Exhibit FF. Calhoun Technology Park - North Site Wetlands Delineation Report





Calhoun Technology Park - North Site Wetlands Delineation Report

WETLANDS INVESTIGATION REPORT

Calhoun Technology Park North Tract Ouachita Parish, Louisiana

Prepared for

Mr. Kevin Crosby, P.E. Lazenby and Associates, Inc. 2000 North 7th Street West Monroe, Louisiana 71291

Prepared by MCABEE WETLAND SERVICES 655 MEADOWBROOK ROAD JACKSON, MS 39206

May 10, 2015

INTRODUCTION

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A wetlands investigation was conducted for an approximately 241 acre tract of land (herein called the "Site") located on the north side of U.S. Highway 80 (US 80) east of Calhoun in Ouachita Parish, Louisiana (Exhibits 1 and 2). The purpose of the investigation was to identify and delineate wetlands and other *Waters of the U.S.* The investigator was Mr. Bill McAbee with McAbee Wetland Services, and the Site was investigated on March 14 and 15, 2015. Methodology of the investigation followed guidelines set forth in the 1987 Wetland Delineation Manual and the Regional Supplement Manual for the Atlantic and Gulf Coastal Plain Region (Version 2.0).

The Site is part of the former Louisiana State University Calhoun Research Center, now named the Calhoun Technology Park. The facility has been the site of agriculture related research for over 100 years and in recent years has focused on timber management, especially loblolly pine (*Pinus taeda*) management. The site contains predominantly upland habitat which has been consistently impacted through various agriculture research, there are still a lot of pine plantation stands.

The Site is bordered by Curry Creek on the north and then Interstate 20 (I-20) (Exhibit 3). US 80 borders the Site on the south side. The topography rises and is highest near US 80 where there are numerous buildings. Elevations on the site vary from approximately 175 feet above sea above mean level near US 80 to approximately 115' msl near I-20. Most of the uplands, not involved in experimental plantings (Exhibit 4), are maintained by mowing maintaining open grass pasture and lawns (Exhibit 5).

There is a large pond located near the center of the property and it is approximately 2.8 areas in size with considerable encroachment from emergent and submergent vegetation along the more shallow fringes (Exhibit 6). There is a smaller pond, approximately 50 foot diameter, located in an upland forested area on the northwest section of the Site (Exhibit 7). This minor pond may have been used for watering experimental plantings, there are no drainages to or from the pond. There are several minor ephemeral stream channels that transport storm water from the uplands to Curry Creek (Exhibit 8). The lower reaches of these minor channels developed wetland characteristics as the topography flattens our prior to entering Curry Creek.

Uplands were primarily pine and pine/hardwood mix forest or maintained grass pasture and lawns. Wetlands were typically hardwood bottomland associated with seasonally inundated or saturated floodplain terraces.

The Ouachita Parish Soil Survey showed that approximately 73% of the soils on the Site were Ruston-Lucy association, either hilly or undulating (see Appendix A). Approximately 22% were Guyton-Rosebloom complex frequently flooded, and approximately 5% were Or-Savannah association, gently rolling. Approximately 78% of the mapped soils are moderate well to well drained soils.

Historical aerial photography dating back to 1998 was reviewed on google earth to identify any possible recurring "wet" signatures such as inundation or saturation. These were noted and investigated during the site visit.

FINDINGS

After reviewing the referenced background materials, a site reconnaissance that included soil, vegetation, and hydrological evaluations was conducted, Wetland data forms are provided in Appendix B. The field investigations confirmed that there are wetlands and Other Waters of the US on the Site, a total of 28.9 acres of forested wetlands, 3.9 acres of herbaceous wetlands, 2.9 acres of ponds, and 2,241 linear feet of

perennial streams were identified on the Site. See Exhibit 9 for the wetlands and stream location map.

Forested wetlands are found along Curry Creek and in fairly narrow bands in most of the valleys especially as they near the Curry Creek floodplain and slopes flatten out (Exhibit 10). Wetland upland boundaries were easily defined south of Curry Creek because the elevation gain is rapid creating a well-defined landform feature (Exhibit 11). Although the vegetation change from bottomland hardwoods to pine hardwood uplands was often apparent, soils were regularly inspected to confirm the boundary. On the north side of the channel, primarily on the southwestern part of the Site, the boundary was determined partly by landform features but more by examining soils for hydrological indicators.

Emergent wetlands surround the larger pond both in the shallow edges of the pond and in the moist soils adjacent (Exhibit 12). Curry Creek is an undefined channel with marsh habitat (Exhibit 13) on the northeast section of the Site with dominate obligate species including cypress (*Toxodium spp.*), button bush (*Cephalanthus occidentalis*), pondweed (*Potamogeton spp*), and rush (*Juncus spp*). Since this marsh was permanently inundated and full of obligate species a data form was not completed.

Although the U.S. Army Corps of Engineers will make the final call it is highly likely that the identified wetlands and Curry Creek would be considered jurisdiction waters under current regulations and any impacts to the wetlands and or the creek channels would require a Section 404 permit.

If you have any additional questions please contact me any time.

Sincerely,

Willia C. Mcthe

William C. "Bill" McAbee McAbee Wetland Services 655 Meadowbrook Road Jackson, MS 39206 Wcmcabee33@gmail.com 601.715.4803



EXHIBIT 1. GENERAL LOCATION MAP

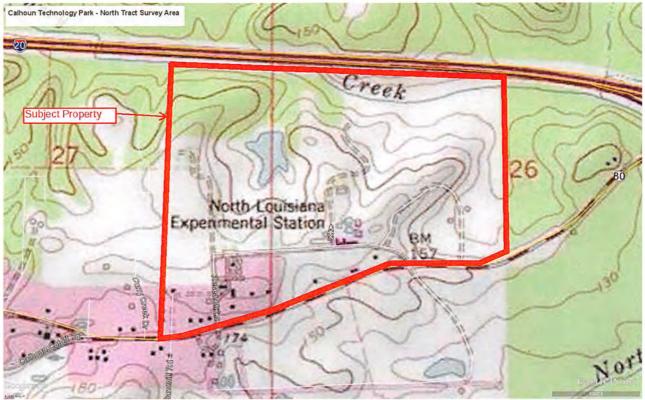


EXHIBIT 2. LOCATION MAP WITH USGS MAPPING BACKGOUND.



EXHIBIT 3. CURRY CREEK.

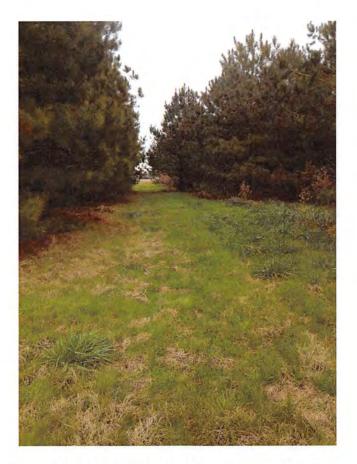


EXHIBIT 4. UPLAND PINE PLANTATION.



EXHIBIT 5. TYPICAL GRASS LAWNS



EXHIBIT 6. CENTRAL POND.



EXHIBIT 7. ISOLATED POND.



EXHIBIT 8. EPHEMERAL DRAINAGE.



EXHIBIT 9. WETLAND AND STREAM LOCATION MAP.



EXHIBIT 10. FORESTED WETLAND.



EXHIBIT 11. WETLAND UPLAND BOUNDARY.



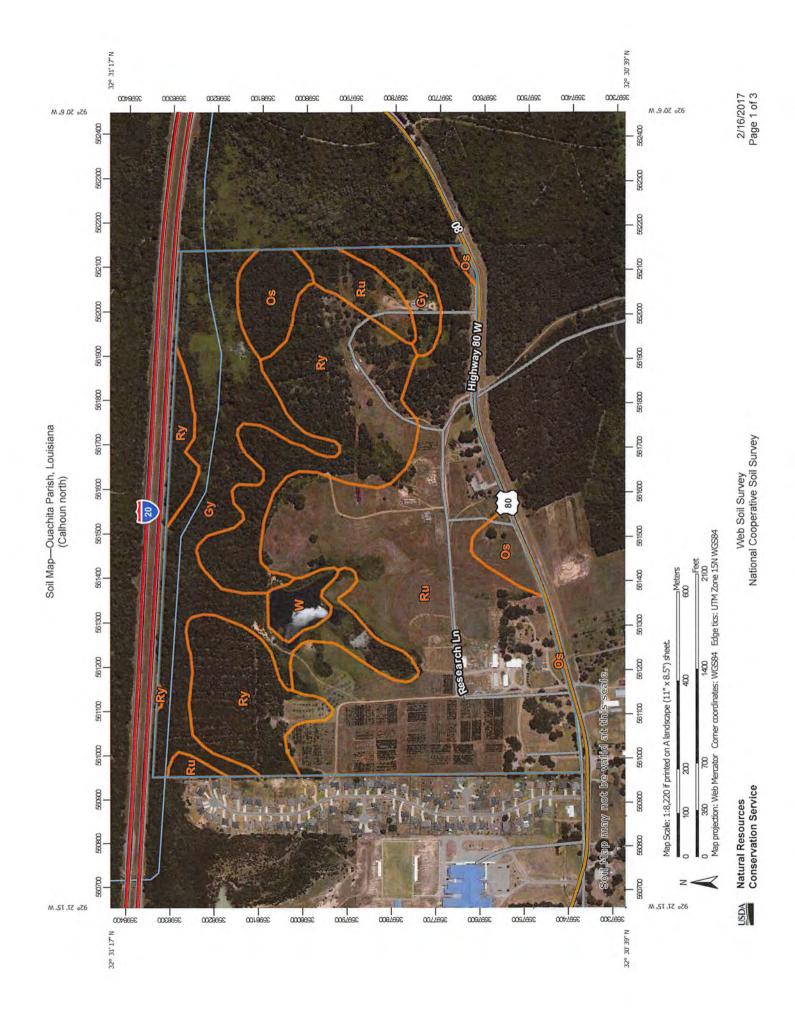
EXHIBIT 12. EMERGENT WETLANDS AT LARGE POND.

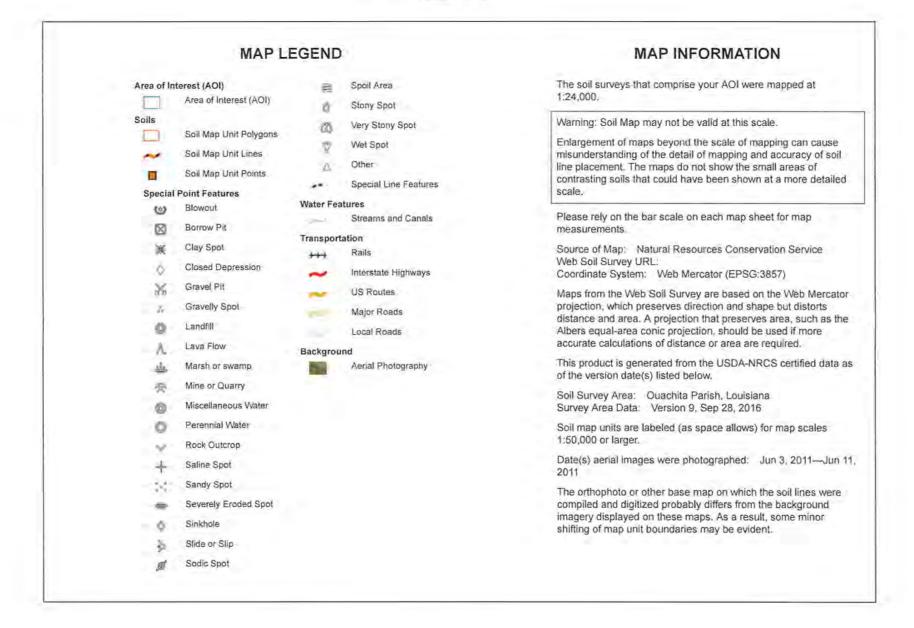


EXHIBIT 13. MARSH WETLANDS CURRY CREEK.

