Mitigation Bank Prospectus Berg Big Black River Mitigation Bank

Berg Mitigation Banks, LLC 4/20/2018



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I. SITE LOCATION AND OBJECTIVES

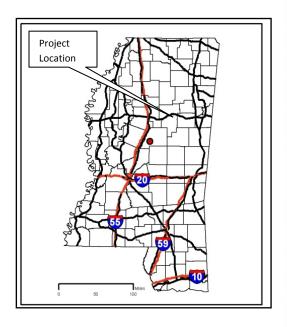
Berg Mitigation Banks, LLC, Mississippi's first private compensatory mitigation bank proposes the establishment of a commercial wetland/stream mitigation bank within the Big Black River basin. The purpose of the proposed bank is to provide compensatory mitigation credits to offset unavoidable losses to wetland/stream functions within the Big Black River Basin by the enhancement of a bottomland hardwood wetland complex. The proposed wetland mitigation bank site is located along the Big Black River within Webster/Choctaw Counties, Mississippi (Sections 1, 6, 7, 11, & 12 - Township 19 North- Range 11 East, Latitude 33.531010 Longitude -89.198854). The property is comprised of approximately 603 acres located south of State Highway 82 near the town of Eupora (see **Figure 1**). The property is divided into two parcels by the transecting South Sapa Road, approximately 415 acres is located west of South Sapa Road and approximately 188 acres is located east of South Sapa Road.

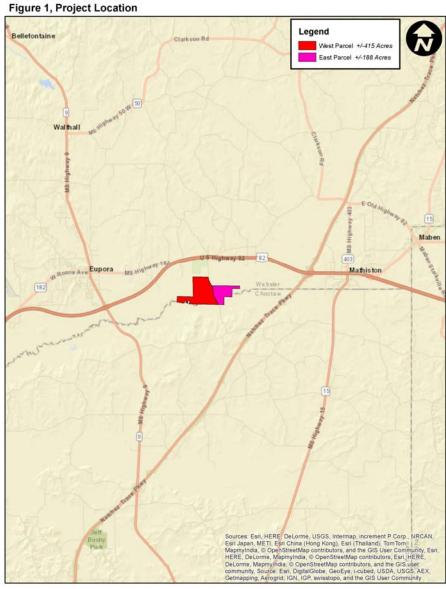
Much of the property within the upper Big Black watershed has been historically impacted by agriculture and conversion of BLH wetland for silviculture land use. The establishment of this mitigation bank and the proposed mitigation actions would restore/enhance wetland and stream functions lost due to the impacts associated with silviculture practices and habitat fragmentation. This site location also provides the potential for bank expansion by incorporating properties immediately adjacent to the site that would be suitable for wetland and/or stream mitigation actions.

A. BACKGROUND AND ECOLOGICAL SUITABILITY

The property is located within the 100-year floodplain of the Big Black River. One unnamed canal/ditch and the Spring Creek Canal transect the proposed site. These features were historically constructed for flood control. The original Big Black River channel transects/borders the site for approximately 13,513 linear feet. The majority of the hydrology from the original channel was diverted to the Big Black River Canal that is located adjacent to the south of the site. The Big Black River (Water Body ID: 100111) is listed by the MS DEQ as an impaired 303(d) stream from the headwaters to the MWS 1003 boundary.

The majority of the property (approximately 400 acres) is currently planted in loblolly pine. The younger stands of loblolly pine (approximately 75 acres) was bedded to improve seedling survival/growth rates. The older stands of the pine plantation was control burned in April of 2018 as part of the scheduled silviculture management. Approximately 160 acres of the site is comprised hardwood species. The majority of this hardwood area is comprised of scattered canopy trees and very dense sapling/shrub. Invasive species (*Ligustrum sinese*) was observed within some locations with coverage less than 5% of total ground cover. One power line ROW transects the site west-east. Existing woods roads provide adequate accessibility to the majority of the site. With pine plantation as the dominant land use and the absence of hardwood canopy, this property has diminished quality food and cover resources for wildlife.

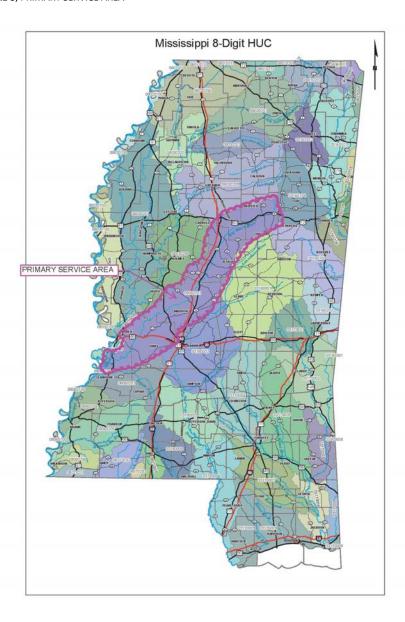


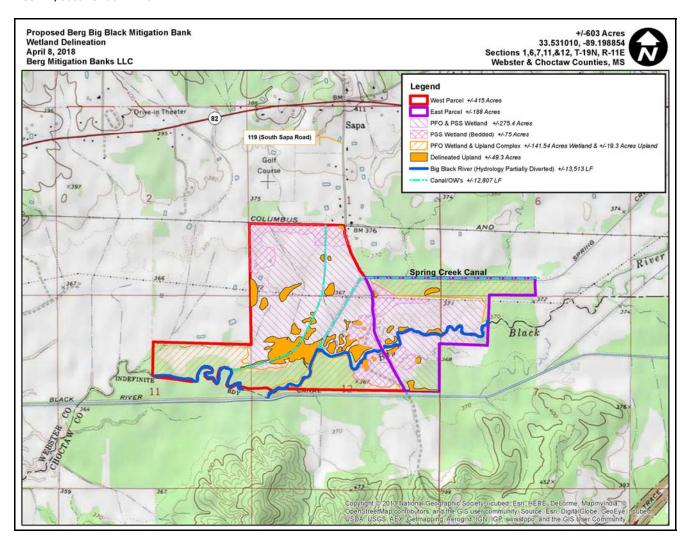


B. Project Area & Service Area

The project area and surrounding land use is predominantly a combination of silviculture, agriculture, and low density residential. The establishment of this mitigation bank would eliminate the ongoing impacts associated with silviculture practices and enhance wetland/riparian buffer within the Big Black basin. The proposed primary service area of the mitigation bank is the Upper Big Black and Lower Big Black Watershed (USGS HUC Codes: 08060201 and 08060202 as primary service areas). Mitigation will be allowed outside of the primary service area on a case by case basis.

FIGURE 3, PRIMARY SERVICE AREA





C. Soils

Predominate soil types within the site include: Chenneby silt loam, Arkabutla silt loam, Chenneby-Arkabutla association, Guyton silt loam, Oaklimeter silt loam, Bonn silt loam, and Bude silt loam. The attached hydric soil map depicts the location, acreage, and hydric soil rating of each mapped unit. Observations and data recorded during the course of the wetland delineation did not confirm the locations/boundaries of all the mapped soil types. For example, the area depicted as Arkabutla silt loam within the center of the property is roughly 90-95% hydric soil. The presence of this hydric soil contradicts the mapped Arkabutla soil unit with the hydric rating of zero.

D. HYDROLOGY

A wetland delineation of the site was recently conducted to determine the extent of jurisdictional wetland within the property. Primary hydrology indicators were recorded at each wetland location. The wetlands within the site are a combination of precipitation driven flats, areas flooded during storm events, and pockets of prolonged inundation. The varying degrees of hydrological influence will determine site prep timing/methods and appropriate species to be introduced. Approximately 75 acres of wetland will also require leveling of beds to remove impediments to hydrology and restoration of native sheet flow.

II. SUMMARY OF PROPOSED MITIGATION ACTIONS

The objective of the proposed mitigation actions is the enhancement and preservation of approximately 603 acres adjacent to the Big Black River. Approximately 492 acres of this parcel is comprised of jurisdictional wetland (see attached preliminary wetland delineation map and data forms). Approximately 68.6 acres of upland is intermingled within the wetland acreage. The remaining acreage is comprised of the original Big Black River channel, two-transecting canals/OW's, and non-wetland areas immediately adjacent to these features. The two canals (unnamed canal and Spring Creek Canal) combine for approximately 12,807 linear feet within or adjacent to the property. The original Big Black River channel transects/borders the site for approximately 13,513 linear feet. The wetland within the property are comprised of planted loblolly pine and BLH species; PSS wetland bedded, PFO and PSS wetland, and PFO wetland-upland complex. The current conditions are depicted by the wetland delineation map, Figure 5.

Historically the entire site would have been comprised of bottomland hardwood species. Various oaks and soft mast would have dominated the majority of the property. The few mature oaks found within the property include *Quercus phellos, Quecus nigra*, and *Quercus michauxii*. Dominate soft mast species currently within the property include *Acer rubrum, Liquidambar styraciflua, Celtis laevigata, Ulmus spp.*, and *Carpinus caroliniana*.

The proposed mitigation actions include the conversion from the current land use of primarily siviculture and restoring bottomland vegetative communities within the wetland areas and the riparian buffer of the original Big Black River channel. Specific mitigation actions will include the removal of planted pine, site prep. & invasive species control, removing impediments to hydrology (bedded areas), enhancing riparian buffers, and enhancing upland buffers. Native BLH species will be planted to restore the historic vegetative community within the site; see proposed mitigation actions map **Figure 6.**

Summary of mitigation actions;

- Approximately 350 acres of wetland will be enhanced by removal of pine plantation and reforestation with BLH species.
- -Approximately 75 acres of this 350 acres will also require leveling of beds to remove impediments to hydrology.
- -Approximately 141.5 acres of wetland will require minimum enhancement and/or preservation to control invasive species.
- -Approximately 6,625 LF of the original Big Black River Channel will be protected by enhancement of 150' buffers on each side (43.62 acres). Pine plantation removed and invasive species controlled. Portions reforested with BLH species.
- -Approximately 70 acres of upland within the site enhanced by reforestation and included within the protective instrument of the mitigation bank.

Figure 5. CURENT CONDITIONS

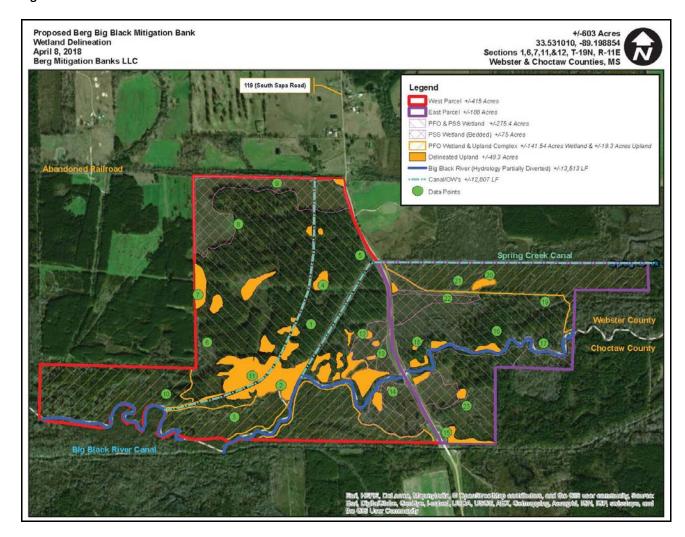
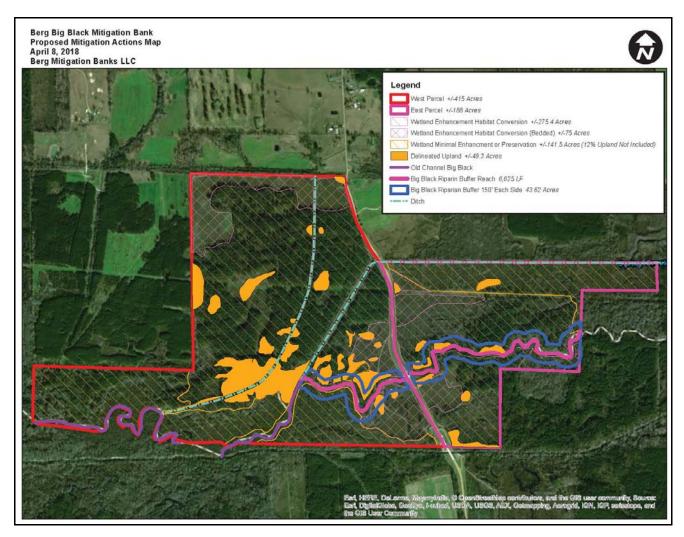


Figure 6. PROPOSED MITIGATION ACTIONS



III. BANK ESTABLISHMENT AND QUALIFICATIONS OF THE SPONSOR

The subject property will be owned fee-simple by Berg Mitigation Banks, LLC. The mitigation bank instrument (MBI) and evaluation timeline will follow the guidelines provided within Federal Register Vol.73, No.70 April 10, 2008, 332.8. The establishment of this bank would provide a source for applicants to meet their compensatory mitigation requirements within the Big Black River watershed.

Berg Mitigation Banks, LLC has established previous mitigation banks and currently manage mitigation banks within the Big Black River Basin and the Pearl River Basin. The proposed mitigation actions associated with this project are relatively "low" risk actions that do not require wetland hydrology manipulation or in channel stream activity.

A. LONG TERM MANAGEMENT AND SUFFICIENT WATER RIGHTS

Berg Mitigation Banks, LLC will establish a Long Term Management account to be funded as credits from the bank are sold. This account will provide for the long term maintenance and monitoring of the mitigation bank. The level of funding and the long term management strategy will be detailed within the MBI. The proposed mitigation actions do not require the manipulation of current site hydrology. The transecting canals have received no recent maintenance and any historical entities responsible for maintenance has dissolved.

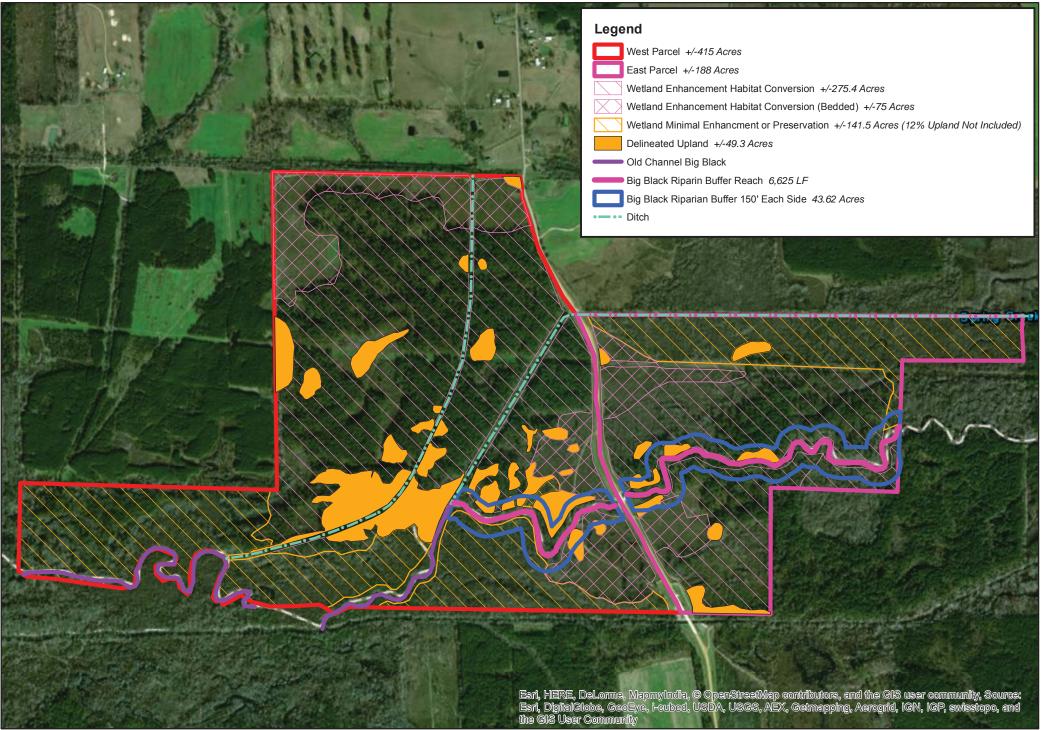
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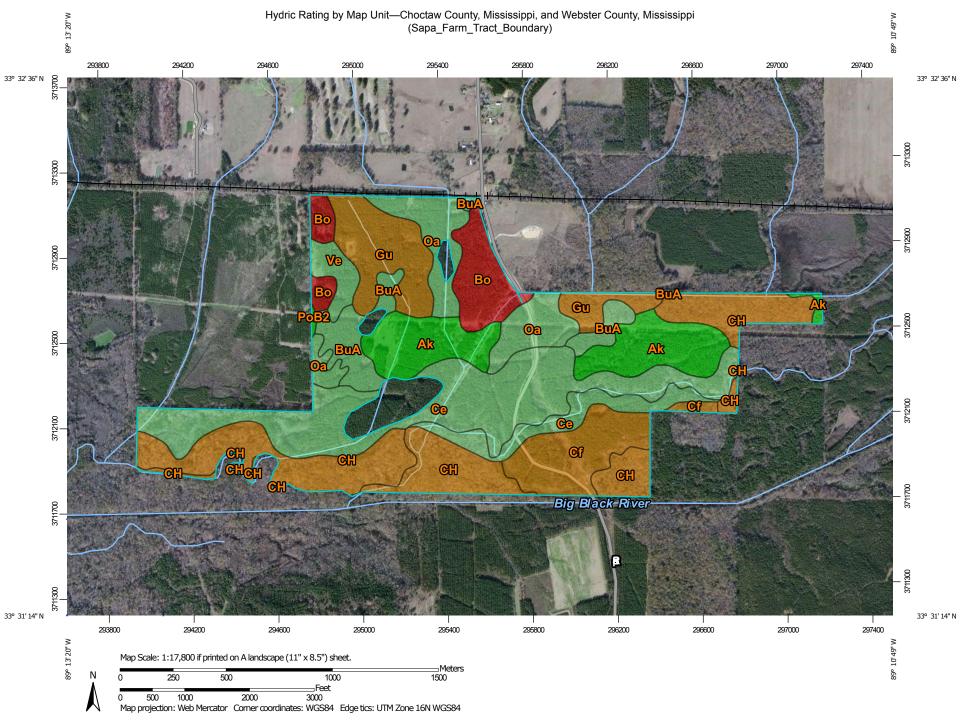
APPENDIX- MAPS

- Proposed Mitigation Actions Map
- Soil Map
- Current Timber Stand Map
- MS DEQ 303(d) Map
- Wetland Delineation Map with Data Forms

Berg Big Black Mitigation Bank Proposed Mitigation Actions Map April 8, 2018 Berg Mitigation Banks LLC



