349,506.00				
Perimeter Boundary Miles	7.70				
Hydrology Work (Days)	30.00				
Internal Roads (miles)	8.32				
Construction Time Cost	Unit	Number of Units	Unit Cost	Total Cost	
Soil Preparation	Acre(s)	110.00	\$50.00	\$5,500.00	
Seedlings and Labor	Tree	349,506.00	\$0.35	\$122,327.00	
Planting Seedlings	Acre	1,164.00	\$150.00	\$174,600.00	
Prescribed Burn Year 1	Acre	400.00	\$20.00	\$8,000.00	
Broadcast Spraying	Acre	400.00	\$25.00	\$10,000.00	
Hydrology Restoration	Day	30.00	\$950.00	\$28,500.00	
Total				\$348,927.00	
Establishment Item Cost	Unit	Number of Units	Unit Cost	Total Cost*	
Taxes (Annually 15 years)	Yearly for 10 years		1,564.00	\$15,640.00	
Invasive Species Control (Spot Treatment)	Acre	100	90.00	\$9,000.00	
Prescribed Burn	3-5 Year Rotation (200 Acre)	1	20.00	\$4,000.00	
Mobilization	Yearly for 10 years	10	100.00	\$1,000.00	
Monitoring (Initial Success/Vegetation)	Acre	1165	15.00	\$17,475.00	
Monitoring (Interim Success/Vegetation)	Acre	1165	15.00	\$17,475.00	
Monitoring (Interim Success/Hydrology)	Plot	9	1,000.00	\$9,000.00	
Long-term Monitoring (10 years)	Yearly for 10 years (years 5-15)		500.00	\$5,000.00	
Boundary Maintenance (15 years)	Mile	7.7	125.00	\$9,625.00	
Misc Equipment Cost (5 years)		1	1,000.00	\$5,000.00	
Total				\$93,215.00	
Total Construction and Establishment				\$442,142.00	
Total Construction and Establishment Administration (5%)				\$442,142.00 \$22,107.00	
	10% cost of bank establishment				

4.0 BANK OPERATIONS

4.1 ACCOUNTING PROCEDURES

- The Sponsor shall establish and maintain a ledger to account for all credit transactions. All credit transactions will be reorded to the nearest 0.1 FCU, and each ledger entry must include all of the following:Date of transactionUSACE permit number
- USACE permittee name
- HUC
- Account balance before each transaction
- Number of credits currently available
- Number of credits released to or debited from the account
- Account balance after transaction

Credits must be traded as a suite of functions – i.e., Temporary Storage of Surface Water (TSSW), Maintenance of Plant and Animal Communities (MPAC), and Removal and Sequestration of Elements and Compounds (RSEC). Therefore, once credits from any functional category (TSSW, MPAC, and RSEC) are exhausted, remaining credits in the other functional categories are unavailable as compensatory mitigation until such time as additional credits for any exhausted categories are released by the USACE and added to the account.

A minimum of one-tenth (0.1) FCU for each functional category shall be debited from the ledger for each transaction. If the number of credits required for compensation is a non-integer, then it shall be rounded up to the nearest one-tenth. Permit applicants have the option to assume a 1.0 surrogate functional capacity index value for each functional category if they choose not to conduct an iHGM functional assessment. To account for potential temporal losses that may be associated with the sale of advanced credits for DA permitted activities, an additional 20% of FCUs from each functional category will be debited from the ledger for every 12 months following a credit transaction that an advanced debit is unrealized on the bank. In addition, after 24 months from date of credit release, all unsold advanced credits will be revoked until such time that they are earned, as verified by the USACE in coordination with the IRT.

The sponsor must submit a signed and dated credit transaction notice to the USACE within 15 days of a credit transaction. A copy of each credit transaction will be retained by the sponsor. Permit applicants proposing to utilize credits from the bank as compensatory mitigation for project impacts must be provided with a statement of credit availability from the sponsor.

RIBITS CREDIT LEDGER:

The Sponsor shall be responsible for maintaining the bank's credit ledger in the Regional Internet Banking Information System (RIBITS). All credit transactions shall be entered into the database no later than 7 days after the transaction has occurred or the Corps reserves the right to suspend credit sales until sales transactions are deemed current and compliant. RIBITS mandatory information fields include the following:

- Jurisdiction
- Transaction Date

- Client Name
- Credits Debited
- Corps Permit Number including SWT/Year/Permit Number (5 digits)
- Type
- Credit Classification

The Sponsor shall also provide an annual statement of the account to USACE with the monitoring report, or under separate cover, submitted to the USACE by January 31st of each year until all credits have been withdrawn and the Mitigation Bank closed.

4.2 **REPORTING PROTOCOLS**

The Sponsor agrees to perform all necessary work to monitor the Mitigation Bank to demonstrate compliance with the performance criteria developed by the U. S. Army Corps of Engineers, Galveston District, for bottomland hardwood wetlands as established in this Mitigation Banking Instrument. The Sponsor also agrees to provide an as built or baseline report after the initial planting of the Bank. One year after the as built report is submitted annual monitoring reports will begin. The report will be submitted to the USACE each year by January 31st of the year following the monitoring effort. The annual monitoring report will include an evaluation of the enhancement and restoration activities to ensure these activities are meeting the performance standards defined in the MBI. The monitoring reports will include requirements for USACE mitigation projects.