APPENDIX A

SOIL SURVEY MAPPING





USDA

Ouachita Parish, Louisiana (LA073)							
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI				
Gy	Guyton-Rosebloom complex, frequently flooded	50.3	21.6%				
Os	Ora-Savannah association, gently rolling	11.6	5.0%				
Ru	Ruston-Lucy association, 109.3 undulating	109.3	47.0%				
Ry	Ruston-Lucy association, hilly	57.4	24.7%				
V Water		4.0	1.7%				
Totals for Area of Interest		232.5	100.0%				

Map Unit Legend



APPENDIX B

WETLAND DATA FORMS

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WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Calhoun Techn	ology Park		_{ounty:} Ouachita		Sampling Date: <u>3-14-2015</u>
Applicant/Owner: North Louis	iana Economic Partn	City/C	ounty: Outonita		Sampling Date: Un 1
				_ State:	Sampling Point: up 1
Investigator(s): Bill McAbee		Section	n, Township, Range:	SZI TION, RIE	
					Slope (%): <u>5-15%%</u>
		_ Lat: <u>32.51814</u>	Long:	-92.34905	Datum:
Soil Map Unit Name: Ruston-	lucy association, hilly			NWI classific	ation: upland
Are climatic / hydrologic conditi		this time of year? Y			
					present? Yes X No
Are Vegetation, Soil		•			
Are Vegetation, Soil	, or Hydrology	_ naturally problems	tic? (If needed	l, explain any answe	rs in Remarks.)
SUMMARY OF FINDING	S – Attach site ma	ap showing sam	pling point locat	tions, transects	, important features, etc.
		No			
Hydrophytic Vegetation Prese Hydric Soil Present?	ntr tes <u></u> Ves X	No No	Is the Sampled Area		
Wetland Hydrology Present?		No No	within a Wetland?	Yes_X	No
Remarks:					
	r cummit				
Upland hillslope nea	r summit.				
HYDROLOGY					A
Wetland Hydrology Indicato		-11 46 -6 6 3			tors (minimum of two required)
Primary Indicators (minimum				Surface Soil	
Surface Water (A1)	- FT ·	atic Fauna (B13)			getated Concave Surface (B8)
High Water Table (A2)		Deposits (B15) (LRF ogen Sulfide Odor (C	•	Drainage Pa	· ·
Water Marks (B1)			ong Living Roots (C3)		Water Table (C2)
Sediment Deposits (B2)		ence of Reduced iror		Crayfish Bur	
Drift Deposits (B3)		ent Iron Reduction in			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Muck Surface (C7)		—	Position (D2)
Iron Deposits (B5)	🔲 Othe	r (Explain in Remark	s)	🗍 Shallow Aqu	itard (D3)
Inundation Visible on Aeri	al Imagery (B7)			FAC-Neutral	Test (D5)
Water-Stained Leaves (B	9)			🔲 Sphagnum n	noss (D8) (LRR T, U)
Field Observations:					
Surface Water Present?	Yes No <u>X</u>				
Water Table Present?	Yes No <u>X</u>	Depth (inches):			
Saturation Present?	Yes No <u>X</u>	Depth (inches):	Wetland	l Hydrology Preser	nt? Yes No X
(includes capillary fringe) Describe Recorded Data (stre	am gauge, monitoring w	ell, aerial photos, prev	/ious inspections), if a	vailable:	
			,,,,,,,,,,,,,,,,		
Remarks:					

WETLAND DETERMINATION DATA FORM – Atlantic and Guif Coastal Plain Region

Project/Site: Calhoun Techn	ology Park	City/Coun	_{nty:} Ouachita	Sa	ampling Date: <u>3-14-2015</u>
Applicant/Owner: North Louis	siana Economic Partne	ership	State	LA Sa	ampling Point; up 1
Investigator(s): Bill McAbee		Section 1	Township, Range: S27 T	18N, R1E	
Landform (hillslope, terrace, etc	, shoulder	Local relie	ef (concave, convex, none	, concave	Slope (%): <u>5-15%%</u>
Subregion (LRR or MLRA): LR		Lot: 32,51814	Long: -92.3	4905	Datum:
Soil Map Unit Name: Ruston-	lucy association hilly		Long	NWI classificatio	Datam
Are climatic / hydrologic conditi					
Are Vegetation, Soil					sent? Yes X No
Are Vegetation, Soil	, or Hydrology	naturally problematic?	? (If needed, explai	in any answers i	1 Remarks.)
SUMMARY OF FINDING	S – Attach site ma	p showing sampli	ing point locations,	transects, ir	nportant features, etc.
Hydrophytic Vegetation Prese	ent? Yes X	No			
Hydric Soil Present?	Yes <u>x</u>	No	the Sampled Area	Y	
Wetland Hydrology Present?		No Wi	ithin a Wetland?	Yes	No
Remarks:			· · · · · · · · · · · · · · · · · · ·		
Upland hillslope nea	ar summit.				
HYDROLOGY					
Wetland Hydrology Indicato)rs:		Sec	ondary Indicators	s (minimum of two required)
Primary Indicators (minimum			님	Surface Soil Cra	• • •
Surface Water (A1)		tic Fauna (B13)	님		ated Concave Surface (B8)
High Water Table (A2)		Deposits (B15) (LRR U))	Drainage Patter	
Saturation (A3)		ogen Sulfide Odor (C1)		Moss Trim Lines	
Water Marks (B1)	—	zed Rhizospheres along	H	Dry-Season Wat	
Sediment Deposits (B2)		ence of Reduced Iron (C		Crayfish Burrow	
Drift Deposits (B3)		ent Iron Reduction in Tille			le on Aerial Imagery (C9)
Algal Mat or Crust (B4)	—	Muck Surface (C7)		Geomorphic Pos	
Iron Deposits (B5)		r (Explain in Remarks)	님	Shallow Aquitare	
			님	FAC-Neutral Tes	· ·
Water-Stained Leaves (B	.9)			Sphagnum mos	s (DB) (LRR T, U)
Surface Water Present?		Depth (inches):			
Water Table Present?	Yes No X	Depth (inches):			
Saturation Present?	Yes No X	Depth (inches):	Wetland Hydro	loav Present?	Yes No_X
(includes capillary fringe)					
Describe Recorded Data (stre	am gauge, monitoring we	ell, aerial photos, previou	us inspections), if available		
Remarks:					
1					

Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>% Cover</u>	Species?	Status	Number of Dominant Species
			That Are OBL, FACW, or FAC: 5 (A)
	<u></u> n	fac	Total Number of Dominant Species Across All Strata: 7 (B)
			Percent of Dominant Species That Are OBL, FACW, or FAC: 71 (A/I
			Prevalence Index worksheet:
			Total % Cover of: Multiply by:
85	= Total Cov	/er	OBL species x 1 =
20% of	total cover	17	FACW species x 2 =
_			FAC species x 3 =
25	У	fac	FACU species x 4 =
			UPL species x 5 =
			Column Totals: (A) (B
			Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
			- 1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
			$\frac{1}{3} - \frac{1}{3} - \frac{1}$
	= Total Cov	/er	Problematic Hydrophytic Vegetation ¹ (Explain)
20% of	total cover	:	
			¹ Indicators of hydric soil and wetland hydrology must
15	У	fac	be present, unless disturbed or problematic.
5	<u>n</u>	facu	Definitions of Four Vegetation Strata:
10	У	facu	Tree - Woody plants, excluding vines, 3 in. (7.6 cm)
10	У	facu	more in diameter at breast height (DBH), regardless of
			height.
			Sapling/Shrub – Woody plants, excluding vines, less
			than 3 in. DBH and greater than 3.28 ft (1 m) tall.
			Harb - All herbaceous (non-woody) plants, regardles
			of size, and woody plants less than 3.28 ft tall.
			Woody vine - All woody vines greater than 3.28 ft in
			height.
40	= Total Co	<i>i</i> er	
20% of	i total cover	: 8	
15	У	fac	
15 10	<u>у</u>	fac fac	
	<u>у</u>		
	<u>у</u>		
	<u>y</u>		- - - - Hydrophytic
<u> 10 </u>	<u>у</u> = Total Cor	fac	Vegetation
10		fac	
	65 5 15 85 20% of 25 20% of 15 10 10 10 40	$ \begin{array}{c} \underline{65} & y \\ 5 & n \\ 15 & n \\ 15 & n \\ 15 & n \\ \underline{7} & 15 \\ 20\% of total cover \\ 20\% of total cover \\ 225 & y \\ \underline{25} & y \\ \underline{25} & z \\ 20\% of total cover \\ 225 & z \\ 20\% of total cover \\ 225 & z \\ 20\% of total cover \\ 225 & z \\ 20\% of total cover \\ 225 & z \\ 20\% of total cover \\ 20\% of total cover \\ 10 & y \\ 10 & y \\ 10 & y \\ 20\% of total cover \\ 40 & z \\ Total Cover \\ 20\% of total cover \\ 40 & z \\ Total Cover \\ 20\% of total cover \\ $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

US Army Corps of Engineers

SOIL

		•	
Sempling Point:	up 1		

Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks 0-2 10YR 5/2 100
2-16 10YR 5/4 100 sandy loam
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ?Location: PL=Pore Lining, M=Matrix. ydfc Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histosol (A1) Polyvalue Below Surface (S9) (LRR S, T, U) 2 cm Muck (A9) (LRR O) Black Histic (A3) Loamy Gleyed Matrix (F2) Reduced Vertic (F18) (outside MLRA 1 Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Stratified Layers (A5) Depleted Dark Surface (F6) (MLRA 153B) S cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Selow Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) 3Indicators of hydrophytic vegetation ar wetland hydroiogy must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S6) Piedmont Floodplain Solis (F19) (MLRA 150A, 150B) Piedmont Floodplain Solis (F20) (MLRA 149A) Stripped Matrix (S6) Piedmont Floodplain S

