# Exhibit FF. Sinclair Site Wetlands Delineation Report





## WETLAND DELINEATION REPORT 263-ACRE SINCLAIR SITE ST. BERNARD PARISH, CHALMETTE, LOUISIANA

#### **Prepared for**



St. Bernard Economic Development Foundation Chalmette, Louisiana

#### **Prepared by**



**Baton Rouge, Louisiana** 

## WETLAND DELINEATION REPORT 263-ACRE SINCLAIR SITE ST. BERNARD PARISH, CHALMETTE, LOUISIANA

GEC Project Number: 0027.9369100.000





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# WETLAND DELINEATION REPORT

#### WETLAND DELINEATION REPORT 263-ACRE SINCLAIR SITE ST. BERNARD PARISH, CHALMETTE, LOUISIANA

#### INTRODUCTION

G.E.C., Inc. (GEC) recently conducted a wetland delineation on the 263-acre Sinclair Site for St. Bernard Economic Development Foundation in St. Bernard Parish, Louisiana (Figure 1). The southern boundary of the property traverses along the protected side of the Mississippi River protection levee and the northern boundary fronts Louisiana Highway 39 (Judge Perez Drive). Louisiana Highway 46 also traverses through the property near the southern end of the property (Figure 2). The property is currently utilized for cattle grazing with the majority of the property being maintained pasture habitat. The purpose of this delineation was to identify any wetland habitats within the property boundary, map those wetland boundaries, and calculate the acreage of wetlands within the site boundaries.

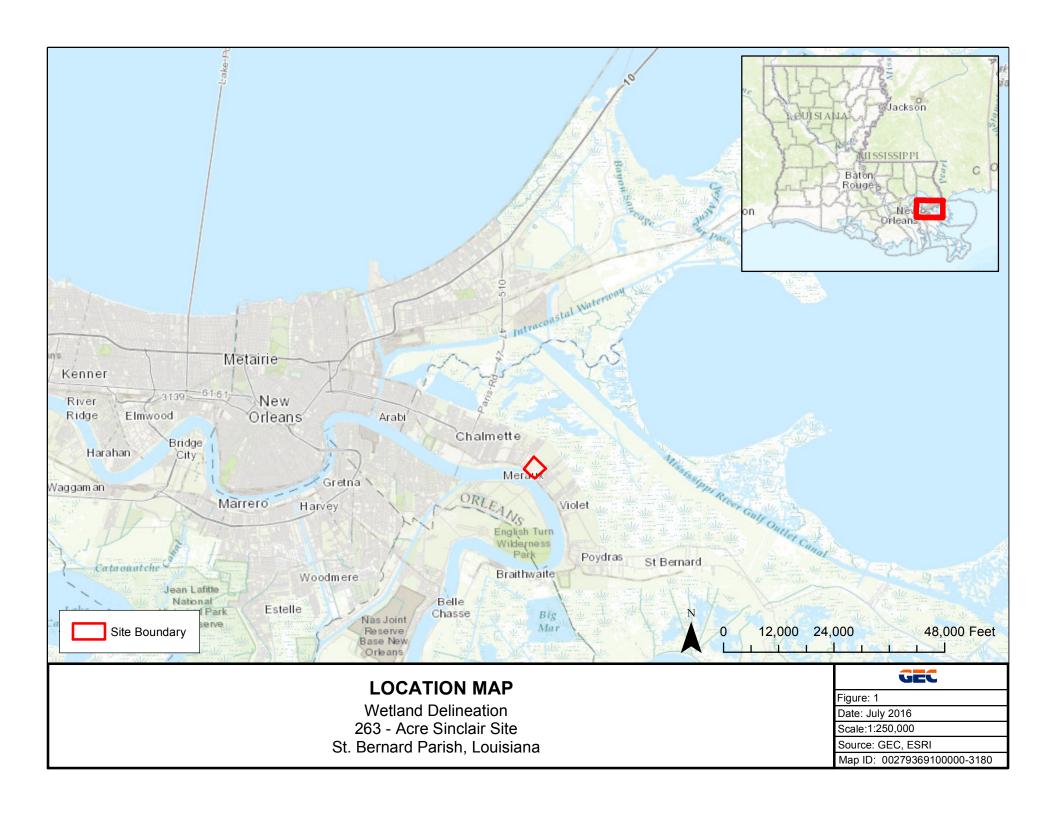
#### **METHODOLOGY**

GEC conducted the wetland delineation in accordance with Section D, Subsection 2 of Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual as well as the Atlantic and Gulf Coastal Plains Regional Supplement. Aerial photography, Natural Resources Conservation Service (NRCS) St. Bernard Parish soil survey map, and U.S. Geological Survey (USGS) topographic quadrangle maps were reviewed prior to the initiation of field work to identify the potential extent of wetlands present on the subject property.

Routine Wetland Delineation Data Forms (Appendix A), as approved by Headquarters, U.S. Army Corps of Engineers (USACE) 10/08, were completed for various vegetative communities encountered within the project area. These data forms contain sufficient information regarding the presence or absence of hydric soils, hydrophytic vegetation, and wetland hydrology, to support the demarcation of a wetland boundary. The location of each sample plot along with mapped wetlands and other waters are shown in Figure 3. Figure 4 provides the same information but without the aerial background for a black and white reproducible figure.

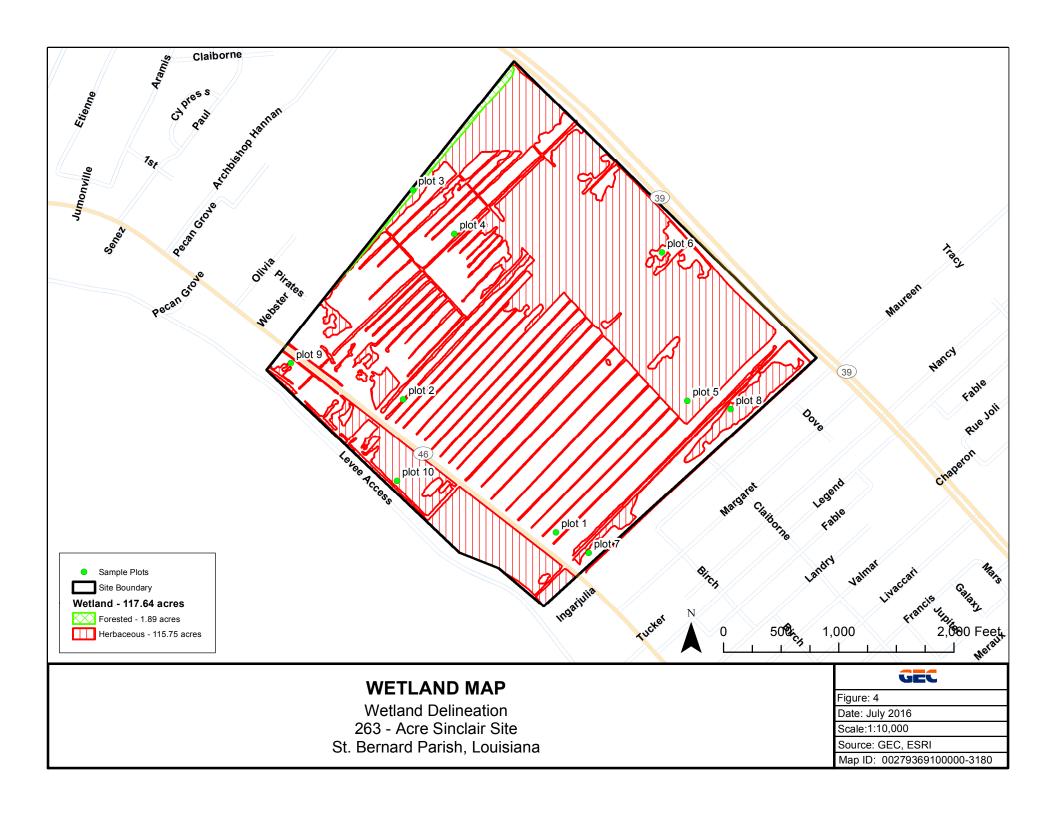
Dominant vegetation was recorded on the data forms along with the indicator status as listed in the *National List of Plant Species Occurring in Wetlands (Region 2)* released by USACE in May 2012 (Release No. 12-005). Once dominant vegetation was recorded and evaluated, if more than 50 percent of the dominant vegetation had an indicator status of FAC, FACW, or OBL or the prevalence index was  $\leq$  3.0, the hydrophytic vegetation criterion was met.

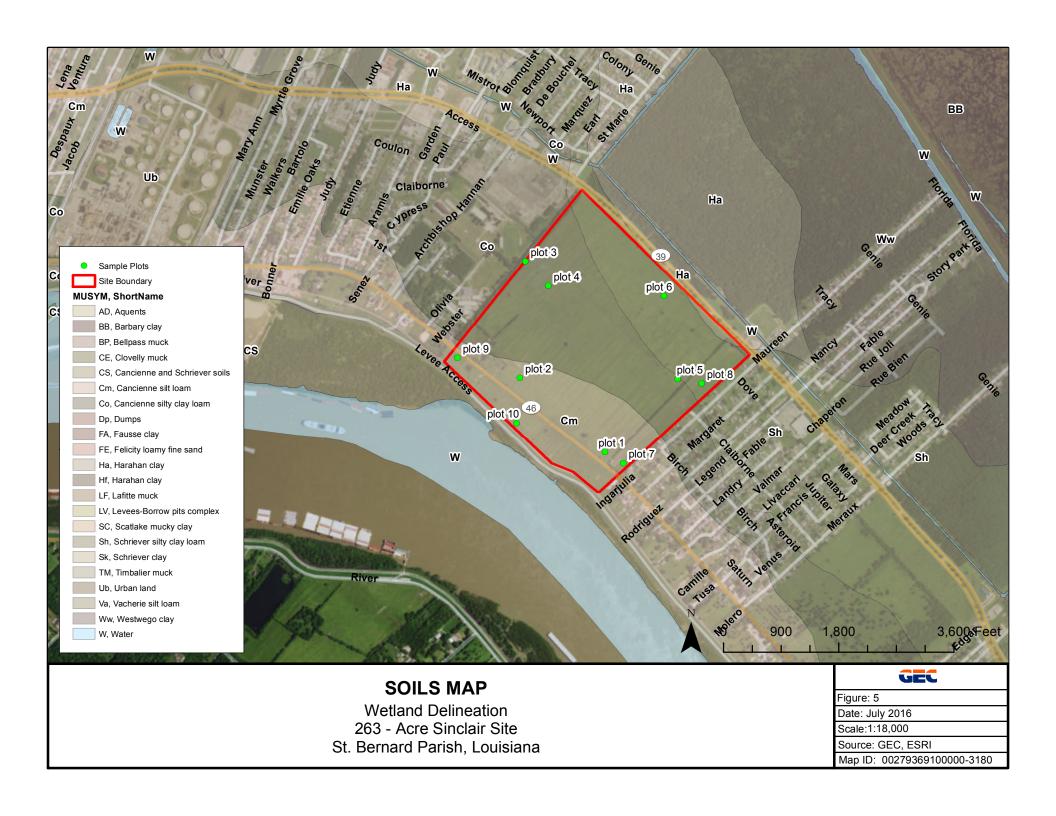
A soil pit was excavated to a depth of approximately 18 inches at each sample plot. The pit remained open for at least 15 minutes to allow the pit to fill with water, if present. Soils were sampled along the exposed stratum. Information recorded on the data forms included soil colors (hue, value, and chroma as per the 2009 revised edition of the Munsell Color Chart), size, color, abundance, and depth of mottles, as well as soil texture. Soil texture was determined using the "texture by feel" analysis. Figure 5 depicts the soils mapped by the NRCS within the project area.











Wetland hydrology indicators were also recorded at each sample plot as per the USACE requirements. If at least one primary or two secondary hydrology indicators were present, the sample plot was classified as having wetland hydrology.

Photographs were taken at each sample plot where a data form was completed. These photographs show a representative soil profile, as well as overviews of the sample plots (Appendix B).