4.2.1 Monitoring Report Guidelines

The report shall include, at minimum, the following:

- A United States Geological Survey topographic quadrangle with the Mitigation Bank indicated.
- A detailed narrative that summarizes the condition of the Mitigation Bank and all maintenance activities.
- Appropriate site maps that show the locations of all sampling plots, permanent photographic stations, soil reduction tubes, and hydrologic monitoring devices or stations.
- Data and interpretation regarding the hydrology of the Mitigation Bank (e.g., hydroperiod, extent and depth of inundation, groundwater monitoring results, precipitation records, etc.). Additionally, during each monitoring event, all primary and secondary hydrology indicators will be observed and documented for each monitoring plot, as currently defined in the USACE Delineation Manual, Environmental Laboratory, 1987, Corps of Engineers' Wetlands Delineation Manual (and Supplemental Guidance), Technical Report Y-87-1, USACE of Engineers Waterways Experiment Station, Vicksburg, Mississippi.
- Results and interpretation of vegetation surveys, including the following: The Sponsor shall conduct surveys of living seedlings on the tract at each monitoring location. Sampling shall be done between April 15th and September 15th. Planted seedling survival shall be documented by performing monitoring at the vegetative plots indicated in the Restoration and Enhancement Plans indicated in Section 3.6. A table will be provided which documents the following for each monitoring plot: monitoring plot identification, latitude, longitude, count of planted trees per plot, height of trees, count of volunteer tree species per plot, hard mast and soft mast percent, and tree per acre value

for each plot. Provide averages over entire site for tree per acre, hard mast/ soft mast ratio. A table should be provided which shows invasive species information for each plot and an estimate of invasive or exotic species over the entire site. Visual estimates of overall percent cover and of percent cover within each stratum of vegetation over the entire bank; species composition; hard mast to soft mast ratio; indices of species diversity; estimates of percent cover of exotic species within each stratum of vegetation present; composition of plant community (wetland indicator status); calculations of survival, density of all trees within the monitoring plots (including natural recruitment), diameter or DBH, and height of all planted trees; and estimates of natural recruitment.

- Results of surveys of wildlife usage of the site (e.g., observations of amphibians, reptiles, mammals, birds and macro invertebrates on or near the Mitigation Bank).
- Descriptions of the condition of applicable drainage ditch plugs, low water crossings, and water control structures (including but not limited to cross vanes, j-hook vanes, etc.).
- A discussion of likely causes of observed tree mortality within those plots or areas that did not achieve specified performance standards at Years 3, 5, and 10, or note plots in monitoring reports for Years 1 and 8 which are candidates for corrective measures.
- A completed HGM functional assessment of each planting zone utilizing the appropriate HGM Regional Guidebook. The HGM assessment will be utilized to assess the ecological functional lift of the restoration effort. The HGM score for each monitoring event will be compared to the original baseline pre-restoration and pre enhancement score as given in Table3 and Table 4 in Section 3.5.4, and to the score of the previous monitoring event to determine both overall ecological functional lift and ecological functional lift between monitoring events. The HGM Assessment shall determine a score for the Functional Capacity Indices required in the appropriate HGM regional guidebook.
- A drawing based upon the grading plans of the site that depicts topography, sampling plots, crosssections, longitudinal profile, and permanent photo stations. Survey data and comparison to asbuilt data will be included.
- Monitoring reports shall present yearly data in tabular and graphical format comparing as-built, target, current and previous years monitoring data, and shall include a discussion of any deviation from as-built, target, or previous year's data.

4.2.2 Financial Assurances Report Guidelines

- For each year the financial assurances is required the Sponsor will provide a report itemizing any and all activities associated with the Financial Assurance for Construction and Short Term financial Monitoring account including current status and expiration dates.
- A statement that the long term management fund investment account is in compliance with the MBI and a distribution schedule update.
- An itemization of any and all account activities associated with the long term management account endowment and an assessment of the endowments current performance to ensure perpetual funding is adequate for long term management.

4.3 CREDIT RELEASE SCHEDULE

Upon submittal of all appropriate documentation by the Sponsor, and subsequent approval by the IRT, the IRT Chair will provide in writing the release of credits for each phase to the Sponsor in accordance with the following criteria:

The following is a detailed credit release schedule based on the achievement of the short-term (5 year) and long-term (10 year) standards as detailed in Section 3.9 of this instrument. The Sponsor has elected to receive the early credit release authorized under the new guidance. Long-term funding will be achieved by year 10.

Restoration

- The first 5 percent of the total number of anticipated credits for the Bank will become available for debiting upon approval of this Mitigation Banking Instrument, placement of the conservation servitude on the bank site and the establishment of short term financial assurance requirements.
- The second 15 percent of the total number of anticipated credits for the bank will become available for debiting
 after the initial planting is completed, monitoring plots are established and marked, hydrologic features are
 implemented, placement of ground water monitoring wells and redox tubes are completed, and provided that
 financial assurances are maintained.
- The third credit release of 25% of the total number of anticipated credits for the bank will become available after three full growing seasons, compliance with bank performance standards listed in Section 3.9 of this MBI and upon USACE verification the site has accrued wetland functional lift beyond the previous credit releases.
- Subsequent releases will be based on USACE verification that the site has accrued wetland functional lift beyond previous credit releases.

No more that one credit release that necessitates verification shall be requested from the USACE per calendar year.