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Calhoun Technolog	y Park	City/C	ounty: Ouachit	a	Sampling Date: <u>3-14-2015</u>
Applicant/Owner: North Louisiana	a Economic Partne	rship		State: LA	Sampling Point: wet 1
Investigator(s): Bill McAbee		Sectio	n Townshin Re	nge: <u>S27 T18N, R1</u>	E
Leadform (billeland terrood ota)	illslope		raliaf (concerve)		EX Siope (%): _5-15%
Subregion (LRR or MLRA): LRR O					Glope (%) Datum:
Subregion (LRR or MLRA): LINCO		Lat: 02.0170			
Soil Map Unit Name: Guyton-Ros					
Are climatic / hydrologic conditions of	on the site typical for t	his time of year? Y			
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are	"Normal Circumstance	s" present? Yes X No
Are Vegetation, Soil,	, or Hydrology	_naturally problems	atic? (If ne	eeded, explain any an	swers in Remarks.)
SUMMARY OF FINDINGS -	Attach site map	p showing san	npling point I	ocations, transe	cts, important features, etc.
Hydrophytic Vegetation Present?	Yes <u>X</u>	No			
Hydric Soil Present?	Yes x	No	is the Sampled		
Wetland Hydrology Present?	Yes x		within a Wetla	na? res <u>-</u>	No
Remarks:			······		
Wetland on hillslope lea	iding toward p	ond to the ea	st. Minori	inclusions of so	rub/shrub and
herbaceous wetlands o					
		FF			
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary In	dicators (minimum of two required)
Primary Indicators (minimum of on	e is required; check a	(i that apply)		Surface \$	Soil Cracks (B6)
Surface Water (A1)	🛄 Aquat	ic Fauna (B13)		D Sparsely	Vegetated Concave Surface (B8)
High Water Table (A2)	📙 Mari D	Deposits (B15) (LRI	R U)	🗹 Drainage	Patterns (B10)
Saturation (A3)	L Hydro	gen Sulfide Odor (0	21)	🛄 Moss Tri	n Lines (B16)
Water Marks (B1)	🗹 Oxidiz	ed Rhizospheres a	long Living Roots	s (C3) 🔲 Dry-Seas	on Water Table (C2)
Sediment Deposits (B2)	Prese	nce of Reduced Iro	n (C4)	Crayfish	Burrows (C8)
Drift Deposits (B3)		nt Iron Reduction in	Tilled Soils (C6)	Saturatio	n Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	📙 Thin N	Auck Surface (C7)		Geomorp	hic Position (D2)
Iron Deposits (B5)	📙 Other	(Explain in Remark	s)		Aquitard (D3)
Inundation Visible on Aerial In	agery (B7)			=	tral Test (D5)
Water-Stained Leaves (B9)				Sphagnu	m moss (D8) (LRR T, U)
Field Observations:	~	cur	faco		
	s <u>X</u> NoD				
Water Table Present? Yes	s No <u>x</u> D	epth (inches):			
Saturation Present? Yes (includes capillary fringe)	s <u>x</u> No D	epth (inches): <u>sum</u>		etland Hydrology Pre	sent? Yes <u>×</u> No
Describe Recorded Data (stream g	auge, monitoring well	l, aerial photos, pre	vious inspections	s), if available:	
Remarks:					
Not inundation but satu	rated to surfac	e.			

VEGETATION (Four Strata) - Use scientific names of plants

Sam	nlina	Point:	W

t Indicator <u>Status</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>facw</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u> <u>fac</u>	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B) Prevalence Index worksheet: 100 (A/B) Total % Cover of: Multiply by: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
fac fac fac fac facw cover fac	That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B) Prevalence Index worksheet:
fac fac fac facw cover pr: fac	Intal Act of Display Total Number of Dominant 2 (K) Total Number of Dominant 2 (B) Percent of Dominant Species 100 (A/B) Prevalence Index worksheet: 100 (A/B) Prevalence Index worksheet: Multiply by: (A/B) Prevalence Index worksheet: Multiply by: (A/B) Prevalence Index worksheet: Multiply by: (A/B) FACW species x 1 = (A/B) FACW species x 2 = (B) FACU species x 3 = (B) FACU species x 5 = (B) Column Totals: (A) (B) Prevalence Index = B/A = (B) Prevalence Index is $<30.^{1}$ (B) Prevalence Index is $<50\%$ 3 - Prevalence Index is $<30.^{1}$ Problematic Hydrophytic Vegetation (Explain) 'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
fac facw facw over gr: 15 fac fac fac fac gr: 6 gr: 6 fac fac	Species Across All Strata: 2 (B) Percent of Dominant Species 100 (A/B) Prevalence Index worksheet: 100 (A/B) Prevalence Index worksheet: Multiply by: (A/B) OBL species $x 1 =$ (A/B) FACW species $x 1 =$ (A/B) FACW species $x 2 =$ (B) FACU species $x 3 =$ (B) VPL species $x 5 =$ (B) Oclumn Totals: (A) (B) Prevalence Index = B/A = (B) Prevalence Index = B/A = (B) Prevalence Index is >50% 3 - Prevalence Index is >50%
facw cver gr: 15 fac fac fac gr: fac	Species Across All Strata: 2 (B) Percent of Dominant Species 100 (A/B) Prevalence Index worksheet: 100 (A/B) Prevalence Index worksheet: Multiply by: (A/B) OBL species $x 1 =$ (A/B) FACW species $x 1 =$ (A/B) FACW species $x 2 =$ (B) FACU species $x 3 =$ (B) VPL species $x 5 =$ (B) Oclumn Totals: (A) (B) Prevalence Index = B/A = (B) Prevalence Index = B/A = (B) Prevalence Index is >50% 3 - Prevalence Index is >50%
fac	Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B) Prevalence Index worksheet:
fac fac fac fac score gr: fac	That Are OBL, FACW, or FAC: 100 (A/B) Prevalence Index worksheet: Multiply by: (A/B) OBL species x 1 =
fac fac fac fac score gr: fac	Init Are OBE, FACW, GTAC:
fac fac fac fac score gr: fac	Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) Hydrophytic Vegetation Indicators: (B) Prevalence Index = B/A =
fac fac fac fac score gr: fac	OBL species x 1 =
fac fac fac fac score gr: fac	FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) Prevalence Index = B/A = (B) Prevalence Index = B/A = (B) Image: the state of the st
fac fac fac fac score gr: fac	FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) Prevalence Index = B/A = (B) Prevalence Index = B/A = (B) Image: the state of the st
fac fac fac fac score gr: fac fac	FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) Prevalence Index = B/A = (B) Prevalence Index = B/A = (B) Hydrophytic Vegetation Indicators: (B) 1 - Rapid Test for Hydrophytic Vegetation 2- Dominance Test is >50% 3 - Prevalence Index is \$3.01 Problematic Hydrophytic Vegetation1 (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
fac fac fac grade grade fac grade fac fac grade fac fac fac fac fac fac	FACU species x 4 =
fac fac fac grade grade fac grade fac fac grade fac fac fac fac fac fac	UPL species x 5 =
fac	Column Totals: (A) (B) Prevalence Index = B/A = (B) Hydrophytic Vegetation Indicators: 1 1 1 Rapid Test for Hydrophytic Vegetation 1 2 Dominance Test is >50% 3 3 Prevalence Index is ≤3.01 1 Problematic Hydrophytic Vegetation1 (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 Definitions of Four Vegetation Strata: 1 Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or 1
over er: 6 fac facu	Prevalence Index = B/A =
over or: 6 fac facu	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is >3.01 Problematic Hydrophytic Vegetation1 (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
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fac facu	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
facu	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
facu	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
<u> </u>	
	more in diameter at breast height (DBH), regardless of
	height.
	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tail.
	Herb - Ali herbaceous (non-woody) plants, regardless
	of size, and woody plants less than 3.28 ft tall.
	Woody vine - All woody vines greater than 3.28 ft in
	height.
a. <u> </u>	·
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	.
fac	.
fac	
	Hydrophytic Vegetation
_	Present? Yes <u>x</u> No
er: <u> </u>	
	cover er: 5 fac fac

US Army Corps of Engineers

SOIL

Sampling	Point:	wet 1	

Depth (inches)	Color (moist)	%	Color (moist)	x Feature %	Type ¹	Loc ²		Remarks	
0-2	10YR 5/2	100			· · · · · ·		sandy silt		
2-12	10YR 4/2	90	7.5YR 5/6	10	C	m	sandy silt		
ydric Soll Histosol Histic E Black H Hydrogo Stratifie Organic 5 cm Mu Muck Pi 1 cm Mu Deplete Thick Di Coast P Sandy K Sandy F Stripped Dark Su	Indicators: (Applic (A1) pipedon (A2) istic (A3) an Sulfide (A4) d Layers (A5) Bodies (A6) (LRR F Jodies (A6) (LRR F Licky Mineral (A7) (L resence (A8) (LRR P, T) d Below Dark Surfac ark Surface (A12) raine Redox (A16) (I Aucky Mineral (S1) (Sleyed Matrix (S4) Redox (S5) I Matrix (S6) rface (S7) (LRR P, S Layer (If observed)	able to all P, T, U) RR P, T, U J) MLRA 150. LRR O, S) S, T, U)	Redox Depro Mari (F10) (L Depleted Oc Iron-Mangan Umbric Surfa Delta Ochric Reduced Vej Piedmont Fio	rwise not elow Surfa urface (S9 y Mineral ed Matrix (F3) Surface (I rk Surface essions (F .RR U) hric (F11) ess Mass ace (F13) (F17) (MI rtic (F18) codplain S	ed.) ice (S8) (L) (LRR S, (F1) (LRF (F2) =6) (MLRA 1: es (F7) 8) (MLRA 1:5 icel (F7) (MLRA 1:5 icel (F19)	RR S, T, U T, U) O) LRR O, P, U) 0A, 150B)	Indicators 1 J) 1 cm Mi 2 cm Mi Reduce Piedmo Anomal (MLR Red Pai Very Sh Other (I T) ³ Indica wetta unles	·	Solls ³ : MLRA 150A, E) (LRR P, S, T (F20) 12) tation and present,

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Calhoun Techn	ology Park	City/C	ounty: Ouachita		Sampling Date: <u>3-14-2015</u>
Applicant/Owner: North Louis	siana Economic Partne	ership		State: LA	Sampling Point: up 2
Investigator(s). Bill McAbee		Sectio	on, Township, Range:	S27 T18N, R1E	
Landform (hillslope, terrace, etc	_{2.):} hillslope	Local	relief (concave, conve	x, none): convex	Slope (%): 10-15%
Subregion (LRR or MLRA): LF					Datum:
Soil Map Unit Name: Ruston-	lucy association, hilly			NWI classifi	
Are climatic / hydrologic conditi		this time of year? Y			
Are Vegetation, Soil					present? Yes X No
Are Vegetation, Soil				I, explain any answe	
					s, important features, etc.
		N-			
Hydrophytic Vegetation Prese			Is the Sampled Area		
Hydric Soil Present? Wetland Hydrology Present?	Yes	No <u>×</u> No <u>×</u>	within a Wetland?	Yes	No <u>X</u>
Remarks:					
Hill slope rises fairly	rapidly from floo	dplain bottom	S.		
HYDROLOGY	<u> </u>				<u></u>
Wetland Hydrology Indicato	irs:			Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum	of one is required; check	all that apply)		Surface Soli	Cracks (B6)
Surface Water (A1)		tic Fauna (B13)			getated Concave Surface (B8)
High Water Table (A2)	—	Deposits (B15) (LRF		H H	itterns (B10)
Saturation (A3)	— •	ogen Sulfide Odor ((long Living Roots (C3)		Mater Table (C2)
Water Marks (B1)		ence of Reduced Iro		Crayfish Bu	
Drift Deposits (B3)		ent Iron Reduction in			isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	🔲 Thin	Muck Surface (C7)		Geomorphic	Position (D2)
Iron Deposits (B5)	🔲 Othe	r (Explain in Remark	s)	Shallow Aqu	itard (D3)
Inundation Visible on Aer				FAC-Neutra	
Water-Stained Leaves (B	9)			Sphagnum r	noss (D8) (LRR T, U)
Field Observations:	No. No.X				
Surface Water Present? Water Table Present?	Yes No X	Depth (inches):			
Saturation Present?	Yes No_X Yes No_X			i Hydrology Prese	nt? YesNo_X
(includes capillary fringe)					
Describe Recorded Data (stre	am gauge, monitoring we	ell, aerial photos, pre	vious inspections), if a	vailable:	
Remarks:					· - · · ·