#### **RESULTS**

During the field surveys, investigators identified two dominant habitat types within the project site: wetland pasture and non-wetland pasture. Other habitats occurring within the project site but with much less abundance were forested wetlands and forested non-wetland. These habitats were located along existing fence lines within the project site. The following are descriptions of the habitat types observed within the project site.

#### Non-Wetland Pasture Habitat

The non-wetland pasture habitat was distributed throughout the project site with the majority located in the center portion of the property just north of Louisiana Highway 46. Five plots were taken within this habitat type to characterize the variation within the habitat. This habitat was dominated by species such as St. Augustine grass (*Stenotaphrum secundatum*), white clover (*Trifolium repens*), rough cocklebur (*Xanthium strumarium*), Bermuda grass (*Cynodon dactylon*), Johnson grass (*Sorghum halepense*), Cuban-jute (*Sida rhombifolia*), bahia grass (*Paspalum notatum*), pull-and be damned grass (*Paspalum denticulatum*), and narrow-leaf carpet grass (*Axonopus fissifolius*). Other less dominant species, such as smut grass (*Sporobolus indicus*), northern frog-fruit (*Phyla lanceolate*), short-leaf spike sedge (*Kyllinga brevifolia*), golden crown grass (*Paspalum dilatatum*), hairy buttercup (*Ranunculus sardous*), red clover (*Trifolium pretense*), Brazilian vervain (*Verbena brasiliensis*), pinkweed (*Persicaria pensylvanica*), annual marsh elder (*Iva annua*), dog-fennel (*Eupatorium capillifolium*), southern dewberry (*Rubus trivialis*), Carolina horsenettle (*Solanum carolinense*), Virginian buttonweed (*Diodia virginiana*), tievine (*Ipomoea cordatotriloba*), and giant ironweed (*Vernonia gigantea*) were also observed within this habitat type.

Soils within this habitat type ranged from clay to clay loams and were mapped as Cancienne silt loam, Cancienne silty clay loam, or Schriever silty clay loam. The Cancienne soil series is not listed as a hydric soil; however, the Schriever soils are listed as hydric on both the National and Louisiana hydric soils lists. Each of the sample plots taken within the non-wetland pasture habitat type exhibited a depleted matrix. Therefore, soils within this habitat type are considered to be hydric.

Investigators did not record any primary or secondary wetland hydrology indicators within any of the sample plots taken in the non-wetland pasture habitat. Therefore, this habitat does not meet the criteria for wetland hydrology.

It is GEC's opinion that the habitat characterized by sample plots 1, 4, 6, 7, and 9 is not a wetland habitat because all three wetland parameters are not present. For more details on each of the sample plots taken within this habitat type, please refer to Appendix A, sample plots 1, 4, 6, 7, and 9.

#### Wetland Pasture Habitat

Field investigators characterized this habitat type by taking four sample plots in various locations throughout the project site to capture the variations in the habitat type. North of Louisiana Highway 46, this habitat type consisted of many lateral drains traversing the project site from south to north. Within the northern third of the project site, the drains became less defined and the wetland habitat began to spread out and incorporate the areas between the drains. South of Louisiana Highway 46, the project site was majority wetland pasture habitat with a few areas of non-wetland pasture scattered throughout. The dominant vegetation observed within the wetland pasture habitat included ricefield flat sedge (Cyperus iria), flat-stem spike-rush (Eleocharis compressa), Colombian waxweed (Cuphea carthagenensis), pull-and-be-damned grass, short-bristle horned beak (Rhynchospora corniculata), climbing dayflower (Commelina diffusa), lamp rush (Juncus effusus), swamp smartweed (Persicaria hydropiperoides), Vasey's grass (Paspalum urveillei), Virginia buttonweed, needle-pod rush (Juncus scirpoides), sand spike-rush (Eleocharis montevidensis), northern frog-fruit, and St. Augustine grass. Less dominant vegetation consisted of giant ironweed, great plantain (Plantago major), Brazilian vervain, many-flower marsh pennywort (Hydrocotyle umbellate), common spike-rush (Eleocharis palustris), annual marsh-elder, yellow-fruit sedge (Carex annectens), royal flat sedge (Cyperus elegans), green flat sedge (Cyperus virens), straw-color flat sedge (Cyperus strigosus), alligator weed (Alternanthera philoxeroides), and pinkweed. More specifics on the species observed at each sample plot can be seen in Appendix A, sample plots 2, 5, 8, and 10.

Soils within this habitat type ranged from clay to clay loams and were mapped as Cancienne silt loam, Cancienne silty clay loam, or Schriever silty clay loam. The Cancienne soil series is not listed as a hydric soil; however, the Schriever soils are listed as hydric on both the National and Louisiana hydric soils lists. Each of the sample plots taken within the non-wetland pasture habitat type exhibited a depleted matrix. Therefore, soils within this habitat type are considered to be hydric.

Primary hydrology indicators recorded within this habitat type included surface water (A1), high water table (A2), saturation (A3), and oxidized rhizospheres on living roots (C3). The most common secondary hydrology indicators recorded were crawfish burrows (C8) and a positive FAC-Neutral test (D5). Since all four sample plots contained at least one primary hydrology indicator or two secondary hydrology indicators, the wetland hydrology is met within this habitat type.

It is GEC's opinion that the habitat characterized by sample plots 2, 5, 8, and 10 is a wetland habitat because all three wetland parameters are present. For more details on each of the sample plots taken within this habitat type, please refer to Appendix A, sample plots 2, 5, 8, and 10.

#### Forested Wetland

The only other habitat type significant enough to mention is the forested wetland along the western edge of the project site from Louisiana Highway 46 north to Judge Perez Drive. This habitat was a narrow strip that was dominated by Chinese tallow tree (*Triadica sebifera*), sugarberry (*Celtis laevigata*), and American elm (*Ulmus americana*). Other species observed within the area but with less dominance were green ash (*Fraxinus pennsylvanica*), live oak (*Quercus virginiana*), and riverflat hawthorn (*Crataegus opaca*). The herbaceous stratum of this habitat was dominated by pull-and-be damned grass with scattered occurrences of annual marsh elder, long-leaf basket grass (*Oplismenus hirtellus*), and pinkweed. The dominant vegetation within this habitat type meets the criteria for hydrophytic vegetation.

Soils within this habitat type exhibited a depleted matrix and are mapped as Cancienne silty clay loam. This series is not listed as a hydric soil on either the National or Louisiana Hydric Soils lists. However, it is GEC's opinion that due to the presence of a depleted matrix, these soils are functioning as hydric soils.

Primary hydrology indicators recorded within this habitat type included surface water (A1), saturation (A3), and water-stained leaves (B9). Additionally, secondary hydrology indicators observed within this habitat type included crawfish burrows (C8) and a positive FAC-Neutral test (D5). Since primary and secondary hydrology indicators are present, the wetland hydrology is met within this habitat type.

It is GEC's opinion that the habitat characterized by Sample Plot 3 is a wetland habitat because all three wetland parameters are present. For more details on this sample plot taken within this habitat type, please refer to Appendix A, Sample Plot 3.

#### CONCLUSIONS

During the field investigation of the 263-acre Sinclair Site in St. Bernard Parish, Chalmette, Louisiana, GEC mapped 115.75 acres of wetland pasture and 1.89 acres of forest wetlands. The herbaceous wetlands were characterized as either pasture or fallow fields, which included numerous drainage swales traversing southwest to northeast in the portion of the property north of Louisiana Highway 46. In the northern third of the property the drains became less defined and the wetlands began to spread into the areas between the drains. South of Louisiana Highway 46, the majority of the property was wetland pasture with a few non-wetland areas scattered throughout with the majority occurring along the western side of the property.

Although GEC uses the same criteria and methodology as that of the USACE, due to the degree of subjectivity associated with studies of this type, there may be some degree of variance in the demarcation of the wetland boundary. Consequently, GEC's opinion may not necessarily reflect that of the USACE, nor does it relieve our client of any legal obligations to verify the wetland findings, consult with the USACE, and possibly obtain a Department of the Army permit prior to performing any dredging, filling and/or construction operations in Waters of the United States, including wetlands.

# Appendix A DATA FORMS

Project/Site: 263-Acre Sinclair Site	City/County: St. Bernard Sampling Date: June 20, 2016				
Applicant/Owner: St. Bernard Economic Development Foundation	State: Louisiana Sampling Point: 1				
Investigator(s): B. McCoy, Q. Daigre	Section, Township, Range: Secs 3 & 4, T-13-S, R-13-E				
Landform (hillslope, terrace, etc.) Pasture Lo	ocal relief (concave, convex, none): none Slope (%): 0				
Subregion (LRR or MLRA): LRR O Lat: 29°55'19.	2" N Long: 89°55'4.5" W Datum: NAD 83				
Soil Map Unit Name: Cancienne silt loam	NWI Classification:				
Are climatic / hydrologic conditions on the site typical for this time of year?	<u> </u>				
Are Vegetation , Soil , or Hydrology significantly disturbed	<del></del>				
Are Vegetation , Soil , or Hydrology naturally problematic					
	(				
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.				
Tooming out the property of th					
Hydrophytic Vegetation Present? Yes No _X_	Is the Sampled Area				
Hydric Soil Present? Yes X No	within a Wetland? Yes NoX_				
Wetland Hydrology Present? Yes No _X_					
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 (B1: High Water Table (A2) — Marl Deposits (B1:					
High Water Table (A2) Saturation (A3)  Marl Deposits (B15 Hydrogen Sulfide C					
	eres on Living Roots (C3) Dry-Season Water Table (C2)				
Sediment Deposits (B2)  Presence of Reduc					
Drift Deposits (B3) Recent Iron Reduc Algal Mat or Crust (B4) Thin Muck Surface	tion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) (C7) Geomorphic Position (D2)				
Iron Deposits (B5)  Other (Explain in R					
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 X Depth (inches):					
Water Table Present? Yes No X Depth (inches):	Wetland Hydrology Present? Yes No X				
Saturation Present? Yes No_X_ Depth (inches):	Wettaliu Trydrology Fresent: Tes No				
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:				
Remarks:					

						0		
				Dominance Test wo	rksheet:			
ee Stratum (Plot size:)		Species?	Indicator Status	Number of Dominan That Are OBL, FAC		:	1	(A)
				Total Number of Doi Species Across All S			2	(B)
				Percent of Dominan That Are OBL, FAC		:	50	(A/E
				Prevalence Index wo	orksheet:			
	0		er	Total % Cover of	<u>f:</u>	Multi	ply by:	_
50 % of total cover: 0	20 % c	of total cover:	0	OBL species	5	x 1 =	5	_
				FACW species	3	X 2 =	6	
apling/Shrub Stratum (Plot size:)						X 3 =	297	_
				FACU species		X 4 =	300	_
				UPL species		X 5 =		_
				· —				_ ,
				Column Totals:	184	(A)	618	(I
					ce Index =		3.36	
				Hydrophytic Vegetati	on Indicat	ors:		
		= Total Cove		1 – Rapid Test for	Hydrophyt	ic Vege	ation	
50 % of total cover: 0		= rotal cover:		2 – Dominance Te	st is > 50%	ó		
50 % of total cover	_ 20 % 0	i total cover.		3 – Prevalence Te	st is ≤ 3.0 <sup>1</sup>			
erb Stratum (Plot size: 30 ft. radius )				Problematic Hydro	phytic Veg	jetation	1 (Expla	in)
Stenotaphrum secundatum (St. augustine grass)	85	Y	FAC	4				
Trifolium repens (White clover)	65	Υ	FACU	¹Indicators of hydric				jy m
Xanthium strumarium (Rough cockleburr)	10		FAC	be present, unless of Definitions of Veget			maile.	
Sporobolus indicus (Smut grass)	8		FACU	Deminions of Vegen	ation otrac	.a.		
Phyla lanceolata (Northern frogfruit)	5		OBL	Tree - Woody plants,				
Kyllinga brevifolia (Short-leaf spike sedge)	2		FACW	approximately 20 ft (6 (7.6 cm) or larger in d				
Paspalum dilatatum (Golden crown grass)	2		FAC	(7.6 cm) or larger in d	lameter at	DIEasi	neigni (	חסר
Ranunculus sardous (Hairy buttercup)	2		UPL	Sapling – Woody pla				
Trifolium pratense (Red clover)	2		FACU	approximately 20 ft (6	,	e in hei	ight and	less
. Verbena brasiliensis (Brazilian vervain)	2		FAC	than 3 in. (7.6 cm) DE	iH.			
. Persicaria pensylvanica (Pinkweed)	1		FACW	Shrub – Woody plant	s, excludin	ig wood	ly vines	,
				approximately 3 to 20	ft (1 to 6 n	n) in he	ight.	
<b>70.0</b> ( ()	184	= Total Cove		Herb – All herbaceou	s (non-woo	sla (vbc	ints, inc	ludir
50 % of total cover: 92  oody Vine Stratum (Plot size: )	_ 20 % c	of total cover:	36.8	herbaceous vines, req plants, except woody 3 ft (1 m) in height.	gardless of	size. I	ncludes	woo
				, , ,				
				Woody vine – All wo	ody vines,	regardle	ess of h	eigh
	0	= Total Cove	er					
50 % of total cover:0	_ 20 % c	of total cover:	0	Hydrophytic Vegetation Present?	Yes		No	Х