All credit releases shall be contingent on the sponsor being in compliance with all terms and conditions of the USACE permit SWG-2010-00942 and with all of the terms of the Batiste Creek Mitigation Banking Instrument including any revisions, modifications, or amendments thereof.

4.4 CONTINGENCY PLANS/ REMEDIAL ACTIONS

In the event the Mitigation Bank fails to achieve any of the performance standards, or any other criteria specified in in this Mitigation Banking Instrument, the Sponsor will develop necessary contingency plans and implement appropriate remedial actions for the Mitigation Bank in coordination with the IRT. In the event the Sponsor fails to implement necessary remedial actions within 45 calendar days after notification by the Corps of necessary remedial action to address any failure in meeting the criteria, the IRT (acting through the Chair) will notify the Sponsor and the appropriate authorizing agencies and recommend appropriate remedial actions.

4.5 PROVISIONS COVERING THE USE OF THE LAND

The BCMB will be perpetually protected by a Conservation Easement that will restrict land use in accordance with the goals of the Bank stated in this MBI. The land use restrictions include, but are not limited to:

- Placing, filling, storing, or dumping on the Property of refuse, trash, vehicle bodies or parts, rubbish, debris, junk, waste, or other such items.
- Structures. There shall be no construction of any structure or structures on said Property, without written

authorization from the U.S. Army Corps of Engineers, unless consistent with the establishment, maintenance, and protection of wetlands within the mitigation bank.

- Uses. There shall be no commercial, industrial, agricultural, or residential uses of the Property without written authorization from the U.S. Army Corps of Engineers.
- Waters and Wetlands. There shall be no mechanized land clearing or deposition of soil, shell, rock, or other fill on the Property without written authorization from the U.S. Army Corps of Engineers except to maintain existing roads. The construction of new roads or trails that break the forest canopy is prohibited without written authorization from the U.S. Army Corps of Engineers.
- Trees/Vegetation. There shall be no cutting, burning, removal or destruction of vegetation on the Property
 except as allowed in the Restoration Plan included in the Mitigation Banking Instrument to restore and maintain
 native bottomland hardwood wetlands. Invasive, non-native vegetation may be removed in such a manner
 that minimizes negative impact to native bottomland hardwood community restoration efforts as agreed upon
 and memorialized in the Mitigation Banking Instrument.
- Livestock. Appropriate precautions shall be taken to prohibit the grazing of cattle or other domestic livestock on the property and to prohibit the establishment of invasive, non-indigenous animal species such as wild hogs.
- Mineral Interests. To the extent of mineral rights owned by the Sponsor or other parties, exploration and/or extraction of minerals such as oil and gas within the Property shall not be conducted without written authorization from the U.S. Army Corps of Engineers.
- Other Prohibitions. All other activities, which are inconsistent with the establishment, maintenance, and protection of wetlands within the mitigation bank, are prohibited.
- There shall be no construction of game fencing within or around the mitigation bank.

Uses That May Be Allowed Within the Mitigation Bank:

- Wildlife and Forestry Management. The Grantor will naturally manage these lands to preserve and improve the existing forest and wildlife resources. Timber harvesting and management by Grantor is limited to the extent necessary to protect the natural environment in areas where the forest is damaged by natural forces such as fire, flood, storm, insects, or infectious organisms. Such timber harvest and/or management shall be carried out only after approval by the Interagency Review Team (IRT), acting through the Chair and be compliant with the terms of the Mitigation Banking Instrument.
- Recreation. Grantor reserves the right to engage in any outdoor, non-commercial recreational activities, including hunting (excluding planting or burning) and fishing, and non-consumptive recreational uses such as hiking and bird watching, and which are consistent with the continuing natural condition of the protected property. No written notice required.

- Road Maintenance. The Grantor reserves the right to maintain existing roads or trails approved by the IRT and included in the mitigation banking instrument. Maintenance shall be limited to removal or pruning of dead or hazardous vegetation; application of permeable materials (e.g., sand, gravel, crushed) necessary to correct or impede erosion; grading; replacement of culverts, approved water control structures, or bridges.
- Other Reserved Rights. Grantor reserves the right to engage in all acts or uses not prohibited by the Restrictions and which are consistent with the conservation purposes of this covenant, the preservation of the protected property substantially in its natural condition, and the protection of its environmental systems. This can include the monitoring of the site for vegetation, soils, and water, and using the site to promote nonconsumptive ecological education.
- Timber harvesting as set forth herein, subject to the approval of the Corps and the terms of this MBI.
- Compliance with Federal regulations or appropriate court orders.

Note: No human activities that might require a Section 404 permit shall occur within the restored portions of the Mitigation Bank without obtaining a Section 404 permit from the Corps and providing mitigation for any actual wetland loss. If a decision is made to authorize activities in previously planted portions of the bank, and such activities adversely affect the quantity and quality of functional wetlands, the permit recipient will be responsible for compensation for the direct loss of wetlands, past wetland impacts that are being mitigated by these wetlands, and all temporal losses associated with the re-establishment of new mitigation sites.

4.6 DEFAULT/CLOSURE PROVISIONS

The Sponsor shall remain responsible for fulfilling the Bank obligations until such time as the long-term financial obligations have been met and the long-term liability of all mitigation has been transferred to a party approved by USACE, in coordination with the IRT.