US Army Corps of Engineers

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

Sampling	Point:	up 2

Free Stratum (Plot size: 30' radius)	% Cover	Species	Indicator	Dominance Test worksheet:
Pinus taeda	80	у	fac	Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A
Quercus phellos	5	n	fac	
Carpinus carolina	5	n	fac	Total Number of Dominant Species Across All Strata: 4 (B
Quercus shumardii	5	n	fac	
Fagus grandifolia	5	<u>ה</u>	facu	Percent of Dominant Species
				That Are OBL, FACW, or FAC: 100 (A
				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
3	400			OBL species x 1 =
500/ rtick to av = 50	20% of	= Total Co		FACW species x 2 =
	20% 0	total cove		FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30' radius) Ligustrum japonicus	25	у	fac	FACU species x 4 =
		<u> </u>		UPL species x 5 =
2				Column Totals: (A) (
3				
ł				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
			·	2 - Dominance Test is >50%
3	25			3 - Prevalence Index is ≤3.0 ¹
		= Total Co		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:				
50% of total cover: Herb Stratum (Plot size: 30' radius)	20% o	f total cove	r:	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mus
50% of total cover: Herb Stratum (Plot size: 30' radius) Rubus argutus	20% of			Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.
50% of total cover: Herb Stratum (Plot size: 30' radius) Rubus argutus Polystichum acrostichoides	20% of 	f total cove y n	fac	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mus
50% of total cover: Herb Stratum (Plot size: 30' radius) Rubus argutus Polystichum acrostichoides 3.	20% o 5	f total cove y n	fac fac	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
50% of total cover: Herb Stratum (Plot size: 30' radius) Rubus argutus Polystichum acrostichoides 3 4	20% of 5	f total cove y n	fac facu	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
50% of total cover: <u>Herb Stratum</u> (Plot size: <u>30' radius</u>) <u>Rubus argutus</u> <u>Polystichum acrostichoides</u> 3. 4. 5.	20% of 15 5 	f total cove <u>y</u> n	fac	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
50% of total cover: <u>Herb Stratum</u> (Plot size: <u>30' radius</u>) <u>Rubus argutus</u> <u>Polystichum acrostichoides</u> 3 4 5 5	20% of 15 5 	y n	fac facu	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less
50% of total cover:	20% of 	f total cove <u>y</u> <u>n</u>	fac facu	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
50% of total cover: Herb Stratum (Plot size: 30' radius) Rubus argutus Polystichum acrostichoides 3. 4. 5. 5. 6. 7. 8.	20% of 5	y n	fac facu	 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless
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50% of total cover: Herb Stratum (Plot size: 30' radius) Rubus argutus Polystichum acrostichoides 3. 4. 5. 6. 7. 9. 9. 10.	20% of 	y n	fac facu	 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in tall.
50% of total cover:	20% of 	y n	fac facu	 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall.
50% of total cover: Herb Stratum (Plot size: 30' radius) Rubus argutus Polystichum acrostichoides 3. 4. 5. 6. 7. 9. 9. 10.	20% of a state of	f total cove	fac facu facu	 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in tall.
50% of total cover:	20% of _	f total cove y	fac	 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in tall.
50% of total cover: Herb Stratum (Plot size: 1. Rubus argutus 2. Polystichum acrostichoides 3. 4. 5. 5. 6. 7. 8. 9. 10. 11. 12. 50% of total cover: 10. 11. 12. 50% of total cover:	20% of _	f total cove y	fac	 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in tall.
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50% of total cover: Herb Stratum (Plot size: 1. Rubus argutus 2. Polystichum acrostichoides 3. 4. 5. 5. 6. 7. 8. 9. 10. 11. 12. 50% of total cover: 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 10. 10. 10.	20% of _	y n n	fac facu facu	 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft i height. Hydrophytic
50% of total cover: Herb Stratum (Plot size: 1. Rubus argutus 2. Polystichum acrostichoides 3. 4. 5. 5. 6. 7. 8. 9. 10. 11. 12. 50% of total cover: 14. 15. 16. 17. 18. 19. 10. 11. 12. 13. 14.	20% of 	y n n	fac facu facu facu ver fac fac fac ver fac fac ver fac ver ver ver ver ver ver ver	 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft i height.

SOIL

		un 2
Sampling	Point:	upz

Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	Type1	Loc ²	Texture	Rema	rks
)-2	10YR 5/2	100					organic sandy		
2-16	10YR 5/4	90	7.5YR 5/6	10	<u>с</u>		sandy silt		
ydric Soll Histoso Histic E Black H Hydrog Stratifie Organic 5 cm M Muck P 1 cm M Deplete Thick D Coast F Sandy I Sandy I Sandy C Sandy I Strippe Dark St estrictive Type: Depth (ir	pipedon (A2) listic (A3) en Sulfide (A4) d Layers (A5) : Bodies (A6) (LRR F ucky Mineral (A7) (LI resence (A8) (LRR P, T) d Below Dark Surfac ark Surface (A12) Prairie Redox (A16) (I Mucky Mineral (S1) (Gleyed Matrix (S4) Redox (S5) d Matrix (S6) urface (S7) (LRR P, S Layer (If observed)	able to all , T, U) RR P, T, U)) e (A11) MLRA 150 LRR O, S) S, T, U)	LRRs, unless othe Polyvalue B Thin Dark S Loamy Mucl Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depr Marl (F10) (1 Depleted Oc Iron-Mangar A) Umbric Surfi Delta Ochric Reduced Ve Piedmont FI Anomalous	rwise not elow Surfa urface (S9 cy Mineral ed Matrix (F3) Surface (F rk Surface essions (F LRR U) thric (F13) (F17) (ML tric (F18) (oodplain S Bright Loan	ed.) ce (S8) (I) (LRR S, (F1) (LRF F2) (6) (F7) 8) (MLRA 1 (LRR P, T RA 151) (MLRA 15 iolis (F19) my Soiis (RR S, T, I T, U) CO) LRR O, P, T, U) 50A, 150B (MLRA 14 F20) (MLF	Indicators fr U) 1 cm Mu 2 cm Mu 2 cm Mu 2 cm Mu Piedmon MILR/ Red Par Very Sh Other (E , T) ³ Indica wetla unles		dric Solls ³ : ide MLRA 150A, F19) (LRR P, S, oils (F20) (TF12) vegetation and be present,

WETLAND DETERMINATION DATA FORM -- Atlantic and Gulf Coastal Plain Region

Project/Site: Calhoun Tech	nology Park	City/C	Sounds - Ouachita		Sampling Date: 3-14-2015
Applicant/Owner: North Lou	isiana Economic Pa	rtnership		_{Stata} . LA	Sampling Point: Wet 2
Investigator(s): Bill McAbee			on, Township, Range: S	27 T18N, R1E	
londform (hillelene tormes of	toeslope		relief (concerve, convex	none). convex	Siope (%): _5%
Landrorm (nuisiope, terrace, e	RR O	Local	Teller (concave, convex,	92.3481	Siope (%).
Subregion (LRR or MLRA): L Soil Map Unit Name: Guyton	-Rosebloom comple	Lar: <u></u>	Long:		Datum:
Are climatic / hydrologic condi					
Are Vegetation, Soil					present? Yes X No
Are Vegetation, Soil	, or Hydrology	naturally problem	atic? (If needed, o	explain any answe	rs in Remarks.)
	GS – Attach site	map showing san	npling point location	ons, transects	, important features, etc.
Hydrophytic Vegetation Pres	ent? Yes X	No	in the Sempled Area		
Hydric Soil Present?		No	is the Sampled Area within a Wetland?	Ver X	No
Wetland Hydrology Present?		No		103	
Remarks:					
Flat to low slope flo					-
obvious elevation c	hange but confi	rmed regularly v	with soil sample t	to verify soil	and hydrology
conditions. Vegeta	tion was not as	clear for bound	ary line.		
HYDROLOGY Wetland Hydrology Indicat				Secondary Indice	tors (minimum of two required)
Primary Indicators (minimum		ck all that anniv)		Surface Soil	
Surface Water (A1)		quatic Fauna (B13)	<u></u>	F	getated Concave Surface (B8)
High Water Table (A2)	—	lari Deposits (B15) (LR	R U)	Drainage Pa	
Saturation (A3)	–	ydrogen Sulfide Odor (•	Moss Trim L	
Water Marks (B1)	1 77		long Living Roots (C3)		Water Table (C2)
Sediment Deposits (B2)	🔲 Р	resence of Reduced irc	n (C4)	Crayfish Bur	rows (CB)
Drift Deposits (B3)		ecent Iron Reduction in	Tilled Soils (C6)	Saturation V	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	П т	hin Muck Surface (C7)		Geomorphic	Position (D2)
iron Deposits (B5)	Цc	ther (Explain in Remark	(S)	Shallow Aqu	itard (D3)
Inundation Visible on Ae	• • • •			FAC-Neutral	• •
Water-Stained Leaves (I	39)			Sphagnum n	noss (D8) (LRR T, U)
Field Observations:	. X	Depth (inches):			
Surface Water Present?	Yes <u>^</u> No	Depth (inches): Depth (inches): _0			
Water Table Present?				hidrology Procor	nt? Yes_XNo
Saturation Present? (includes capillary fringe)					
Describe Recorded Data (str	eam gauge, monitoring	well, aerial photos, pre	vious inspections), if ave	ilable:	
Remarks:					

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

Sampling	Point:	wet2

Tree Stratum (Plot size: 30' radius)		Dominant		Dominance Test worksheet:
		Species?		Number of Dominant Species
1. Pinus taeda	20	<u>у</u>	fac	That Are OBL, FACW, or FAC: 5 (A)
2. Quercus phellos	50	<u>у</u>	facw	Total Number of Dominant
3. Carpinus carolina	5	n	fac	Species Across All Strata: 5 (B)
4. Quercus michauxii	15	n	facw	
			·	Percent of Dominant Species
		<u> </u>		That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				
8				Total % Cover of:Multiply by:
	90	= Total Cov	/er	OBL species x 1 =
50% of total cover: 45	20% of			FACW species x 2 =
	2070 0	total cover	· — — —	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30' radius)	25		F = -	FACU species x 4 =
1. Carpinus carolina	25	<u>у</u>	fac	UPL species x 5 =
2. Q, phellos		<u>у</u>	facw	
3				Column Totals: (A) (B)
4				Prevalence index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7			·	2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	45	= Total Cov	/er	
E00/ stable succes				Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	·	
Herb Stratum (Plot size: 30' radius)				¹ Indicators of hydric soil and wetland hydrology must
1. <u>Sagitarria L.</u>	20	<u>у</u>	obi	be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				neight.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10	<u> </u>			Woody vine - All woody vines greater than 3.28 ft in
11	_		<u> </u>	height.
12				
	20	= Total Cov		
50% of total cover:	20% of	total cover	:	
Woody Vine Stratum (Plot size: 30' radius)				
1				
2.				
-				
3				
4				
5	. <u> </u>			Hydrophytic
		= Total Cov	/er	Vegetation
50% of total cover:	20% d	I total cover	•	Present? Yes X No
			·	
Remarks: (If observed, list morphological adaptations bel	ow).			
1				