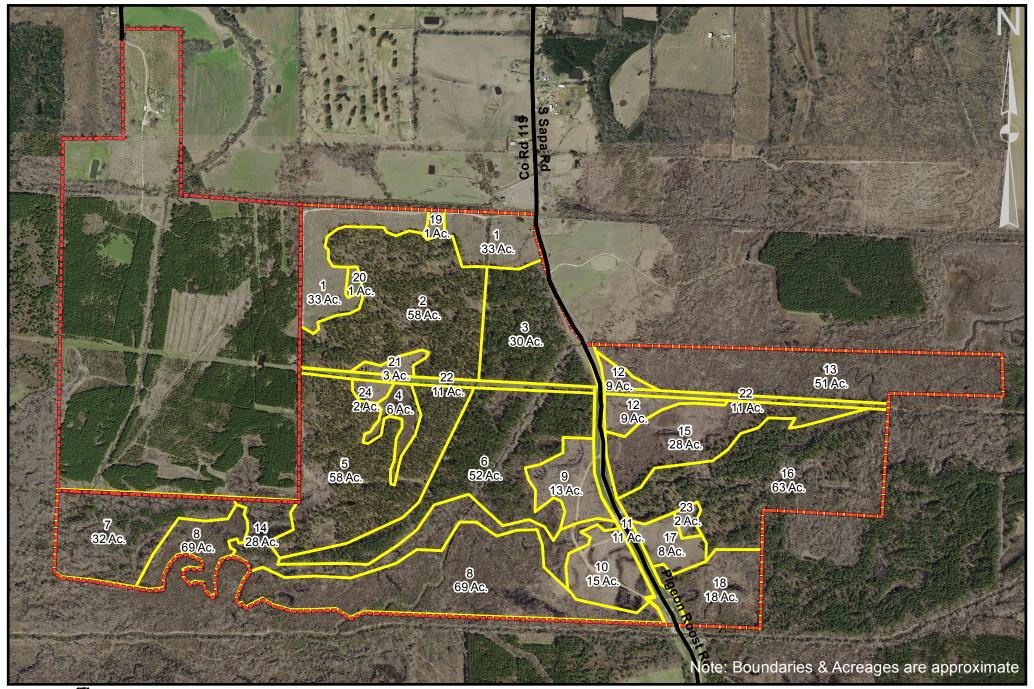




Hydric Rating by Map Unit

	_			
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Се	Chenneby silt loam, occasionally flooded	3	25.4	4.4%
Cf	Chenneby silt loam, frequently flooded	95	45.2	7.8%
СН	Chenneby-Arkabutla association, frequently flooded	92	47.0	8.1%
Subtotals for Soil Surv	vey Area	117.6	20.2%	
Totals for Area of Inter	rest	581.4	100.0%	

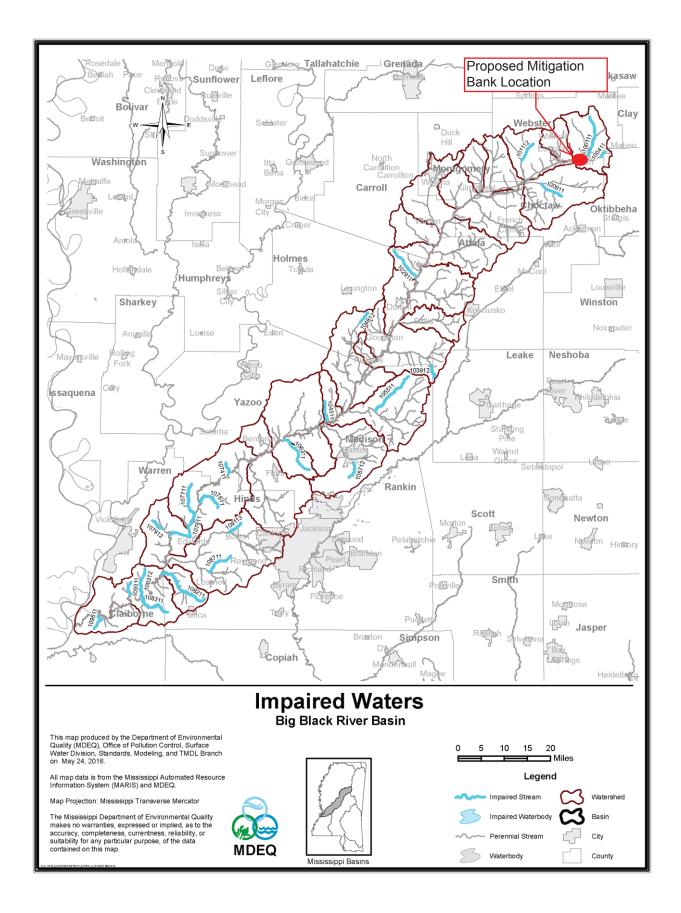
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ak	Arkabutla silt loam	0	72.1	12.4%
Во	Bonn silt loam	100	37.6	6.5%
BuA	Bude silt loam, 0 to 2 percent slopes	5	31.0	5.3%
Се	Chenneby silt loam	5	125.7	21.6%
СН	Chenneby-Arkabutla association, frequently flooded	98	79.2	13.6%
Gu	Guyton silt loam, 0 to 1 percent slopes, occasionally flooded	93	55.7	9.6%
Oa	Oaklimeter silt loam, 0 to 2 percent slopes, occasionally flooded	3	50.2	8.6%
PoB2	Providence silt loam, 2 to 5 percent slopes, moderately eroded	0	0.7	0.1%
Ve	Verdun variant silt loam	8	11.6	2.0%
Subtotals for Soil Surv	vey Area		463.8	79.8%
Totals for Area of Inter	rest		581.4	100.0%

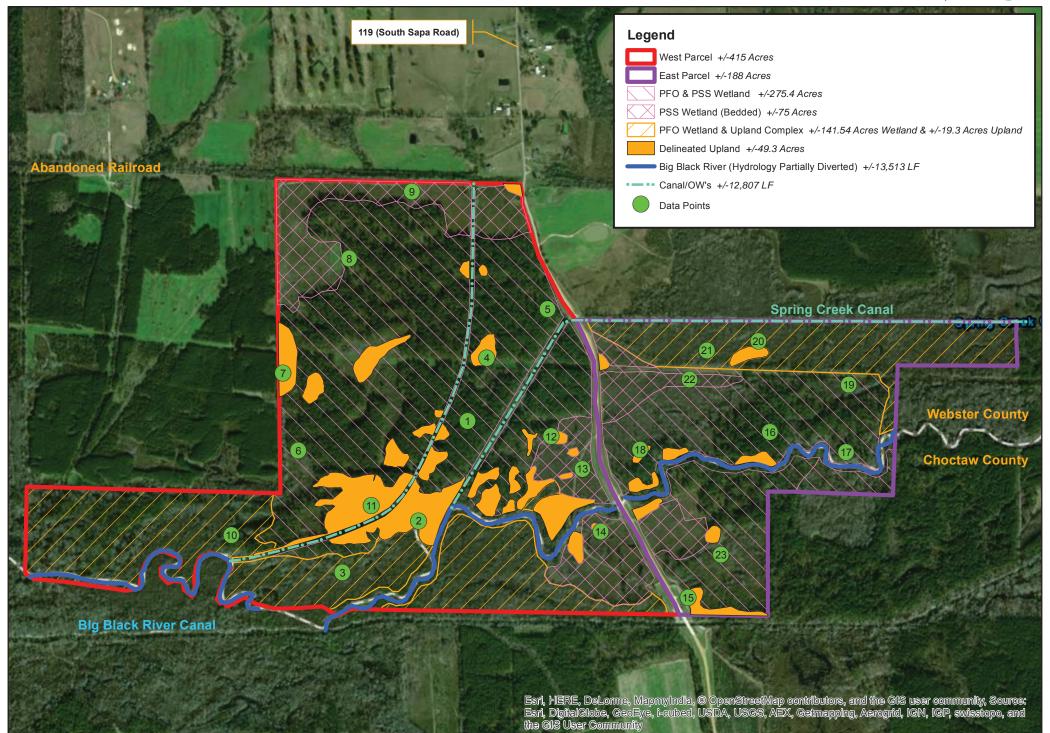




Approximate Property Boundary

1 inch = 1,081 feet Created: 11/21/2017





SITE PHOTOGRAPHS



Mature loblolly stand at DP-1



Hydric soil at DP-1



TITLE:

Proposed Berg Big Black River Mitigation Bank

Wetland Delineation Pictures March 2018

рнотоs 1-2



Loblolly Stand, facing road from DP-5



Hydric soil at DP-5



TITLE:

Proposed Berg Big Black River Mitigation Bank

Wetland Delineation Pictures March 2018 рнотоs 3-4



Loblolly Stand, facing north from DP-6



Hydric soil at DP-6



Proposed Berg Big Black River Mitigation Bank

TITLE:

Wetland Delineation Pictures March 2018 рнотоs **5-6**



Young/bedded loblolly stand, facing east from South Sapa Road



Hydric soil at DP-9



TITLE:

Proposed Berg Big Black River Mitigation Bank

рнотоs 7-8



Spring Creek Canal



Original Channel of Big Black River, east of Sapa Road







Wetland Delineation Pictures March 2018 рнотоs **9-10**

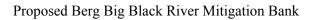


Unnamed/smaller canal, near DP-4



Beaver dam and ponded area near DP-10







Wetland Delineation Pictures March 2018 рнотоs 11-12



Hardwood regeneration near DP-3



Dense shrub hardwood at DP-20



PROJECT:
Proposed Berg Big Black River Mitigation Bank

Wetland Delineation Pictures March 2018 рнотоs 13-14

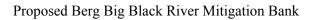


Hardwood regeneration at DP-23, Chinese privet present



Large privet along old Big Black River Channel







W/241222

Wetland Delineation Pictures March 2018 рнотоs 15-16



Delineated upland at DP-11



Non-hydric soil at DP-11



Proposed Berg Big Black River Mitigation Bank



Wetland Delineation Pictures March 2018 PHOTOS 17-18

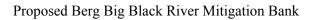


Facing north on South Sapa Road



Facing west on transecting utility easement, near Sapa Road







Wetland Delineation Pictures March 2018 рнотоs 19-20

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed Mitigation Bank Location City/9	County: Eupora/Webster & Choctaw County Sampling Date: 03/21/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-1
Investigator(s): B. Pittman Sect	ion, Township, Range: Section 12, T-19N, R-11E
	al relief (concave, convex, none): _gently sloping Slope (%): _1-3
Subregion (LRR or MLRA): Lat:	
Soil Map Unit Name: Arkabutla silt loam (Ak)	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	rrbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sar	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No No No Remarks:	Is the Sampled Area within a Wetland? Yes No
Site recently control burned	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13) ✓ High Water Table (A2) Marl Deposits (B15) (LR	Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3) — Hydrogen Sulfide Odor (
Water Marks (B1) ✓ Oxidized Rhizospheres	
Sediment Deposits (B2) ✓ Presence of Reduced In	
Drift Deposits (B3) Recent Iron Reduction in	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	
Iron Deposits (B5) Other (Explain in Remar	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches): sur	
Saturation Present? Yes No Depth (inches): _sur (includes capillary fringe)	face Wetland Hydrology Present? Yes <u>√</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro	evious inspections), if available:
Remarks:	

Sampling Point: _

		Dominant		Dominance Test worksheet:	
Tree Stratum (Plot size:)		Species?		Number of Dominant Species	
1. Pinus taeda	60	yes	FAC	That Are OBL, FACW, or FAC: 6 (A	.)
2. Liquidambar styraciflua	5	yes	FAC	Total Number of Dominant	
3. Acer rubrum	8	yes	FAC	Species Across All Strata: 7 (B)
4				Devent of Development Consider	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 85.7% (A	/B)
6					
7				Prevalence Index worksheet:	
8.				Total % Cover of: Multiply by:	
		= Total Cov	er	OBL species x 1 =	
50% of total cover:				FACW species x 2 =	
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =	
1 Ligustrum sinense	4	yes	FAC	FACU species x 4 =	
2. Acer rubrum	5	ves	FAC	UPL species x 5 =	
3. Juniperus virginiana	5	ves	FACU	Column Totals: 0 (A) 0	B)
	- —				
4				Prevalence Index = B/A =	
5				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8				3 - Prevalence Index is ≤3.0 ¹	
	14 :	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)	
50% of total cover:	20% of	total cover:			
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology musi	t I
1. Juncus effusus	4	yes	FACW	be present, unless disturbed or problematic.	`
2. Rubus spp.	5	yes	FAC	Definitions of Four Vegetation Strata:	
3.				T W 1 - 1 - (1 - 1	
4.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless	
5.				height.	·
6					
				Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall.	ss
7				g. catc. than 5.10 to (1.11), tank	
8				Herb – All herbaceous (non-woody) plants, regardle	ss
9				of size, and woody plants less than 3.28 ft tall.	
10				Woody vine - All woody vines greater than 3.28 ft in	n
11				height.	
12					
	9 :	= Total Cov	er		-
50% of total cover:	20% of	total cover:			
Woody Vine Stratum (Plot size:)					
1					
2					
3					
4.					
5.				Hydrophytic	
	0 :	 = Total Cov	er	Vegetation	
50% of total cover:				Present? Yes Vo No	
		total cover.			
Remarks: (If observed, list morphological adaptations bel	OW).				

Profile Des	cription: (Describe	to the dept	h needed to docui	ment the i	indicator	or confir	m the absence	of indicators.)
Depth						_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-17	10 YR 6/1	55%	10 YR 6/2	30%	KIVI	IVI	Silt Loam	
			10 YR 6/8	15%				
					. —			
		:						
1Type: C=C	oncentration, D=Dep	oletion PM-	Peduced Matrix M	S-Macker	d Sand G	aine	2l ocation:	PL=Pore Lining, M=Matrix.
	Indicators: (Applic					aiiis.		for Problematic Hydric Soils ³ :
		abio to all i				DD C T		-
Histoso			Polyvalue Be				· —	Muck (A9) (LRR O)
1	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)
_	istic (A3)		Loamy Muck			(0)		ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye		(۲۷)			ont Floodplain Soils (F19) (LRR P, S, T)
_	d Layers (A5)	T 11\	✓ Depleted Ma		E6)			alous Bright Loamy Soils (F20) RA 153B)
	: Bodies (A6) (LRR F		Redox Dark	,	,		•	•
I —	ucky Mineral (A7) (L l resence (A8) (LRR L		Depleted Da Redox Depre					arent Material (TF2) Shallow Dark Surface (TF12)
I —	uck (A9) (LRR P, T)	,	Marl (F10) (L	,	0)			(Explain in Remarks)
1	d Below Dark Surfac	· (Δ11)	B 14 16		(MIRA 1	51)	Other i	(Explain in Remarks)
	ark Surface (A12)	<i>(</i> A11)	Depleted Oc Iron-Mangan	, ,	•	•	PT) ³ Indic	ators of hydrophytic vegetation and
	rairie Redox (A16) (I	MIRA 150A						land hydrology must be present,
	Mucky Mineral (S1) (Delta Ochric					ess disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve					ood alotal boa of problematic.
	Redox (S5)		Piedmont Flo					
	d Matrix (S6)				` '	•	RA 149A, 153C	. 153D)
	ırface (S7) (LRR P, \$	S. T. U)	_	J	,	, , ,	,	,
	Layer (if observed)							
Type:	, ,							
1	ahaa):						Hydric Soil	Present? Yes No No
	ches):						nyulic Sull	Present? Tes No
Remarks:								

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed Mitigation Bank Location	City/County: Eupora/Webster & Choctaw County Sampling Date: 03/21/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-2
Investigator(s): B. Pittman	Section, Township, Range: Section 12, T-19N, R-11E
	Local relief (concave, convex, none): _gently sloping Slope (%): _1-3
Subregion (LRR or MLRA): Lat: 33.528	
Soil Map Unit Name: Chenneby silt loam(Ce)	NWI classification: PFO1Ad
Are climatic / hydrologic conditions on the site typical for this time of year	ar? Yes _✔ No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes No Yes No Remarks:	Is the Sampled Area within a Wetland? Yes No✓
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) Marl Deposits (B15) Saturation (A3) Hydrogen Sulfide O Water Marks (B1) Oxidized Rhizosphe Sediment Deposits (B2) Presence of Reduce	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Peres along Living Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) tion in Tilled Soils (C6) (C7) Geomorphic Position (D2) Emarks) ✓ FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Water Table Present? Yes No ✓ Depth (inches) Ves No ✓ Depth (inches)	
Saturation Present? Yes No Depth (inches)	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Remarks: Stream terrace along original Big Black River	channel

Sampling Point: __

		Dominant		Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size:)		Species?		Number of Dominant Species	
1. Celtis laevigata	15	yes	FACW	That Are OBL, FACW, or FAC: 5	(A)
2. Liquidambar styraciflua	25	yes	FAC	Total Number of Dominant	
3. Carpinus caroliniana	20	yes	FAC	- E	(B)
4. Quercus michauxii	15	yes	FACW	Percent of Dominant Species	
5				100%	(A/B)
6					,
7				Prevalence Index worksheet:	
8				Total % Cover of: Multiply by:	I
_		= Total Cov	er	OBL species x 1 =	
50% of total cover:				FACW species x 2 =	
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =	.
1 Ligustrum sinense	12	yes	FAC	FACU species x 4 =	
2 Carpinus caroliniana	7		FAC	UPL species x 5 =	
3 Arundinaria gigantea	5		FACW	Column Totals: 0 (A) 0	(B)
	- —				
4				Prevalence Index = B/A =	-
5				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8				3 - Prevalence Index is ≤3.0 ¹	
	24	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover:			
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology magnetic states and wetland hydrology magnetic states and states are s	ust
1				be present, unless disturbed or problematic.	
2.				Definitions of Four Vegetation Strata:	
3.				_	
4.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardle	
				height.	33 01
5					
6				Sapling/Shrub – Woody plants, excluding vines, lethan 3 in. DBH and greater than 3.28 ft (1 m) tall.	ess
7				than o in. BBH and groater than 6.20 it (1 in) tail.	
8				Herb - All herbaceous (non-woody) plants, regard	lless
9				of size, and woody plants less than 3.28 ft tall.	
10				Woody vine - All woody vines greater than 3.28 f	t in
11				height.	
12					
	0 :	= Total Cov	er		
50% of total cover:	20% of	total cover:			
Woody Vine Stratum (Plot size:)					
1					
2					
3.					
4.					
5					
·	0 :	 = Total Cov		Hydrophytic Vegetation	
EOD/ of total agreer				Present? Yes No	
50% of total cover:		total cover.			
Remarks: (If observed, list morphological adaptations beli	ow).				