	ription: (Describe					or confirm	n the absence	of indicators	s.)		
Depth (inches)	Color (moist)	%	Color (moist)	edox Featur %	res Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Rema	ırke	
0-4		97		3	С	PL			IXCIII	IINO	
4-10	10YR 3/1 10YR 4/1		7.5YR 4/6 10YR 5/8	4		M	Clay Loam			-	
4-10	101K 4/1	93			<u>C</u>		Silt Loam				
40.40	40)/5.4/0		10YR 4/6	3		M	N/A				
10-18+	10YR 4/2	96	10YR 4/4	4	C	M	Silt Loam				
							·				
<sup>1</sup> Type: C=Co	oncentration, D=De	epletion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains. <sup>2</sup> L	ocation: PL=	Pore Lin	ing, M=Matrix.	
Hydric Soil I	ndicators:						Indicat	ors for Prob	lematic	Hydric Soils <sup>3</sup> :	
Histosol (	A1)		Polyvalue Be	elow Surfac	e (S8) <b>(Lf</b>	RR S, T, L	J)1 cm l	Muck (A9) <b>(L</b> I	RR O)		
Histic Epi	pedon (A2)		Thin Dark S	uface (S9) <b>(</b>	LRR S, T	, U)	2 cm l	Muck (A10) (I	LRR S)		
Black His	tic (A3)		Loamy Gley	ed Matrix (F	1) <b>(LRR (</b>	<b>O</b> )	Reduc	ed Vertic (F1	8) <b>(outs</b>	ide MLRA 150A,B)	
Hydroger	Sulfide (A4)		Loamy Gley	ed Matrix (F	2)		Piedm	ont Floodpla	in Soils (	F19) <b>(LRR P, S, T)</b>	
Stratified	Layers (A5)		X Depleted Ma	trix (F3)			Anoma	alous Bright I	_oamy S	oils (F20)	
Organic E	Bodies (A6) (LRR F	P, T, U)	Redox Dark	Surface (F6	5)		(ML	.RA 153B)			
5 cm Mud	cky Mineral (A7) <b>(L</b>	RR P, T, U)	Depleted Da	rk Surface	(F7)		Red P	arent Materia	al (TF2)		
Muck Pre	sence (A8) (LRR l	J)	Redox Depre	essions (F8	)		Very S	Shallow Dark	Surface	(TF12)	
1 cm Mud	k (A9) <b>(LRR P, T)</b>		Marl (F10) (I	_RR U)			Other	(Explain in R	emarks)		
Depleted	Below Dark Surface	ce (A11)	Depleted Oc	hric (F11) <b>(</b>	MLRA 15	1)					
Thick Dai	rk Surface (A12)		Iron Mangar	ese Masse	s (F12) <b>(L</b>	RR O, P,	T) <sup>3</sup> Indica	ators of Hydro	ophytic v	egetation and	
Coast Pra	airie Redox (A16) (	MLRA 150A)				U)				present, unless	
Sandy Mu	ucky Mineral (S1) <b>(</b>	LRR O, S)	Delta Ochric	(F17) <b>(ML</b> F	RA 151)		disturb	ed or proble	matic.		
	eyed Matrix (S4)		Reduced Ve			_					
Sandy Re	edox (S5)		Piedmont Fl	oodplain So	ils (F19) <b>(</b>	MLRA 14	I9A)				
	Matrix (S6)		Anomalous	Bright Loam	ny Soils (F	20) <b>(MLR</b>	A 149A, 153C,	153D)			
Dark Surf	ace (S7) <b>(LRR P,</b> 5	S, T, U)									
	_ayer (if observed	<b>)</b> :									
Type:	ohoo):				Hyd	ric Soil P	ic Soil Present? Yes X No				
Depth (in			<u>—</u>								
Remarks:											

Applicant/Owner: St. Bernard Economic Development Foundation	City/County: St. Bernard Sampling Date: June 20, 2016				
Applicant of the Cit Bernard Economic Bevelopment Federation	State: Louisiana Sampling Point: 2				
Investigator(s): B. McCoy, Q. Daigre	Section, Township, Range: Secs 3 & 4, T-13-S, R-13-E				
Landform (hillslope, terrace, etc.) Pasture Lo	Local relief (concave, convex, none): none Slope (%): 0				
Subregion (LRR or MLRA): LRR O Lat: 29°55'30.	B" N Long: 89°55'19.4" W Datum: NAD 83				
Soil Map Unit Name: Cancienne silt loam					
Are climatic / hydrologic conditions on the site typical for this time of year?	<del>-</del>				
Are Vegetation , Soil , or Hydrology significantly disturbe					
Are Vegetation, Soil, or Hydrologynaturally problematic					
	(, . , ,				
SUMMARY OF FINDINGS – Attach site man showing sa	mpling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area				
Hydric Soil Present? Yes X No	within a Wetland? Yes X No				
Wetland Hydrology Present? Yes X No					
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)  X Surface Water (A1) Aquatic Fauna (B1)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)				
X High Water Table (A2) Marl Deposits (B15	Drainage Patterns (B10)				
Saturation (A3) Hydrogen Sulfide (	Moss Trim Lines (B16) eres on Living Roots (C3)  Moss Trim Lines (B16) Dry-Season Water Table (C2)				
Sediment Deposits (B2)  Presence of Reduc	ed Iron (C4) Crayfish Burrows (C8)				
	ion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)				
Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in R					
Inundation Visible on Aerial Imagery (B7)	X FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)	X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)				
Water-Stained Leaves (B9) Field Observations:	Sphagnum moss (D8) (LRR T, U)				
Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 2-6	Sphagnum moss (D8) (LRR T, U)				
Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 2-6  Water Table Present? Yes X No Depth (inches): 6	Sphagnum moss (D8) (LRR T, U)				
Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes_X No Depth (inches): 2-6  Water Table Present? Yes_X No Depth (inches): 6  Saturation Present? Yes No_X Depth (inches):	Sphagnum moss (D8) (LRR T, U)				
Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 2-6  Water Table Present? Yes X No Depth (inches): 6	Sphagnum moss (D8) (LRR T, U)				
Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes_X No Depth (inches): 2-6  Water Table Present? Yes_X No Depth (inches): 6  Saturation Present? Yes No_X Depth (inches):	Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes_X No Depth (inches): 2-6  Water Table Present? Yes_X No Depth (inches): 6  Saturation Present? Yes No_X Depth (inches): (includes capillary fringe)	Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 2-6  Water Table Present? Yes X No Depth (inches): 6  Saturation Present? Yes No X Depth (inches): (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes_X No Depth (inches): 2-6  Water Table Present? Yes_X No Depth (inches): 6  Saturation Present? Yes No_X Depth (inches): (includes capillary fringe)	Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 2-6  Water Table Present? Yes X No Depth (inches): 6  Saturation Present? Yes No X Depth (inches): (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
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				Dominance Test worksheet:		
Tree Stratum (Plot size:) 1	Absolute % Cover	Dominant Species?	Indicator Status	Number of Dominant Species That Are OBL, FACW, or FAC:	:3	(A)
2				Total Number of Dominant Species Across All Strata:	3	(B)
5				Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)
8		= Total Cov	er	Prevalence Index worksheet: Total % Cover of:	Multiply by:	
50 % of total cover: 0				OBL species	x 1 =	_
				FACW species	X 2 =	_
Sapling/Shrub Stratum (Plot size:)				FAC species	X 3 =	
1				FACU species	X 4 =	
•				UPL species	X 5 =	
4				Column Totals:	(A)	
5.					. ,	_ ` ′
6.				Prevalence Index =	R/Δ _	
7.				Hydrophytic Vegetation Indicat		
8.				1 – Rapid Test for Hydrophyt		
	0	= Total Cov	er	X 2 – Dominance Test is > 50%	-	
50 % of total cover: 0	_ 20 % 0	of total cover:	0	3 – Prevalence Test is ≤ 3.0 <sup>1</sup>		
Harle Chrotines (Diet sines 20) realises				Problematic Hydrophytic Veg		in)
Herb Stratum (Plot size: 30' radius )  1. Cyperus iria (Ricefield flat sedge)	40	Υ	FACW		(=-4	,
Eleocharis compressa (Flat-stem spike-rush)	40	<u> </u>	OBL	<sup>1</sup> Indicators of hydric soil and w		gy must
Cuphea carthagenensis (Colombian waxweed)	35	Y	FACW	be present, unless disturbed or	•	
Alternanthera philoxeroides (Alligator-weed)	20	<del></del>	OBL	Definitions of Vegetation Strat	ia:	
5. Iva annua (Annual marsh-elder)	15		FAC	Tree - Woody plants, excluding	woody vines,	
6. Persicaria pensylvanica (Pinkweed)	45		FACW	approximately 20 ft (6 m) or mor		
7. Phyla lanceolata (Northern frogfruit)	4.0		OBL	(7.6 cm) or larger in diameter at	breast neight (	рвн).
8. Ammannia latifolia (Pink redstem)	5		OBL	Sapling - Woody plants, exclud		
Paspalum denticulatum (Pull-and-be-damned)	5		OBL	approximately 20 ft (6 m) or mor than 3 in. (7.6 cm) DBH.	e in height and	lless
10				than 3 iii. (7.0 cm) DBH.		
11				Shrub - Woody plants, excluding		,
12	405	T-1-1-0		approximately 3 to 20 ft (1 to 6 n	n) in height.	
50 % of total cover: 92.5	185 20 % c	= Total Cov of total cover:		Herb – All herbaceous (non-woo herbaceous vines, regardless of plants, except woody vines, less	size. Includes	woody
Woody Vine Stratum (Plot size:)  1				3 ft (1 m) in height.		
2.				Woody vine – All woody vines,	regardless of h	eight.
3						
4						
5						
	0	= Total Cov	er	Headre a head a		
50 % of total cover:0	20 % c	of total cover:	0	Hydrophytic Vegetation		
					X No	
Remarks: (Include photo numbers here or on a separate	sheet.)			I		
Tremane. (molade priote nambore note of on a coparate	011001.7					