L

Sempling	Point:	wet 2

Depth	Matrix			ox Feature				
(inches) 0-6	<u>Color (moist)</u> 10YR 5/2	100	Color (moist)	%	Type'	Loc ²	<u>Texture</u> sandy silt	Remarks
6-16	10YR 6/2	70	7.5YR 5/6	30	с <u>с</u>		sandy clay	
					·			
	·	·						
	oncentration, D=Dep Indicators: (Applic					ains.		PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Black H Hydrogu Stratifie Organic 5 cm Mi Muck P 1 cm Mi Deplete Thick D Coast F Sandy f Sandy f	(A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) : Bodies (A6) (LRR P ucky Mineral (A7) (LI resence (A8) (LRR P, T) d Below Dark Surface ark Surface (A12) brairie Redox (A16) (I wucky Mineral (S1) (I Sleyed Matrix (S4) Redox (S5) d Matrix (S6)	RR P, T, U)) e (A11) fILRA 150	A) Clark Control Contr	Surface (S9 ky Mineral yed Matrix atrix (F3) surface (I ark Surface ressions (F (LRR U) chric (F11) nese Mass face (F13) c (F17) (Mil ertic (F18) loodplain S)) (LRR 5, (F1) (LRI (F2) 66) 6 (F7) 78) (MLRA 1 (LRR P, 1 LRA 151) (MLRA 1 Soils (F19)	T, U) ₹ O) 1 LRR O, P, 7, U) 50A, 150B; (MLRA 14	2 cm Mu Reduced Piedmor Anomalo (MLR/ Red Par Very Sh Other (E , T) ³ Indica wetla unles	uck (A9) (LRR O) uck (A10) (LRR S) d Vertic (F18) (outside MLRA 150A,B nt Floodplain Soils (F19) (LRR P, S, T) ous Bright Loamy Soils (F20) A 153B) rent Material (TF2) nallow Dark Surface (TF12) Explain in Remarks) stors of hydrophytic vegetation and and hydrology must be present, ss disturbed or problematic. 153D)
	irface (S7) (LRR P, S Layer (If observed)				<u> </u>			
Depth (in	ches):						Hydric Soil P	Present? Yes X No
Remarks:								

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Calhoun Techn	iology Park	City/C	ounty: Ouach	ita		Sampling Date:	3-14-2015
Applicant/Owner: North Loui	siana Economic Partne	ərship		Stat	e: LA	Sampling Point:	up 3
investigator(s): Bill McAbee		Sectio	on, Township, R	ange: S26	T18N, R1E		
Landform (hillslope, terrace, et	hillslope above floo	odplain Local	relief (concave.	. convex. non	e); convex	Sla	pe (%): 10-20%
Subregion (LRR or MLRA): LF	R 0	Lat: 32.5189				Da	
Soil Map Unit Name: Ruston-	-lucy association, hilly					ation: upland	
Are climatic / hydrologic conditi		Abia Aima af waar2 M					
		-					N/ -
Are Vegetation, Soil						present? Yes <u>×</u>	No
Are Vegetation, Soil	, or Hydrology	_ naturally problema	itic? (if r	needed, expla	ain any answe	rs in Remarks.)	
	3S – Attach site ma	ap showing sam	pling point	locations	, transects	, important f	eatures, etc.
Hydrophytic Vegetation Prese	ent? Yes X	No	is the Sample	d Area			
Hydric Soil Present?	Yes	No <u>×</u> No <u>×</u>	within a Wetla		Vac	No_X	
Wetland Hydrology Present?	Yes	No <u>×</u>			103		-
Remarks:		· ····					
Hill slope rises abru	ptly to south from	floodplain bo	ttoms.				
HYDROLOGY							
Wetland Hydrology Indicato	ors:			Sei	condary Indica	tors (minimum of	(two required)
Primary Indicators (minimum	of one is required; check	ali that apply)		므	Surface Soil	Cracks (B6)	
Surface Water (A1)		itic Fauna (B13)		님		getated Concave	Surface (B8)
High Water Table (A2)	E E E E E E E E E E E E E E E E E E E	Deposits (B15) (LRR	-		Drainage Pat		
Saturation (A3)	— •	ogen Sulfide Odor (C	•		Moss Trim Li		
Water Marks (B1)	—	ized Rhizospheres al ence of Reduced Iror	÷ •		Crayfish Bur	Water Table (C2)	
Sediment Deposits (B2) Drift Deposits (B3)	—	ent iron Reduction in		. Н	-	sible on Aerial Im	narrery (C9)
Algai Mat or Crust (B4)	—	Muck Surface (C7)		″ Ħ		Position (D2)	
Iron Deposits (B5)	—	r (Explain in Remark	s)		Shallow Aqui		1
Inundation Visible on Aer			-		FAC-Neutral	Test (D5)	
Water-Stained Leaves (B	39)				Sphagnum m	noss (D8) (LRR T	r, U)
Field Observations:		· · · · · · ·					
Surface Water Present?	Yes No _X						
Water Table Present?	Yes No <u>X</u>						
Saturation Present?	Yes No _X	Depth (inches):	W	Vetland Hydr	ology Presen	t? Yes	No X
(includes capillary fringe) Describe Recorded Data (stre	eam gauge, monitoring we	ell, aerial photos, prev	vious inspection	ns), if availab	e:		
Remarks:						• · · ·	

Absolute	Dominant	Indicator	Dominance Test worksheet:	
% Cover	Species?	Status	Number of Dominant Species	
			That Are OBL, FACW, or FAC: 5	(A)
	<u>n</u>	fac	Total Number of Dominant	
5	<u>.n</u>	fac		(B)
			Percent of Dominant Species	
		<u> </u>		(A/E
		<u> </u>	Prevalence index worksheet:	
		. <u> </u>	Total % Cover of: Multiply b	<u>r. </u>
05			OBL species x 1 =	
			FACW species x 2 =	<u> </u>
20%0	Iolai cover		FAC species x 3 =	
10	v	fac		
- <u> </u>				
				<u> </u>
			Hydrophytic Vegetation Indicators:	
				n
	·	<u> </u>		
	-		Problematic Hydrophytic Vegetation ¹ (E	oplain)
20% of	total cover.	<u> </u>		
40		6		gy must
		<u> </u>		
			Definitions of Four Vegetation Strata:	
				ardless c
			neight.	
			than 3 in. DBH and greater than 3.28 ft (1 m)	tali.
			Herb - All herbaceous (non-woody) plants, r	egardies
			of size, and woody plants less than 3.28 ft ta	11.
			Woody vina - All woody vines greater than	3 28 ft in
			height.	
15	= Total Cov	er		
20% of	total cover	3		
10	У	fac		
	<u> </u>			
			Hudrophutic	
 	 = Total Cov		Hydrophytic Vegetation	
	= Total Cov		Hydrophytic Vegetation Prøsent? Yes <u>×</u> No	_
	85 5 5 95 20% of 10 5 10 5 10 5 20% of 10 5 10 5 10 5 10 5 10 5 10 5 10 5 115 10 5 115 115 115		85 y fac 5 n fac 5 n fac 5 n fac 95 = Total Cover 20% of total cover: 19 10 y fac 5 y facw 10 y fac 5 y facw 20% of total cover: 19 10 y fac 20% of total cover: 3 15 = Total Cover 20% of total cover: 3 10 y fac 5 y facu	85 y fac Initial Generation 5 n fac 5 5 n fac 5 5 n fac 7 5 n fac 6 5 n fac 7 5 n fac 6 5 n fac 6 6 Percent of Dominant Species 83 7 That Are OBL, FACW, or FAC: 83 95 = Total Cover Prevalence Index worksheet: 20% of total cover: 19 FAC Species x 1 = FAC Species x 3 = FAC Species x 3 = 10 y fac FAC Species x 4 = UPL species x 5 = Column Totals: (A)