Sampling Point: __

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redo	x Features	6			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-17	10 YR 5/4	100%					Silt Loam	
¹ Type: C=Co	oncentration, D=Dep	oletion, RM=I	Reduced Matrix, MS	S=Masked	Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applic	able to all L	RRs, unless other	wise note	ed.)		Indicators	for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	low Surfac	ce (S8) (L	RR S. T. I	J) 1 cm N	fluck (A9) (LRR O)
	ipedon (A2)		Thin Dark Su					fluck (A10) (LRR S)
Black Hi			Loamy Muck	, ,	, ,			ed Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gleye			,		ont Floodplain Soils (F19) (LRR P, S, T)
	I Layers (A5)		Depleted Mai		· -/			llous Bright Loamy Soils (F20)
	Bodies (A6) (LRR F	T 111	Redox Dark		6)			RA 153B)
	cky Mineral (A7) (L		Depleted Dar	*	,			arent Material (TF2)
								hallow Dark Surface (TF12)
	esence (A8) (LRR U	,	Redox Depre	,)			
	ck (A9) (LRR P, T)	o (A44)	Marl (F10) (L	,	/MIDA 4:	54\	Other ((Explain in Remarks)
	Below Dark Surfac	e (ATT)	Depleted Oct				T) 31	-4
	irk Surface (A12)		Iron-Mangan					ators of hydrophytic vegetation and
	airie Redox (A16) (I					, U)		land hydrology must be present,
_	lucky Mineral (S1) (LRR O, S)	Delta Ochric			0.1 4505		ess disturbed or problematic.
	leyed Matrix (S4)		Reduced Ver					
	edox (S5)		Piedmont Flo					
	Matrix (S6)		Anomalous B	right Loan	ny Soils (F20) (NILF	RA 149A, 153C,	, 153D)
	face (S7) (LRR P,							
Restrictive L	.ayer (if observed)	:						
Туре:			_					
Depth (inc	ches):		<u></u>				Hydric Soil	Present? Yes No
Remarks:								
riornamo.								

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed Mitigation Bank Location City/C	County: Eupora/Webster & Choctaw County Sampling Date: 03/21/2018				
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-3				
	ion, Township, Range: Section 12, T-19N, R-11E				
	I relief (concave, convex, none): gently sloping Slope (%): 1-3				
Subregion (LRR or MLRA): Lat: 33.526917	Long: -89.207728 Datum: NAD 83				
Soil Map Unit Name: Chenneby-Arkabutla (CH)	NWI classification: none				
Are climatic / hydrologic conditions on the site typical for this time of year? $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	res No (If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrology significantly disturbed.	rbed? Are "Normal Circumstances" present? Yes No				
Are Vegetation, Soil, or Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - Attach site map showing san	mpling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No Yes ✓ No Remarks:	Is the Sampled Area within a Wetland? Yes No				
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)				
✓ Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)				
✓ High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10)					
✓ Saturation (A3) Hydrogen Sulfide Odor (
Water Marks (B1) Oxidized Rhizospheres a					
Sediment Deposits (B2) Drift Deposits (B3) Recent Iron Reduction in					
Algal Mat or Crust (B4) Thin Muck Surface (C7)					
Iron Deposits (B5) Other (Explain in Remark					
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)				
Field Observations:					
Surface Water Present? Yes No Depth (inches): 1-4	<u> </u>				
Water Table Present? Yes ✓ No Depth (inches): surf					
Saturation Present? Yes Ves No Depth (inches): surf	face Wetland Hydrology Present? Yes No				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:				
Remarks:					
Pockets of inundation.					

Sampling Point: _

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Quercus michauxii	_ <u>15</u>	yes	FACW	That Are OBL, FACW, or FAC: 6 (A)
2. Liquidambar styraciflua	_ 10	yes	FAC	Total Number of Dominant
3. Quercus nigra	_ 12	yes	FAC	Species Across All Strata: 6 (B)
4. Carpinus caroliniana	_ <u>10</u>	yes	FAC	Percent of Deminent Species
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
6				
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
		= Total Co		OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1. Ligustrum sinense	4	yes	FAC	FACU species x 4 =
2. Quercus nigra	20	yes	FAC	UPL species x 5 =
3. Liquidambar styraciflua	- 20 25		FAC	Column Totals: 0 (A) 0 (B)
		yes		(-)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	4.0	= Total Co	ver	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% o	f total cove	-:	Troblemate Hydrophytic regulation (Explain)
Herb Stratum (Plot size:)				Indicators of hydric cail and watland hydrology rough
1. Rubus spp.	3	yes	FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.			-	Definitions of Four Vegetation Strata:
				Sommons of Four Vogotation Strata.
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				noight.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
	3	= Total Co	ver	
50% of total cover:				
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Co	ver	Vegetation Var
50% of total cover:	20% o	f total cover	::	Present? Yes Vo No Vo
Remarks: (If observed, list morphological adaptations be	low).			

DP-3

SOIL

Sampling Point: __

Profile Des	cription: (Describe	to the depth	needed to docur	ment the i	indicator	or confirr	n the absence	of indicators.)
Depth	Matrix			x Feature	s			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks Remarks
0-17	10 YR 6/1	75% 1	10 YR 6/8	25%	<u> </u>	IVI	Silt Loam	
Type: C=C	oncentration, D=Dep	letion. RM=R	educed Matrix. M	S=Masked	d Sand G	rains.	² Location:	PL=Pore Lining, M=Matrix.
	Indicators: (Applic		<u>`</u>					for Problematic Hydric Soils ³ :
Histoso			Polyvalue Be			IRRSTI		Muck (A9) (LRR O)
l —	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)
	istic (A3)		Loamy Muck	, ,				ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye			,		ont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		✓ Depleted Ma	,	/			alous Bright Loamy Soils (F20)
_	Bodies (A6) (LRR P	. T. U)	Redox Dark		- 6)			RA 153B)
	ucky Mineral (A7) (LI		Depleted Da	,			•	arent Material (TF2)
	resence (A8) (LRR L		Redox Depre					hallow Dark Surface (TF12)
1	uck (A9) (LRR P, T)	,	Marl (F10) (L	•	,			(Explain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		,
	ark Surface (A12)		Iron-Mangan				, T) ³ Indic	ators of hydrophytic vegetation and
Coast F	rairie Redox (A16) (I	VILRA 150A)	Umbric Surfa	ace (F13)	(LRR P, ⁻	Γ, U)	wet	land hydrology must be present,
Sandy N	Mucky Mineral (S1) (I	LRR O, S)	Delta Ochric	(F17) (ML	-RA 151)		unle	ess disturbed or problematic.
Sandy 0	Gleyed Matrix (S4)		Reduced Ver	rtic (F18) ((MLRA 1	50A, 150B)	
Sandy F	Redox (S5)		Piedmont Flo	oodplain S	oils (F19	(MLRA 1	49A)	
Stripped	d Matrix (S6)		Anomalous E	Bright Loar	my Soils	(F20) (MLF	RA 149A, 153C,	, 153D)
	ırface (S7) (LRR P, \$							
Restrictive	Layer (if observed):	:						
Туре:								
Depth (in	ches):						Hydric Soil	Present? Yes V No No
Remarks:							1	

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed Mitigation Bank Location City/	/County: Eupora/Webster & Choctaw County Sampling Date: 03/21/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-4
	tion, Township, Range: Section 1, T-19N, R-11E
Landform (hillslope, terrace, etc.): upland knoll Loca	al relief (concave, convex, none): _gently sloping Slope (%): _1-3
Subregion (LRR or MLRA): Lat: 33.533212	2 Long: -89.202653 Datum: NAD 83
Soil Map Unit Name: Guyton silt loam (Gu)	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	urbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes No Yes No	Is the Sampled Area within a Wetland? Yes No✓
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LF	
Saturation (A3) Hydrogen Sulfide Odor	
	along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Ir	
Drift Deposits (B3) Recent Iron Reduction i Algal Mat or Crust (B4) Thin Muck Surface (C7)	
Iron Deposits (B5) Other (Explain in Rema	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No _✓
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, principle of the control of	revious inspections), if available:
	, ,
Remarks:	
Upland knoll, slightly higher elevation.	

T 01 / (51 /)		Dominant		Dominance Test worksheet:	
Tree Stratum (Plot size:)		Species?		Number of Dominant Species	
1. Pinus taeda	_ 25	ves	FAC	That Are OBL, FACW, or FAC:	(A)
2. Liquidambar styraciflua	_ 20	yes	FAC	Total Number of Dominant	
3. Acer rubrum	10	yes	FAC	Species Across All Strata: 7	(B)
4				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC: 85.7%	(A/B)
6					
7				Prevalence Index worksheet:	
8				Total % Cover of: Multiply by:	
		= Total Cov	er er	OBL species x 1 =	.
50% of total cover:				FACW species x 2 =	.
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =	.
1. Ligustrum sinense	10	yes	FAC	FACU species x 4 =	.
2. Rhus copallina	20	yes	FAC	UPL species x 5 =	.
3. Acer rubrum	5	ves	FAC	Column Totals: 0 (A) 0	(B)
Juniperus virginiana	5	yes	FACU		
"-				Prevalence Index = B/A =	-
5				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8				3 - Prevalence Index is ≤3.0 ¹	
	40	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	·		
Herb Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology mu	ust
1. Allium spp.	5	yes	FAC	be present, unless disturbed or problematic.	
2.				Definitions of Four Vegetation Strata:	$\neg \neg$
3.					,
4.				Tree – Woody plants, excluding vines, 3 in. (7.6 cr more in diameter at breast height (DBH), regardles	
5.				height.	33 01
6				Sapling/Shrub – Woody plants, excluding vines, I than 3 in. DBH and greater than 3.28 ft (1 m) tall.	ess
7				dian o in 221, and greater than electric (1 m) tam	
8				Herb – All herbaceous (non-woody) plants, regard	lless
9				of size, and woody plants less than 3.28 ft tall.	
10				Woody vine - All woody vines greater than 3.28 f	t in
11				height.	
12					
	5	= Total Cov	er er		
50% of total cover:	20% of	total cover	:		
Woody Vine Stratum (Plot size:)					
1					
2					
3.					
4.					
5				Hudranbutta	
	0	= Total Cov	er	Hydrophytic Vegetation	
FOR/ of total anyon:				Present? Yes V	
50% of total cover:		total covel	·		
Remarks: (If observed, list morphological adaptations bel	OW).				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redo	x Features	6				
(inches)	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	<u>Texture</u>	Remarks	
0-17	10 YR 4/4	100%					Silt Loam		
¹ Type: C=Co	oncentration, D=Dep	oletion, RM=I	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators: (Applic	able to all L	RRs, unless other	wise note	ed.)		Indicators	for Problematic Hydric Soils ³ :	
Histosol	(A1)		Polyvalue Be	low Surfac	ce (S8) (L	RR S, T, l	J) 1 cm M	fluck (A9) (LRR O)	
	ipedon (A2)		Thin Dark Su					fluck (A10) (LRR S)	
Black Hi			Loamy Mucky					ed Vertic (F18) (outside MLRA 150A,B)	
	n Sulfide (A4)		Loamy Gleye			,		ont Floodplain Soils (F19) (LRR P, S, T)	
	Layers (A5)		Depleted Mat		/			llous Bright Loamy Soils (F20)	
	Bodies (A6) (LRR F	P. T. U)	Redox Dark		6)			RA 153B)	
	cky Mineral (A7) (L		Depleted Dar	*				arent Material (TF2)	
	esence (A8) (LRR U		Redox Depre					hallow Dark Surface (TF12)	
	ck (A9) (LRR P, T)	-,	Marl (F10) (L		-,			Explain in Remarks)	
	Below Dark Surfac	e (Δ11)	Depleted Oct	,	MIRA 14	54)	Other ((Explain in Remarks)	
	rk Surface (A12)	.с (ATT)	Iron-Mangan				T) ³ Indic	ators of hydrophytic vegetation and	
	airie Redox (A16) (I	MI PA 150A)						land hydrology must be present,	
	lucky Mineral (S1) (Delta Ochric			, 0,		ess disturbed or problematic.	
_	ileyed Matrix (S4)	LKK 0, 3)	Reduced Ver			0		ess disturbed of problematic.	
	edox (S5)		Piedmont Flo					452D)	
	Matrix (S6)	o = 11)	Anomaious E	rignt Loan	ny Solis (I	FZU) (IVILI	RA 149A, 153C,	, 1530)	
	face (S7) (LRR P,						1		
Restrictive L	ayer (if observed)	:							
Туре:			_						
Depth (inc	ches):						Hydric Soil	Present? Yes No	
Remarks:							-		

Project/Site: Proposed Mitigation Bank Location City/0	County: Eupora/Webster & Choctaw County Sampling Date: 03/21/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-5
	ion, Township, Range: Section 1, T-19N, R-11E
	I relief (concave, convex, none): gently sloping Slope (%): 1-2
Subregion (LRR or MLRA): Lat: 33.534653	
Soil Map Unit Name: Bonn silt loam (Bo)	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year?	res _ ✓ No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	rbed? Are "Normal Circumstances" present? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology naturally problem	
	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Site recently control burned	Is the Sampled Area within a Wetland? Yes No
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2) Marl Deposits (B15) (LR	
✓ Saturation (A3) Hydrogen Sulfide Odor (
Water Marks (B1) Oxidized Rhizospheres a	along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) ✓ Presence of Reduced Iro	on (C4) Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in	n Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remar	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes ✓ No Depth (inches): surl No	
Saturation Present? Yes <u>Y</u> No Depth (inches): <u>sur</u> (includes capillary fringe)	face Wetland Hydrology Present? Yes ✓ No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Remarks:	

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	60	yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
2. Ulmus crassifolia	5	yes	FAC	Total Number of Dominant
3. Acer rubrum	8	yes	FAC	Species Across All Strata: 5 (B)
4. Juniperus virginiana	5	yes	FACU	Descrit of Descionat Consider
5				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6				(13)
7.				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
<u> </u>		= Total Cov	er	OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)	20 70 01	10101 00101		FAC species x 3 =
1. Ligustrum sinense	5	yes	FAC	FACU species x 4 =
2. Acer rubrum	10	yes	FAC	UPL species x 5 =
3. Ulmus crassifolia	7	yes	FAC	Column Totals: 0 (A) 0 (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	22	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	:	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2.				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 iii. DBH and greater than 3.20 it (1 iii) taii.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
	0	= Total Cov	er er	
50% of total cover:	20% of	total cover	:	
Woody Vine Stratum (Plot size:)				
1				
2.				
3.				
4				
5				
3	0	= Total Cov		Hydrophytic Vegetation
500/ -51-1-1				Present? Yes No
50% of total cover:		total cover	·	
Remarks: (If observed, list morphological adaptations bel	ow).			
1				

Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confir	m the absence	of indicators.)
Depth	Matrix			x Feature	es		_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	<u>Loc²</u> _	<u>Texture</u>	Remarks
0-6	10 YR 6/1	70%	10 YR 5/8	30%	<u> </u>	IVI	Silt Loam	
6-18	10 YR 6/1	60%	10 YR 5/6	40%		IVI		
1Tumps: C=C	encentration D-Day	nletien DM-		C-Maaka	d Cand C	- ———	2l postion:	PL=Pore Lining, M=Matrix.
			LRRs, unless othe			I all 15.		for Problematic Hydric Soils ³ :
Histosol		cable to all	Polyvalue Be			IDDCT		fuck (A9) (LRR O)
l —	pipedon (A2)		Thin Dark St					Muck (A3) (LRR S)
I — ·	istic (A3)		Loamy Muck	•	, ,			ed Vertic (F18) (outside MLRA 150A,B)
l —	en Sulfide (A4)		Loamy Gley			ι Ο,		ont Floodplain Soils (F19) (LRR P, S, T)
1 —	d Layers (A5)		✓ Depleted Ma		(1 2)			lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR I	P, T, U)	Redox Dark		F6)			RA 153B)
	ucky Mineral (A7) (L			,			•	arent Material (TF2)
	resence (A8) (LRR I		Redox Depre	essions (F	8)		Very S	hallow Dark Surface (TF12)
1 cm Mu	uck (A9) (LRR P, T)		Marl (F10) (I	,			Other ((Explain in Remarks)
Deplete	d Below Dark Surfac	ce (A11)	Depleted Oc				_	
	ark Surface (A12)		Iron-Mangar					ators of hydrophytic vegetation and
	rairie Redox (A16) (land hydrology must be present,
	Mucky Mineral (S1) (LRR O, S)	Delta Ochric					ess disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve					
	Redox (S5) I Matrix (S6)		Piedmont Flo		*	,	149A) RA 149A, 153C,	153D)
	rface (S7) (LRR P,	S T III	Anomalous	origini Loa	iny Solis	(FZO) (IVIL	KA 143A, 133C,	, 1330)
	Layer (if observed)							
Type:	=a, or (ii oboo! voa)	,-						
1	ches):						Hydric Soil	Present? Yes No No
	Ciles)						Hydric Soil	Fleselit? Tes No
Remarks:								

Project/Site: Proposed Mitigation Bank Location City/	County: Eupora/Webster & Choctaw County Sampling Date: 03/21/2018						
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-6						
Investigator(s): B. Pittman Section, Township, Range: Section 12, T-19N, R-11E							
	al relief (concave, convex, none): _gently sloping Slope (%): _1-3						
Subregion (LRR or MLRA): Lat: _33.530592							
Soil Map Unit Name: Oaklimeter silt loam (Oa)	NWI classification: none						
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)						
Are Vegetation, Soil, or Hydrology significantly distu	urbed? Are "Normal Circumstances" present? Yes No						
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)						
SUMMARY OF FINDINGS – Attach site map showing sai	mpling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No No No Remarks:	Is the Sampled Area within a Wetland? Yes No						
Site recently control burned.							
HYDROLOGY							
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)						
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)						
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)						
✓ High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) ✓ Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16)							
✓ Saturation (A3) Hydrogen Sulfide Odor Water Marks (B1) ✓ Oxidized Rhizospheres							
Sediment Deposits (B2) Sediment Deposits (B2) ✓ Presence of Reduced In							
Drift Deposits (B3) Recent Iron Reduction is							
Algal Mat or Crust (B4) Thin Muck Surface (C7)							
Iron Deposits (B5) Other (Explain in Remai	_ ` ` ` ` ` ` '						
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)						
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)						
Field Observations:							
Surface Water Present? Yes No Depth (inches):							
Water Table Present? Yes ✓ No Depth (inches): sur							
Saturation Present? Yes ✓ No Depth (inches): Sur	rface Wetland Hydrology Present? Yes ✓ No						
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:						
Pamados							
Remarks:							

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	65	yes	FAC	That Are OBL, FACW, or FAC: $\frac{5}{}$ (A)
2				Total Number of Dominant
3				Species Across All Strata: 5 (B)
4.				(2)
				Percent of Dominant Species That Are ORL FACW or FAC: 100%
5				That Are OBL, FACW, or FAC: 100% (A/B)
6				Prevalence Index worksheet:
7				
8				Total % Cover of: Multiply by:
	65	= Total Cov	er	OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1 Liquidambar styraciflua	15	yes	FAC	FACU species x 4 =
2. Baccharis halimifolia	<u> </u>			UPL species x 5 =
	<u> </u>	yes	FAC	Column Totals: 0 (A) 0 (B)
3				Column Totals. (A)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6.				
				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8	00			3 - Prevalence Index is ≤3.01
		= Total Cov		Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% of	total cover	·	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Juncus effusus	3	yes	FACW	be present, unless disturbed or problematic.
2. Rubus spp.	7	yes	FAC	Definitions of Four Vegetation Strata:
3.				_
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				Height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9.				of size, and woody plants less than 3.28 ft tall.
10.				
44				Woody vine – All woody vines greater than 3.28 ft in
				height.
12				
	10	= Total Cov	er	
50% of total cover:	20% of	total cover	:	
Woody Vine Stratum (Plot size:)				
1				
2.				
3				
4				
5				Hydrophytic
	0	= Total Cov	er er	Vegetation Van
50% of total cover:	20% of	total cover	:	Present? Yes No
Remarks: (If observed, list morphological adaptations be	elow)			.1
Tromano. (Il observed, list morphological adaptations be	,,,,,,			

Profile Desc	ription: (Describe	to the dept	th needed to docu	ment the	indicator	or confirm	n the absence o	of indicators.)
Depth Matrix Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	<u>Loc²</u>	<u>Texture</u>	Remarks
0-17	10 YR 5/1	70%	10 YR 5/6	30%	<u></u>	IVI	Silt Loam	
					-			
¹ Type: C=C	oncentration, D=Dep	oletion, RM=	Reduced Matrix, M	S=Maske	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all	LRRs, unless othe	rwise not	ed.)		Indicators 1	for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	elow Surfa	ice (S8) (I	RR S, T, U	J) 1 cm M	uck (A9) (LRR O)
Histic Ep	pipedon (A2)		Thin Dark S					uck (A10) (LRR S)
Black Hi	stic (A3)		Loamy Muck	y Mineral	(F1) (LRF	R O)	Reduce	ed Vertic (F18) (outside MLRA 150A,B)
Hydroge	n Sulfide (A4)		Loamy Gley				Piedmo	ont Floodplain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)		✓ Depleted Ma					ous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR P	P, T, U)	Redox Dark	Surface (F6)			A 153B)
	icky Mineral (A7) (LI		Depleted Da	,			•	rent Material (TF2)
	esence (A8) (LRR L		Redox Depr					nallow Dark Surface (TF12)
1 cm Mu	ick (A9) (LRR P, T)	•	Marl (F10) (I	LRR U)	,			Explain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Oc		(MLRA 1	51)		,
Thick Da	ark Surface (A12)		Iron-Mangar				, T) ³ Indica	ators of hydrophytic vegetation and
Coast P	rairie Redox (A16) (I	MLRA 150A						and hydrology must be present,
	lucky Mineral (S1) (I		Delta Ochric				unle	ss disturbed or problematic.
	Bleyed Matrix (S4)		Reduced Ve			50A, 150B))	
	edox (S5)		Piedmont Fl					
Stripped	Matrix (S6)						RA 149A, 153C,	153D)
Dark Su	rface (S7) (LRR P, \$	S, T, U)						
Restrictive	Layer (if observed):	:						
Type:								
Depth (in	ches):						Hydric Soil I	Present? Yes 🚺 No 🔲
Remarks:	,						1 -	
rtomants.								

Project/Site: Proposed Mitigation Bank Location C	ity/County: Eupora/Webster & Choctaw County Sampling Date: 03/21/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-7
Investigator(s): B. Pittman	ection, Township, Range: Section 12, T-19N, R-11E
	ocal relief (concave, convex, none): sloping Slope (%): 2-5
Subregion (LRR or MLRA): Lat: _33.5327	
Soil Map Unit Name: Providence silt loam (PoB2)	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year	? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly di	isturbed? Are "Normal Circumstances" present? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology naturally prob	
	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wes No Yes No Wetland Hydrology Present? Yes No	Is the Sampled Area within a Wetland? Yes No✓
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15)	
Saturation (A3) Hydrogen Sulfide Od	
	es along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced	
Drift Deposits (B3) Recent Iron Reduction	
Algal Mat or Crust (B4) Thin Muck Surface (0	
Iron Deposits (B5) Other (Explain in Rer	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No _✓
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
Barrier	
Remarks:	
well drained soil with slope	

VEGETATION (Four Strata) – Use scientific names of plants.

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	65	yes	FAC	That Are OBL, FACW, or FAC: $\frac{4}{}$ (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4.				()
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100% (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				
	65	= Total Co	/er	OBL species x 1 =
50% of total cover:	20% of	f total cover	:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1. Liquidambar styraciflua	15	ves	FAC	FACU species x 4 =
2. Baccharis halimifolia	5	yes	FAC	UPL species x 5 =
				Column Totals: 0 (A) 0 (B)
3				(-)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0¹
		= Total Co		
50% of total cover:				Problematic Hydrophytic Vegetation (Explain)
	20% 0	i total cover		
Herb Stratum (Plot size:)	15	V00	FAC	Indicators of hydric soil and wetland hydrology must
1. Rubus spp.		yes		be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	15	= Total Co	/er	
50% of total cover:	20% of	f total cover	:	
Woody Vine Stratum (Plot size:)				
1				
2.				
3				
4				
5				Hydrophytic
	0	= Total Co	/er	Vegetation
50% of total cover:	20% of	f total cover	:	Present? Yes No
Remarks: (If observed, list morphological adaptations bel	ow).			
December control become d	,			
Recently control burned.				

Profile Desc	cription: (Describe	to the dept	h needed to docur	nent the i	indicator	or confir	m the absence	of indicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-17	10 YR 5/6	60%	10 YR 5/4	40%	KIVI	IVI	Silt Loam	
17 0-0			Danker and Makeise Mil				214:	DI - Dana Linina Manadaire
	oncentration, D=De					ains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	cable to all L	.KKS, uniess otnei	rwise not	ea.)		indicators	for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be				U) 1 cm M	luck (A9) (LRR O)
Histic E	pipedon (A2)		Thin Dark Su	ırface (S9) (LRR S,	T, U)	2 cm M	luck (A10) (LRR S)
Black H	istic (A3)		Loamy Muck	y Mineral	(F1) (LRI	R O)	Reduce	ed Vertic (F18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gleye				Piedmo	ont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma		,		— Anoma	lous Bright Loamy Soils (F20)
_	Bodies (A6) (LRR I	P. T. U)	Redox Dark		- 6)			(A 153B)
	ucky Mineral (A7) (L		Depleted Dai	,	,		,	arent Material (TF2)
	resence (A8) (LRR I		Redox Depre		. ,			hallow Dark Surface (TF12)
_	, , ,	•		,	0)			
1	uck (A9) (LRR P, T)		Marl (F10) (L	•	(041 D.A.4	E41)	Other (Explain in Remarks)
1	d Below Dark Surfac	ce (A11)	Depleted Oct		•	,	3, ,	
_	ark Surface (A12)		Iron-Mangan					ators of hydrophytic vegetation and
	rairie Redox (A16) (•						and hydrology must be present,
	/lucky Mineral (S1) ((LRR O, S)	Delta Ochric					ess disturbed or problematic.
Sandy C	Gleyed Matrix (S4)		Reduced Ver	tic (F18) ((MLRA 1	50A, 150B	3)	
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 1	49A)	
Stripped	l Matrix (S6)		Anomalous E	Bright Loai	my Soils ((F20) (ML	RA 149A, 153C,	153D)
Dark Su	rface (S7) (LRR P,	S, T, U)						
Restrictive	Layer (if observed)):						
Type:	• `							
I	1 \						1	
Depth (in	ches):						Hydric Soil	Present? Yes No
Remarks:								

Project/Site: Proposed Mitigation Bank Location City/	County: Eupora/Webster & Choctaw County Sampling Date: 03/21/2018					
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-8					
Investigator(s): B. Pittman Sect	tion, Township, Range: Section 1, T-19N, R-11E					
	al relief (concave, convex, none): _gently sloping Slope (%): _1-2					
Subregion (LRR or MLRA): Lat: _33.536182						
Soil Map Unit Name: Guyton silt loam (Gu)	NWI classification: none					
Are climatic / hydrologic conditions on the site typical for this time of year? $$	Yes No (If no, explain in Remarks.)					
Are Vegetation, Soil, or Hydrology significantly distu	urbed? Are "Normal Circumstances" present? Yes No					
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sai	mpling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled Area within a Wetland? Yes No					
Site recently control burned.						
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) _ Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface _ High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) _ Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16)						
Water Marks (B1) Oxidized Rhizospheres						
Sediment Deposits (B2) ✓ Presence of Reduced In						
Drift Deposits (B3) Recent Iron Reduction in Algal Mat or Crust (B4) Thin Muck Surface (C7)						
Algal Mat or Crust (B4) Thin Muck Surface (C7) Iron Deposits (B5) Other (Explain in Remai	, ,					
Individual Control	✓ FAC-Neutral Test (D5)					
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)					
Field Observations:						
Surface Water Present? Yes No Depth (inches):						
Water Table Present? Yes No Depth (inches): _sur						
Saturation Present? Yes No Depth (inches): _sur (includes capillary fringe)	fface Wetland Hydrology Present? Yes <u>✓</u> No					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	revious inspections), if available:					
Remarks:						

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species _
1. Pinus taeda	65	yes	FAC	That Are OBL, FACW, or FAC: 7 (A)
2				Total Number of Dominant
3				Species Across All Strata: 7 (B)
4				
5.				Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
6.				That Ale Obl., FACVV, of FAC (A/B)
				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species x 1 =
		= Total Co		FACW species x 2 =
50% of total cover:	20% of	total cover	:	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)	_		E40	FACU species x 4 =
1. Quercus spp.	_ 5	<u>yes</u>	FAC	UPL species x 5 =
2. Baccharis halimifolia	_ 10	yes	FAC	Column Totals: 0 (A) 0 (B)
3. Liquidambar styraciflua	_ 5	yes	FAC	Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				☐ 3 - Prevalence Index is ≤3.01
	00	= Total Co	 /er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	:	Froblematic Hydrophytic vegetation (Explain)
Herb Stratum (Plot size:)				1
1 Juncus effusus	6	yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Rubus spp.	10	ves	FAC	Definitions of Four Vegetation Strata:
3. Andropogon glomeratus	4	ves	FACW	Definitions of Four Vogetation Circle.
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				noight.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb - All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	20	= Total Co\	/er	
50% of total cover:	20% of	total cover	:	
Woody Vine Stratum (Plot size:)				
1				
2.				
3				
4				
5				Hydrophytic
		= Total Co		Vegetation Present? Yes No
50% of total cover:		total cover	:	
Remarks: (If observed, list morphological adaptations be	low).			

DP-8

SOIL

Profile Des	cription: (Describe	to the dept	h needed to docur	nent the i	ndicator	or confir	m the absence	of indicators.)
Depth	Matrix		Redo	x Feature	s		_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-17	10 YR 6/1	60%	10 YR 5/3	25%	\cup	IVI	Silt Loam	
			10 YR 5/8	15%	U	IVI		
			10 11(0/0					
							-	
l ———								
l								
1							2	
	oncentration, D=Dep		<u>`</u>			rains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	cable to all L	.RRs, unless other	rwise not	ed.)		Indicators	for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be				· —	fluck (A9) (LRR O)
Histic E	pipedon (A2)		Thin Dark Su	ırface (S9	(LRR S	, T, U)	2 cm N	fluck (A10) (LRR S)
Black H	istic (A3)		Loamy Muck	y Mineral	(F1) (LR I	R O)	Reduc	ed Vertic (F18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Piedmo	ont Floodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		✓ Depleted Ma	trix (F3)			Anoma	llous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR F	P, T, U)	Redox Dark	Surface (F	6)		(MLF	RA 153B)
5 cm Mi	ucky Mineral (A7) (L	RR P, T, U)	Depleted Da	rk Surface	(F7)			arent Material (TF2)
Muck Pi	resence (A8) (LRR l	J)	Redox Depre	essions (F	8)		Very S	hallow Dark Surface (TF12)
1 cm Mi	uck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			Other ((Explain in Remarks)
Deplete	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
Thick D	ark Surface (A12)		Iron-Mangan	ese Mass	es (F12)	(LRR O, F	P, T) ³ Indic	ators of hydrophytic vegetation and
Coast P	rairie Redox (A16) (I	MLRA 150A) Umbric Surfa	ce (F13)	(LRR P, ⁻	Γ, U)	wet	land hydrology must be present,
Sandy N	Mucky Mineral (S1) (LRR O, S)	Delta Ochric	(F17) (ML	.RA 151)		unle	ess disturbed or problematic.
Sandy (Gleyed Matrix (S4)		Reduced Ver	rtic (F18) (MLRA 1	50A, 150E	3)	
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19) (MLRA 1	149A)	
Stripped	d Matrix (S6)		Anomalous E	Bright Loar	ny Soils	(F20) (ML	RA 149A, 153C,	, 153D)
Dark Su	ırface (S7) (LRR P, S	S, T, U)						
Restrictive	Layer (if observed)	:						
Туре:								
	ches):						Hydric Soil	Present? Yes No No
	CIIC3).						Trydite Con	Tresent: Tes No
Remarks:								

Project/Site: Proposed Mitigation Bank Location City/0	County: Eupora/Webster & Choctaw County Sampling Date: 03/21/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-9
Investigator(s): B. Pittman Secti	on, Township, Range: Section 1, T-19N, R-11E
	relief (concave, convex, none): gently sloping Slope (%): 1-2
Subregion (LRR or MLRA): Lat: 33.538154	
Soil Map Unit Name: Oaklimeter silt loam (Oa)	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year? $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	∕es No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	rbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No No No Remarks:	Is the Sampled Area within a Wetland? Yes No
HADBOI OCA	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) Marl Deposits (B15) (LR	
✓ Saturation (A3) — Hydrogen Sulfide Odor (
Water Marks (B1) ✓ Oxidized Rhizospheres a	· · · · · · · · · · · · · · · · · · ·
Sediment Deposits (B2) Presence of Reduced Iro	
Drift Deposits (B3) Recent Iron Reduction in	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remar	ks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes <u>✓</u> No Depth (inches): <u>sur</u>	
Saturation Present? Yes No Depth (inches): _sur_ (includes capillary fringe)	face Wetland Hydrology Present? Yes ✓ No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	
Area bedded for establishment of loblolly pine.	

DP-9

VEGETATION (Four Strata) – Use scientific names of plants.

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species That Are ORL FACW or FAC: 6
1				That Are OBL, FACW, or FAC:
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100% (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of:Multiply by:
8				OBL species x 1 =
500(-51-1-1		= Total Cov		FACW species x 2 =
50% of total cover:	20% of	total cover	:	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:) 1. Pinus taeda	50	yes	FAC	FACU species x 4 =
Pillus taeda Baccharis halimifolia	10		FAC	UPL species x 5 =
		yes	FAC	Column Totals: 0 (A) 0 (B)
3				(-)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				☐ 3 - Prevalence Index is ≤3.01
		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	:	
Herb Stratum (Plot size:)	_		EAC)4/	¹ Indicators of hydric soil and wetland hydrology must
1. Juncus effusus	_ 5	yes	FACW	be present, unless disturbed or problematic.
2. Rubus spp.	_ 20	yes	FAC	Definitions of Four Vegetation Strata:
3. Andropogon glomeratus	_ 5	yes	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Scirpus cyperinus	_ 3	yes	OBL	more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	33	= Total Cov	/er	
50% of total cover:	20% of	total cover	:	
Woody Vine Stratum (Plot size:)				
1.				
2				
3.				
4.				
5.				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover:	20% of	total cover	:	Present? Yes No No
Remarks: (If observed, list morphological adaptations be				
Trainiana. (Il assarrad, ilat maipinological adaptations so	,.			

Profile Des	cription: (Describe	to the depth	needed to docum	nent the i	ndicator	or confir	m the absence	of indicators.)
Depth	Matrix		Redo	x Features	s		_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-17	10 YR 6/1	50%	10 YR 4/2	30%	U	IVI	Silt Loam	
			10 YR 5/6	20%	U	IVI		
			10 11(0/0					
l ———								
1							2	
	oncentration, D=Dep		<u></u>			rains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all L	RRs, unless other	rwise note	ed.)		Indicators	for Problematic Hydric Soils ³ :
Histoso	(A1)		Polyvalue Be				· —	Muck (A9) (LRR O)
Histic E	pipedon (A2)		Thin Dark Su	ırface (S9)	(LRR S	, T, U)	2 cm M	/luck (A10) (LRR S)
Black H	istic (A3)		Loamy Muck	y Mineral	(F1) (LR I	R O)	Reduc	ed Vertic (F18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Piedm	ont Floodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		✓ Depleted Mat	trix (F3)			Anoma	alous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR P	P, T, U)	Redox Dark	Surface (F	6)		(MLF	RA 153B)
5 cm Mi	ucky Mineral (A7) (Ll	RR P, T, U)	Depleted Dar	rk Surface	(F7)		Red Pa	arent Material (TF2)
Muck P	resence (A8) (LRR L	J)	Redox Depre	essions (F	8)		Very S	hallow Dark Surface (TF12)
1 cm Mi	uck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			Other ((Explain in Remarks)
Deplete	d Below Dark Surfac	e (A11)	Depleted Oct	hric (F11)	(MLRA 1	51)		
Thick D	ark Surface (A12)		Iron-Mangan	ese Mass	es (F12)	(LRR O, F	P, T) ³ Indic	ators of hydrophytic vegetation and
Coast F	rairie Redox (A16) (I	MLRA 150A)		ce (F13) (LRR P,	Γ, U)	wet	land hydrology must be present,
Sandy N	Mucky Mineral (S1) (I	LRR O, S)	Delta Ochric	(F17) (ML	.RA 151)		unle	ess disturbed or problematic.
Sandy (Gleyed Matrix (S4)		Reduced Ver	tic (F18) (MLRA 1	50A, 150E	3)	
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19	(MLRA 1	149A)	
Stripped	d Matrix (S6)		Anomalous E	Bright Loar	ny Soils	(F20) (ML	RA 149A, 153C	, 153D)
Dark Su	ırface (S7) (LRR P, \$	S, T, U)						
Restrictive	Layer (if observed):	:						
Type:								
I	ches):		_				Hydric Soil	Present? Yes No
	Ciles)		<u> </u>				nyunc 3011	Fleseitt? Tes No
Remarks:								

Project/Site: Proposed Mitigation Bank Location City/	County: Eupora/Webster & Choctaw County Sampling Date: 03/21/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-10
	tion, Township, Range: Section 11, T-19N, R-11E
	al relief (concave, convex, none): _gently sloping Slope (%): _1-3
Subregion (LRR or MLRA): Lat: _33.528005	5 Long: -89.211619 Datum: NAD 83
Soil Map Unit Name: Chenneby silt loam (Ce)	NWI classification: PFO1A
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	urbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sai	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes No Yes No	Is the Sampled Area within a Wetland? Yes ✓ No
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2) Marl Deposits (B15) (LF	
✓ Saturation (A3) Hydrogen Sulfide Odor	(C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres	along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) ✓ Presence of Reduced Ir	
Drift Deposits (B3) Recent Iron Reduction i	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	
Iron Deposits (B5) Other (Explain in Remai	
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Field Observations:	Spriagram moss (20) (Erric 1, 0)
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches): Sull	
Saturation Present? Yes V No Depth (inches): Sul	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:
Remarks:	
Areas of inundation adjacent, beaver pond.	
Tribute of management adjacont, boaver pena.	

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	_ 20	ves	FAC	That Are OBL, FACW, or FAC: 5 (A)
2. Liquidambar styraciflua	_ 10	yes	FAC	Total Number of Dominant
3. Acer rubrum	40	yes	FAC	Species Across All Strata: 5 (B)
4. Carpinus caroliniana	8	yes	FAC	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100% (A/B)
6				
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
		= Total Co	/er	OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
4 Acer rubrum	10	yes	FAC	FACU species x 4 =
2. Liquidambar styraciflua	7	yes	FAC	UPL species x 5 =
				Column Totals: 0 (A) 0 (B)
3				
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	17	= Total Co	/er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:				
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Smilax spp.	3	yes	FAC	be present, unless disturbed or problematic.
2.				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	3	= Total Co	/er	
50% of total cover:	20% of	f total cover	:	
Woody Vine Stratum (Plot size:)				
<u> </u>				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Co	/er	Vegetation Van Van
50% of total cover:	20% of	f total cover	:	Present? Yes No
Remarks: (If observed, list morphological adaptations bel	ow).			

DP-10

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirr	n the absence o	f indicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-17	10 YR 6/1	80%	10 YR 6/8	20%		IVI	Silt Loam	
				_				
					-			_
								_
1						·		
			=Reduced Matrix, M			rains.		PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applic	cable to all	LRRs, unless othe	rwise not	ed.)		Indicators to	or Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	elow Surfa	ace (S8) (I	LRR S, T,	U) 1 cm Mu	ck (A9) (LRR O)
Histic Ep	ipedon (A2)		Thin Dark S	urface (S9) (LRR S,	T, U)	2 cm Mu	ick (A10) (LRR S)
Black Hi	stic (A3)		Loamy Muck	y Mineral	(F1) (LRI	₹ 0)	Reduced	d Vertic (F18) (outside MLRA 150A,B)
Hydroge	n Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Piedmor	nt Floodplain Soils (F19) (LRR P, S, T)
Stratified	l Layers (A5)		✓ Depleted Ma	atrix (F3)			Anomalo	ous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR F	P, T, U)	Redox Dark	Surface (F6)		(MLRA	A 153B)
5 cm Mu	cky Mineral (A7) (L	RR P, T, U) Depleted Da	rk Surface	e (F7)			ent Material (TF2)
Muck Pr	esence (A8) (LRR l	J)	Redox Depre	essions (F	8)		Very Sha	allow Dark Surface (TF12)
1 cm Mu	ck (A9) (LRR P, T)		Marl (F10) (I	LRR U)			Other (E	xplain in Remarks)
Depleted	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
Thick Da	irk Surface (A12)		Iron-Mangar	nese Mass	ses (F12)	(LRR O, P	, T) ³ Indicat	ors of hydrophytic vegetation and
Coast Pr	airie Redox (A16) (MLRA 150.	A) Umbric Surfa	ace (F13)	(LRR P, 1	Γ, U)	wetla	nd hydrology must be present,
Sandy M	lucky Mineral (S1) (LRR O, S)	Delta Ochric	(F17) (M	LRA 151)		unles	s disturbed or problematic.
Sandy G	leyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 1	50A, 150B)	
Sandy R	edox (S5)		Piedmont Fl	oodplain S	Soils (F19)	(MLRA 1	49A)	
Stripped	Matrix (S6)		Anomalous I	Bright Loa	my Soils	(F20) (MLF	RA 149A, 153C, 1	153D)
Dark Sui	rface (S7) (LRR P,	S, T, U)						
Restrictive I	ayer (if observed)	:						
Туре:								
	ches):						Hydric Soil P	resent? Yes V No
	Jiles)						Tiyane 3011 F	Tesent: Tes NO
Remarks:								

Project/Site: Proposed Mitigation Bank Location City/	County: Eupora/Webster & Choctaw County Sampling Date: 03/21/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-11
	tion, Township, Range: Section 12, T-19N, R-11E
	al relief (concave, convex, none): _sloping Slope (%): 2-4
Subregion (LRR or MLRA): Lat: 33.528812	2 Long: -89.206984 Datum: NAD 83
Soil Map Unit Name: Chenneby silt loam (Ce)	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes _ ✓ No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	urbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sai	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Yes No Remarks:	Is the Sampled Area within a Wetland? Yes No✓
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LF	RR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor	
	along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Ir	
Drift Deposits (B3) Recent Iron Reduction i	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	
Iron Deposits (B5) Other (Explain in Remai	
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Field Observations:	Spriagram moss (20) (Errit 1, 0)
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No ✓ Depth (inches):	
Saturation Present? Yes No Depth (inches):	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	revious inspections), if available:
Remarks:	
well drained soil with slope	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	<u>65</u>	yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4.				(-)
				Percent of Dominant Species That Are OBL FACW or FAC: 100%
5				That Are OBL, FACW, or FAC: 100% (A/B)
6				Prevalence Index worksheet:
7	_			Total % Cover of: Multiply by:
8				
	65	= Total Co	ver	OBL species x 1 =
50% of total cover:	20% o	f total cove	r:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
. Lieuidamhar at maaifu a	5	yes	FAC	FACU species x 4 =
- Liquetrum sinones			FAC	UPL species x 5 =
				Column Totals: 0 (A) 0 (B)
3				Column Totals (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6.				1 <u></u> · · · -
				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8	^			☐ 3 - Prevalence Index is ≤3.01
	9	= Total Co	ver	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% o	f total cove	r:	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Rubus spp.	25	yes	FAC	be present, unless disturbed or problematic.
2	_			Definitions of Four Vegetation Strata:
2				Demilitions of Four Vegetation Strata.
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
	25	= Total Co	ver	
50% of total cover:	20% 0			
	20700	i total covo		
Woody Vine Stratum (Plot size:)				
1				
2	_			
3				
4				
5.				Hadaaa kada
		= Total Co		Hydrophytic Vegetation
500/ 51 1 1		•		Present? Yes V No No
50% of total cover:		i total cove		
Remarks: (If observed, list morphological adaptations be	low).			
Recently control burned.				
Trecently control builled.				
I				

Profile Desc	ription: (Describe	to the depti	n needed to docum	nent the i	ndicator	or confirm	n the absence	of indicators.)
Depth	Matrix		Redo	x Features	6			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-17	10 YR 5/4	100%					Silt Loam	
¹ Type: C=Co	oncentration, D=Dep	oletion, RM=I	Reduced Matrix, MS	S=Masked	Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applic	able to all L	RRs, unless other	wise note	ed.)		Indicators	for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	low Surfac	ce (S8) (L	RR S. T. I	J) 1 cm N	fluck (A9) (LRR O)
	ipedon (A2)		Thin Dark Su					fluck (A10) (LRR S)
Black Hi			Loamy Muck	, ,	, ,			ed Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gleye			,		ont Floodplain Soils (F19) (LRR P, S, T)
	I Layers (A5)		Depleted Mai		· -/			llous Bright Loamy Soils (F20)
	Bodies (A6) (LRR F	T 111	Redox Dark		6)			RA 153B)
	cky Mineral (A7) (L		Depleted Dar	*	,			arent Material (TF2)
								hallow Dark Surface (TF12)
	esence (A8) (LRR U	,	Redox Depre	,)			
	ck (A9) (LRR P, T)	o (A44)	Marl (F10) (L	,	/MIDA 4:	54\	Other ((Explain in Remarks)
	Below Dark Surfac	e (ATT)	Depleted Oct				T) 31	-4
	irk Surface (A12)		Iron-Mangan					ators of hydrophytic vegetation and
	airie Redox (A16) (I					, U)		land hydrology must be present,
_	lucky Mineral (S1) (LRR O, S)	Delta Ochric			0.1 4505		ess disturbed or problematic.
	leyed Matrix (S4)		Reduced Ver					
	edox (S5)		Piedmont Flo					
	Matrix (S6)		Anomalous B	right Loan	ny Soils (F20) (NILF	RA 149A, 153C,	, 153D)
	face (S7) (LRR P,							
Restrictive L	.ayer (if observed)	:						
Туре:			_					
Depth (inc	ches):		<u></u>				Hydric Soil	Present? Yes No
Remarks:								
riornamo.								

Project/Site: Proposed Mitigation Bank Location City	//County: Eupora/Webster & Choctaw County Sampling Date: 03/22/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-12
	ction, Township, Range: Section 12, T-19N, R-11E
	ral relief (concave, convex, none): _gently sloping Slope (%): 0-1
Subregion (LRR or MLRA): Lat: 33.53093	7 Long: -89.200482 Datum: NAD 83
Soil Map Unit Name: Chenneby silt loam (Ce)	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly dist	turbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally proble	matic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Yes No Remarks:	Is the Sampled Area within a Wetland? Yes No✓
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Surface Soil Cracks (B0) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (L	
Saturation (A3) Hydrogen Sulfide Odor	
	s along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced I	lron (C4) Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction	in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7	() Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Rema	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No✓ Depth (inches):	
Water Table Present? Yes No _ ✓ Depth (inches):	
Saturation Present? Yes No V Depth (inches):	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:
Remarks:	
No hydrology	

	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	55	yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
Liquidambar styraciflua	15	yes	FAC	Total Number of Dominant
3. Juniperus virginiana	5	yes	FACU	Species Across All Strata: 5 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6.				(78b)
7.				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
8		= Total Cov		OBL species x 1 =
EOO/ of total any any				FACW species x 2 =
50% of total cover:	20% 01	total cover.		FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)	15	V00	FAC	FACU species x 4 =
1. Liquidambar styraciflua	15	,		UPL species x 5 =
2. Ligustrum sinense	6		FAC	Column Totals: 0 (A) 0 (B)
3				Goldmin Totals (X) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0¹
	04	= Total Cov	er	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% of	total cover:		Problematic Hydrophytic Vegetation (Explain)
Herb Stratum (Plot size:)				1
	4	ves	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. Rubus spp. 2				Definitions of Four Vegetation Strata:
				Dominions of Four Vogotation Office.
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				noight.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	4	= Total Cov	er	
50% of total cover:	20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Cov	er	Vegetation Present? Yes No
50% of total cover:	20% of	total cover:		103 100
Remarks: (If observed, list morphological adaptations bel	ow).			

DP-12

SOIL

Profile Desc	ription: (Describe	to the dept	h needed to docu	ment the	indicator	or confirm	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	<u>Loc²</u>	<u>Texture</u>	Remarks
0-17	10 YR 4/3	80%	10 YR 6/2	20%	υ	IVI	Silt Loam	
					-			
				_				
¹ Type: C=Ce	oncentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Maske	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all	LRRs, unless othe	rwise not	ed.)		Indicators	for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	elow Surfa	ice (S8) (I	RR S. T. U	J) 1 cm M	uck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su				· —	uck (A10) (LRR S)
Black Hi			Loamy Muck	•				ed Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gley			,		ont Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)		Depleted Ma		()			lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P	. T. U)	Redox Dark	, ,	F6)			A 153B)
	icky Mineral (A7) (Li		Depleted Da	,			•	rent Material (TF2)
	esence (A8) (LRR L		Redox Depre					nallow Dark Surface (TF12)
_	ick (A9) (LRR P, T)	,	Marl (F10) (I		,			Explain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Oc		(MLRA 1	51)	`	,
Thick Da	ark Surface (A12)		Iron-Mangar				T) ³ Indica	ators of hydrophytic vegetation and
Coast P	rairie Redox (A16) (I	VILRA 150A						and hydrology must be present,
Sandy M	lucky Mineral (S1) (I	LRR O, S)	Delta Ochric	(F17) (M	LRA 151)		unle	ss disturbed or problematic.
Sandy G	Bleyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 1	50A, 150B))	
Sandy R	ledox (S5)		Piedmont Flo	oodplain S	Soils (F19)	(MLRA 14	19A)	
Stripped	Matrix (S6)		Anomalous I	Bright Loa	my Soils (F20) (MLF	RA 149A, 153C,	153D)
	rface (S7) (LRR P, \$							
Restrictive	Layer (if observed)	:						
Туре:								
Depth (in	ches):						Hydric Soil	Present? Yes 🔲 No 🛂
Remarks:							ı	

Project/Site: Proposed Mitigation Bank Location City/0	County: Eupora/Webster & Choctaw County Sampling Date: 03/22/2018					
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-13					
	Section, Township, Range: Section 12, T-19N, R-11E					
	al relief (concave, convex, none): gently sloping Slope (%): 1-2					
Subregion (LRR or MLRA): Lat: 33.530005	Long: -89.199347 Datum: NAD 83					
Soil Map Unit Name: Chenneby silt loam (Ce)	NWI classification: none					
Are climatic / hydrologic conditions on the site typical for this time of year?	∕es No (If no, explain in Remarks.)					
Are Vegetation, Soil, or Hydrology significantly distu	rbed? Are "Normal Circumstances" present? Yes No					
Are Vegetation, Soil, or Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS - Attach site map showing san	npling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No No No Remarks:	Is the Sampled Area within a Wetland? Yes No					
HYDROLOGY						
	Secondary Indicators (minimum of two required)					
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6)					
Surface Water (A1) Aquatic Fauna (B13)	Surface 301 Clacks (B0) Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2) Marl Deposits (B15) (LR						
✓ Saturation (A3) Hydrogen Sulfide Odor (
Water Marks (B1)						
Sediment Deposits (B2) ✓ Presence of Reduced Iro						
Drift Deposits (B3) Recent Iron Reduction in	Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)					
Iron Deposits (B5) Other (Explain in Remar						
Inundation Visible on Aerial Imagery (B7)	✓ FAC-Neutral Test (D5)					
Water-Stained Leaves (B9) Field Observations:	Sphagnum moss (D8) (LRR T, U)					
/						
Surface Water Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches):						
	face Wetland Hydrology Present? Yes _ ✓ No					
Saturation Present? Yes <u>Y</u> No Depth (inches): <u>Sur</u> (includes capillary fringe)	wetland Hydrology Present? Tes No					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:					
Pamadia						
Remarks:						
Area bedded for establishment of loblolly pine.						

		Dominan		Dominance Test worksheet:
Tree Stratum (Plot size:)			? <u>Status</u>	Number of Dominant Species
1			- ——	That Are OBL, FACW, or FAC: 8 (A)
2				Total Number of Dominant
3				Species Across All Strata: 8 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
6.				
7.				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
	•	= Total Co		OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)	20700	i total cove		FAC species x 3 =
1. Pinus taeda	35	yes	FAC	FACU species x 4 =
2. Acer rubrum	- 50 5	yes	FAC	UPL species x 5 =
3. Liquidambar styraciflua	- 5	ves	FAC	Column Totals: 0 (A) 0 (B)
	- · 			
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	47	= Total Co	ver	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% o	f total cove	r:	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Juncus effusus	4	yes	FACW	be present, unless disturbed or problematic.
2. Rubus spp.	20	yes	FAC	Definitions of Four Vegetation Strata:
3. Andropogon virginicus	5	yes	FACW	_
4 Solidago spp.	10	yes	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5. Lonicera japonica	3	yes	FAC	height.
6				
				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				J
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12			- ——	
	42	= Total Co	ver	
50% of total cover:	20% o	f total cove	r:	
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Co	ver	Vegetation
50% of total cover:	20% o	f total cove	r:	Present? Yes No
Remarks: (If observed, list morphological adaptations be				
Tromains. (Il observed, list morphological adaptations be	1011).			

DP-13

SOIL

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirr	n the absence o	of indicators.)
Depth	Matrix		Rede	ox Feature	es			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	<u>Loc²</u>	<u>Texture</u>	Remarks
0-17	10 YR 6/1	50%	10 YR 4/2	30%	D	IVI	Silt Loam	
			10 YR 5/6	20%		IVI		
				- =	- —			
				_				
¹ Type: C=C	oncentration D=Der	letion RM	=Reduced Matrix, M	S=Maske	d Sand G	raine	2l ocation: [PL=Pore Lining, M=Matrix.
			LRRs, unless othe			airis.		or Problematic Hydric Soils ³ :
		abio to all				. DD C T		
Histosol	' '		Polyvalue B					uck (A9) (LRR O)
	pipedon (A2)		Thin Dark S					uck (A10) (LRR S)
Black Hi	* *		Loamy Muck			R ()		d Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gley		(FZ)			nt Floodplain Soils (F19) (LRR P, S, T)
	l Layers (A5)	. T III	✓ Depleted Ma		E6)			ous Bright Loamy Soils (F20)
	Bodies (A6) (LRR F		Redox Dark	,	,			A 153B)
	icky Mineral (A7) (LI							rent Material (TF2)
	esence (A8) (LRR L	(נ	Redox Depr		-8)			allow Dark Surface (TF12)
	ick (A9) (LRR P, T)	- (Add)	Marl (F10) (I	,	(041 - 0.4	54)	Other (E	Explain in Remarks)
	d Below Dark Surfac	e (ATT)	Depleted Oc				T) 3Indian	tors of budrophytic vegetation and
	ark Surface (A12)	MI DA 450	Iron-Mangar					tors of hydrophytic vegetation and
			A) Umbric Surf					and hydrology must be present,
_	lucky Mineral (S1) (I	LKK 0, 3)						ss disturbed or problematic.
	Sleyed Matrix (S4)		Reduced Ve					
	edox (S5) Matrix (S6)		Piedmont FI					452D)
	rface (S7) (LRR P, \$	B T II)	Anomalous	DIIGIII LO	iiiy oolis	(FZO) (IVIL I	RA 149A, 153C,	1550)
	Layer (if observed)						T	
_	Layer (II observeu)	•						
Туре:								
Depth (inc	ches):						Hydric Soil F	Present? Yes <u> </u>
Remarks:							•	

Project/Site: Proposed Mitigation Bank Location City	/County: Eupora/Webster & Choctaw County Sampling Date: 03/22/2018						
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-14						
	Section, Township, Range: Section 12, T-19N, R-11E						
Landform (hillslope, terrace, etc.): upland knoll Loc	al relief (concave, convex, none): _gently sloping Slope (%): 2-4						
Subregion (LRR or MLRA): Lat: 33.528126	B Long:89.198719 Datum: NAD 83						
Soil Map Unit Name: Chenneby silt loam (Cf)	NWI classification: none						
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)						
Are Vegetation, Soil, or Hydrology significantly dist	urbed? Are "Normal Circumstances" present? Yes No						
Are Vegetation, Soil, or Hydrology naturally probler	matic? (If needed, explain any answers in Remarks.)						
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Yes No Remarks:	Is the Sampled Area within a Wetland? Yes No✓						
HYDROLOGY							
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)						
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)						
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)						
High Water Table (A2) Marl Deposits (B15) (LI							
Saturation (A3) Hydrogen Sulfide Odor Water Marks (B1) Oxidized Rhizospheres	(C1) Moss Trim Lines (B16) along Living Roots (C3) Dry-Season Water Table (C2)						
Sediment Deposits (B2) Presence of Reduced I							
Drift Deposits (B3) Recent Iron Reduction							
Algal Mat or Crust (B4) Thin Muck Surface (C7							
Iron Deposits (B5) Other (Explain in Rema	rks) Shallow Aquitard (D3)						
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)						
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)						
Field Observations:							
Surface Water Present? Yes No Depth (inches):							
Water Table Present? Yes No _✓ Depth (inches):							
Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No _✓						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:						
Pomerke:							
Remarks: No hydrology, upland knoll							
Two fry arology, apiana knom							

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC: 5 (A)
2				Total Number of Dominant
3				Species Across All Strata: 5 (B)
4.				
5.				Percent of Dominant Species That Are ORL FACW or FAC: 100%
				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species x 1 =
	0	= Total Cov	er er	
50% of total cover:	20% of	total cover	:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1. Pinus taeda	40	yes	FAC	FACU species x 4 =
2 Baccharis halimifolia	5	ves	FAC	UPL species x 5 =
				Column Totals: 0 (A) 0 (B)
3				
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0¹
	4 =	= Total Cov	 /er	
50% of total cover:				Problematic Hydrophytic Vegetation¹ (Explain)
	20 % 01	total cover		
Herb Stratum (Plot size:)	20	V00	FAC	Indicators of hydric soil and wetland hydrology must
1. Rubus spp.	_ 20	yes		be present, unless disturbed or problematic.
2. Solidago spp.		yes	FAC	Definitions of Four Vegetation Strata:
3. Andropogon virginicus	15	yes	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5.				height.
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 iii. DBH and greater than 3.20 it (1 iii) taii.
8				Herb - All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11.				height.
12.				
· · ·	55	 = Total Cov		
E00/ -54-4-1				
50% of total cover:	20% of	total cover	:	
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4.				
5				Hydrophytic
	0	= Total Cov	er/er	Vegetation
50% of total cover:	20% of	total cover	:	11030Ht: 103 NO
Remarks: (If observed, list morphological adaptations be	low).			
	·			

DP-14

SOIL Sampling Point:

Profile Desc	ription: (Describe	to the depth	needed to docur	nent the ii	ndicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	<u>Texture</u>	Remarks
0-17	10 YR 4/4	100%					Silt Loam	
								-
1= 0.0							21 (1	
	oncentration, D=Dep					ains.		PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applic	able to all L						for Problematic Hydric Soils ³ :
Histosol	' '		Polyvalue Be					luck (A9) (LRR O)
	ipedon (A2)		Thin Dark Su					luck (A10) (LRR S)
Black His	, ,		Loamy Muck	y Mineral (F1) (LRR	(O)	Reduce	ed Vertic (F18) (outside MLRA 150A,B)
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix (I	F2)		Piedmo	ont Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)		Depleted Ma					lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR F		Redox Dark	•				RA 153B)
	cky Mineral (A7) (L l		Depleted Dai					arent Material (TF2)
	esence (A8) (LRR L	J)	Redox Depre	,	3)			hallow Dark Surface (TF12)
1 cm Mu	ck (A9) (LRR P, T)		Marl (F10) (L	RR U)			Other (Explain in Remarks)
Depleted	l Below Dark Surfac	e (A11)	Depleted Ocl					
	rk Surface (A12)		Iron-Mangan					ators of hydrophytic vegetation and
	airie Redox (A16) (I					, U)		and hydrology must be present,
_	lucky Mineral (S1) (LRR O, S)	Delta Ochric					ess disturbed or problematic.
	leyed Matrix (S4)		Reduced Ver					
	edox (S5)		Piedmont Flo					
	Matrix (S6)		Anomalous E	Bright Loan	ny Soils (F20) (MLF	RA 149A, 153C,	, 153D)
	face (S7) (LRR P, \$							
Restrictive L	.ayer (if observed)	•						
Туре:								
Depth (inc	ches):						Hydric Soil	Present? Yes No
Remarks:							1	

Project/Site: Proposed Mitigation Bank Location City.	/County: Eupora/Webster & Choctaw County Sampling Date: 03/22/2018						
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-15						
	Section, Township, Range: Section 12, T-19N, R-11E						
	Local relief (concave, convex, none): _gently sloping Slope (%): 2-4						
	2 Long:89.195595 Datum: NAD 83						
Soil Map Unit Name: Chenneby-Arkabutla (CH)	NWI classification: PFO1B						
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)						
Are Vegetation, Soil, or Hydrology significantly distr	urbed? Are "Normal Circumstances" present? Yes No						
Are Vegetation, Soil, or Hydrology naturally probler	matic? (If needed, explain any answers in Remarks.)						
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Yes No Remarks:	Is the Sampled Area within a Wetland? Yes No✓						
HYDROLOGY							
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)						
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)						
Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) Marl Deposits (B15) (LI	Sparsely Vegetated Concave Surface (B8) RR U) Drainage Patterns (B10)						
Nation (A3) Hydrogen Sulfide Odor							
	along Living Roots (C3) Dry-Season Water Table (C2)						
Sediment Deposits (B2) Presence of Reduced II							
Drift Deposits (B3) Recent Iron Reduction							
Algal Mat or Crust (B4) Thin Muck Surface (C7							
Iron Deposits (B5) Other (Explain in Rema	rks) Shallow Aquitard (D3)						
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)						
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)						
Field Observations:							
Surface Water Present? Yes No Depth (inches):							
Water Table Present? Yes No Depth (inches):							
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No _✓						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:						
Remarks:							
No hydrology, upland knoll							
Two fry arology, apiana knom							

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1	. ——			That Are OBL, FACW, or FAC: 5 (A)
2				Total Number of Dominant
3				Species Across All Strata: 5 (B)
4				D 4 (D : 40 :
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
6.				That 740 OBE, 171000, G1710.
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
<u> </u>		= Total Cov	er	OBL species x 1 =
50% of total cover:				FACW species x 2 =
	20 70 01	total cover.		FAC species x 3 =
Sapling/Shrub Stratum (Plot size:) 1 Ligustrum sinense	60	ves	FAC	FACU species x 4 =
2. Arundinaria gigantea	15	ves	FACW	UPL species x 5 =
2. Automana gigantea 3. Liquidambar styraciflua	6		FAC	Column Totals: 0 (A) 0 (B)
	- —	yes		(-)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	81	= Total Cov	er	Problematic Hydrophytic Vegetation (Explain)
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Rubus spp.	15	yes	FAC	be present, unless disturbed or problematic.
2. Lonicera japonica	4	yes	FAC	Definitions of Four Vegetation Strata:
3.				
4.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10	- ——			Woody vine - All woody vines greater than 3.28 ft in
				height.
12	10			
		= Total Cov		
50% of total cover:	20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover:	20% of	total cover:	:	Present? Yes Vo No No
Remarks: (If observed, list morphological adaptations belo				1
(,.			

DP-15

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth Matrix		Redo	Redox Features							
(inches)			Color (moist) % Type ¹ Loc ²				Texture	Remarks		
0-17	10 YR 4/3	90%	10 YR 6/2	10%	U	IVI	Silt Loam			
								_		
1										
			=Reduced Matrix, M			rains.		PL=Pore Lining, M=Matrix.		
Hydric Soil I	ndicators: (Applic	cable to all	LRRs, unless othe	rwise not	ed.)		Indicators fo	or Problematic Hydric Soils ³ :		
Histosol	Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O)									
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U						, T, U)	2 cm Mu	ıck (A10) (LRR S)		
Black Hi	stic (A3)		Loamy Muck	Loamy Mucky Mineral (F1) (LRR O)			Reduced	d Vertic (F18) (outside MLRA 150A,B)		
Hydroge	n Sulfide (A4)		Loamy Gley	ny Gleyed Matrix (F2)			Piedmor	nt Floodplain Soils (F19) (LRR P, S, T)		
Stratified	l Layers (A5)		Depleted Ma	ed Matrix (F3)			Anomalo	ous Bright Loamy Soils (F20)		
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)						(MLRA 153B)				
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)						Red Parent Material (TF2)				
Muck Presence (A8) (LRR U) Redox Depressions (F8)						Very Shallow Dark Surface (TF12)				
1 cm Mu	ck (A9) (LRR P, T)		Marl (F10) (I	LRR U)			Other (E	xplain in Remarks)		
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)										
Thick Da	irk Surface (A12)		Iron-Mangar	nese Mass	ses (F12)	(LRR O, P	, T) ³ Indicat	tors of hydrophytic vegetation and		
Coast Pr	airie Redox (A16) (MLRA 150.	A) Umbric Surfa	ace (F13)	(LRR P,	Γ, U)	wetla	nd hydrology must be present,		
Sandy M	lucky Mineral (S1) (LRR O, S)	Delta Ochric	(F17) (M	LRA 151)		unles	ss disturbed or problematic.		
Sandy G	leyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 1	50A, 150B)			
Sandy R	edox (S5)		Piedmont Fl	oodplain S	Soils (F19) (MLRA 14	49A)			
Stripped	Matrix (S6)		Anomalous I	Bright Loa	my Soils	(F20) (MLF	RA 149A, 153C, 1	153D)		
Dark Sui	rface (S7) (LRR P,	S, T, U)								
Restrictive I	ayer (if observed)	:								
Туре:										
Depth (inches):							Hydric Soil P	Present? Yes No V		
	Jiles)		нуапс				Tesent: Tes No			
Remarks:										

Project/Site: Proposed Mitigation Bank Location City/0	County: Eupora/Webster & Choctaw County Sampling Date: 03/22/2018								
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-16								
Investigator(s): B. Pittman Section, Township, Range: Section 7, T-19N, R-11E									
Landform (hillslope, terrace, etc.): wetland terrace Loca	Local relief (concave, convex, none): gently sloping Slope (%): 1-3								
Subregion (LRR or MLRA): Lat: 33.531074	Long: -89.192670 Datum: NAD 83								
Soil Map Unit Name: Arkabutla silt loam (Ak) NWI classification: none									
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)									
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No									
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)									
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No No No Remarks:	Is the Sampled Area within a Wetland? Yes No								
HYDROLOGY									
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)								
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)								
✓ Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)								
✓ High Water Table (A2) Marl Deposits (B15) (LR	RR U) Drainage Patterns (B10)								
✓ Saturation (A3) Hydrogen Sulfide Odor (
Water Marks (B1) Oxidized Rhizospheres									
Sediment Deposits (B2) Presence of Reduced Ird									
Drift Deposits (B3) Recent Iron Reduction in									
Algal Mat or Crust (B4) Thin Muck Surface (C7) Iron Deposits (B5) Other (Explain in Remar									
Iron Deposits (B5) Other (Explain in Remar Inundation Visible on Aerial Imagery (B7)	rks) Shallow Aquitard (D3) FAC-Neutral Test (D5)								
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)								
Field Observations:	opinagram moss (55) (2 at 1, 5)								
Surface Water Present? Yes No Depth (inches): _1-2	2								
Water Table Present? Yes ✓ No Depth (inches): sur									
Saturation Present? Yes Vo Depth (inches): sur									
(includes capillary fringe)									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro	evious inspections), if available.								
Remarks:									
Scattered pockets of shallow inundation.									

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	65	yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
Liquidambar styraciflua			FAC	Total Number of Dominant Species Across All Strata: 4 (B)
				Opedies Adioss All Ottata.
4				Percent of Dominant Species That Are ORL FACW or FAC: 100%
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species x 1 =
		= Total Cov		FACW species x 2 =
50% of total cover:	20% of	total cover:		FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)	45		E40	FACU species x 4 =
1 Liquidambar styraciflua	15	,	FAC	UPL species x 5 =
2. Acer rubrum	5	<u>ves</u>	FAC	Column Totals: 0 (A) 0 (B)
3				Column Totals. (A)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0¹
	00	= Total Cov	er	Problematic Hydrophytic Vegetation (Explain)
50% of total cover:	20% of	total cover:		Troblematic Hydrophytic Vegetation (Explain)
Herb Stratum (Plot size:)				
1. Allium spp.	5	yes	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.				Definitions of Four Vegetation Strata:
				John Money of Court Vogotation Circuit.
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 iii. DBH and greater than 3.20 it (1 iii) taii.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	5	= Total Cov	er	
50% of total cover:	20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1				
2				
3.				
4.				
5.				Hydrophytic
	0	= Total Cov	er	Hydrophytic Vegetation
50% of total cover:				Present? Yes V No No
		total cover.		
Remarks: (If observed, list morphological adaptations below	D₩).			

DP-16

SOIL

Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confir	m the absence	of indicators.)
Depth	Matrix			x Feature	es		_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-8	10 YR 6/2	60%	10 YR 3/2	40%	U	IVI	Silt Loam	
8-17	10 YR 6/1	60%	10 YR 6/6	30%	C	IVI	Silt Loam	
			10 YR 5/8	10%		IVI		
				1070	- —			
l ———								
			=Reduced Matrix, M			ains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless othe	rwise not	ted.)		Indicators	for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	elow Surfa	ace (S8) (LRR S, T,	U) 1 cm N	Muck (A9) (LRR O)
Histic Ep	pipedon (A2)		Thin Dark Su	urface (S9	9) (LRR S,	T, U)	2 cm M	Muck (A10) (LRR S)
	istic (A3)		Loamy Muck			₹ 0)	Reduc	ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley		(F2)			ont Floodplain Soils (F19) (LRR P, S, T)
_	d Layers (A5)		✓ Depleted Ma					alous Bright Loamy Soils (F20)
	Bodies (A6) (LRR I		Redox Dark	•			•	RA 153B)
	ucky Mineral (A7) (L				, ,			arent Material (TF2)
l —	esence (A8) (LRR I	•	Redox Depre	,	-8)			hallow Dark Surface (TF12)
1	ick (A9) (LRR P, T) d Below Dark Surfac		Marl (F10) (I Depleted Oc		(MIDA 4	£4\	Other ((Explain in Remarks)
	ark Surface (A12)	se (ATT)	Iron-Mangar				PT) ³ Indic	ators of hydrophytic vegetation and
_	rairie Redox (A16) (MI RA 1507	_					land hydrology must be present,
	/lucky Mineral (S1) (Delta Ochric					ess disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve		-			
	Redox (S5)		Piedmont Flo					
Stripped	l Matrix (S6)		Anomalous I	Bright Loa	my Soils	(F20) (ML	RA 149A, 153C	, 153D)
Dark Su	rface (S7) (LRR P,	S, T, U)						
Restrictive	Layer (if observed)):						
Туре:								
Depth (in	ches):						Hydric Soil	Present? Yes V No No
Remarks:								
Tromanio.								

Project/Site: Proposed Mitigation Bank Location City/	County: Eupora/Webster & Choctaw County Sampling Date: 03/22/2018				
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-17				
	tion, Township, Range: Section 7, T-19N, R-11E				
Landform (hillslope, terrace, etc.): wetland terrace Local	al relief (concave, convex, none): _gently sloping Slope (%): _1-2				
Subregion (LRR or MLRA): Lat: 33.530485	5 Long:89.189930 Datum: NAD 83				
Soil Map Unit Name: Chenneby-Arkabutla (CH)	NWI classification: none				
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrology significantly distu	urbed? Are "Normal Circumstances" present? Yes No				
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sai	mpling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes No Yes No	Is the Sampled Area within a Wetland? Yes ✓ No				
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)				
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)				
✓ High Water Table (A2) — Marl Deposits (B15) (LRR U) — Drainage Patterns (B10)					
✓ Saturation (A3) Hydrogen Sulfide Odor					
	along Living Roots (C3) Dry-Season Water Table (C2)				
Sediment Deposits (B2) Presence of Reduced Ir Drift Deposits (B3) Recent Iron Reduction ir					
Algal Mat or Crust (B4) Thin Muck Surface (C7)					
Iron Deposits (B5) Other (Explain in Remai					
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)				
Field Observations:					
Surface Water Present? Yes No Depth (inches):					
Water Table Present? Yes ✓ No Depth (inches): sui	rface				
Saturation Present? Yes No Depth (inches): _sul	rface Wetland Hydrology Present? Yes _ ✓ No				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	revious inspections), if available:				
Remarks:					

	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	35	yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
Liquidambar styraciflua	_ <u>12</u>	yes	<u>FAC</u>	Total Number of Dominant
3. Quercus nigra	_ 5	yes	FAC	Species Across All Strata: 5 (B)
4				D 4 (D : 40 :
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
6.				
7.				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
o		= Total Cov		OBL species x 1 =
EOO/ of total anyon				FACW species x 2 =
50% of total cover:	20% 0	i total cover		FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)	20	1400	FAC	FACU species x 4 =
1. Liquidambar styraciflua	_ 20	yes		UPL species x 5 =
2. Acer rubrum	_ 23	ves	FAC	
3				Column Totals: 0 (A) 0 (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7.				2 - Dominance Test is >50%
8.				l —
· ·	40	= Total Cov		☐ 3 - Prevalence Index is ≤3.01
500/ of total appear				Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% 0	i total cover		
Herb Stratum (Plot size:)	5	V00	FAC	Indicators of hydric soil and wetland hydrology must
1. Allium spp.		yes		be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6.				Sapling/Shrub – Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8.				
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				or size, and woody plants less than 5.20 it tail.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
	5	= Total Cov	ver	
50% of total cover:	20% of	f total cover	:	
Woody Vine Stratum (Plot size:)				
1				
2				
3.				
4				
5	0			Hydrophytic Vegetation
		= Total Cov		Present? Yes No
50% of total cover:	20% of	f total cover	:	
Remarks: (If observed, list morphological adaptations bel	ow).			

DP-17

SOIL

OIL								S	ampling Point:
Profile Desc	ription: (Describe	to the dep	th needed to doc	ument the	indicator	or confirr	n the absence	of indicate	ors.)
Depth	Matrix			dox Feature					•
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-16	10 YR 6/1	70%	10 YR 5/2	20%	U	IVI	Silt Loam		
	10 11(0/ 1					IVI	Oilt Eddini		
			10 YR 5/8	10%	<u> </u>	_ <u>IVI</u>			
						- —			
						- —			
Type: C=C	oncentration, D=Dep	letion, RM:	Reduced Matrix,	MS=Maske	d Sand G	rains.			ining, M=Matrix.
lydric Soil	Indicators: (Applic	able to all	LRRs, unless oth	nerwise no	ted.)		Indicators	for Proble	matic Hydric Soils ³ :
Histosol	(A1)		Polyvalue	Below Surfa	ace (S8) (LRR S, T,	U) 1 cm N	luck (A9) (L	.RR O)
	pipedon (A2)		Thin Dark					luck (A10)	
	stic (A3)			cky Mineral					18) (outside MLRA 150A,B)
	n Sulfide (A4)			yed Matrix		,			ain Soils (F19) (LRR P, S, T)
	d Layers (A5)		▼ Depleted N	-	` /				Loamy Soils (F20)
	Bodies (A6) (LRR F	P, T, U)		k Surface (F6)			RA 153B)	•
_	ıcky Mineral (A7) (L I			`	,			arent Mater	ial (TF2)
	esence (A8) (LRR L			oressions (F					Surface (TF12)
	ick (A9) (LRR P, T)	,	Marl (F10)		,			Explain in I	
	d Below Dark Surfac	e (A11)) Ochric (F11)	(MLRA 1	(51)	<u> </u>		,
	ark Surface (A12)	, ,		anese Mass			. T) ³ Indic	ators of hyd	drophytic vegetation and
	rairie Redox (A16) (I	MLRA 150/						-	ogy must be present,
	lucky Mineral (S1) (Delta Ochr						ed or problematic.
	Gleyed Matrix (S4)	, ,		/ertic (F18)					·
	Redox (S5)			Floodplain					
	Matrix (S6)						RA 149A, 153C	153D)	
	rface (S7) (LRR P,	s. T. U)	_			()	,	,,	
	Layer (if observed)						Т		
Туре:	• ,								
	-l \.							D	y √ y
	ches):						Hydric Soil	Present?	Yes No No
Remarks:									

Project/Site: Proposed Mitigation Bank Location City/	County: Eupora/Webster & Choctaw County Sampling Date: 03/22/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-18
	tion, Township, Range: Section 12, T-19N, R-11E
Landform (hillslope, terrace, etc.): upland knoll Loca	al relief (concave, convex, none): _gently sloping Slope (%): _1-2
Subregion (LRR or MLRA): Lat:	5 Long: -89.197279 Datum: NAD 83
Soil Map Unit Name: Chenneby (Ce)	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	ırbed? Are "Normal Circumstances" present? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sai	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Yes No Remarks:	Is the Sampled Area within a Wetland? Yes No✓
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Aquatic Fauna (B13)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) Marl Deposits (B15) (LF	Sparsely Vegetated Concave Surface (B8) CRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor	
Water Marks (B1) — Oxidized Rhizospheres	
Sediment Deposits (B2) Presence of Reduced Ir	
Drift Deposits (B3) Recent Iron Reduction i	n Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Rema	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No/ Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No _▼
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:
Remarks:	
No hydrology, upland knoll	
and the state of t	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?		Number of Dominant Species
1. Liquidambar styraciflua	10	yes	FAC	That Are OBL, FACW, or FAC: 6 (A)
2				
				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100% (A/B)
6				
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
		= Total Co		OBL species x 1 =
500/ -51-1-1				FACW species x 2 =
50% of total cover:	20% of	total cover	·	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)				FACU species x 4 =
1. Ligustrum sinense	20	yes	FAC	
2. Pinus taeda	8	yes	FAC	UPL species x 5 =
3 Liquidambar styraciflua	20	yes	FAC	Column Totals: 0 (A) 0 (B)
4. Quercus nigra	10	yes	FAC	
				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0¹
	E0	= Total Co	/er	
EOO/ of total acress				Problematic Hydrophytic Vegetation (Explain)
50% of total cover:	20% of	total cover	· ——	
Herb Stratum (Plot size:)			540	¹ Indicators of hydric soil and wetland hydrology must
1. Rubus spp.	20	yes	FAC	be present, unless disturbed or problematic.
2. Lonicera japonica	10	yes	FAC	Definitions of Four Vegetation Strata:
3				
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
4				height.
5				l
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9.				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	30	= Total Co	ver .	
50% of total cover:	20% of	total cover		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Co		Vegetation
EOO/ of botal acress				Present? Yes V No No
50% of total cover:	20% of	total cover	·	
Remarks: (If observed, list morphological adaptations be	low).			

DP-18

SOIL

SOIL								Sar	mpling Point:
Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the i	ndicator	or confirr	n the absence	of indicators	s.)
Depth	Matrix			ox Feature					,
(inches)	Color (moist)	%	Color (moist)	%	S Type ¹	Loc ²	Texture		Remarks
0-17					KIVI	IVI			Romans
0-17	10 YR 5/4	80%	10 YR 6/2	20%	TXIVI		Silt Loam		
				_					
	oncentration, D=Dep					ains.			ing, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all	LRRs, unless othe	rwise not	ed.)		Indicators	for Problem	atic Hydric Soils ³ :
Histosol	(A1)		Polyvalue B	elow Surfa	ce (S8) (I	LRR S. T.	U) 1 cm N	luck (A9) (LF	(R O)
	oipedon (A2)		Thin Dark S					luck (A10) (L	
Black Hi			Loamy Muck						8) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gley			ι Ο,			n Soils (F19) (LRR P, S, T)
_ , ,	` '		Loamy Gley		1 4)				
	d Layers (A5)	T III			-C)				oamy Soils (F20)
	Bodies (A6) (LRR F		Redox Dark	,	,			RA 153B)	L/TF3\
	ıcky Mineral (A7) (LI							arent Materia	
	esence (A8) (LRR L	J)	Redox Depr	,	8)				Surface (TF12)
	ick (A9) (LRR P, T)		Marl (F10) (I				Other	Explain in Re	emarks)
Depleted	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)			
Thick Da	ark Surface (A12)		Iron-Mangar	nese Mass	es (F12) ((LRR O, P	, T) ³ Indic	ators of hydr	ophytic vegetation and
Coast Pi	rairie Redox (A16) (I	MLRA 150A	A) Umbric Surfa	ace (F13)	(LRR P, 1	Γ, U)	wet	and hydrolog	gy must be present,
Sandy M	lucky Mineral (S1) (LRR O, S)	Delta Ochric	(F17) (ML	RA 151)		unle	ess disturbed	or problematic.
Sandy G	Gleyed Matrix (S4)		Reduced Ve			50A, 150B)		
	Redox (S5)		Piedmont FI						
_	Matrix (S6)						RA 149A, 153C	153D)	
	rface (S7) (LRR P, \$	S T II)			,	(· ==) (····= ·	5	,,	
	Layer (if observed)								
_	Layer (II observed)	•							
Туре:									
Depth (inc	ches):						Hydric Soil	Present?	Yes No V
Remarks:							-1		

Applicant/Owner: Berg Miligation Banks LLC Investigator(s): B. Pittman Section, Township, Range: Section, T. T-19N, R-11E Landform (Hislage, Farzea, etc.): wetand terrace Local relief (concave, convex, none): gently sloping Slope (%): 1-2 Subregion (LRR or MLRA): Sol Map Unit Name: Arkabutta silt loam (Ak) Lat: 33.532456 Long: -89.189895 Datum; MAD 83 Sol Map Unit Name: Arkabutta silt loam (Ak) Are Vegelation	Project/Site: Proposed Mitigation Bank Location City/	County: Eupora/Webster & Choctaw County Sampling Date: 03/22/2018
Investigator(s): B. Pittman Section, Township, Range: Section 7, T-19N, R-11E Landform (hillslope, terrace, etc.); wetland terrace Local relief (concave, convex, none); gently sloping Slope (%): 1-2 Subregion (LRR or MLRA): Lat: 33.532456 New Investigation (LRR or MLRA): Lat: 33.532456 New Investigation (LRR or MLRA): Are vegetation (Soil (In no, explain in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic vegetation Present? (Yes ✓ No (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? (Yes ✓ No (If needed, explain any answers in Remarks.) Wetland Hydrology Indicators: Primary Indicators (minimum of no in sequired, check all that apply) Surface Water (A1) (Surface (A1) (Surfac	Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-19
Landform (hillslope, terrace, etc.): wetland terrace Local relief (concave, convex, none): gently sloping Datum: NAD 83 Soli Map Unit Name: Arkabutla siti loam (Ak) Name: Arkabutla siti loam (Ak) Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If noe, explain in Remarks.) Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes ✓ No Is the Sampled Area within a Wetland? Hydrology Present? Yes ✓ No within a Wetland? Wetland Hydrology Indicators: Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) Wet Mart Table (A2) Mart Deposits (B15) (LRR U) Drainage Patterns (B10) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Sediment Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation (Visible on Aerial Imagery (C9) Agal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Into Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface Water Present? Yes ✓ No Depth (inches): Surface Wetland Hydrology Present? Yes ✓ No Depth (inches): Surface Wetland Hydrology Present? Yes ✓ No Depth (inches): Surface Wetland Hydrology Present? Yes ✓ No Depth (inches): Surface Wetland Hydrology Present? Yes ✓ No Depth (inches): Surface Wetland Hydrology Present? Yes ✓ No Depth (inches): Surface Wetland Hydrology Present? Yes ✓ No Depth (inches): Surface Wetland Hydrology Present? Yes ✓ No Depth (inches): Surface Wetl		ion, Township, Range: Section 7, T-19N, R-11E
Subregion (LRR or MLRA): Lat. 33.532456 Long: -69.189895 Datum: NAD 83	Landform (hillslope, terrace, etc.): wetland terrace Loca	ıl relief (concave, convex, none): _gently sloping Slope (%): _1-2
Are climate / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.) Are Vegetation, Soil, or Hydrology significantly disturbed?		Long: -89.189895 Datum: NAD 83
Are Vegetation		
Are Vegetation	Are climatic / hydrologic conditions on the site typical for this time of year? $^{\circ}$	Yes No (If no, explain in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?	Are Vegetation, Soil, or Hydrology significantly distu	rbed? Are "Normal Circumstances" present? Yes No
Hydrophytic Vegetation Present? Yes	Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)	SUMMARY OF FINDINGS – Attach site map showing sar	mpling point locations, transects, important features, etc.
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) ✓ High Water Table (A2) Marl Deposits (B15) (LRR U) ✓ Drainage Patterns (B10) ✓ Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) — Water Marks (B1) ✓ Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) — Sediment Deposits (B2) ✓ Presence of Reduced Iron (C4) Crayfish Burrows (C8) — Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) — Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) — Inon Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) — Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D5) — Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface Water Present? Yes ✓ No Depth (inches): Water Table Present? Yes ✓ No Depth (inches): Surface Wetland Hydrology Present? Yes ✓ No Depth (inches): (includes capillary fri	Hydric Soil Present? Yes Wetland Hydrology Present? Yes No No	
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) ✓ High Water Table (A2) Marl Deposits (B15) (LRR U) ✓ Drainage Patterns (B10) ✓ Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) — Water Marks (B1) ✓ Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) — Sediment Deposits (B2) ✓ Presence of Reduced Iron (C4) Crayfish Burrows (C8) — Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) — Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) — Inon Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) — Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D5) — Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface Water Present? Yes ✓ No Depth (inches): Water Table Present? Yes ✓ No Depth (inches): Surface Wetland Hydrology Present? Yes ✓ No Depth (inches): (includes capillary fri	LIVEROLOGY.	
Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) Marl Deposits (B15) (LRR U) Saturation (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) Sediment Deposits (B2) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Other (Explain in Remarks) Mater Abele (A2) Water-Stained Leaves (B9) Field Observations: Surface Water (A1) Aquatic Fauna (B13) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes ✓ No Depth (inches): Water Table Present? Yes ✓ No Depth (inches): Surface Wetland Hydrology Present? Yes ✓ No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): surface Saturation Present? Yes No Depth (inches): surface (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) ✓ Drainage Patterns (B10) (C1) Moss Trim Lines (B16) along Living Roots (C3) on (C4) n Tilled Soils (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
I control of the cont	Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): _sur Saturation Present? Yes No Depth (inches): _sur (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, presents)	face Wetland Hydrology Present? Yes No

	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	17	yes	FAC	That Are OBL, FACW, or FAC: 6 (A)
Liquidambar styraciflua	40	yes	FAC	Total Number of Dominant
3. Acer rubrum	5	yes	FAC	Species Across All Strata: 6 (B)
4				Descent of Descinant Creation
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
6				
7.				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)	20 70 01	total cover.		FAC species x 3 =
1 Liquidambar styraciflua	10	yes	FAC	FACU species x 4 =
2. Acer rubrum	5	,	FAC	UPL species x 5 =
3. Ligustrum sinense	10		FAC	Column Totals: 0 (A) 0 (B)
	- —			(-)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.01
	25	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover:		Tresternate rigarophytic regetation (Explain)
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1 Allium spp.	5	yes	FAC	be present, unless disturbed or problematic.
2. Lonicera japonica	5	ves	FAC	Definitions of Four Vegetation Strata:
				Sommons of Four Vogotation Strata.
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				noight.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Moody vine All woody vines greater than 2.29 ft in
44				Woody vine – All woody vines greater than 3.28 ft in height.
12				
	10	 = Total Cov		
50% of total cover:				
	20 % 01	total cover.		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Cov	er	Vegetation 🗸
50% of total cover:	20% of	total cover:		Present? Yes Vo No No
Remarks: (If observed, list morphological adaptations beld				
Tremarks. (II observed, list morphological adaptations bek	JW).			

DP-19

SOIL

Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confir	m the absence	of indicators.)	
Depth	Matrix			ox Feature	es		_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-8	10 YR 6/2	60%	10 YR 4/2	30%	υ	IVI	Silt Loam		
			10 YR 5/6	10%	<u></u>	IVI			
8-17	10 YR 6/1	60%	10 YR 4/2	30%	_ <u>U</u>	IVI	Silt Loam		
			10 YR 5/8	10%	U	IVI			
									_
					-				
			=Reduced Matrix, M			ains.		PL=Pore Lining, M=Matrix.	
Histosol		cable to all	LRRs, unless othe			DD C T		for Problematic Hydric Soils ³ : luck (A9) (LRR O)	
_	pipedon (A2)		Polyvalue Bi					luck (A9) (LRR S)	
l —	istic (A3)		Loamy Muck					ed Vertic (F18) (outside MLRA 15	0A.B)
	en Sulfide (A4)		Loamy Gley			. •,		ont Floodplain Soils (F19) (LRR P,	
	d Layers (A5)		✓ Depleted Ma		` ′			lous Bright Loamy Soils (F20)	, ,
Organic	Bodies (A6) (LRR I	P, T, U)	Redox Dark	Surface (F6)		(MLF	RA 153B)	
5 cm Mu	ucky Mineral (A7) (L	RR P, T, U) Depleted Da	ırk Surface	e (F7)		Red Pa	arent Material (TF2)	
_	resence (A8) (LRR I	•	Redox Depr	•	- 8)			hallow Dark Surface (TF12)	
1	uck (A9) (LRR P, T)		Marl (F10) (I				Other (Explain in Remarks)	
1	d Below Dark Surfac	ce (A11)	Depleted Oc	, ,	•	•) T) 31dia		_
_	ark Surface (A12) rairie Redox (A16) (MI DA 150	Iron-Mangar A) Umbric Surfa		, ,			ators of hydrophytic vegetation and and hydrology must be present,	1
	/Jucky Mineral (S1) (ess disturbed or problematic.	
	Gleyed Matrix (S4)	(21111 0, 0,	Reduced Ve					sos distarbod or problematic.	
	Redox (S5)		Piedmont FI						
Stripped	Matrix (S6)		Anomalous	Bright Loa	my Soils (F20) (ML	RA 149A, 153C,	153D)	
Dark Su	rface (S7) (LRR P,	S, T, U)							
Restrictive	Layer (if observed)):							
Туре:									\neg
Depth (in	ches):						Hydric Soil	Present? Yes 🛂 No 📙	
Remarks:							l		

Project/Site: Proposed Mitigation Bank Location City/	County: Eupora/Webster & Choctaw County Sampling Date: 03/22/2018				
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-20				
	ion, Township, Range: Section 1, T-19N, R-11E				
Landform (hillslope, terrace, etc.): wetland terrace Loca	al relief (concave, convex, none): _gently sloping Slope (%): _1-3				
Subregion (LRR or MLRA): Lat: 33.533613	Long:89.193098 Datum: NAD 83				
Soil Map Unit Name: Chenneby-Arkabutla (CH)	NWI classification: PFO1Ad				
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrology significantly distu	ırbed? Are "Normal Circumstances" present? Yes <u>√</u> No				
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sar	mpling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No No No Remarks:	Is the Sampled Area within a Wetland? Yes No				
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)				
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)				
✓ High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10)					
✓ Saturation (A3) Hydrogen Sulfide Odor					
Water Marks (B1) Oxidized Rhizospheres Sediment Deposits (B2) ✓ Presence of Reduced In					
Drift Deposits (B3) Recent Iron Reduction is					
Algal Mat or Crust (B4) Thin Muck Surface (C7)					
Iron Deposits (B5) Other (Explain in Remai					
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)				
Field Observations:					
Surface Water Present? Yes No Depth (inches):					
Water Table Present? Yes No Depth (inches): _sur					
Saturation Present? Yes No Depth (inches): _sur (includes capillary fringe)	face Wetland Hydrology Present? Yes No				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:				
Remarks:					

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Liquidambar styraciflua	10	yes	FAC	That Are OBL, FACW, or FAC: 6 (A)
2				Total Number of Dominant
3				Species Across All Strata: 6 (B)
4.				
5.				Percent of Dominant Species That Are ORL FACW or FAC: 100%
				That Are OBL, FACW, or FAC: 100% (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species x 1 =
	<u>10</u>	= Total Co	ver .	
50% of total cover:	20% of	total cover	:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1. Carpinus caroliniana	30	yes	FAC	FACU species x 4 =
2. Quercus nigra	5	ves	FAC	UPL species x 5 =
3. Liquidambar styraciflua	25	yes	FAC	Column Totals: 0 (A) 0 (B)
4. Acer rubrum	10		FAC	
		yes		Prevalence Index = B/A =
5. Arundinaria gigantea	7	yes	FACW	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0¹
	77	= Total Co		
50% of total cover:				Problematic Hydrophytic Vegetation¹ (Explain)
	20 % 01	total cover		
Herb Stratum (Plot size:)	6	1400	FAC	Indicators of hydric soil and wetland hydrology must
1. Rubus spp.		yes	FAC	be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5.				height.
l .				
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 in. DBH and greater than 3.20 it (1 in) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
	6	= Total Co		
500/ of total agreer				
50% of total cover:	20% 0	total cover		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4.				
5.				
3	0	= Total Co		Hydrophytic Vegetation
				Present? Yes No No
50% of total cover:	20% of	total cover	:	
Remarks: (If observed, list morphological adaptations bel	ow).			

Profile Desc	ription: (Describe	to the dept	th needed to docu	ment the	indicator	or confirm	n the absence	of indicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	<u>Loc²</u>	<u>Texture</u>	Remarks			
0-17	10 YR 6/1	80%	10 YR 5/8	20%	<u></u>	IVI	Silt Loam				
				_	-						
					-						
¹ Type: C=Ce	oncentration, D=Dep	oletion, RM=	Reduced Matrix, M	S=Maske	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.			
	Indicators: (Applic							for Problematic Hydric Soils ³ :			
Histosol			Polyvalue Be			RRSTI		uck (A9) (LRR O)			
	pipedon (A2)		Thin Dark S					uck (A10) (LRR S)			
Black Hi			Loamy Muck	•				ed Vertic (F18) (outside MLRA 150A,B)			
	n Sulfide (A4)		Loamy Gley			. 0,		ont Floodplain Soils (F19) (LRR P, S, T)			
	Layers (A5)		✓ Depleted Ma		(- /			lous Bright Loamy Soils (F20)			
	Bodies (A6) (LRR P	P. T. UI	Redox Dark		F6)			A 153B)			
	icky Mineral (A7) (Li		Depleted Da	,			•	rent Material (TF2)			
	esence (A8) (LRR L		Redox Depr					nallow Dark Surface (TF12)			
_	ick (A9) (LRR P, T)	,	Marl (F10) (I		,			Explain in Remarks)			
	d Below Dark Surfac	e (A11)	Depleted Oc		(MLRA 1	51)					
	ark Surface (A12)	, ,	Iron-Mangar				T) ³ Indica	ators of hydrophytic vegetation and			
	rairie Redox (A16) (I	MLRA 150A						and hydrology must be present,			
	lucky Mineral (S1) (I		Delta Ochric				unle	ss disturbed or problematic.			
	Bleyed Matrix (S4)		Reduced Ve			50A, 150B))				
	edox (S5)		Piedmont Fl								
Stripped	Matrix (S6)						RA 149A, 153C,	153D)			
Dark Su	rface (S7) (LRR P, \$	S, T, U)									
Restrictive	Layer (if observed):	:									
Type:											
Depth (in	ches):						Hydric Soil	Present? Yes 🛂 No 🔲 📗			
Remarks:	· ·										

Project/Site: Proposed Mitigation Bank Location City/	County: Eupora/Webster & Choctaw County Sampling Date: 03/22/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-21
	ion, Township, Range: Section 1, T-19N, R-11E
Landform (hillslope, terrace, etc.): wetland terrace Loca	al relief (concave, convex, none): _gently sloping Slope (%): _1-3
Subregion (LRR or MLRA): Lat: 33.533272	Long:89.194817 Datum: NAD 83
Soil Map Unit Name: Bude silt loam (BuA)	NWI classification: PFO1Ad
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	ırbed? Are "Normal Circumstances" present? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sar	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No Yes ✓ No No Remarks:	Is the Sampled Area within a Wetland? Yes No
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2) — Marl Deposits (B15) (LR	
✓ Saturation (A3) Hydrogen Sulfide Odor (
Water Marks (B1) Oxidized Rhizospheres	
Sediment Deposits (B2) ✓ Presence of Reduced Inc.	on (C4) Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in	n Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remar	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes ✓ No Depth (inches): sur	
Saturation Present? Yes No Depth (inches): _sur (includes capillary fringe)	Metland Hydrology Present? Yes ✓ No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro	evious inspections), if available:
Remarks:	
Remarks.	

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Liquidambar styraciflua	10	yes	FAC	That Are OBL, FACW, or FAC: 7 (A)
2. Quercus phellos	25	yes	FACW	Total Number of Dominant
3. Carya spp.	_ 5	yes	FAC	Species Across All Strata: 7 (B)
4. Acer rubrum	10	yes	FAC	Descrit of Descious Consider
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
6				
7.				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
		= Total Co	ver	OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1. Carpinus caroliniana	5	yes	FAC	FACU species x 4 =
2. Quercus phellos	5	yes	FACW	UPL species x 5 =
3. Liquidambar styraciflua	- 5	yes	FAC	Column Totals: 0 (A) 0 (B)
4. Acer rubrum	20	yes	FAC	
				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.01
		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	:	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. UK grass	_ 3	yes	FAC	be present, unless disturbed or problematic.
2. Smilax spp.	3	yes	FAC	Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6.				Sapling/Shrub – Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8.				Herb – All herbaceous (non-woody) plants, regardless
9.				of size, and woody plants less than 3.28 ft tall.
10				
11.				Woody vine – All woody vines greater than 3.28 ft in height.
12.				noight.
	6	= Total Cov		
50% of total cover:				
Woody Vine Stratum (Plot size:)	20 70 01	total cover		
<u> </u>				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov		Vegetation Present? Yes No No
50% of total cover:	20% of	total cover	:	
Remarks: (If observed, list morphological adaptations be	elow).			

Profile Desc	ription: (Describe	to the dept	th needed to docu	ment the	indicator	or confirm	n the absence	of indicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	<u>Loc²</u>	<u>Texture</u>	Remarks			
0-17	10 YR 6/1	80%	10 YR 5/8	20%	<u></u>	IVI	Silt Loam				
				_	-						
					-						
¹ Type: C=Ce	oncentration, D=Dep	oletion, RM=	Reduced Matrix, M	S=Maske	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.			
	Indicators: (Applic							for Problematic Hydric Soils ³ :			
Histosol			Polyvalue Be			RRSTI		uck (A9) (LRR O)			
	pipedon (A2)		Thin Dark S					uck (A10) (LRR S)			
Black Hi			Loamy Muck	•				ed Vertic (F18) (outside MLRA 150A,B)			
	n Sulfide (A4)		Loamy Gley			. 0,		ont Floodplain Soils (F19) (LRR P, S, T)			
	Layers (A5)		✓ Depleted Ma		(- /			lous Bright Loamy Soils (F20)			
	Bodies (A6) (LRR P	P. T. UI	Redox Dark		F6)			A 153B)			
	icky Mineral (A7) (Li		Depleted Da	,			•	rent Material (TF2)			
	esence (A8) (LRR L		Redox Depr					nallow Dark Surface (TF12)			
_	ick (A9) (LRR P, T)	,	Marl (F10) (I		,			Explain in Remarks)			
	d Below Dark Surfac	e (A11)	Depleted Oc		(MLRA 1	51)					
	ark Surface (A12)	, ,	Iron-Mangar				T) ³ Indica	ators of hydrophytic vegetation and			
	rairie Redox (A16) (I	MLRA 150A						and hydrology must be present,			
	lucky Mineral (S1) (I		Delta Ochric				unle	ss disturbed or problematic.			
	Bleyed Matrix (S4)		Reduced Ve			50A, 150B))				
	edox (S5)		Piedmont Fl								
Stripped	Matrix (S6)						RA 149A, 153C,	153D)			
Dark Su	rface (S7) (LRR P, \$	S, T, U)									
Restrictive	Layer (if observed):	:									
Type:											
Depth (in	ches):						Hydric Soil	Present? Yes 🛂 No 🔲 📗			
Remarks:	· ·										

Project/Site: Proposed Mitigation Bank Location City/	/County: Eupora/Webster & Choctaw County Sampling Date: 03/22/2018
Applicant/Owner: Berg Mitigation Banks LLC	State: MS Sampling Point: DP-22
Investigator(s): B. Pittman Sec	tion, Township, Range: Section 12, T-19N, R-11E
	al relief (concave, convex, none): _gently sloping Slope (%): 0-2
Subregion (LRR or MLRA): Lat: 33.532602	
Soil Map Unit Name: Bude silt loam (BuA)	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	urbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No No No No No No No	Is the Sampled Area within a Wetland? Yes No
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2) Marl Deposits (B15) (LF ✓ Saturation (A3) Hydrogen Sulfide Odor	
✓ Saturation (A3) Hydrogen Sulfide Odor Water Marks (B1) Oxidized Rhizospheres	
Sediment Deposits (B2) Sediment Deposits (B2) Presence of Reduced In	
Drift Deposits (B3) Recent Iron Reduction i	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	
Iron Deposits (B5) Other (Explain in Rema	rks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes _ ✓ No Depth (inches): su	
Saturation Present? Yes _ Vo Depth (inches): su (includes capillary fringe)	rface Wetland Hydrology Present? Yes <u>✓</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	revious inspections), if available:
Remarks:	
Area bedded for establishment of loblolly pine.	

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 6 (A)
2				Total Number of Dominant
3				Species Across All Strata: 6 (B)
4.				(=,
5.				Percent of Dominant Species That Are ORL FACW or FAC: 100%
				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species x 1 =
	0	= Total Cov	er	
50% of total cover:	20% of	total cover:	:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1. Pinus taeda	15	yes	FAC	FACU species x 4 =
2. Quercus phellos	5	yes	FACW	UPL species x 5 =
3.				Column Totals: 0 (A) 0 (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	20	= Total Cov	er er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover:	:	
Herb Stratum (Plot size:)				Indicators of hydric call and watland hydrology must
1 Juncus effusus	10	yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Rubus spp.	10	ves	FAC	Definitions of Four Vegetation Strata:
3 Andropogon virginicus	10	ves	FAC	Definitions of Four Vegetation Strata.
<u> </u>	50			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Erianthus spp.		yes	FACW	more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Harb All barbassaus (non woods) plants, regardless
9.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				,,
10				Woody vine – All woody vines greater than 3.28 ft in
				height.
12				
		= Total Cov		
50% of total cover:	20% of	total cover:	:	
Woody Vine Stratum (Plot size:)				
1				
2				
3.				
4				
5				Hydrophytic
		= Total Cov		Vegetation
50% of total cover:	20% of	total cover:	·	
Remarks: (If observed, list morphological adaptations bel	ow).			

Profile Des	cription: (Describe	to the depth	needed to docur	ment the	indicator	or confirr	n the absence	of indicators.)
Depth	Matrix			x Feature	s			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-17	10 YR 6/1	80%	10 YR 6/8	20%	<u> </u>	IVI	Silt Loam	
						- ——		
				_				
¹ Type: C=C	oncentration, D=Dep	oletion, RM=F	Reduced Matrix, M	S=Masked	d Sand G	rains.	² Location:	PL=Pore Lining, M=Matrix.
	Indicators: (Applic							for Problematic Hydric Soils ³ :
Histoso			Polyvalue Be			IRRST		Muck (A9) (LRR O)
l —	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)
	istic (A3)		Loamy Muck	,				ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye			,		ont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		✓ Depleted Ma		/			alous Bright Loamy Soils (F20)
_	Bodies (A6) (LRR F	P. T. U)	Redox Dark		- 6)			RA 153B)
	ucky Mineral (A7) (LI		Depleted Da	,	,		•	arent Material (TF2)
	resence (A8) (LRR L		Redox Depre					hallow Dark Surface (TF12)
1	uck (A9) (LRR P, T)	,	Marl (F10) (L	,	- /			(Explain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Oc	,	(MLRA 1	51)		,
1	ark Surface (A12)	, ,	Iron-Mangan				, T) ³ Indic	ators of hydrophytic vegetation and
Coast F	rairie Redox (A16) (I	MLRA 150A)						land hydrology must be present,
	Mucky Mineral (S1) (Delta Ochric	(F17) (MI	RA 151)		unle	ess disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver	rtic (F18)	MLRA 1	50A, 150B)	
	Redox (S5)		Piedmont Flo					
Stripped	d Matrix (S6)		Anomalous F	Bright Loa	my Soils	(F20) (MLF	RA 149A, 153C,	, 153D)
Dark Su	ırface (S7) (LRR P, \$	S, T, U)						
Restrictive	Layer (if observed)	:						
Туре:								
Depth (in	ches):						Hydric Soil	Present? Yes V No No
Remarks:			_					
Tromants.								

Project/Site: Proposed Mitiga	ation Bank Location	City/C	county: Eupora/Webster	& Choctaw County	Sampling Date: 03/22/2018			
Applicant/Owner: Berg Mitiga	tion Banks LLC			State: MS	Sampling Point: DP-23			
Investigator(s): B. Pittman Section, Township, Range: Section 12, T-19N, R-11E								
Landform (hillslope, terrace, etc.): wetland terrace Local relief (concave, convex, none): gently sloping Slope (%): 0-2								
Subregion (LRR or MLRA): Lat: 33.527459 Long:89.194399 Datum: NAD 8								
Soil Map Unit Name: Chennel				NWI classific				
Are climatic / hydrologic condition	ons on the site typical for	this time of year? Y	es No	(If no, explain in R	emarks.)			
Are Vegetation, Soil	, or Hydrology	_ significantly distur	bed? Are "Norm	al Circumstances" p	oresent? Yes No			
Are Vegetation, Soil	, or Hydrology	naturally problema		explain any answe				
					, important features, etc.			
				-				
Hydrophytic Vegetation Prese			Is the Sampled Area					
Hydric Soil Present?	Yes	No	within a Wetland?	Yes <u>√</u>	No			
Wetland Hydrology Present? Remarks:	Yes ▼	No						
HYDROLOGY								
Wetland Hydrology Indicato	rs:			Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum	of one is required; check	all that apply)		Surface Soil Cracks (B6)				
✓ Surface Water (A1)	Aqua	Sparsely Vegetated Concave Surface (B8)						
✓ High Water Table (A2)	Marl	Deposits (B15) (LRF	R U)	Drainage Patterns (B10)				
✓ Saturation (A3)	Hydr	ogen Sulfide Odor (0	C1)	Moss Trim Lines (B16)				
Water Marks (B1)	Oxid	ized Rhizospheres a	long Living Roots (C3)					
Sediment Deposits (B2)	✓ Pres	ence of Reduced Iro	n (C4)	Crayfish Bur	rows (C8)			
Drift Deposits (B3)	Rece	ent Iron Reduction in	Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)		Muck Surface (C7)		Geomorphic Position (D2)				
Iron Deposits (B5)		r (Explain in Remark	(s)	Shallow Aquitard (D3)				
Inundation Visible on Aer	• • • •			FAC-Neutral Test (D5)				
Water-Stained Leaves (B	9)			Sphagnum n	noss (D8) (LRR T, U)			
Field Observations:	v / v	1.1						
Surface Water Present?	,	Depth (inches): 1-4	l l					
Water Table Present?	Yes No							
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches): surfa	wetland	Hydrology Preser	nt? Yes No			
Describe Recorded Data (stre	am gauge, monitoring we	ell, aerial photos, pre	vious inspections), if av	/ailable:				
Remarks:								
Pockets of shallow i	inundation.							

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Quercus nigra	10	yes	FAC	That Are OBL, FACW, or FAC: 7 (A)
2				Total Number of Dominant
3				Species Across All Strata: 7 (B)
4.				
				Percent of Dominant Species That Are ORL FACW or FAC: 100%
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species x 1 =
	10	= Total Cov	er/er	
50% of total cover:	20% of	total cover	:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1. Acer rubrum	25	yes	FAC	FACU species x 4 =
2. Quercus nigra	10	ves	FAC	UPL species x 5 =
3 Liquidambar styraciflua	18	ves	FAC	Column Totals: 0 (A) 0 (B)
∆ Ligustrum sinense	13	yes	FAC	
· · · · · · · · · · · · · · · · · · ·	- —			Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	66	= Total Cov	⁄er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	:	Troblematic Hydrophytic Vegetation (Explain)
Herb Stratum (Plot size:)				1
1. Juncus effusus	5	yes	FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Rubus spp.	5	ves	FAC	
	10	ves	FAC	Definitions of Four Vegetation Strata:
3. Lonicera japonica		<u>yes</u>	TAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8.				Hank All banks as an a fundamental as a mandless
9.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				or oles, and troody plants roos than eles it tall.
10				Woody vine - All woody vines greater than 3.28 ft in
				height.
12				
	20	= Total Cov	⁄er	
50% of total cover:	20% of	total cover	:	
Woody Vine Stratum (Plot size:)				
1				
2.				
3.				
4				
5				Hydrophytic
		= Total Cov		Vegetation
50% of total cover:	20% of	total cover	:	11030Ht: 103 NO
Remarks: (If observed, list morphological adaptations bel	ow).			

Profile Des	cription: (Describe	to the depti	h needed to docur	nent the i	ndicator	or confir	m the absence	of indicators.)
Depth	Depth Matrix Redox Features						_	
(inches)	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	<u>Texture</u>	Remarks
0-17	10 YR 6/1	65%	10 YR 4/2	20%	D	IVI	Silt Loam	
			10 YR 5/8	15%	U	IVI		
			10 110 0/0					
l ———								
l								
1							2	
	oncentration, D=Dep					rains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all L	.RRs, unless other	rwise note	ed.)		Indicators	for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be				· —	fluck (A9) (LRR O)
Histic E	pipedon (A2)		Thin Dark Su	ırface (S9)	(LRR S	, T, U)	2 cm M	fluck (A10) (LRR S)
Black H	istic (A3)		Loamy Muck	y Mineral	(F1) (LR I	R O)	Reduce	ed Vertic (F18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Piedmo	ont Floodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		✓ Depleted Ma	trix (F3)			Anoma	alous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR P	P, T, U)	Redox Dark	Surface (F	6)		(MLF	RA 153B)
5 cm Mi	ucky Mineral (A7) (L l	RR P, T, U)	Depleted Dai	rk Surface	(F7)			arent Material (TF2)
Muck Pi	resence (A8) (LRR L	J)	Redox Depre	ssions (F	8)		Very S	hallow Dark Surface (TF12)
1 cm Mi	uck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			Other ((Explain in Remarks)
Deplete	d Below Dark Surfac	e (A11)	Depleted Ocl	hric (F11)	(MLRA 1	51)		
Thick D	ark Surface (A12)		Iron-Mangan	ese Mass	es (F12)	(LRR O, F	P, T) ³ Indic	ators of hydrophytic vegetation and
Coast P	rairie Redox (A16) (I	MLRA 150A)) Umbric Surfa	ce (F13) ((LRR P,	Γ, U)	wet	land hydrology must be present,
Sandy N	Mucky Mineral (S1) (LRR O, S)	Delta Ochric	(F17) (ML	.RA 151)		unle	ess disturbed or problematic.
Sandy (Gleyed Matrix (S4)		Reduced Ver	tic (F18) (MLRA 1	50A, 150E	3)	
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19	(MLRA 1	I49A)	
Stripped	d Matrix (S6)		Anomalous E	Bright Loar	ny Soils	(F20) (ML	RA 149A, 153C,	, 153D)
Dark Su	ırface (S7) (LRR P, \$	S, T, U)						
Restrictive	Layer (if observed)	:						
Туре:								
I	ches):						Hydric Soil	Present? Yes No No
	CIIC3).						Trydite Con	Tresent: Tes No
Remarks:								