Profile Desc Depth	ription: (Describe Matrix	to the dept		nent the i		or confirm	the absence	of indicator	s.)			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Rema	arks		
0-3	10YR 3/1	100			N/A	N/A	Clay					
3-12	10YR 4/1	97	10YR 5/8	1	С	M	Clay					
			10YR 4/6	2	C	M	Clay					
12-18+	10YR 4/1	98	10YR 4/6	2	С	M	Clay					
										_		
										_		
¹Type: C=Co	oncentration, D=Dep	oletion, RM=	Reduced Matrix, C	S=Covered	d or Coate	ed Sand Gra	ains. <sup>2</sup> l	Location: PL	=Pore Lin	ning, M=Matrix.		
Hydric Soil I	ndicators:						Indica	ators for Pro	blematic	Hydric Soils <sup>3</sup> :		
Histosol (	A1)		Polyvalue Be	elow Surfac	ce (S8) <b>(L</b> l	RR S, T, U)	1 cm	Muck (A9) (I	_RR O)			
Histic Epi	pedon (A2)		Thin Dark Su	ıface (S9)	(LRR S, T	, U)	2 cm	Muck (A10)	(LRR S)			
Black His	tic (A3)		Loamy Gleye	ed Matrix (I	=1) <b>(LRR</b>	0)	Redu	iced Vertic (F	18) <b>(outs</b>	ide MLRA 150A,B)		
Hydrogen	Sulfide (A4)		Loamy Gleye	ed Matrix (I	<del>-</del> 2)		Piedr	mont Floodpl	ain Soils (	F19) <b>(LRR P, S, T)</b>		
Stratified	Layers (A5)		X Depleted Ma	trix (F3)			Anon	nalous Bright	Loamy S	oils (F20)		
Organic E	Bodies (A6) (LRR P	, T, U)	Redox Dark	Surface (F	6)		(M	LRA 153B)				
5 cm Muc	ky Mineral (A7) (LF	RR P, T, U)	Depleted Da	rk Surface	(F7)		Red I	Parent Mater	ial (TF2)			
Muck Pre	sence (A8) (LRR U	)	Redox Depre	essions (F8	3)		Very	Shallow Darl	k Surface	(TF12)		
1 cm Muc	k (A9) <b>(LRR P, T)</b>		Marl (F10) <b>(L</b>	.RR U)			Othe	r (Explain in	Remarks)			
Depleted	Below Dark Surface	e (A11)	Depleted Oc	hric (F11) (	(MLRA 15	1)						
Thick Dar	k Surface (A12)		Iron Mangan	ese Masse	es (F12) <b>(L</b>	.RR O, P, T	T) 3 <sub>Indic</sub>	ators of Hvd	rophytic v	egetation and		
	airie Redox (A16) (N					U)	wetla	nd hydrology	must be	present, unless		
	ucky Mineral (S1) <b>(L</b>	.RR O, S)	Delta Ochric		-		distu	rbed or probl	ematic.			
	eyed Matrix (S4)		Reduced Ve			-						
Sandy Re			Piedmont Flo				-					
	Matrix (S6) face (S7) <b>(LRR P, S</b>	, T, U)	Anomalous E	Bright Loan	ny Soils (F	(MLR <i>A</i>	A 149A, 153C	, 153D)				
Restrictive L	ayer (if observed)	:										
Type:					Hyd	Hydric Soil Present? Yes X No						
Depth (in	ches):											
Remarks:												

And in a 1/O many Or Born and Engage in Boundary and Engage delices	City/County: St. Bernard Sampling Date: June 20, 2016				
Applicant/Owner: St. Bernard Economic Development Foundation	State: Louisiana Sampling Point: 3				
Investigator(s): B. McCoy, Q. Daigre	Section, Township, Range: Secs 3 & 4, T-13-S, R-13-E				
	ocal relief (concave, convex, none): none Slope (%): 0				
Subregion (LRR or MLRA): <u>LRR O</u> Lat: <u>29°55'48</u>	8.8" N Long: 89°55'18.2" W Datum: NAD 83				
	NWI Classification:				
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrologysignificantly disturb	ed? Are "Normal Circumstances" present? Yes X No				
Are Vegetation, Soil, or Hydrologynaturally problemat					
SUMMARY OF FINDINGS – Attach site map showing s	ampling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present?  Yes X No	is the Sampled Area				
Hydric Soil Present? Yes X No					
Wetland Hydrology Present? Yes X No	-				
Remarks:					
HYDROLOGY Westernd Hydrology Indicators					
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6)				
X Surface Water (A1) Aquatic Fauna (B	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)  X Saturation (A3)  Marl Deposits (B1 Hydrogen Sulfide					
Water Marks (B1) Oxidized Rhizosp	neres on Living Roots (C3) Dry-Season Water Table (C2)				
Sediment Deposits (B2)  Presence of Redu	ced Iron (C4) X Crayfish Burrows (C8)				
Drift Deposits (B3) Recent Iron Redu	ction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5)  Recent Iron Redu Thin Muck Surfac Other (Explain in	ction in Tilled Soils (C6)  E (C7)  Remarks)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)				
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				Dominance Test worksheet:
Tree Stratum (Plot size:) 1.		Dominant Species?	Indicator Status	Number of Dominant Species That Are OBL, FACW, or FAC:4 (A)
2				Total Number of Dominant Species Across All Strata: 4 (B)
5				Percent of Dominant Species That Are OBL, FACW, or FAC:100 (A/B)
8	0	= Total Cov	er	Prevalence Index worksheet:  Total % Cover of: Multiply by:
50 % of total cover:0	20 % c	of total cover:	0	OBL species x 1 =
				FACW species X 2 =
Sapling/Shrub Stratum (Plot size: 30' Radius )	50	V	E40	FAC species X 3 =
Triadica sebifera (Chinese tallowtree)     Celtis laevigata (Sugar-berry)	<u>50</u> 	<u> </u>	FACW	FACU species X 4 =
Cettis laevigata (Sugar-berry)     Ulmus americana (American elm)	20	<u> </u>	FACW	UPL species X 5 =
Fraxinus pennsylvanica (Green ash)	10		FACW	Column Totals: (A) (B)
Quercus virginiana (Live oak)				(-)
Crataegus opaca (River-flat hawthorn)				Dravalance Index D/A
7				Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:
8.				
	115	= Total Cov	er	1 – Rapid Test for Hydrophytic Vegetation  X 2 – Dominance Test is > 50%
50 % of total cover: 57.5	20 % c	of total cover:	23	1 <del></del>
				3 – Prevalence Test is ≤ 3.0¹
Herb Stratum (Plot size: 30' radius )				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Paspalum denticulatum (Pull-and-be-damned)		<u> </u>	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2. Iva annua (Annual marsh-elder)	5		FAC	be present, unless disturbed or probl □matic.
Oplismenus hirtellus (Long-leaf basket grass)	_		FACU	Definitions of Vegetation Strata:
Persicaria pensylvanica (Pinkweed)			FACW	Tree Woody plants, evaluding woody vines
<ul><li>5.</li><li>6.</li><li>7.</li></ul>				<b>Tree</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
8.				Sapling – Woody plants, excluding woody vines,
9.				approximately 20 ft (6 m) or more in height and less
10.				than 3 in. (7.6 cm) DBH.
11.				Shrub – Woody plants, excluding woody vines,
12.				approximately 3 to 20 ft (1 to 6 m) in height.
	50	= Total Cov	er	
50 % of total cover:25	20 % 0	of total cover:		Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
1				Sit (1 iii) iii neight.
2.				Woody vine - All woody vines, regardless of height.
3.				
4.				
5.				
	0	= Total Cov	er	
50 % of total cover: 0	20 % 0	of total cover	0	Hydrophytic
30 % di total 3000.	_ 20 70 0	n total dover.		Vegetation Present? Yes X No
Remarks: (Include photo numbers here or on a separate	sheet.)			1
(	,			

Profile Desc Depth	ription: (Describe Matrix	to the depth		nent the i		or confirn	n the absence	e of indicators.)			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
0-2	10YR 2/1	100	· · ·		N/A	N/A	Clay				
2-8	10yr 3/1	98	10yr 4/6	2		M	Clay				
8-18+	10yr 4/1	96	10yr 4/6	2	C	M	Silt Loam				
	10y1 4/1		10YR 5/8	2		M	N/A				
-			10110 3/0			101	11/7				
							· <del></del>	·			
		<del></del>						· <del></del>			
<sup>1</sup> Type: C=Co	oncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.			
Hydric Soil I	Indicators:						Indic	cators for Problematic Hydric Soils <sup>3</sup> :			
Histosol (	(A1)		Polyvalue Be	low Surfac	ce (S8) <b>(LF</b>	RR S, T, U	J)1 cm	n Muck (A9) <b>(LRR O)</b>			
Histic Epi	pedon (A2)		Thin Dark Su	face (S9)	(LRR S, T	, U)	2 cm	n Muck (A10) <b>(LRR S)</b>			
Black His	tic (A3)		Loamy Gleye	ed Matrix (I	F1) <b>(LRR (</b>	0)	Red	uced Vertic (F18) (outside MLRA 150A,B)			
	Sulfide (A4)		Loamy Gleye		F2)		Pied	dmont Floodplain Soils (F19) (LRR P, S, T)			
	Layers (A5)		X Depleted Ma	trix (F3)			Ano	malous Bright Loamy Soils (F20)			
	Bodies (A6) (LRR P		Redox Dark	Surface (F	6)		(1)	MLRA 153B)			
5 cm Mud	cky Mineral (A7) <b>(LF</b>	RR P, T, U)	Depleted Dar	rk Surface	(F7)			Parent Material (TF2)			
	esence (A8) (LRR U	)	Redox Depre		3)			y Shallow Dark Surface (TF12)			
	ck (A9) <b>(LRR P, T)</b>		Marl (F10) <b>(L</b>	•			Othe	er (Explain in Remarks)			
	Below Dark Surfac	e (A11)	Depleted Ocl		-	-					
	rk Surface (A12)		Iron Mangan				T) <sup>3</sup> Indi	icators of Hydrophytic vegetation and			
	airie Redox (A16) (N	-				U)	wetl	and hydrology must be present, unless			
	ucky Mineral (S1) (I	LRR O, S)		Delta Ochric (F17) (MLRA 151) disturbed or problematic.							
	eyed Matrix (S4)		Reduced Vertic (F18) (MLRA 150A, 150B)								
Sandy Re			Piedmont Flo			-	-				
	Matrix (S6)	T 11\	Anomalous E	Bright Loan	ny Soils (F	(MLR	A 149A, 1530	C, 153D)			
Dark Sur	face (S7) <b>(LRR P, S</b>	s, 1, U)									
	_ayer (if observed)	):									
Type:			<u> </u>		Hyd	ric Soil P	resent?	Yes <u>X</u> No			
Depth (in	ches):		<u>—</u>								
Remarks:											

Project/Site: 263-Acre Sinclair Site	City/County: St. Bernard Sampling Date: June 20, 2016			
Applicant/Owner: St. Bernard Economic Development Foundation	State: Louisiana Sampling Point: 4			
Investigator(s): B. McCoy, Q. Daigre	Section, Township, Range: Secs 3 & 4, T-13-S, R-13-E			
Landform (hillslope, terrace, etc.) Pasture Local	cal relief (concave, convex, none): none Slope (%): 0			
Subregion (LRR or MLRA): LRR O Lat: 29°55'44.9	9" N Long: 89°55'14.2" W Datum: NAD 83			
Soil Map Unit Name: Cancienne silty clay loam	NWI Classification:			
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)			
Are Vegetation , Soil , or Hydrology significantly disturbed	<del></del>			
Are Vegetation , Soil , or Hydrology naturally problematic	? (If needed, explain any answers in Remarks.)			
<u> </u>				
SUMMARY OF FINDINGS – Attach site map showing sai	mpling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present?  Yes X No	Is the Sampled Area			
Hydric Soil Present? Yes X No				
Wetland Hydrology Present? Yes No _X				
Remarks:				
LIVER OLD COV				
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) Saturation (A3)  Marl Deposits (B15) Hydrogen Sulfide O				
Water Marks (B1) Oxidized Rhizosphe	eres on Living Roots (C3) Dry-Season Water Table (C2)			
Sediment Deposits (B2)  Presence of Reduction Property (B2)  Presence of Reduction Property (B2)	red Iron (C4) Crayfish Burrows (C8) tion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3) Recent Iron Reduct Algal Mat or Crust (B4) Thin Muck Surface				
Iron Deposits (B5) Other (Explain in Re	emarks) Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)			
Field Observations:	opinignaminos (2 s) (2 mm i, s)			
Surface Water Present? Yes No X Depth (inches):				
Water Table Present? Yes No X Depth (inches):				
Saturation Present? Yes No_X_ Depth (inches):	Wetland Hydrology Present? Yes No _X_			
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	ravious inspections) if available:			
Describe Necorded Data (Stream gauge, monitoring well, aerial priotos, pr	evious inspections), ii available.			
Remarks:				