US Army Corps of Engineers

nches) Color (moist) % Color (moist) % Type ¹ Loc ² Texture Remarks	IOL							Sampling P	oint: up o
Celor (molst) % Color (molst) % Type 1 Loc ² Texture Remarks -5 10YR 5/2 100 sandy loam sandy loam sandy loam -16 10YR 5/4 100 sandy loam sandy loam -16 11 10 Polyv	Profile Desc	ription: (Describe	to the dept	h needed to docur	nent the Indicator	or confirm	n the absence of	f indicators.)	
Celor (molst) % Color (molst) % Type 1 Loc ² Texture Remarks -5 10YR 5/2 100 sandy loam sandy loam sandy loam -16 10YR 5/4 100 sandy loam sandy loam -16 11 10 Polyv	Depth	Matrix		Redo	x Features				
16 10YR 5/4 100 sandy loam ype: Cacation: PL=Pore Lining, M=Matrix. ymail Indicators: Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls*: Histos (A1) Polyvalue Below Surface (S9) (LRR S, T, U) Indicators for Problematic Hydric Solls*: Histos (A1) Polyvalue Below Surface (S9) (LRR S, T, U) Indicators for Problematic Hydric Solls*: Histos (A3) Indicators (A9) (LRR O) Indicators for Problematic Hydric Solls*: Hydrogen Sulfde (A4) Depleted Matrix (F2) Indicators for Problematic F19) (LRR P, S, U) Stratified Layers (A5) Depleted Matrix (F2) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) Muck Presence (A8) (LRR P, T) Depleted Dark Surface (F7) Ward (F10) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Balty Surface (A12) Umbric Surface (F12) (LRR O, P, T) 3'indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S6) Anomalous Bright Leamy Soils (F20) (MLRA 149A) Sandy Gleyed Matrix (S6)	(inches)		%			Loc ²	Texture	Remar	rks
16 10YR 5/4 100 sandy loam ype: Cacation: PL=Pore Lining, M=Matrix. ymail Indicators: Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls*: Histos (A1) Polyvalue Below Surface (S9) (LRR S, T, U) Indicators for Problematic Hydric Solls*: Histos (A1) Polyvalue Below Surface (S9) (LRR S, T, U) Indicators for Problematic Hydric Solls*: Histos (A3) Indicators (A9) (LRR O) Indicators for Problematic Hydric Solls*: Hydrogen Sulfde (A4) Depleted Matrix (F2) Indicators for Problematic F19) (LRR P, S, U) Stratified Layers (A5) Depleted Matrix (F2) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) Muck Presence (A8) (LRR P, T) Depleted Dark Surface (F7) Ward (F10) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Balty Surface (A12) Umbric Surface (F12) (LRR O, P, T) 3'indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S6) Anomalous Bright Leamy Soils (F20) (MLRA 149A) Sandy Gleyed Matrix (S6))-5	10YR 5/2	100				sandy loam		
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) I cm Muck (A9) (LRR O) I cm Muck (A9) (LRR S) Black Histic (A2) Thin Dark Surface (S9) (LRR S, T, U) Reduced Vertic (F18) (outside MLRA 150/ Pledmont Floodplain Soils (F19) (LRR P, S Stratified Layers (A5) Depleted Matrix (F2) Pledmont Floodplain Soils (F19) (LRR P, S Stratified Layers (A5) Depleted Dark Surface (F7) Redox Dark Surface (F7) Stratified Layers (A5) Redox Dark Surface (F7) Red Parent Material (TF2) Muck (A9) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck (A9) (LRR P, T) Depleted Ochric (F11) (MLRA 151) Inclacators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (A7) (LRR P, S) Depleted Vertic (F18) (LRR P, T, U) Sandy Gleyed Matrix (S4) Pledmont Floodplain Soils (F19) (LR A 149A) Sandy Mucky Mineral (S1) (LRR O, S) Debleta Ochric (F17) (MLRA 150A, 150B) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral					·	·			
rdric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ³ : Histosoi (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histo Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F3) Anomalous Bright Learny Soils (F20) Organic Bodies (A5) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) S cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR P, T) Depleted Ochric (F11) (MLRA 151) Cther (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) other (Explain in Remarks) Depleted Matrix (S4) Umbric Surface (F13) (LRR P, T, U) wetland hydroiogy must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F11) (MLRA 150A, 150B) anomalous Bright Learny Soils (F20) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Learny Soils (F20) (MLRA 149A) strictive Layer (If observed): Type:	-10	1018 5/4			. <u> </u>		sanoy ioam		
rdric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ³ : Histosoi (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histo Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F3) Anomalous Bright Learny Soils (F20) Organic Bodies (A5) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) S cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR P, T) Depleted Ochric (F11) (MLRA 151) Cther (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) other (Explain in Remarks) Depleted Matrix (S4) Umbric Surface (F13) (LRR P, T, U) wetland hydroiogy must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F11) (MLRA 150A, 150B) anomalous Bright Learny Soils (F20) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Learny Soils (F20) (MLRA 149A) strictive Layer (If observed): Type:									
rdric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ³ : Histosoi (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histo Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F3) Anomalous Bright Learny Soils (F20) Organic Bodies (A5) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) S cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR P, T) Depleted Ochric (F11) (MLRA 151) Cther (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) other (Explain in Remarks) Depleted Matrix (S4) Umbric Surface (F13) (LRR P, T, U) wetland hydroiogy must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F11) (MLRA 150A, 150B) anomalous Bright Learny Soils (F20) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Learny Soils (F20) (MLRA 149A) strictive Layer (If observed): Type:		• • • • • • • • • • • • • • • • • • • •							
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Histosci (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histoc Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) 2 cm Muck (A10) (LRR S) Hydrogen Sulfde (A4) Depleted Matrix (F2) Reduced Vertic (F18) (outside MLRA 150/ Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Hard (F10) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Depleted Ochric (F11) (MLRA 151) Depleted Ochric (F13) (LRR O, P, T) Indicators of hydrophytic vegetation and wetland hydroiogy must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 150A, 150B) Indicators of hydrophytic vegetation and wetland hydroiogy must be present, unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Hydric Soil Present? Yes No X Stripped Matrix (S6) Anomalous Bright Loarny Soils (F20) (MLRA 149A) <td< td=""><td></td><td></td><td></td><td></td><td></td><td>ains.</td><td></td><td></td><td></td></td<>						ains.			
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150/ Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, C) Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Redox Depressions (F8) Muck Presence (A8) (LRR U) Depleted Ochric (F11) (MLRA 151) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and wetland hydroiogy must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S6) Delta Ochric (F17) (MLRA 150A, 150B) Piedmont Floodplain Soils (F20) (MLRA 149A) Stripped Matrix (S6) Delta Ochric (F13) (MLRA 150A, 150B) Piedmont Floodplain Soils (F20) (MLRA 149A) Stripped Matrix (S6) Delta Ochric (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F20) (MLRA 149A) Stripped Matrix (S6) Dent Ochric (F13) (MLRA 150A, 1	ydric Soll	Indicators: (Appli	cable to all I	.RRs, unless other	wise noted.)		Indicators fo	r Problematic Hyd	tric Solis":
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150// Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S) Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Mark (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) 1 coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydroiogy must be present, unless disturbed or problematic. 1 Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) anomalous Bright Loamy Soils (F20) (MLRA 149A) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D] Histosoi	(A1)		Poiyvalue Be	low Surface (S8) (L	.RR S, T, L	J) 📙 1 cm Mu	ck (A9) (LRR O)	
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Redox Depressions (F8) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Mart (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Mart (F10) (LRR P, T) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydroiogy must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Striped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes No X strictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No X	Histic Ep	pipedon (A2)		🔲 Thin Dark Su	rface (S9) (LRR S,	T, U)	2 cm Mu	ck (A10) (LRR S)	
Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loarny Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Ury Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Mart (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) 1 cost Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) "Indicators of hydrophytic vegetation and wetland hydroiogy must be present, Unless disturbed or problematic." Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) unless disturbed or problematic. Stripted Matrix (S6) Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D) Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes No X No X	Black Hi	istic (A3)		Loamy Muck	y Mineral (F1) (LRR	(O)		Vertic (F18) (outsi	ide MLRA 150A, I
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) S cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Mart (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and wetland hydroiogy must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 151) unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Anomalous Bright Learny Soils (F20) (MLRA 149A, 153C, 153D) strictive Layer (If observed): Type: No X Type:	Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Piedmon	t Floodplain Soils (f	F19) (LRR P, S, T
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) other (Explain in Remarks) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and wetland hydroiogy must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Redox (S5) Reduced Vertic (F18) (MLRA 150A, 150B) Pledmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes No X Strippet (inches): Hydric Soil Present? Yes No X	Stratified	d Layers (A5)		Depleted Ma	trix (F3)		LI Anomaio	us Bright Loamy So	oils (F20)
Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) iron-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydroiogy must be present, Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Pledmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Pledmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes No X] Organic	Bodies (A6) (LRR I	P, T, U)	🔲 Redox Dark	Surface (F6)			(153B)	
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Cther (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) iron-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and wetland hydroiogy must be present, unless disturbed or problematic. Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydroiogy must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Pledmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Pledmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soll Present? Yes No X No X	5 cm Mu	icky Mineral (A7) (L	.RR P, T, U)	Depleted Dat	k Surface (F7)				
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) iron-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and wetland hydroiogy must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unbric Surface (F13) (LRR P, T, U) wetland hydroiogy must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes No X	Muck Pr	esence (A8) (LRR	U)	Redox Depre	essions (F8)		Very Sha	illow Dark Surface ((TF12)
Thick Dark Surface (A12) iron-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and vetland hydroiogy must be present, unless disturbed or problematic. Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydroiogy must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Pledmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soll Present? Yes No X marks:] 1 cm Mu	ick (A9) (LRR P, T)		Marl (F10) (L	RR U)		Uther (E	xplain in Remarks)	
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Solis (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) estrictive Layer (If observed): Type:	Depleter	d Below Dark Surfa	ce (A11)	Depleted Ocl	hric (F11) (MLRA 1:	51)			
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) strictive Layer (If observed): Type:	Thick Da	ark Surface (A12)		🔲 iron-Mangan	ese Masses (F12) (LRR O, P,	T) ³ Indicat	ors of hydrophytic v	egetation and
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) strictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No X	Coast P	rairie Redox (A16) ((MLRA 150A) 🔲 Umbric Surfa	ce (F13) (LRR P, T	, U)	wetlar	nd hydrology must b	present,
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) estrictive Layer (if observed): Type: Depth (inches): Hydric Soll Present? Yes No X	Sandy N	lucky Mineral (S1) ((LRR O, S)	Delta Ochric	(F17) (MLRA 151)		unies	s disturbed or proble	ematic.
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) estrictive Layer (if observed): Type: Depth (inches): Hydric Soll Present? Yes No X	Sandy G	Bleyed Matrix (S4)		Reduced Ver	tic (F18) (MLRA 15	0A, 150B)			
Dark Surface (S7) (LRR P, S, T, U) sstrictive Layer (if observed): Type:	Sandy R	edox (S5)		Piedmont Flo	odplain Soils (F19)	(MLRA 14	I9A)		
strictive Layer (if observed):	Stripped	Matrix (S6)		Anomalous B	right Loamy Soils (F20) (MLR	A 149A, 153C, 1	53D)	
Type:	Dark Su	rface (S7) (LRR P,	S, T, U)						
Depth (inches): No X	lestrictive	Layer (if observed)):						
Depth (inches): No X	Type:								
emarks:		ches):					Hydric Soll P	resent? Yes	No X
Thick layer of pines straw and decaying leaf matter.				· · · · · · · · · · · · · · · · · · ·					
·	T	hick laver of i	oines stra	aw and decay	/ing leaf matt	er.			
	•								
· · · · · · · · · · · · · · · · · · ·									
· · · · · · · · · · · · · · · · · · ·									
		•							
· · ·									

WETLAND DETERMINATION DATA FORM - Atlantic and Guif Coastal Plain Region

Project/Site: Calhoun Techn	ology Park	City/C	ounty: Ouachita		Sampling Date: 3-14-2015
Applicant/Owner: North Loui	isiana Economic Partn	ership	ounty	State LA	Sampling Point: Wet 3
Investigator(s): Bill McAbee			m, Township, Range:	526 T18N, R1E	Gamping Point.
Landform (hillslope, terrace, et	, floodplain	Secul	an, rownsnip, Range.		Slope (%): 0%
Subregion (LRR or MLRA):			Long:		Datum:
Soil Map Unit Name: Guyton				NWI classific	
Are climatic / hydrologic condit	ions on the site typical for	this time of year? Y	es_X No	(if no, explain in R	emarks.)
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Norma	al Circumstances" p	present? Yes X No
Are Vegetation, Soil	, or Hydrology	naturally problema	tic? (If needed,	explain any answe	rs in Remarks.)
	3S – Attach site ma	ap showing sam	pling point locati	ons, transects	, important features, etc.
Hydrophytic Vegetation Press	ent? Yes X	No			
Hydric Soil Present?		No	Is the Sampled Area	¥ ¥	N -
Wetland Hydrology Present?			within a Wetland?	Yes <u>~</u>	No
Remarks:		······			
Floodplain of Curry	Creek.				
HYDROLOGY					
Wetland Hydrology Indicate	ors:		· · · · · · · · · · · · · · · · · · ·	Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum	of one is required; check	all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	🔲 Aqui	atic Fauna (B13)		Sparsely Veg	jetated Concave Surface (B8)
High Water Table (A2)	📙 Mari	Deposits (B15) (LRF	t U)	Drainage Pat	tterns (B10)
Saturation (A3)	Hydr	ogen Sulfide Odor (C	21)	Moss Trim Li	nes (B16)
Water Marks (B1)		ized Rhizospheres a	long Living Roots (C3)	Dry-Season	Water Table (C2)
Sediment Deposits (B2)		ence of Reduced Iro		Crayfish Bun	• •
Drift Deposits (B3)		ent Iron Reduction in	Tilled Soils (C6)	8	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Muck Surface (C7)			Position (D2)
iron Deposits (B5)	—	er (Explain in Remark	s)	Shallow Aqui	• •
Inundation Visible on Aer				FAC-Neutral	
Water-Stained Leaves (E	39)	<u> </u>	<u> </u>		noss (D8) (LRR T, U)
Field Observations: Surface Water Present?	Yes X No	Depth (inches). 1"			
Water Table Present?	Yes X No	Depth (inches): 0]		
Saturation Present?	Yes X No	Depth (inches): 0	Wetland	Hydrology Preser	t? Yes X No
(includes capillary fringe)					
Describe Recorded Data (stre	eam gauge, monitoring we	ell, aerial photos, pre	vious inspections), if av	ailable:	
		.			
Remarks:					

.

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

Sampling	Point [.]	wet3
Sannanda	POIL.	