The closure of the BCMB will occur following the final release of credits and completion of the following:

- All performance standards have been achieved and documented.
- All monitoring requirements have been completed and documented.
- Final credit release has been approved by USACE (IRT).
- All financial responsibilities have been met including 100% of long-term management funding in place for not less than one year.
- USACE approval, in coordination with the IRT, of either the sponsor's written request for bank closure or otherwise determined closed by discretion of the District Engineer.

The USACE may take enforcement action in coordination with the IRT if it is determined the Sponsor has failed to:

- Meet the required mitigation performance standards.
- Submit documents and monitoring reports in a timely manner.
- Maintain ledgers and reports as stipulated in this document.

- Initiating adaptive management measures
- Or otherwise fails to comply with the terms of the MBI.

Any delay or failure of the Sponsor to comply with the terms of this MBI shall not constitute a default if the delay or failure is the result of conditions beyond the Sponsor's reasonable control that significantly, adversely affect their ability to perform their obligations. Such conditions include, but are not limited to severe flooding, extreme drought, earthquake, arson, wildfire, civil disorder, condemnation or other taking by any governmental body. The Sponsor shall give written notice to the USACE and the IRT if the Bank is affected by any such event as soon as reasonably possible in order to restore compliance.

4.7 FORCE MAJEURE

Any delay or failure of the Sponsor to comply with the terms of the MBI shall not constitute a default if and to the extent that such delay or failure is primarily caused by any force majeure event, as determined by the USACE, resulting in conditions beyond the Sponsor's control and significantly adversely affects its ability to perform its obligations hereunder. The Sponsor shall give written notice to the USACE and IRT if affected by any such event within 60 days in order to restore compliance. Following a force majeure event, the Sponsor should not expect the bank to be in compliance with the MBI, therefore, the bank may be suspended, terminated or closed. Because of a force majeure event, the bank may not be in compliance or meet performance standards. If the Corps agrees that a force majeure event, the bank will be suspended until remedial actions and remaining mitigation obligations are approved. In the event that the bank is not in compliance, not meeting performance standards, and ultimately if the result of the force majeure event is that the bank is suspended, terminated, or closed, the Sponsor remains liable for fulfilling all remaining mitigation obligations including maintenance, monitoring, reporting, and long-term management requirements.

4.8 VALIDITY, MODIFICATION, OR TERMINATION OF THE MITIGATION BANK

This MBI will become valid upon signature by the U.S. Army Corps of Engineers and bank sponsor. This MBI may be amended, altered, released, or revoked only by written approval by USACE to the parties hereto or their heirs, assigns or successors-in-interest. The amendment must follow the appropriate procedures listed in 33 CFR 332.8 (d) unless the district engineer determines that the streamlined review process described in 33 CFR 332.8(g)(2) is warranted. Any of the IRT members may terminate their participation upon written notification to all signatory parties. Participation of IRT members will terminate 30 days after written notification.

4.9 CONTROLLING LANGUAGE

To the extent that specific language in this document or appendices changes, modifies, or deletes terms and conditions contained in those documents that are incorporated into the MBI by reference, and are not legally binding, the specific language within the Department of the Army Permit SWG-2010-00942 and MBI shall be controlling.

5.0 ADDITIONAL INFORMATION

5.1 WATER RIGHTS

Surface water in Texas is owned by the state and held in trust for the citizens of the state. The state grants the right to use this water to different people, such as farmers or ranchers, cities, industries, business, and other public and private interests.

Per review of the Texas Commission on Environmental Quality's (TCEQ) water rights database, water use is not listed for the proposed Bank (TCEQ 2015) and water use data recorded from 2000 through 2012 did not indicate any water purchases. Furthermore, as restored, the Bank will not require the use of public water or a TCEQ Water Use Permit since the wetlands to be restored by the Bank will not create a reservoir or off- channel reservoirs that artificially store, hold, retain, or divert water from state water sources (i.e., surface or subsurface). The Sponsor does not anticipate utilizing any construction features on the Bank which direct, divert, or cause the retention of flood waters (i.e., any berms, dikes, etc. will be removed where possible). The hydrologic restoration of the Bank includes filling and leveling of internal drainage and roadway features to natural elevation. Any water which may naturally flow onto or through the floodplain will not be diverted or retained by any constructed surface features. As such, long term hydrology maintenance will not depend upon the utilization of water captured from irrigation wells or a Texas public water system. Therefore, water rights will not be required.

5.2 Transportation Corridors

Existing dirt roadways are present on the site. The main roadways run east - west, approximately 2.8 miles and north - south approximately 0.5 miles. There are additional logging roads and hunting trails, approximately 4.4 miles. These roadways will be used to access the property for all activities. Road repair and maintenance will be the responsibility of the Sponsor.

6.0 Signature Page

By signing this document each signatory understands that they have full legal authority and are fully bound by all applicable penalties for any false or misleading statements and that no changes were made to the documents without prior written approval by USACE.

Sponsor: Batiste Woods Mitigation Answers, LLC.