	ription: (Describe					r confirm	the absence	of indicat	ors	.)	
Depth (inches)	Color (moist)	%	Color (moist)	edox Featur %	es Type <sup>1</sup>	Loc²	Texture			Rem	arks
								-		Keiii	aiks
0-2	10YR 3/1	97	7.5YR 4/6	3	<u>C</u>	M	Clay	-			
2-6	10YE 3/2	96	10YR 5/8	2	<u> </u>	M	Clay				
	10 1/1		10yr 4/6	2		M	N/A		—		
6-18+	10yr 4/1	98	10yr 4/6	2	C	M	Clay				
				<u> </u>							
<sup>1</sup> Type: C=C	oncentration, D=De	epletion, RM=	Reduced Matrix, C	CS=Covered	or Coate	d Sand Gra	ains. <sup>2</sup>	Location:	PL=	Pore Li	ning, M=Matrix.
Hydric Soil	Indicators:						Indic	ators for P	rob	lematio	: Hydric Soils³:
Histosol (	(A1)		Polyvalue B	elow Surfac	e (S8) <b>(LF</b>	RR S, T, U)	1 cm	Muck (A9)	(LF	RR O)	
Histic Epipedon (A2)			Thin Dark S	Thin Dark Suface (S9) (LRR S, T, U)2 cm Muck (A10) (LRR S)							
Black Histic (A3)			Loamy Gleyed Matrix (F1) (LRR O)Reduced Vertic (F18) (outside						side MLRA 150A,B)		
	Sulfide (A4)		Loamy Gley	ed Matrix (F	2)		Pied	mont Flood	Floodplain Soils (F19) <b>(LRR P, S, T)</b>		
Stratified	Layers (A5)		X Depleted Ma	atrix (F3)			Anoi	malous Brig	jht L	oamy S	Soils (F20)
Organic E	Bodies (A6) (LRR F	P, T, U)	Redox Dark	Surface (F6	6)		-	ILRA 153B	-		
5 cm Mud	cky Mineral (A7) <b>(L</b>	RR P, T, U)	Depleted Da		` '			Parent Mat			
Muck Presence (A8) (LRR U)			Redox Depr		)			Very Shallow Dark Surface (TF12)			
1 cm Muck (A9) (LRR P, T)			Marl (F10) (I		Othe	er (Explain in Remarks)					
	Below Dark Surface	ce (A11)	Depleted Oc			-					
	rk Surface (A12)		Iron Mangar				') ³ <sub>Indi</sub>	<sup>3</sup> Indicators of Hydrophytic vegetation and			
	airie Redox (A16) (			Umbric Surface (F13) (LRR P, T, U)						nust be	present, unless
	ucky Mineral (S1) (	LRR O, S)	Delta Ochric (F17) (MLRA 151) disturbed or problematic.								
	eyed Matrix (S4)		Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A)								
	edox (S5)						-				
	Matrix (S6) face (S7) <b>(LRR P,</b> 9	S, T, U)	Anomalous	Bright Loam	IY SOIIS (F	20) <b>(WILKA</b>	149A, 1530	ن, 153D)			
Restrictive I	Layer (if observed	):									
Type:			Hydric Soil Prese					Υ	es	Х	No
Depth (in	ches):										
Remarks:											

Applicant/Owner: St. Bernard Economic Development Foundation	City/County: St. Bernard Sampling Date: June 21, 2016				
	State: Louisiana Sampling Point: 5				
Investigator(s): B. McCoy, Q. Daigre	Section, Township, Range: Secs 3 & 4, T-13-S, R-13-E				
	cal relief (concave, convex, none): none Slope (%): 0				
Subregion (LRR or MLRA): LRR O Lat: 29°55'30.	4" N Long: 89°54'51.4" W Datum: NAD 83				
	NWI Classification:				
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrology significantly disturbe	d? Are "Normal Circumstances" present? Yes X No				
Are Vegetation, Soil, or Hydrologynaturally problematic					
<del>_</del>					
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area				
Hydric Soil Present? Yes X No					
Wetland Hydrology Present? Yes X No					
Remarks:					
HYDROLOGY Western Hydrology Indicators	Consoler, le disease (esisies une ef true un estima di				
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6)				
X Surface Water (A1) Aquatic Fauna (B1	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)  X Saturation (A3)  Marl Deposits (B15  Hydrogen Sulfide C					
	eres on Living Roots (C3) Dry-Season Water Table (C2)				
Sediment Deposits (B2)  Presence of Reduc					
Drift Deposits (B3)  Recent Iron Reduction in Tilled Soils (C6)  Saturation Visible on Aerial Imagery (C6)					
	(C7) Geomorphic Position (D2)				
Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in R					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface Other (Explain in R	emarks) — Shallow Aquitard (D3)  X FAC-Neutral Test (D5)				
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Thin Muck Surface Other (Explain in R	emarks) Shallow Aquitard (D3)				
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations:  Thin Muck Surface Other (Explain in R	emarks)  Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)				
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1-2	emarks)  Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)				
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches):	emarks)  Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)				
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes X No Depth (inches):	emarks)  Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)				
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes X No Depth (inches): 5 Saturation Present? Yes X No Depth (inches): 0	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in R Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in R Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
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Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in R Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in R Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in R Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in R Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in R Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in R Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				
Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in R Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes X No Depth (inches): 1-2 Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	Shallow Aquitard (D3)  X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No				

Profile Desc Depth	ription: (Describe			nent the i		or confirm	n the absence of in	dicators.)			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
0-4	10YR 3/1	96	10YR 4/6	3	C	М	Clay				
			7.5YR 4/6	1	C	M	N/A				
4-10	10YR 4/1	96	7.5YR 4/6	2	C	M	Clay Loam				
			7.5YR 5/8	2	C	М	N/A				
10-18+	10YR 5/1	95	10YR 3/6	5	С	М	Clay Loam				
							<u> </u>				
¹Type: C=Co	ncentration, D=De	epletion, RM=	Reduced Matrix, C	S=Covere	d or Coate	d Sand G	Grains. <sup>2</sup> Locati	ion: PL=Pore Lining, M=Matrix.			
Hydric Soil I	ndicators:						Indicators	for Problematic Hydric Soils <sup>3</sup> :			
Histosol (A	<b>A1</b> )		Polyvalue Below Surface (S8) (LRR S, T, U)1 cm Muck (A9) (LRR O)								
Histic Epipedon (A2)			Thin Dark Suface (S9) (LRR S, T, U)2 cm Muck (A10) (LRR S)								
Black Histic (A3)			Loamy Gleye	Loamy Gleyed Matrix (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B)							
Hydrogen	Sulfide (A4)		Loamy Gleye	ed Matrix (F	F2)		Piedmont I	Floodplain Soils (F19) (LRR P, S, T)			
Stratified	Layers (A5)		X Depleted Ma	X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20)							
Organic B	odies (A6) (LRR F	P, T, U)	Redox Dark Surface (F6) (MLRA 153B)								
5 cm Muc	ky Mineral (A7) <b>(L</b>	RR P, T, U)	Depleted Dar	Depleted Dark Surface (F7)Red Parent Material (TF2)							
Muck Pre	sence (A8) <b>(LRR l</b>	J)	Redox Depressions (F8)Very Shallow Dark Surface (TF12)								
1 cm Muc	k (A9) <b>(LRR P, T)</b>		Marl (F10) (LRR U)Other (Explain in Remarks)								
Depleted	Below Dark Surfac	ce (A11)	Depleted Ochric (F11) (MLRA 151)								
Thick Dar	k Surface (A12)		Iron Manganese Masses (F12) (LRR O, P, T)								
Coast Pra	irie Redox (A16) (	MLRA 150A)	Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless								
	icky Mineral (S1) (	(LRR O, S)	Delta Ochric (F17) (MLRA 151) disturbed or problematic.								
Sandy Gle	eyed Matrix (S4)		Reduced Vertic (F18) (MLRA 150A, 150B)								
Sandy Re	dox (S5)		Piedmont Floodplain Soils (F19) (MLRA 149A)								
	Matrix (S6) ace (S7) <b>(LRR P,</b> 9	S, T, U)	Anomalous E	Bright Loan	ny Soils (F	(20) <b>(ML</b> R	RA 149A, 153C, 153	D)			
Restrictive L	ayer (if observed	1):									
Type:			Hydric Soil Present? Yes X No								
Depth (inc	ches):										
Remarks:											

Project/Site: 263-Acre Sinclair Site	City/County: St. Bernard Sampling Date: June 21, 2016				
Applicant/Owner: St. Bernard Economic Development Foundation	State: Louisiana Sampling Point: 6				
Investigator(s): B. McCoy, Q. Daigre	Section, Township, Range: Secs 3 & 4, T-13-S, R-13-E				
Landform (hillslope, terrace, etc.) Pasture Lo	cal relief (concave, convex, none): none Slope (%): 0				
Subregion (LRR or MLRA): LRR O Lat: 29°55'43.	1" N Long: 89°54'53.7" W Datum: NAD 83				
Soil Map Unit Name: Schriever silty clay loam	NWI Classification:				
Are climatic / hydrologic conditions on the site typical for this time of year?					
Are Vegetation , Soil , or Hydrology significantly disturbed					
Are Vegetation , Soil , or Hydrology naturally problematic					
	( · · · · · · · · · · · · · · · · · · ·				
SUMMARY OF FINDINGS – Attach site man showing sa	mpling point locations, transects, important features, etc.				
January C. F. M. Santa C. C. Market C.					
Hydrophytic Vegetation Present? Yes No _X_	Is the Sampled Area				
Hydric Soil Present? Yes X No	within a Wetland? Yes NoX				
Wetland Hydrology Present? Yes No _X					
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 High Water Table (A2) — Marl Deposits (B15					
Saturation (A3) Hydrogen Sulfide C					
	eres on Living Roots (C3) Dry-Season Water Table (C2)				
Sediment Deposits (B2) Presence of Reduction Recent Iron R	ed Iron (C4) Crayfish Burrows (C8) ion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)  Algal Mat or Crust (B4)  Thin Muck Surface					
Iron Deposits (B5) Other (Explain in R					
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)				
Field Observations:	opinignam moss (25) (2 mt 1, 2)				
Surface Water Present? Yes No X Depth (inches):					
	Wetland Hydrology Present? Yes No _X_				
Saturation Present? Yes No X Depth (inches): (includes capillary fringe)					
(morades capitally minge)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, po	revious inspections), if available:				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pi	revious inspections), if available:				
	revious inspections), if available:				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pi  Remarks:	revious inspections), if available:				
	revious inspections), if available:				
	revious inspections), if available:				
	revious inspections), if available:				
	revious inspections), if available:				
	revious inspections), if available:				
	revious inspections), if available:				
	revious inspections), if available:				
	revious inspections), if available:				
	revious inspections), if available:				
	revious inspections), if available:				