Inc. Stratum (Pice size: 30 makes	VEGETATION (Four Strata) - Use scientific ha	ines of pi	ants.		Sampling Folia.
Curcus bytals 10 n old That Are OBL, FACW, or FAC: 4 (A) 2. Guercus bardion 50 y facer Total Number of Dominant 4 (B) 4. Ouercus bardiolia 5 n facer Total Number of Dominant 4 (B) 5. Liquidamber stysardius 5 n facer Total Name of Dominant Species Arrows RI Strata: 4 (C) 7.		Absolute	Dominant	Indicator	Dominance Test worksheet:
Outcour bytale 10 n n ddd 2. Gureux phelos 50 y facew 3. Gorphus servina 15 n facew 4. Outcour burling 5 n facew 5. Indications stylendus 5 n facew 6. Prote lateda 10 n facew 7	Tree Stratum (Plot size: 30 radius)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
3. Capitrus carolina 15 n fac 4. Ouercus hurifolia 5 n fac 4. Ouercus hurifolia 5 n fac 6. Uiquidambar stynatflus 5 n fac 7	1. Quercus iyrata	10	n	obl	
3. Capitrus carolina 15 n fac 4. Ouercus hurifolia 5 n fac 4. Ouercus hurifolia 5 n fac 6. Uiquidambar stynatflus 5 n fac 7	2 Quercus phellos	50	у	facw	
4 0		15	n	fac	
5 Liquidambar styraciflus 5 n fac. 6 Pinus tacda 10 n fac. 7				<u> </u>	Species Across Ali Strata:
5 Indicational styleations 5 In Inc. Inc. <thinc.< th=""> <thinc.< th=""> Inc.</thinc.<></thinc.<>					Percent of Dominant Species
e Prove steeds 10 n fac 7.			<u>n</u>	fac	
7.	6. Pinus taeda	10	n	fac	
8.	7				Prevalence Index worksheet:
95 = Total Cover OBL species x 1 =				<u> </u>	Total % Cover of:Multiply by:
Solk of total cover: 40 20% of total cover: 9 Sapino/Shrub Stratum (Piot size: 30° radius) 15 y fac 2 Ophelics 25 y facw UPL species x 3 = 3	8		<u> </u>		OBI species x1=
Sapiling/Shrub Stratum (Plot size: 30 radius) 15 y fac 1. Carphus cardina 15 y fac 2. Ophetice 25 y facw 3. 25 y facw 3. 25 y facw 4. 25 y facw 5. 20. phetice x 4 =					
Sabing/Shub Stratum (Plot size: 30' radius	50% of total cover: 48	20% of	total cover	<u>. 19</u>	1
1. Carphus cardina 15 y fac PACU Species X * *	Sapling/Shrub Stratum (Plot size: 30' radius)				FAC species x 3 =
2 Q. phellos 25 y facw UPL species x 5 =	Carpinus carolina	15	v	fac	FACU species x 4 =
2				form	UPL species x 5 =
3	2. <u>G. prielos</u>		<u> </u>		
5	3	• 			
5	4				Prevalence index = B/A =
6.					
7.					
8.					
8.	7				2 - Dominance Test is >50%
40 = Total Cover	8	. <u></u>			3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 20% of total cover: 3 Herb Stratum (Plot size: 30' radius) 1. Sagitarria L. 10 y obl 2.		40	= Total Cov	/er	
Herb Stratum (Plot size: 30' radius) 10 yobl 'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 2.	50% of total onver: 20	2004 of	total cover	- 8	
1 Sagitarria L. 10 y obl be present, unless disturbed or problematic. 2		20 % 0		•	
2.	Herb Stratum (Plot size: 50 Tadius)				
3.	1. Sagitarria L.	10	<u>y</u>		be present, unless disturbed or problematic.
4.	2.				Definitions of Four Vegetation Strata:
4.	3				
5.					
3.	-				
7.	5	·			neight.
8.	6				Sapling/Shrub – Woody plants, excluding vines, less
8.	7				than 3 in. DBH and greater than 3.28 ft (1 m) tail.
9.					
10.					
11.	9		·	·	or size, and woody plants less than 5.20 it tail.
11.	10		<u> </u>		Woody vine – All woody vines greater than 3.28 ft in
12. 10 = Total Cover 50% of total cover: 20% of total cover:	11				
10 = Total Cover 50% of total cover: 20% of total cover: 1. 20% of total cover: 2. 20% of total cover: 3. 20% of total cover: 4. 20% of total cover: 5. 20% of total cover: 50% of total cover: 20% of total cover:					
50% of total cover: 20% of total cover: Woody Vine Stratum (Plot size: 30' radius) 1. 1.		10	- Total Co		
Woody Vine Stratum (Plot size: 30' radius) 1					
1.		20% of	total cover		
1.	Woody Vine Stratum (Plot size: 30' radius)				
2	1.				
3.					
4				<u> </u>	
5.	3				
= Total Cover Vegetation 50% of total cover: 20% of total cover: Present? Yes X No	4				
= Total Cover Vegetation 50% of total cover: 20% of total cover: Present? Yes X No	5				Hydrophytic
50% of total cover: 20% of total cover: Present? Yes X No			= Total Cov	/er	
	50% of total access	2004 01	total cover	•	Present? Yes X No
Remarks: (If observed, list morphological adaptations below).				•	· · · · · · · · · · · · · · · ·
	Remarks: (If observed, list morphological adaptations below	ow).			

SOIL

Semplina	Point [.]	wet 3

Depth	cription: (Describe <u>Matrix</u>	to the dep		ment the ox Feature			n the absence of inc	icators.)	
<u>(inches)</u> 0-6	Color (moist) 10YR 5/2	100	Color (moist)	<u>%</u>	<u>Type¹</u>	Loc ²	 sandy silt	Remarks	
6-16	10YR 6/1	70	7.5YR 5/8	30	<u> </u>	 m	sandy clay	· · · · ·	·····
0-10			7.5TK 5/6		. <u> </u>		Sanuy ciay		
							<u></u>	·	
	· · · · · · · · · · · · · · · · · · ·		ix .				<u> </u>	<u> </u>	
		· ——	· · · ·		·		· ·		
							. <u> </u>	···-	
17.mai C=C	oncentration, D=Dep	lotion DM-	Peduced Matrix M		d Sand Cr		² i constion: PI - P	ore Lining, M=Matrix	<u> </u>
	Indicators: (Applic					ains.		oblematic Hydric S	
Histosol	(A1)		Polyvalue B		• • •		·		
	pipedon (A2) istic (A3)		Thin Dark S					A10) (LRR S) rtic (F18) (outside M	I RA 150A B)
	en Sulfide (A4)		Loamy Gley	-		. 0,		codplain Soils (F19) (
	d Layers (A5)		Depleted Ma	• •				Bright Loamy Soils (F	20)
	Bodies (A6) (LRR P ucky Mineral (A7) (LI		Redox Dark				(MLRA 15) Red Parent I	3 B) Material (TF2)	
	resence (A8) (LRR U		Redox Depr					Dark Surface (TF12)
1 cm Mu	ick (A9) (LRR P, T)		Marl (F10) (Other (Expla	in in Remarks)	
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Oc	• •	•	•	T) ³ Indicators	of hydrophytic vegeta	tion and
	rairie Redox (A16) (I	ALRA 150A						ydrology must be pre	
	Aucky Mineral (S1) (I	LRR O, S)	Delta Ochric					turbed or problemation	C.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ve						
	Matrix (S6)			•	. ,	•	RA 149A, 153C, 153E))	
	rface (S7) (LRR P, S						.		
Restrictive	Layer (if observed):								
Depth (in	ches):						Hydric Soil Prese	nt? Yes ^X	No
Remarks:				<u> </u>					

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Calhoun Techr	ology Park	City/County: Oua	ichita	_ Sampling Date: <u>3-14-2015</u>
Applicant/Owner: North Loui	siana Economic Partners	ship	State: LA	Sampling Point: up 4
Investigator(s): Bill McAbee		Section Townshi	o, Range:S26 T18N, R1E	
Landform (hillslope, terrace, et	hillslope above flood	plain Local relief (conce	we convex none). COnvex	Slope (%): <u>5-10%</u>
Subregion (LRR or MLRA): LF	RR 0	2.5182	l ang: -92.3403	Oldpe (76)
Soil Map Unit Name: Ora-Sa	vannah association gent		Long NWI classif	Datum:
Are climatic / hydrologic condit				
Are Vegetation, Soil	, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil	, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)
	3S – Attach site map	showing sampling po	int locations, transect	s, important features, etc.
Hydrophytic Vegetation Pres	ent? Yes X	NO 1. 4. O	-1-4 8	
Hydric Soil Present?	Yes N	No <u>x</u> within a W	ipled Area	`No_X
Wetland Hydrology Present?				
Remarks:				
	, F	with gradual upslope		
HYDROLOGY				
Wetland Hydrology Indicate				ators (minimum of two required)
Primary Indicators (minimum				Cracks (B6)
Surface Water (A1)		Fauna (B13)		egetated Concave Surface (B8)
High Water Table (A2)	п	eposits (B15) (LRR U)		atterns (B10)
Water Marks (B1)	— • • •	en Sulfide Odor (C1) d Rhizospheres along Living I	Moss Trim	Water Table (C2)
Sediment Deposits (B2)		ce of Reduced iron (C4)	Crayfish Bu	
Drift Deposits (B3)	—	Iron Reduction in Tilled Soils		visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		uck Surface (C7)		Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	🔲 Shallow Aq	uitard (D3)
inundation Visible on Ae	rial Imagery (B7)		FAC-Neutra	l Test (D5)
Water-Stained Leaves (E	39)		🔲 Sphagnum	moss (D8) (LRR T, U)
Field Observations:				
Surface Water Present?		epth (inches):		
Water Table Present?		epth (inches):		· · · · · · · · · · · · · · · · · · ·
Saturation Present?	Yes No X De	epth (inches):	Wetland Hydrology Prese	nt? Yes No <u>×</u>
(includes capillary fringe) Describe Recorded Data (stre	eam gauge, monitoring well,	aerial photos, previous inspec	tions), if available:	
Remarks:				
1				

VEGETATION (Four Strata) - Use scientific na	ames of p	lants.		Sampling Point: up4
201-2-5		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30' radius)		Species?	<u> </u>	Number of Dominant Species
1. Pinus taeda	90	<u>у</u>	fac	That Are OBL, FACW, or FAC: 5 (A)
2. Liquidambar styraciflua	5	<u>n</u>	fac	Total Number of Dominant
3				Species Across All Strata: <u>5</u> (B)
4				
5.				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
6				
				Prevalence Index worksheet:
7				Total % Cover of:Multiply by:
8	95			OBL species x 1 =
10		= Total Cov		FACW species x 2 =
50% of total cover: <u>48</u>	20% of	f total cover	: 19	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30' radius)				FACU species x 4 =
1. Ligustrum japonicus		<u>У</u>	fac	
2				UPL species x 5 =
3				Column Totais: (A) (B)
4				Droumionaso Index, et D/A -
				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	10	= Total Cov	/er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	f total cover	:	
Herb Stratum (Plot size: 30' radius)				¹ Indicators of hydric soil and wetland hydrology must
L. Lonicera japaonica	5	У	fac	be present, unless disturbed or problematic.
2. Polystichum acrostichoides	5	у	facu	Definitions of Four Vegetation Strata:
3 Vitis rotundifolia	5	<u>y</u>	fac	pominiono ett ell' regenation ettatal
				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				noight.
6				Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				
11				Woody vine All woody vines greater than 3.28 ft in height.
1				neight.
12	15			
		= Total Cov		
50% of total cover: <u>8</u>	20% of	f total cover	:	
Woody Vine Stratum (Plot size: 30' radius)				
1	<u> </u>			
2				
3				
4				
5.				
· · · · · · · · · · · · · · · · · · ·	0	= Total Cov		Hydrophytic Vegetation
				Present? Yes X No
50% of total cover:		r total cover	: <u></u>	
Remarks: (If observed, list morphological adaptations bel	ow).			
· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·

US Army Corps of Engineers

Atlantic and Gulf Coastal Plain Region - Version 2.0

SOIL

Sampling	Point:	up 4

Depth	Matrix		Redox Features	- -	Dom enter
<u>inches)</u>)-5	<u>Color (moist)</u> 10YR 4/3	<u> </u>	Color (moist) % Type ¹ Loc ²	_ <u>Texture</u> sandy loarn	Remarks
5-16	10YR 5/4	100		sandy loam	
ydric Soli I Histosol Histic Ep Black Hi Hydroge Stratified Organic 5 cm Mu Muck Pri 1 cm Mu Depleted Thick Da Coast Pr Sandy M Sandy R Stripped Dark Sui	ndicators: (Appl (A1) ipedon (A2)	P, T, U) LRR P, T, U) U) ace (A11) (MLRA 150A) (LRR O, S)	educed Matrix, MS=Masked Sand Grains. Rs, unless otherwise noted.) Polyvalue Below Surface (S8) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, F Umbric Surface (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150E Piedmont Floodplain Soils (F19) (MLRA 1 Anomalous Bright Loamy Soils (F20) (MLRA	Indicators for U) 1 cm Muci 2 cm Muci 4 cm Muci 2 cm Muci 2 cm Muci 2 cm Muci 2 cm Muci 4 cm Muci 2 cm Muci 2 cm Muci 4 cm Muci 2 cm Muci 2 cm Muci 4 cm Muci 2 cm Muci 4 cm Muci 2 cm Muci 4 cm Muci 2 cm Muci 4 cm Muci 4 cm Muci 2 cm Muci 4 c	nt Material (TF2) low Dark Surface (TF12) plain in Remarks) rs of hydrophytic vegetation and d hydrology must be present, disturbed or problematic.
	ayer (if observe).		_	Hydric Soli Pre	esent? Yes No_X
emarks:		pines stra	w and decaying leaf matter.		