Dan Oneal, President

Date

Landowner: Batiste Woods Mitigation Banking Answers, LLC

Dan Oneal, President

U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT

Nicholas Laskowski, P.G. Chief, Regulatory Division

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 6

Charles W. Maguire Director, Water Division

USDA-NATURAL RESOURCES CONSERVATION SERVICE

Kristy Oats State Conservationist

TEXAS PARKS AND WILDLIFE DEPARTMENT

David Yoskowitz, PH. D. Executive Director

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Robert Sadlier Director, Water Quality Division

TEXAS GENERAL LAND OFFICE

Dawn Buckingham, MD Land Commissioner

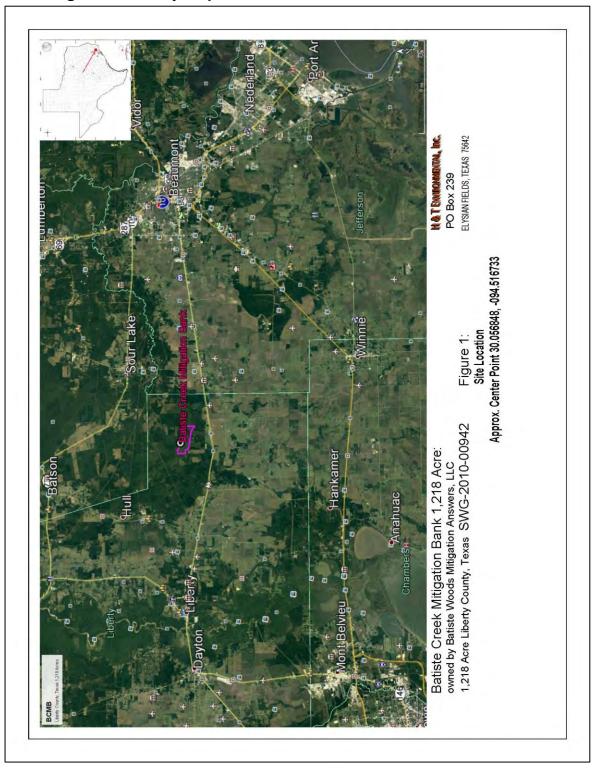
U.S. FISH AND WILDLIFE SERVICE

Date

Field Supervisor, Clear Lake Field Office

Attachments

Attachment A: MBI Site Figures



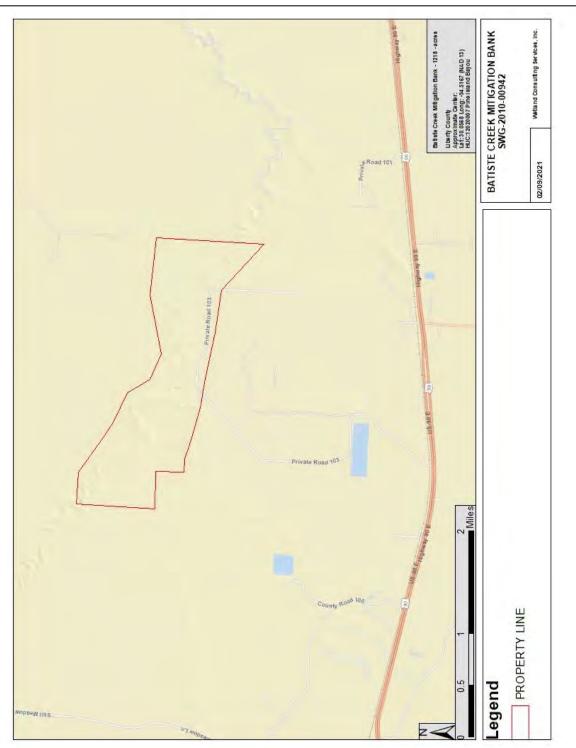


Figure 2: Location Map (Street)

Figure 3: Topographic

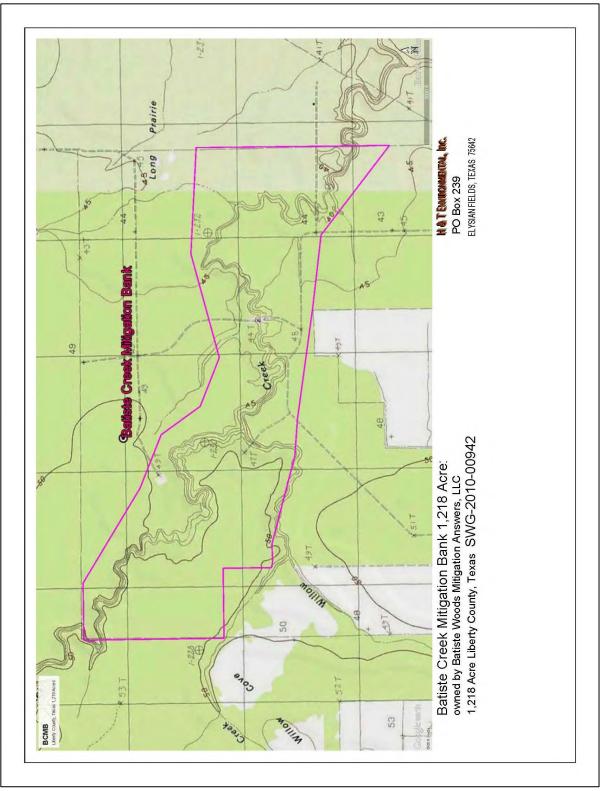


Figure 4: Soil Map

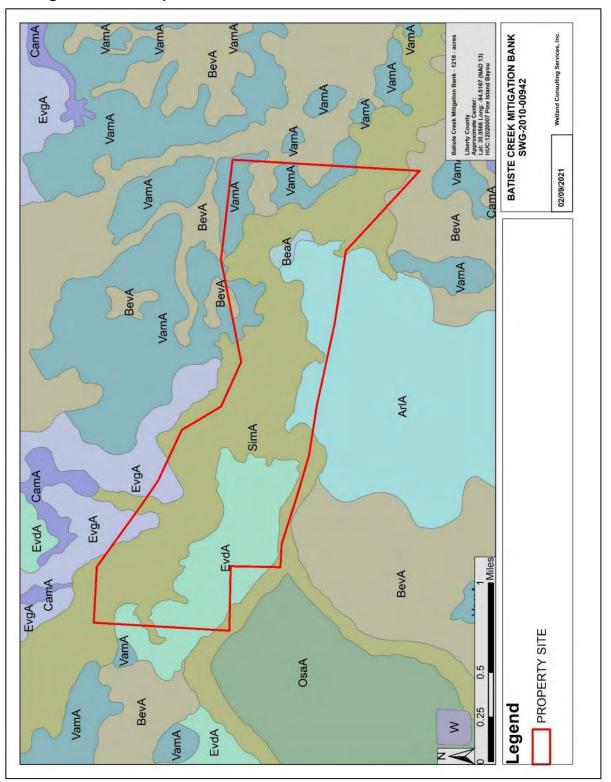


Figure 5: Service Area

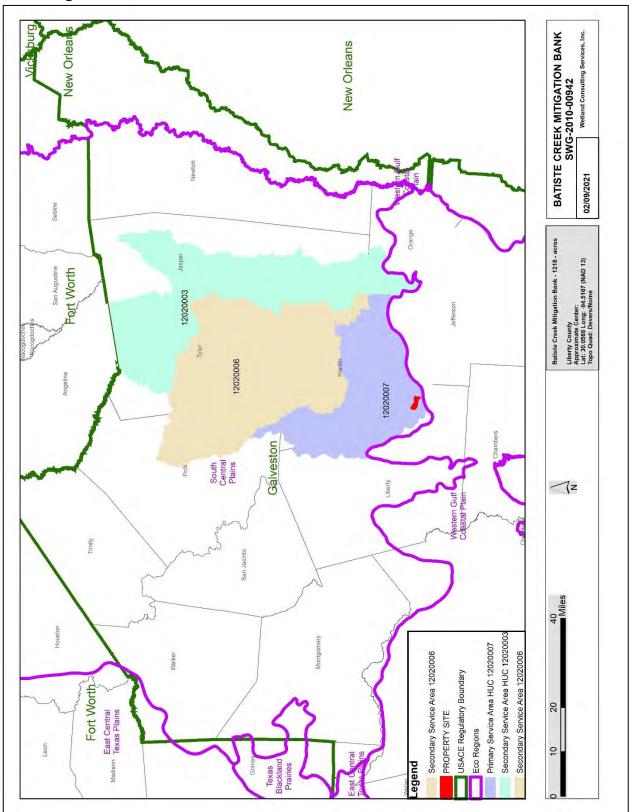
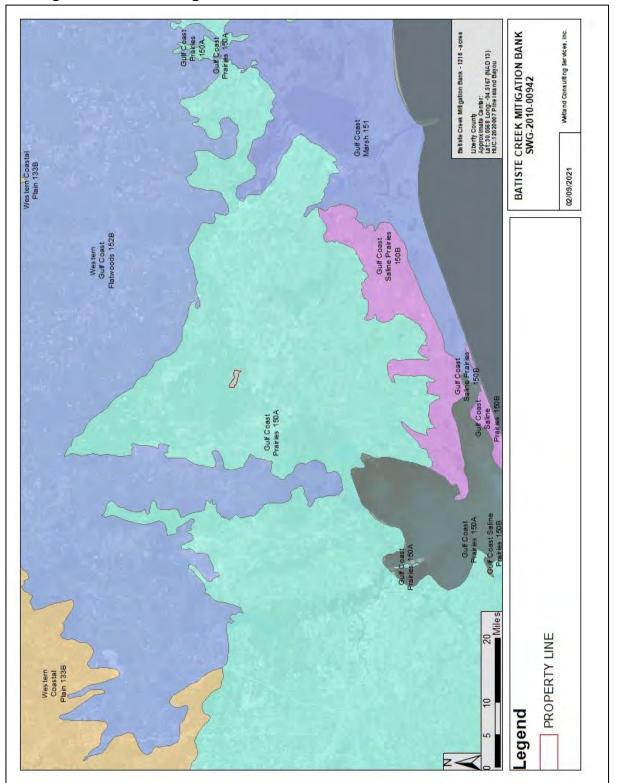


Figure 6: EPA Ecoregion



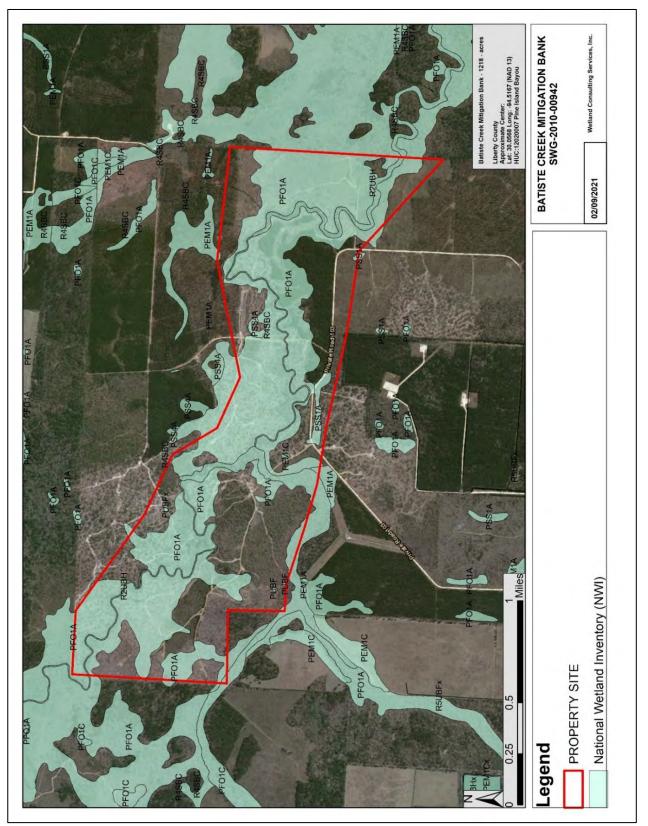
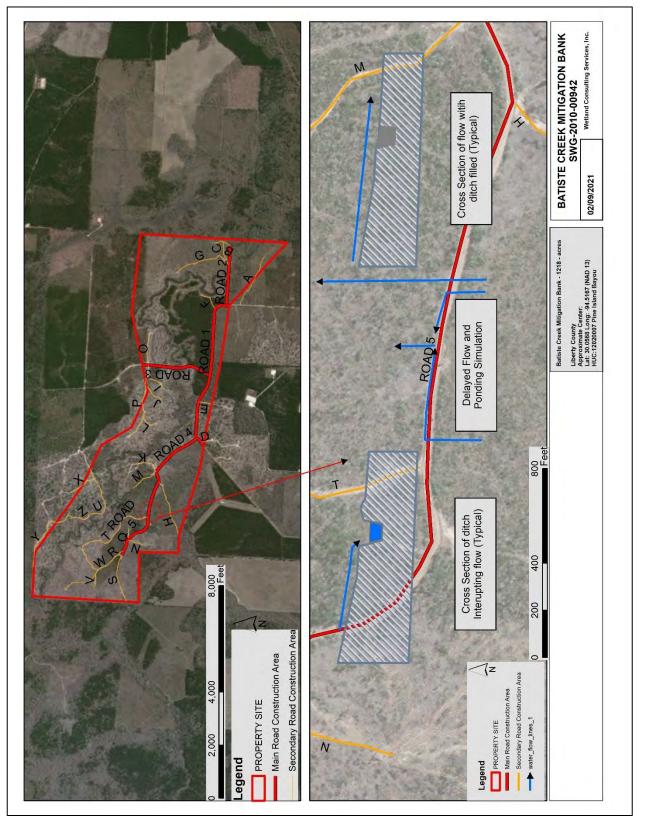


Figure 7: National Wetland Inventory Map

Figure 8: Cross Section of Ditch Fill



Attachment P: USFWS TCES IPAC Survey



United States Department of the Interior



FISH AND WILDLIFE SERVICE Texas Coastal Ecological Services Field Office 17629 El Camino Real, Suite 211 Houston, TX 77058-3051 Phone: (281) 285-8282 Fax: (281) 488-5882

In Reply Refer To: Project Code: 2023-0076373 Project Name: Batiste Creek Mitigation Bank May 01, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The U.S. Fish and Wildlife Service (Service) field offices in Clear Lake, Corpus Christi, and Alamo, Texas, have combined administratively to form the Texas Coastal Ecological Services Field Office. All project related correspondence should be sent to the field office address listed below responsible for the county in which your project occurs:

Project Leader; U.S. Fish and Wildlife Service; 17629 El Camino Real Ste. 211; Houston, Texas 77058

Angelina, Austin, Brazoria, Brazos, Chambers, Colorado, Fayette, Fort Bend, Freestone, Galveston, Grimes, Hardin, Harris, Houston, Jasper, Jefferson, Leon, Liberty, Limestone, Madison, Matagorda, Montgomery, Newton, Orange, Polk, Robertson, Sabine, San Augustine, San Jacinto, Trinity, Tyler, Walker, Waller, and Wharton.

Assistant Field Supervisor, U.S. Fish and Wildlife Service; 4444 Corona Drive, Ste 215; Corpus Christi, Texas 78411

Aransas, Atascosa, Bee, Brooks, Calhoun, De Witt, Dimmit, Duval, Frio, Goliad, Gonzales, Hidalgo, Jackson, Jim Hogg, Jim Wells, Karnes, Kenedy, Kleberg, La Salle, Lavaca, Live Oak, Maverick, McMullen, Nueces, Refugio, San Patricio, Victoria, and Wilson.

U.S. Fish and Wildlife Service; Santa Ana National Wildlife Refuge; Attn: Texas Ecological Services Sub-Office; 3325 Green Jay Road, Alamo, Texas 76516 *Cameron, Hidalgo, Starr, Webb, Willacy, and Zapata.*

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as

amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: http://www.fws.gov/media/endangered-species-consultation-handbook.

Non-Federal entities may consult under Sections 9 and 10 of the Act. Section 9 and Federal regulations prohibit the take of endangered and threatened species, respectively, without special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is further defined (50 CFR § 17.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. "Harass" is defined (50 CFR § 17.3) as intentional or negligent actions that create the likelihood of

injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Should the proposed project have the potential to take listed species, the Service recommends that the applicant develop a Habitat Conservation Plan and obtain a section 10(a)(1)(B) permit. The Habitat Conservation Planning Handbook is available at: https://www.fws.gov/media/habitat-conservation-planning-and-incidental-take-permit-processing-handbook.

Migratory Birds:

In addition to responsibilities to protect threatened and endangered species under the Act, there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts visit. <u>https://www.fws.gov/program/migratory-birds</u>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable National Environmental Policy Act (NEPA) documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <u>https://www.fws.gov/birds/bird-enthusiasts/threats-tobirds</u>.

In addition to MBTA and BGEPA, Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- · Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Texas Coastal Ecological Services Field Office 17629 El Camino Real, Suite 211 Houston, TX 77058-3051 (281) 286-8282



PROJECT SUMMARY

Project Code:2023-0076373Project Name:Batiste Creek Mitigation BankProject Type:Mitigation Development/Review - Mitigation or Conservation BankProject Description:wetland mitigation bank with conservation easementProject Location:Note the second s

2

The approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@30.05744275.-94.51500316389422.14z</u>



Counties: Liberty County, Texas

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

<u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an
office of the National Oceanic and Atmospheric Administration within the Department of
Commerce.

BIRDS

NAME.	STATUS
 Piping Plover Charadrius melodus Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: Wind related projects within migratory route. Species profile: https://ecos.fws.gov/ecp/species/6039 	Threatened
 Red Knot Calidris canutus rufa There is proposed critical habitat for this species. This species only needs to be considered under the following conditions: Wind related projects within migratory route. Species profile: https://ecos.fws.gov/ecp/species/1864 	Threatened
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.tws.gov/ecp/species/7614</u>	Endangered
REPTILES NAME	STATUS
Alligator Snapping Turtle <i>Macrochelys temminckii</i> No critical habitat has been designated for this species. Species profile: https://ecos.tws.gov/ecp/species/4658	Proposed Threatened

INSECTS

NAME

Monarch Butterfly Danaus plexippus No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743 STATUS

4

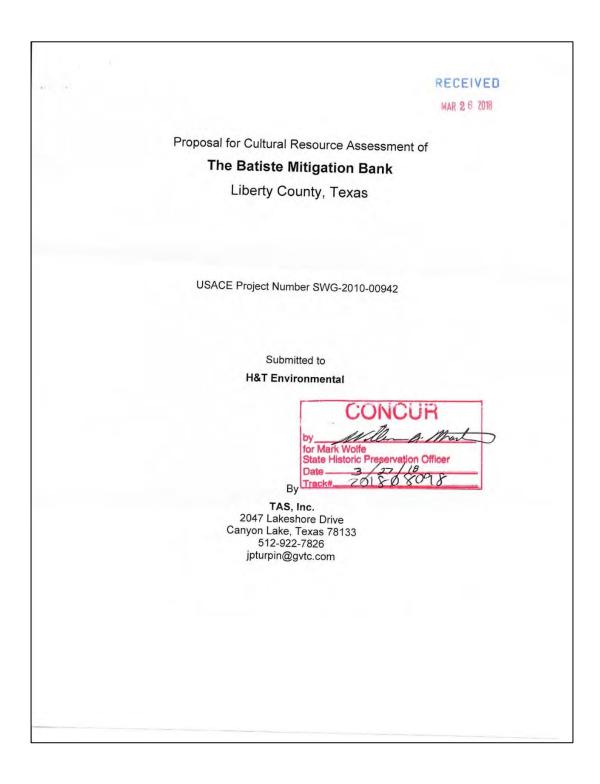
Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

Attachment Q: Texas State Historic Preservation USACE Archaeological



DEPARTMENT OF THE ARMY GALVESTON DISTRICT, CORPS OF ENGINEERS P. O. BOX 1229 GALVESTON, TEXAS 77553-1229 July 9, 2018 REPLY TO Policy Analysis Branch SUBJECT: Department of the Army Permit Application SWG-2010-00842 Mr. Mark Wolfe State Historic Preservation Officer **Texas Historical Commission** P.O. Box 12276 Austin, TX 78711-2276 Dear Mr. Wolfe: The U.S. Army Corps of Engineers, Galveston District (Corps) Staff Archeologist has reviewed the draft report titled, Batiste Creek Mitigation Bank Cultural Resource Assessment Negative Findings, prepared for H&T Environmental, Inc. by TAS, Inc., and dated June 2018. The draft report was submitted in response to our initial request for a cultural resource investigation of the permit area. The applicant was requested to provide a copy of this report to you. As documented in the report, no historic properties were found in the permit area and further investigation is not justified. We request your review of the referenced report, your concurrence with our determination that no historic properties are present and that the proposed permit action in compliance with Section 106 of the National Historic Preservation Act. Thank you for your cooperation in this review process. If you have any questions concerning our review or if we can be of further assistance, please contact Mr. Jerry Androy at 409-766-3821. Sincerely, 10 Robert W. Heinly Chief, Policy Analysis Branch Copies Furnished: RB-P - Mr. Jerry Androy H&T Environmental Inc. P.O. Box 239 Elysian Fields, TX 75642-0239 Attn: Michael Harris