Profile Desc Depth	ription: (Describe Matrix	to the dept	h needed to docui	ment the i		or confirm	the absence	of indicato	rs.)			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	-	Rema	arks		
0-1	10YR 3/2	100			N/A	N/A	Clay					
1-5	10YR 3/1	97	10YR 5/8	3	C	M	Clay					
5-10	10YR 4/1	98	10YR 4/6	2	С	М	Clay			_		
10-18+	10YR 4/1	98	10YR 3/4	2		M	Clay					
								-				
								-		_		
¹Type: C=Co	oncentration, D=De	pletion, RM	=Reduced Matrix, C	S=Covere	d or Coate	ed Sand Gra	ains. <sup>2</sup> l	Location: Pl	=Pore Lin	ning, M=Matrix.		
Hydric Soil I	ndicators:						Indica	ators for Pro	blematic	Hydric Soils <sup>3</sup> :		
Histosol (	A1)		Polyvalue Be	elow Surfac	ce (S8) <b>(L</b> l	RR S, T, U)	1 cm	Muck (A9) (	LRR O)			
Histic Epipedon (A2)			Thin Dark Suface (S9) (LRR S, T, U)2 cm Muck (A10) (LRR S)									
Black Histic (A3)			Loamy Gleyed Matrix (F1) (LRR O) Reduced Vertic (F18) (outside MLF						side MLRA 150A,B)			
Hydroger	Sulfide (A4)		Loamy Gleye	ed Matrix (I	F2)		Piedr	mont Floodp	ain Soils (	(F19) <b>(LRR P, S, T)</b>		
Stratified	Layers (A5)		X Depleted Ma	trix (F3)			Anon	nalous Brigh	t Loamy S	oils (F20)		
Organic E	Bodies (A6) (LRR P	, T, U)	Redox Dark	Surface (F	6)		(M	(MLRA 153B)				
5 cm Mud	cky Mineral (A7) <b>(LF</b>	RR P, T, U)	Depleted Da	rk Surface	(F7)		Red l	Parent Mate	rial (TF2)			
Muck Presence (A8) (LRR U)			Redox Depre	essions (F8	3)		Very	Very Shallow Dark Surface (TF12)				
1 cm Muck (A9) (LRR P, T)			Marl (F10) <b>(L</b>	.RR U)			Othe	Other (Explain in Remarks)				
Depleted	Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 15	1)						
Thick Dar	k Surface (A12)		Iron Mangan	ese Masse	es (F12) <b>(L</b>	.RR O, P, T	<sup>3</sup> Indicators of Hydrophytic vegetation and					
Coast Pra	airie Redox (A16) (N	/ILRA 150A	Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, un									
	ucky Mineral (S1) <b>(I</b>	RR O, S)	Delta Ochric (F17) (MLRA 151) disturbed or problematic.									
	eyed Matrix (S4)		Reduced Ve			-						
Sandy Re			Piedmont Flo				-					
	Matrix (S6) face (S7) <b>(LRR P, S</b>	s, T, U)	Anomalous E	Bright Loar	ny Soils (F	F20) <b>(MLR<i>A</i></b>	\ 149A, 153C	i, 153D)				
Restrictive L	_ayer (if observed)	:										
Type:				ric Soil Pr	esent?	Yes	<b>X</b>	No				
Depth (in	ches):			_								
Remarks:												

Project/Site: 263-Acre Sinclair Site	City/County: St. Bernard Sampling Date: June 21, 2016				
Applicant/Owner: St. Bernard Economic Development Foundation	State: Louisiana Sampling Point: 7				
Investigator(s): B. McCoy, Q. Daigre	Section, Township, Range: Secs 3 & 4, T-13-S, R-13-E				
Landform (hillslope, terrace, etc.) Pasture Lo	cal relief (concave, convex, none): none Slope (%): 0				
Subregion (LRR or MLRA): LRR O Lat: 29°55'17.	4" N Long: 89°55'1.3" W Datum: NAD 83				
Soil Map Unit Name: Cancienne silt loam	NWI Classification:				
Are climatic / hydrologic conditions on the site typical for this time of year?					
Are Vegetation , Soil , or Hydrology significantly disturbed	<del></del>				
Are Vegetation , Soil , or Hydrology naturally problematic					
	(				
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.				
January C. T. M. Santa C. T. M. Sant					
Hydrophytic Vegetation Present? Yes No _X_	Is the Sampled Area				
Hydric Soil Present? Yes X No	within a Wetland? Yes NoX				
Wetland Hydrology Present? Yes No _X					
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) High Water Table (A2) Aquatic Fauna (B13 Marl Deposits (B15					
Saturation (A3) Hydrogen Sulfide C					
	eres on Living Roots (C3) Dry-Season Water Table (C2)				
Sediment Deposits (B2) Presence of Reduction Recent Iron Recent Iron Recent Iron Recent Iron Reduction Recent Iron Recen	red Iron (C4) Crayfish Burrows (C8) tion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)  Algal Mat or Crust (B4)  Thin Muck Surface					
Iron Deposits (B5) Other (Explain in R					
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)				
Field Observations:	opragnammees (20) (2 mt 1, 0)				
Surface Water Present? Yes No X Depth (inches):					
	Wetland Hydrology Present? Yes No _X				
Saturation Present? Yes No _X _ Depth (inches): (includes capillary fringe)					
(mondes supmary mings)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pi	and the continuous of the cont				
	revious inspections), if available:				
	revious inspections), if available:				
Pomarke	revious inspections), if available:				
Remarks:	revious inspections), if available:				
Remarks:	revious inspections), if available:				
Remarks:	revious inspections), if available:				
Remarks:	revious inspections), if available:				
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Remarks:	revious inspections), if available:				
Remarks:	revious inspections), if available:				
Remarks:	revious inspections), if available:				

VEGETATION (Four St	trata) -	Use scientific names of plants.

Sampling Point 7

Tree Stratum (Plot size:)		Dominant Species?	Indicator Status	Number of Dominant Species		
1			Otatus			
2				That Are OBL, FACW, or FAC: 1 (A)		
3.						
				Total Number of Dominant		
				Species Across All Strata:3 (B)		
5.				•		
				Percent of Dominant Species		
7				That Are OBL, FACW, or FAC: 33.3 (A/B)		
3.				Prevalence Index worksheet:		
·		= Total Cov	er	Total % Cover of: Multiply by:		
50 % of total cover: 0		f total cover:		OBL species 65 x 1 = 65		
				FACW species 0 X 2 = 0		
Sapling/Shrub Stratum (Plot size:)				FAC species 15 X 3 = 45		
l						
2				FACU species 130 X 4 = 520		
3				UPL species X 5 = 200		
4				Column Totals: <u>250</u> (A) <u>830</u> (B)		
5				.		
5.				Prevalence Index = B/A = 3.32		
7.				Hydrophytic Vegetation Indicators:		
3.				1 – Rapid Test for Hydrophytic Vegetation		
	0	= Total Cov	er	2 – Dominance Test is > 50%		
50 % of total cover:0	20 % o	f total cover:	0	$\frac{2 - \text{Dolinialize Test is } > 30\%}{3 - \text{Prevalence Test is } \le 3.0^{1}}$		
Herb Stratum (Plot size: 30' radius )				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Sorghum halepense (Johnson grass)	80	<u>Y</u>	FACU	Indicators of hydric soil and wetland hydrology must		
2. Sida rhombifolia (Cuban-jute)	40	<u> </u>	UPL	be present, unless disturbed or probl matic.		
3. Carex frankii (Frank's sedge)	35	<u> </u>	OBL	Definitions of Vegetation Strata:		
4. Hydrocotyle umbellata (Many-flower marsh-pennywor	30		OBL			
5. Ipomoea cordatotriloba (Tievine)	30		FACU	Tree – Woody plants, excluding woody vines,		
5. Trifolium pratense (Red clover)	20		FACU	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
7. Paspalum urvillei (Vasey's grass)	10		FAC	(1.10 0.11) 01 tangot 111 atamotor at 510aot 110.grt (221.1).		
3. Verbena brasiliensis (Brazilian vervain)	5		FAC	Sapling – Woody plants, excluding woody vines,		
9				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
10				- (7.0 cm) DBH.		
11				Shrub – Woody plants, excluding woody vines,		
12				approximately 3 to 20 ft (1 to 6 m) in height.		
<del>-</del>	250	= Total Cov		Herb – All herbaceous (non-woody) plants, including		
50 % of total cover: 125	20 % o	f total cover:	50	herbaceous vines, regardless of size. Includes woody		
M 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1				plants, except woody vines, less than approximately		
Woody Vine Stratum (Plot size:)				3 ft (1 m) in height.		
1				Woody vine – All woody vines, regardless of height.		
2				- Yall Woody Villos, regulated of Height.		
3						
4						
5						
_	0			Llydramhydia		
50 % of total cover:0	20 % of total cover: 0			Hydrophytic Vegetation		
				Present? Yes No X		
	neet.)					

	ription: (Describe					Commi	i tile abse	nce or inc		.,		
Depth	Matrix			edox Feature		L oo <sup>2</sup>	Toutur	_		Domo	rl.o	
(inches)	Color (moist)		Color (moist)		Type'	Loc <sup>2</sup>	Clavilia			Rema	11/2	
0-1	10YR 3/2	100	7.57.0		N/A	N/A	Clay Loa Silty Cla					
1-5	10YR 3/2	99	7.5YR 4/6	1	<u> </u>	M	Silty Cla					
5-18+	10YR 4/2	97	10YR 4/6	3	C	M	- i	<u> </u>				
		·										
<sup>1</sup> Type: C=Co	oncentration, D=De	epletion, RM	=Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains.	<sup>2</sup> Locatio	on: PL=	Pore Lin	ing, M=Mat	rix.
Hydric Soil I	Indicators:						In	dicators f	or Prob	lematic	Hydric Soi	ls³:
Histosol (	(A1)		Polyvalue Be	elow Surface	e (S8) <b>(Lf</b>	RR S, T, L	J)1	cm Muck	(A9) <b>(LF</b>	RR O)		
Histic Epi	ipedon (A2)		Thin Dark S	uface (S9) <b>(I</b>	LRR S, T	U)	2	cm Muck	(A10) <b>(L</b>	.RR S)		
Black His	stic (A3)		Loamy Gley	ed Matrix (F	1) <b>(LRR (</b>	<b>)</b>	F	educed V	ertic (F1	8) <b>(outs</b>	ide MLRA	150A,B)
Hydrogen	n Sulfide (A4)		Loamy Gley	ed Matrix (F	2)		F	iedmont F	loodplai	n Soils (	F19) <b>(LRR</b>	P, S, T)
Stratified	Layers (A5)		X Depleted Ma	atrix (F3)				nomalous	Bright L	oamy So	oils (F20)	
Organic E	Bodies (A6) (LRR I	P, T, U)	Redox Dark	Surface (F6	6)			(MLRA 1	53B)			
5 cm Muc	cky Mineral (A7) <b>(L</b>	RR P, T, U)	Depleted Da	ırk Surface (	(F7)		F	ed Parent	Materia	I (TF2)		
Muck Pre	esence (A8) (LRR I	J)	Redox Depre	essions (F8)	)		\	ery Shallo	w Dark	Surface	(TF12)	
1 cm Muc	ck (A9) (LRR P, T)		Marl (F10) (I	LRR U)			c	ther (Exp	ain in Re	emarks)		
Depleted	Below Dark Surface	ce (A11)	Depleted Oc	hric (F11) <b>(F</b>	MLRA 15	1)						
Thick Dar	rk Surface (A12)		Iron Mangar	ese Masses	s (F12) <b>(L</b>	RR O, P,	<b>T)</b> 3	ndicators	of Hydro	nhytic v	egetation a	nd
Coast Pra	airie Redox (A16) (	MLRA 150A	)Umbric Surfa	ace (F13) <b>(L</b>	.RR P, T,	U)					present, un	
Sandy Mi	ucky Mineral (S1)	LRR O. S)	Delta Ochric	(F17) (MLR	RA 151)		d	isturbed o	r probler	natic.		
Gariay IVIC				` ' '	-							
	eyed Matrix (S4)		Reduced Ve	. , .	ILRA 150	A, 150B)						
		,		rtic (F18) <b>(N</b>								
Sandy Gle Sandy Re Stripped I	edox (S5) Matrix (S6)	•	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) <b>(</b>	MLRA 14	9A)	53C, 153[	<b>)</b> )			
Sandy Gle Sandy Re Stripped I	edox (S5)	•	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) <b>(</b>	MLRA 14	9A)	53C, 153[	))			
Sandy Glean Sandy Restrictive L	edox (S5) Matrix (S6)	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) <b>(</b>	MLRA 14	9A)	53C, 153[	))			
Sandy Gleen Sandy Results Stripped I Dark Surf	edox (S5) Matrix (S6) face (S7) (LRR P,	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14	9A) A 149A, 1	53C, 153E	Yes	x	No	
Sandy Glean Sandy Restrictive L	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153E		х	No	
Sandy Glean Sandy Restripped I Dark Surf	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153E		x	No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153D		X	No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153D		x	No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153E		х	_ No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153E		x	_ No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153E		X	No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153E		X	No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153E		х	_ No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153D		х	No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153D		х	No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153D		x	No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153D		х	_ No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153E		х	_ No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153E		x	_ No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153E		х	No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153D		х	No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153D		х	No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153D		x	_ No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153D		x	_ No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153D		x	_ No	
Sandy Glo Sandy Re Stripped I Dark Surf  Restrictive L Type: Depth (inc	edox (S5) Matrix (S6) face (S7) (LRR P, Layer (if observed	S, T, U)	Reduced Ve	rtic (F18) <b>(M</b> oodplain So	ils (F19) ( y Soils (F	MLRA 14 20) (MLR	9A) A 149A, 1	53C, 153E		x	_ No	

## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Applicant/Oursey Ct. Demand Fernancia Development Fernandation	City/County: St. Bernard Sampling Date: June 21, 2016					
Applicant/Owner: St. Bernard Economic Development Foundation	State: Louisiana Sampling Point: 8					
Investigator(s): B. McCoy, Q. Daigre	Section, Township, Range: Secs 3 & 4, T-13-S, R-13-E					
	ocal relief (concave, convex, none): none					
Subregion (LRR or MLRA): LRR O Lat: 29°55'29	.6" N Long: 89°54'47.1" W Datum: NAD 83					
	NWI Classification:					
Are climatic / hydrologic conditions on the site typical for this time of year?						
Are Vegetation, Soil, or Hydrologysignificantly disturbed						
Are Vegetation, Soil, or Hydrology naturally problemati						
	(					
SUMMARY OF FINDINGS – Attach site map showing sa	ampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area					
Hydric Soil Present? Yes X No	within a Wetland? Yes X No					
Wetland Hydrology Present? Yes X No	-					
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required; check all that apply)  X Surface Water (A1) Aquatic Fauna (B:	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2)  Marl Deposits (B1	5) (LRR U) Drainage Patterns (B10)					
X Saturation (A3) Hydrogen Sulfide Water Marks (B1) X Oxidized Rhizospl	Odor (C1) Moss Trim Lines (B16) neres on Living Roots (C3) Dry-Season Water Table (C2)					
Sediment Deposits (B2)  Value Marks (B1)  Sediment Deposits (B2)  Presence of Redu						
	ction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4) Thin Muck Surface	e (C7) Geomorphic Position (D2)					
Algal Mat or Crust (B4) Iron Deposits (B5)  Algal Mat or Crust (B4) Thin Muck Surface Other (Explain in I	e (C7) Geomorphic Position (D2)					
Algal Mat or Crust (B4) Thin Muck Surface	Ge (C7) Geomorphic Position (D2) Remarks) Shallow Aquitard (D3)					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)  Thin Muck Surface Other (Explain in I	Ge (C7)  Remarks)  Geomorphic Position (D2)  Shallow Aquitard (D3)  X FAC-Neutral Test (D5)					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Thin Muck Surfact Other (Explain in I	Ge (C7)  Remarks)  Geomorphic Position (D2)  Shallow Aquitard (D3)  X FAC-Neutral Test (D5)					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations:  Thin Muck Surface Other (Explain in I	Ge (C7)  Remarks)  Geomorphic Position (D2)  Shallow Aquitard (D3)  X FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1	Ge (C7)  Remarks)  Geomorphic Position (D2)  Shallow Aquitard (D3)  X FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1	Ge (C7)  Remarks)  Geomorphic Position (D2)  Shallow Aquitard (D3)  X FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, 1)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, 1)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, 1)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, 1)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, 1)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, 1)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, 1)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, 1)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, 1)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, 1)	Ge (C7) Remarks) Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes X No					

Profile Desc Depth	ription: (Describe Matrix	to the dept		nent the ir		r confirm	the absence	of indicators	s.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Rema	rks
0-2	10YR 3/1	98	7.5YR 4/6	2	С	PL	Clay Loam			
2-6	10YR 4/1	100			N/A	N/A	Clay			
6-18+	10YR 4/1	97	10YR 4/6	2		M	Clay			
			10YR 5/1	1		M	N/A			-
				<u> </u>						
¹Type: C=Co	oncentration, D=De	oletion, RM=	Reduced Matrix, C	S=Covered	d or Coate	d Sand G	rains. <sup>2</sup> L	ocation: PL=	Pore Lin	ing, M=Matrix.
Hydric Soil I	ndicators:						Indica	tors for Prol	olematic	Hydric Soils <sup>3</sup> :
Histosol (			Polyvalue Be	low Surfac	e (S8) <b>(Li</b>	RR S, T, L	J) 1 cm	Muck (A9) (L	RR O)	
Histic Epi	pedon (A2)		Thin Dark Su	face (S9) (	LRR S, T	, U)	2 cm	Muck (A10) (	LRR S)	
Black His	tic (A3)		Loamy Gleye	d Matrix (F	1) <b>(LRR (</b>	<b>)</b>	Redu	ced Vertic (F	18) <b>(outs</b>	ide MLRA 150A,B)
Hydrogen	Sulfide (A4)		Loamy Gleye	d Matrix (F	<sup>-</sup> 2)		Piedm	nont Floodpla	in Soils (I	F19) <b>(LRR P, S, T)</b>
Stratified	Layers (A5)		X Depleted Ma	trix (F3)			Anom	alous Bright	Loamy So	oils (F20)
Organic E	Bodies (A6) (LRR P	, T, U)	Redox Dark	Surface (F6	6)		(MI	LRA 153B)		
5 cm Mud	ky Mineral (A7) (LF	RR P, T, U)	Depleted Dar	k Surface	(F7)		Red F	Parent Materi	al (TF2)	
Muck Pre	sence (A8) (LRR U	)	Redox Depre	ssions (F8	3)		Very	Shallow Dark	Surface	(TF12)
1 cm Mud	k (A9) <b>(LRR P, T)</b>		Marl (F10) (L	RR U)			Other	(Explain in F	Remarks)	
Depleted	Below Dark Surface	e (A11)	Depleted Ocl	nric (F11) <b>(</b>	MLRA 15	1)				
Thick Da	k Surface (A12)		Iron Mangan	ese Masse	s (F12) <b>(L</b>	RR O, P,	T) <sup>3</sup> Indic	ators of Hydr	onhytic ve	egetation and
Coast Pra	airie Redox (A16) (N	/ILRA 150A)	Umbric Surfa	ce (F13) (I	LRR P, T,	U)				present, unless
	ucky Mineral (S1) <b>(L</b>	RR O, S)	Delta Ochric	(F17) <b>(ML</b> I	RA 151)		distur	bed or proble	matic.	
	eyed Matrix (S4)		Reduced Ver			-				
Sandy Re			Piedmont Flo				-			
	Matrix (S6) ace (S7) <b>(LRR P, S</b>	s, T, U)	Anomalous E	Bright Loam	ny Soils (F	20) <b>(MLR</b>	A 149A, 153C,	, 153D)		
Restrictive I	.ayer (if observed)	•								
Type:	ayer (ii observed)	-			Hvd	ric Soil P	resent?	Yes	х	No
Depth (in	ches):									
Remarks:										

## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 263-Acre Sinclair Site	City/County: St. Bernard Sampling Date: June 21, 2016					
Applicant/Owner: St. Bernard Economic Development Foundation	State: Louisiana Sampling Point: 9					
Investigator(s): B. McCoy, Q. Daigre	Section, Township, Range: Secs 3 & 4, T-13-S, R-13-E					
Landform (hillslope, terrace, etc.) Pasture Loc	cal relief (concave, convex, none): none Slope (%): 0					
Subregion (LRR or MLRA): LRR O Lat: 29°55'34"	N Long: 89°55'30.4" W Datum: NAD 83					
Soil Map Unit Name: Cancienne silt loam	NWI Classification:					
Are climatic / hydrologic conditions on the site typical for this time of year?						
Are Vegetation , Soil , or Hydrology significantly disturbed						
Are Vegetation, Soil, or Hydrology naturally problematic	<del></del>					
	( · · · · · · · · · · · · · · · · · · ·					
SUMMARY OF FINDINGS – Attach site map showing sar	mpling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area					
Hydric Soil Present? Yes X No	within a Wetland? Yes NoX					
Wetland Hydrology Present? Yes No _X						
Remarks:						
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) Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2)  Marl Deposits (B15)	) (LRR U) Drainage Patterns (B10)					
Saturation (A3) Hydrogen Sulfide O Water Marks (B1) Oxidized Rhizosphe	Odor (C1) Moss Trim Lines (B16) eres on Living Roots (C3) Dry-Season Water Table (C2)					
Sediment Deposits (B2)  Presence of Reduce	ed Iron (C4) Crayfish Burrows (C8)					
	ion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) (C7) Geomorphic Position (D2)					
Algal Mat or Crust (B4) — Thin Muck Surface Iron Deposits (B5) — Other (Explain in Re						
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 X Depth (inches):						
Water Table Present? Yes No_X Depth (inches):	Wetland Hydrology Present? Yes No X					
Saturation Present? Yes No _X _ Depth (inches): (includes capillary fringe)						
(includes capillary fillige)						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:					
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						

			n needed to docur			r confirm	the absence	e of indica	itors	.)	
Depth (inches)	Matrix	%		dox Featur %		Loc²	Texture			Rema	orko
(inches)	Color (moist)		Color (moist)		Type'			·		Kem	aino
0-2	10YR 3/1	100	40)/D 0/4		N/A	<u>N/A</u>	Clay	· <del></del>			
2-5	10YR 4/1	95	10YR 3/1	5	C	<u>M</u>	Clay				
5-18+	10YR 4/2	100			N/A	N/A	Clay				
			_								
			_								
<sup>1</sup> Type: C=C	oncentration, D=De	epletion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand Gra	ains.	Location:	PL=	Pore Lir	ning, M=Matrix.
Hydric Soil	ndicators:						Indic	ators for l	Prob	lematic	Hydric Soils³:
Histosol (	(A1)		Polyvalue Be	low Surfac	e (S8) <b>(Li</b>	RR S, T, U)	1 cm	n Muck (A9	) <b>(</b> LF	RR O)	
Histic Ep	pedon (A2)		Thin Dark Su	face (S9) (	LRR S, T	, U)	2 cm	n Muck (A1	0) <b>(L</b>	RR S)	
Black His	tic (A3)		Loamy Gleye	ed Matrix (F	1) <b>(LRR (</b>	<b>)</b>	Red	uced Verti	c (F1	8) <b>(out</b> s	side MLRA 150A,B)
Hydroger	Sulfide (A4)		Loamy Gleye	ed Matrix (F	2)		Piec	lmont Floo	dplai	n Soils	(F19) <b>(LRR P, S, T)</b>
Stratified	Layers (A5)		X Depleted Ma	trix (F3)			Ano	malous Bri	ght L	oamy S	Soils (F20)
Organic I	Bodies (A6) (LRR F	P, T, U)	Redox Dark S	Surface (F	3)		-	/ILRA 153I	-		
5 cm Mud	cky Mineral (A7) <b>(L</b>	.RR P, T, U)	Depleted Dar		` '		Red	Parent Ma	ateria	ıl (TF2)	
Muck Pre	sence (A8) (LRR I	J)	Redox Depre	ssions (F8	)		Very	Shallow D	Dark	Surface	(TF12)
1 cm Mud	ck (A9) <b>(LRR P, T)</b>		Marl (F10) <b>(L</b>	RR U)			Othe	er (Explain	in R	emarks)	
	Below Dark Surface	ce (A11)	Depleted Oct	nric (F11) <b>(</b>	MLRA 15	1)					
	rk Surface (A12)		Iron Mangane				) 3 <sub>Indi</sub>	cators of H	lvdro	phytic v	egetation and
	airie Redox (A16) <b>(</b>	-				U)	wetl	and hydrol	ogy r	nust be	present, unless
	ucky Mineral (S1) (	(LRR O, S)	Delta Ochric				distu	ırbed or pr	oble	matic.	
	eyed Matrix (S4)		Reduced Ver			-					
Sandy Re	edox (S5)		Piedmont Flo	odplain Sc	ils (F19) <b>(</b>	MLRA 149	A)				
	Matrix (S6)		Anomalous E	Bright Loam	ny Soils (F	20) <b>(MLRA</b>	149A, 1530	C, 153D)			
Dark Sur	face (S7) (LRR P,	S, T, U)									
	_ayer (if observed	I):									
Type:	-h \		<u></u>		Hyd	ric Soil Pre	esent?	١	es/	Х	No
Depth (in	cnes):										
Remarks:											

## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 263-Acre Sinclair Site	City/County: St. Bernard Sampling Date: June 22, 2016					
Applicant/Owner: St. Bernard Economic Development Foundation	State: Louisiana Sampling Point: 10					
Investigator(s): B. McCoy, Q. Daigre	Section, Township, Range: Secs 3 & 4, T-13-S, R-13-E					
Landform (hillslope, terrace, etc.) Pasture Local	cal relief (concave, convex, none): none Slope (%): 0					
Subregion (LRR or MLRA): LRR O Lat: 29°55'23.8	3" N Long: 89°55'20.1" W Datum: NAD 83					
Soil Map Unit Name: Cancienne silt loam						
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)					
Are Vegetation, Soil, or Hydrologysignificantly disturbed	d? Are "Normal Circumstances" present? Yes X No					
Are Vegetation, Soil, or Hydrology naturally problematic						
<del>_</del>						
SUMMARY OF FINDINGS – Attach site map showing sai	mpling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present?  Yes X No	Is the Sampled Area					
Hydric Soil Present? Yes X No	within a Wetland? Yes X No					
Wetland Hydrology Present? Yes X No						
Remarks:						
LIVERALANY						
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)					
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	Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2)  X Saturation (A3)  Marl Deposits (B15) Hydrogen Sulfide O						
Water Marks (B1) Oxidized Rhizosphe	eres on Living Roots (C3) Dry-Season Water Table (C2)					
Sediment Deposits (B2)  Drift Deposits (B3)  Presence of Reduction	ed Iron (C4) X Crayfish Burrows (C8) ion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4)  Algal Mat or Crust (B4)  Thin Muck Surface						
Iron Deposits (B5) Other (Explain in Re	emarks) Shallow Aquitard (D3)					
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)					
Field Observations:						
Surface Water Present? Yes No X Depth (inches):						
Water Table Present? Yes No X Depth (inches):						
Saturation Present? Yes X No Depth (inches): 10	Wetland Hydrology Present? Yes X No					
(includes capillary fringe)						
(includes capillary fringe)	vavious inspections) if available:					
<u> </u>	revious inspections), if available:					
(includes capillary fringe)	evious inspections), if available:					
(includes capillary fringe)	evious inspections), if available:					
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	revious inspections), if available:					
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr  Remarks:	evious inspections), if available:					
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr  Remarks:	evious inspections), if available:					
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr  Remarks:	revious inspections), if available:					
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr  Remarks:	evious inspections), if available:					
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr  Remarks:	evious inspections), if available:					
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(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr  Remarks:	evious inspections), if available:					
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr  Remarks:	evious inspections), if available:					
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr  Remarks:	revious inspections), if available:					

				Dominance Test worksheet:
Troo Stratum (Diot aizo:	Absolute	Dominant Species 2	Indicator	
Tree Stratum (Plot size:) 1.	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
				That Are OBE, I AOW, OF I AO. 4
2				Total Number of Dominant
4.				Species Across All Strata: 4 (B)
5.				•
6.				Percent of Dominant Species
7.				That Are OBL, FACW, or FAC:100 (A/B)
8.				Prevalence Index worksheet:
	0	= Total Cov	er	Total % Cover of: Multiply by:
50 % of total cover: 0	20 % c	of total cover:	0	OBL species x 1 =
				FACW species X 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species X 3 =
1				FACU species X 4 =
2				UPL species X 5 =
3				-
4				Column Totals: (A) (B)
5				
6				Prevalence Index = B/A =
7				Hydrophytic Vegetation Indicators:
8				1 - Rapid Test for Hydrophytic Vegetation
FO % of total cover:		= Total Cov of total cover:		X 2 – Dominance Test is > 50%
50 % of total cover: 0	_ 20 % C	i lulai cuvei.	0	3 – Prevalence Test is ≤ 3.0 <sup>1</sup>
Herb Stratum (Plot size: 30' radius )				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Diodia virginiana (Virginia buttonweed)	40	Υ	FACW	
Eleocharis montevidensis (Sand spike-rush)	35	Y	FACW	Indicators of hydric soil and wetland hydrology must
Phyla lanceolata (Northern frogfruit)	30	Υ	OBL	be present, unless disturbed or problomatic.
Stenotaphrum secundatum (St. augustine grass)	30	Y	FAC	Definitions of Vegetation Strata:
5. Paspalum urvillei (Vasey's grass)	20		FAC	Tree – Woody plants, excluding woody vines,
6. Vernonia gigantea (Giant ironweed)	20		FAC	approximately 20 ft (6 m) or more in height and 3 in.
7. Hydrocotyle umbellata (Many-flower marsh-pennywor	10		OBL	(7.6 cm) or larger in diameter at breast height (DBH).
8. Bacopa monnieri (Herb-of-grace)	5		OBL	Sapling – Woody plants, excluding woody vines,
9. Plantago major (Great plantain)	3		FACU	approximately 20 ft (6 m) or more in height and less
10. Verbena brasiliensis (Brazilian vervain)	2		FAC	than 3 in. (7.6 cm) DBH.
11				Shrub – Woody plants, excluding woody vines,
12				approximately 3 to 20 ft (1 to 6 m) in height.
	195	= Total Cov		<b>Herb</b> – All herbaceous (non-woody) plants, including
50 % of total cover: 97.5	_ 20 % c	of total cover:	39	herbaceous vines, regardless of size. Includes woody
NV 1 1/2 0/ / (D) /				plants, except woody vines, less than approximately
Woody Vine Stratum (Plot size:)				3 ft (1 m) in height.
1				Woody vine – All woody vines, regardless of height.
				•
o	0	= Total Cov	or	•
50.0% of total account 0				Hydrophytic
50 % of total cover:0	_ 20 % 0	of total cover:	0	Vegetation
				Present? Yes X No
Remarks: (Include photo numbers here or on a separate	sheet \			
Tremains. (moldae photo numbers here of on a separate of	Silect.)			

	ription: (Describe					or confirm	the absence	of indicators	s.)	
Depth (inches)	Color (moist)	%	Color (moist)	edox Featur %	es Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Rema	arke
0-5		97	10YR 5/8	3	С	M			IXGIII	iiko
	10YR 3/1			4		M	Clay Loam Silty Clay			-
5-8	10YR 5/1	95	10YR 5/2							
	40)/D 4/0		10YR 5/8	1		PL/M	N/A			
8-18+	10YR 4/2	97	10YR 4/6	3	C	M	Clay Loam			
						-				
<sup>1</sup> Type: C=Co	oncentration, D=De	epletion, RM=	Reduced Matrix, C	S=Covered	or Coate	ed Sand G	rains. <sup>2</sup> L	ocation: PL=	=Pore Lin	ing, M=Matrix.
Hydric Soil	ndicators:						Indica	tors for Prok	olematic	Hydric Soils <sup>3</sup> :
Histosol (	A1)		Polyvalue Be	elow Surfac	e (S8) <b>(L</b> l	RR S, T, U	)1 cm	Muck (A9) (L	RR O)	
Histic Epi	pedon (A2)		Thin Dark S	uface (S9) <b>(</b>	LRR S, T	, U)	2 cm	Muck (A10) (	LRR S)	
Black His			Loamy Gley	ed Matrix (F	1) <b>(LRR</b>	0)	Redu	ced Vertic (F	18) <b>(outs</b>	ide MLRA 150A,B)
	Sulfide (A4)		Loamy Gley	ed Matrix (F	2)		Piedn	nont Floodpla	in Soils (	F19) <b>(LRR P, S, T)</b>
Stratified	Layers (A5)		X Depleted Ma	trix (F3)			Anom	alous Bright	Loamy S	oils (F20)
Organic E	Bodies (A6) (LRR P	P, T, U)	Redox Dark	Surface (F6	6)		-	LRA 153B)		
5 cm Mud	cky Mineral (A7) <b>(L</b>	RR P, T, U)	Depleted Da		` '		Red F	Parent Materia	al (TF2)	
Muck Pre	sence (A8) (LRR L	J)	Redox Depre	essions (F8	)		Very	Shallow Dark	Surface	(TF12)
1 cm Mud	k (A9) <b>(LRR P, T)</b>		Marl (F10) <b>(I</b>	_RR U)			Other	(Explain in R	(emarks	
	Below Dark Surface	e (A11)	Depleted Oc	hric (F11) <b>(</b> I	MLRA 15	1)				
	rk Surface (A12)		Iron Mangan				T) <sup>3</sup> Indic	ators of Hvdr	ophytic v	egetation and
	airie Redox (A16) (I	-				U)	wetlar	nd hydrology	must be	present, unless
	ucky Mineral (S1) (	LRR O, S)	Delta Ochric				distur	bed or proble	matic.	
	eyed Matrix (S4)		Reduced Ve			-				
Sandy Re	edox (S5)		Piedmont Flo	oodplain So	ils (F19)	(MLRA 14	9A)			
	Matrix (S6)		Anomalous I	Bright Loam	ıy Soils (F	20) <b>(MLR</b>	A 149A, 153C,	, 153D)		
Dark Sur	face (S7) <b>(LRR P, S</b>	S, T, U)								
	ayer (if observed	):								
Type: Depth (in	choc):				Hyd	Iric Soil P	resent?	Yes	X	No
			<u> </u>							
Remarks:										

## Appendix B PHOTOGRAPHS



Photograph 1. Soil Profile Observed at Sample Plot 1



Photograph 2. Overview of the Habitat Observed at Sample Plot 1, Facing Northeast



Photograph 3. Overview of the Habitat Observed at Sample Plot 1, Facing Southwest



Photograph 4. Soil Profile Observed at Sample Plot 2



Photograph 5. Overview of the Habitat Observed at Plot 2, Facing Northeast



Photograph 6. Overview of the Habitat Observed at Plot 2, Facing Southwest



Photograph 7. Soil Profile Observed at Sample Plot 3



Photograph 8. Overview of the Habitat Observed at Sample Plot 3, Facing Northeast



Photograph 9. Overview of the Habitat Observed at Sample Plot 3, Facing Southwest



Photograph 10. Soil Profile Observed at Sample Plot 4



Photograph 11. Overview of the Habitat Observed at Sample Plot 4, Facing Northeast



Photograph 12. Overview of the Habitat Observed at Sample Plot 4, Facing Southwest



Photograph 13. Soil Profile Observed at Sample Plot 5



Photograph 14. Overview of the Habitat Observed at Sample Plot 5, Facing Northeast



Photograph 15. Overview of the Habitat Observed at Sample Plot 5, Facing Southwest



Photograph 16. Soil Profile Observed at Sample Plot 6



Photograph 17. Overview of the Habitat Observed at Sample Plot 6, Facing Northeast



Photograph 18. Overview of the Habitat Observed at Sample Plot 6, Facing Southwest



Photograph 19. Soil Profile Observed at Sample Plot 7



Photograph 20. Overview of the Habitat Observed at Sample Plot 7, Facing Northeast



Photograph 21. Overview of the Habitat Observed at Sample Plot 7, Facing Southwest



Photograph 22. Soil Profile Observed at Sample Plot 8



Photograph 23. Overview of the Habitat Observed at Sample Plot 8, Facing Northeast



Photograph 24. Overview of the Habitat Observed at Sample Plot 8, Facing Southwest



Photograph 25. Soil Profile Observed at Sample Plot 9



Photograph 26. Overview of the Habitat Observed at Sample Plot 9, Facing Northeast



Photograph 27. Overview of the Habitat Observed at Sample Plot 9, Facing Southwest



Photograph 28. Soil Profile Observed at Sample Plot 10



Photograph 29. Overview of the Habitat Observed at Sample Plot 10, Facing Northeast



Photograph 30. Overview of the Habitat Observed at Sample Plot 10, Facing Southwest