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Calhoun Techr	tology Park	City/C	ounty: Ouachita		Sampling Date: <u>3-14-2015</u>
Applicant/Owner: North Loui	siana Economic Partn	ership		State: LA	Sampling Point: wet 4
Investigator(s): Bill McAbee		Sectio	on, Township, Range:	526 T18N, R1E	
Landform (hillslope, terrace, et		Local	relief (concave, convex	none); convex	Slope (%):
Subregion (LRR or MLRA): Lf	RR O	Lat: 32.5183	Long:		Datum:
Soil Map Unit Name: Guyton	-Rosebioom complex.	frequently flooded	Long	NWI classific	
Are climatic / hydrologic condit					
					present? Yes X No
Are Vegetation, Soil					
Are Vegetation, Soil				explain any answe	
SUMMARY OF FINDING	3S – Attach site ma	ap showing san	npling point locati	ons, transects	, important features, etc.
Hydrophytic Vegetation Pres	ent? Yes X	No	is the Sampled Area		
Hydric Soil Present?	Yes <u>×</u>	No	within a Wetland?	Yes X	No
Wetland Hydrology Present?	Yes <u>×</u>	No			
Remarks:					
Floodplain terrace a	bove Curry Cree	k but subject f	to saturation and	d inundation.	
HYDROLOGY					
Wetland Hydrology Indicate	0751			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum		all that annly)		Surface Soil	
Surface Water (A1)		atic Fauna (B13)		F	getated Concave Surface (B8)
High Water Table (A2)	— •	Deposits (B15) (LRI	R U)	Drainage Pa	
Saturation (A3)	—	ogen Sulfide Odor (-	Moss Trim L	
Water Marks (B1)		-	long Living Roots (C3)		Water Table (C2)
Sediment Deposits (B2)		ence of Reduced Iro		Crayfish Bur	rows (C8)
Drift Deposits (B3)		ent Iron Reduction in	Tilled Soils (C6)	Saturation V	isible on Aerial Imagery (C9)
Algai Mat or Crust (B4)	🛄 Thin	Muck Surface (C7)		Geomorphic	Position (D2)
Iron Deposits (B5)	🛄 Othe	r (Explain in Remark	(5)	Shallow Aqu	itard (D3)
Inundation Visible on Ae	rial Imagery (B7)			FAC-Neutral	Test (D5)
Water-Stained Leaves (E	39)			Sphagnum r	noss (D8) (LRR T, U)
Field Observations:	v				
Surface Water Present?	Yes X No		[
Water Table Present?	Yes <u>×</u> No		bre http://		10 X - X N-
Saturation Present? (includes capillary fringe)	Yes <u>×</u> No				nt? Yes X No
Describe Recorded Data (str	eam gauge, monitoring we	ell, aerial photos, pre	vious inspections), if av	ailable:	
Demorko:					
Remarks:					
1					

Sampling	Point:	wet 4	

VEGETATION (Four Suala) - Ose scientific ha				Sampling Point.
201		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30' radius)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Liquidambar styraciflua	80	У	fac	That Are OBL, FACW, or FAC: 4 (A)
2. Quercus nigra	10	n	fac	
3. Carpinus carolina	5		fac	Total Number of Dominant Species Across All Strata: 4 (B)
				Species Across All Strata: (B)
4			, <u> </u>	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				
			·	Prevalence Index worksheet:
7			. <u> </u>	Total % Cover of: Multiply by:
8				
	95	= Total Cov	/er	OBL species x 1 =
50% of total cover: <u>48</u>	20% of	total cover	19	FACW species x 2 =
	20 % 0		· <u> </u>	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30' radius)			_	
1. Carpinus carolina	15	у	fac	FACU species x 4 =
2. Liquidambar styraciflua	50	У	fac	UPL species x 5 =
	•		·	Column Totals: (A) (B)
3				
4				Prevalence index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7		·		2 - Dominance Test is >50%
8		<u> </u>		3 - Prevalence Index is ≤3.0 ¹
	65	= Total Cov	or	
22				Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 32	20% of	total cover		
Herb Stratum (Plot size: 30' radius)				Indicators of hydric soil and wetland hydrology must
1. Lonicera japonica	10	v	fac	be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
				height.
5			<u> </u>	in the grade of the second s
6				Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9			<u> </u>	of size, and woody plants less than 3.28 ft tail.
10				
				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	10	= Total Cov	er	
50% of total cover:	·			
	20% 01	iolai cover	·	
Woody Vine Stratum (Plot size: 30' radius)				
1				
2.				
	·		<u> </u>	
3				
4				
5				
5	• ••••••			Hydrophytic
	·	= Total Cov	er	Vegetation Present? Yes X No
50% of total cover:	20% of	total cover		Present? Yes X No
Remarks: (If observed, list morphological adaptations bel	(111)	· · · · ·		
Remarks. (II ubserved, iist mu priviogical adaptations bei	((()).			
L				

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Atlantic and Gulf Coastal Plain Region - Version 2.0

SOIL

Sempling	Doint:	wet 4

	Color (moist)	eatures %Type'	Loc ²		Remarks
<u>10YR 3/2</u> 100	· · · · · · · · · · · · · · · · · · ·			sandy silt	
6 10YR 6/2 80	7.5YR 5/6 20	0C	<u>m</u>	sandy clay	
	Reduced Matrix, MS=Mi RRs, unless otherwise Polyvalue Below Thin Dark Surfact Loamy Gleyed Mi Depleted Matrix (Redox Dark Surfact Depleted Dark Surfact	lasked Sand Gra te noted.) Surface (S8) (LR te (S9) (LRR S, " ineral (F1) (LRR latrix (F2) (F3) ace (F6) urface (F7) ons (F8) U) (F11) (MLRA 15 Masses (F12) (I (F13) (LRR P, T, 7) (MLRA 151) F18) (MLRA 15()	(MLRA 141	Sandy clay	

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Calhoun Technology Park City/C	county: Ouachita Sampling Date: 3-14-2015
Applicant/Owner: North Louisiana Economic Partnership	State: LA Sampling Point: wet 5
Investigator(s): Bill McAbee Section	on, Township, Range: S27 T18N, R1E
Landform (hillslope, terrace, etc.): toeslope Local	relief (conceive convex none). CONVEX Slone (%): 5%
Subregion (LRR or MLRA): LRR O Lat: 32.5194	
Soil Map Unit Name: Guyton-Rosebloom complex, frequently flooded	Long: Datum Datum
Are climatic / hydrologic conditions on the site typical for this time of year? $$ Y	
Are Vegetation, Soil, or Hydrology significantly distur	
Are Vegetation, Soil, or Hydrology naturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sam	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	
Hydric Soil Present? Yes X No	Is the Sampled Area
Wetland Hydrology Present? Yes X No	within a Wetland? Yes <u>X</u> No
Remarks:	
Emergent wetland surrounding the pond and streto	ching up part way into finger drainages. This data
form is representative of the less wet portions of th	
included obligate plants and sustained inundation	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LR	R U) Drainage Patterns (B10)
Saturation (A3)	C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres a	
Sediment Deposits (B2)	
Drift Deposits (B3)	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	(s) Geomorphic Position (D2)
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 X No Depth (inches): 0-1	n
Water Table Present? Yes x No Depth (inches): 0"	
Saturation Present? Yes X No Depth (inches): 0"	Wetland Hydrology Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections) if available
Describe Recorded Data (stream gauge, monitoring well, actual proces, pre	
Remarks:	
Sample location not inundated but fully saturated to	o the surface
Comple location not mandated but raily sutarated t	

		1	
	Dominant Species?		Dominance Test worksheet:
10	<u>у</u>	obl	Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
	<u> </u>	facw	
		<u> </u>	Total Number of Dominant Species Across All Strata: 5 (B)
			Species Across All Strata: 5 (B)
	·		Percent of Dominant Species
			That Are OBL, FACW, or FAC: 100 (A/E
			Prevalence Index worksheet:
		<u> </u>	Total % Cover of: Multiply by:
			OBL species x1 =
······································			FACW species x 2 =
	total cover	3	FAC species x3 =
			FACU species x4 =
5	У	facw	
			UPL species x 5 =
			Column Totals: (A) (B
			Prevalence index = B/A =
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
			3 - Prevalence Index is ≤3.0 ¹
			Problematic Hydrophytic Vegetation ¹ (Explain)
20% of	total cover	;	
			¹ Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
	<u>n</u>		Definitions of Four Vegetation Strata:
20	У	fac	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) of
			more in diameter at breast height (DBH), regardless of
			height.
			Sapling/Shrub – Woody plants, excluding vines, less
			than 3 in. DBH and greater than 3.28 ft (1 m) tall.
			Herb All hotosoous (non wooth)) plants regardles
			Harb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tail.
			Woody vine – All woody vines greater than 3.28 ft in
			height.
	= Total Cov		
110 20% of			
20% of			Hydrophyfic
20% of	f total cover		Hydrophytic Vegetation
20% of	f total cover		
	5 15 20% of 5 5 20% of 80 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 10 20 10 10 20 10 10 10 10 10 10 10 10 10 1		$\frac{5}{y} facw$ $\frac{5}{y} facw$ $\frac{15}{20\% \text{ of total cover}} = \text{Total Cover}$ $\frac{5}{y} facw$ $\frac{5}{y$

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			_
Sampling	Point:	wet	5

Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks 0-6 10YR 5/2 100
Type: C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ³ Location: PL=Pore Linling, M=Matrix. Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Histosol (A2) Histosol (A3) Histosol (A4) Learny Mucky Mineral (C4) Hydrogen Sulfide (A4) Learny Gleyed Matrix (F2) Learny Mucky Mineral (C4) Hydrogen Sulfide (A4) Learny Gleyed Matrix (F3) Crganic Bodies (A5) (LRR P, T, U) Redox Depleted Dark Surface (F6) Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) Hydrogen Sulfide (A1) Depleted Surface (A1) Depleted Chris (F1) (MLRA 151) Trick Dark Surface (A1) Depleted Matrix (F3) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Tro: Mark (S6) Derk Surface (S7) (LRR P, S, T, U) Depleted Matrix (S4) Sandy Gleyed Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) estrictive Layer (If observed): Type: