

Exhibit E - Wetland Delineation & Letter

October 22, 2015

Mr. Larry Henson

Louisiana Economic Development (LED)

1051 North Third St.

Baton Rouge, LA 70802-5239

Parks & Planning

Transportation

Mr. David Conner

Southwest Economic Development Alliance (SWLA)

P.O. Box 3110

Lake Charles, LA 70602

Site Development

RE:

H.C. Drew Property (+/- 183 Acres)

Wetlands Delineation Report

Utility Systems

Dear Gentlemen:

Land Surveying

etti tilentivi i Norri davesida i Visioni

Construction Services

SJB Group, LLC (SJB) has been authorized by Louisiana Economic Development (LED and Southwest Louisiana Economic Alliance (SWLA) to perform due diligence investigations to determine the existence of fatal flaws, if any, that would inhibit the development of H.C. Drew Property (1,000 acres) – Development Area (+/- 183 Acres), located west of the City of Sulphur, in Calcasieu Parish, Louisiana.

Environmental Services

Real Estate Services

The attached report presents the findings of the Wetlands Delineation efforts for the entire 1,000 Acre site. The Wetlands Delineation was performed by SJB Group, LLC of Baton Rouge, LA. Positive evidence of the three diagnostic characteristics for jurisdictional wetlands was found at Sample Location 1, 4, 5, & 8 shown on Figure 2. Based on this information, a total of five potential wetland areas were identified within the 1,000 acre tract; however, all potential wetland areas appear to be outside of the previously identified +/-183 Acre Development Area.

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Please feel free to contact me at (225) 769-3400, at any time, should you have any questions or need further information.

Sincerely,

SJB GROUP, LLC

Andy Hursey, PLA, MBA Landscape Architect

Enclosure:

Wetlands Delineation Report

Wetland Delineation

± 1,000 acre Site B93 – H.C. Drew Property

Located at the S.E. corner of Highway 90 & Fabacher Road

Sulphur, Calcasieu Parish, Louisiana

for

Mr. David Conner
SWLA Economic Development Alliance
4310 Ryan Street
Lake Charles, LA 70605

Mr. Larry Henson Louisiana Economic Development (LED) 1051 North Third Street

Baton Rouge, LA 70802-5239

Submitted by:

Paul LeBlanc, III

Environmental Scientist II

Prepared by:



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JUNE 2014 Ref. 11341.7

WETLAND DELINEATION REPORT

± 1,000 acre site (HC Drew Property) Located near the Junction of Fabacher Road and U.S. Hwy 90 (SE corner) Sulpher, Calcasieu Parish, Louisiana

For

Mr. David Conner SWLA Economic Development Alliance 4310 Ryan Street Lake Charles, LA 70605

Mr. Larry Henson Louisiana Economic Development (LED) 1051 North Third Street Baton Rouge, LA 70802-5239

JUNE 2014 Ref. 11341.7

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11341.7 SJB GROUP, LLC

1.0 INTRODUCTION

1.1 **GENERAL**

This report details the investigation of the presence of wetlands under the jurisdiction of the United States Army Corps of Engineers (USACE) for a ±1,000 acre tract located off of Hwy 90 and Fabacher Road, west of Sulphur, Calcasieu Parish, Louisiana. This report was prepared by SJB Group, LLC (SJB) of Baton Rouge, Louisiana at the request of Mr. Larry Henson (LED), and Mr. David Conner (SWLA).

1.2 SCOPE AND PURPOSE

The purpose of this report is to present the field data that was collected to evaluate the three diagnostic characteristics of wetlands and to give an opinion on the presence and potential extent of jurisdictional wetlands on the site. However, the New Orleans District of the USACE has the ultimate authority to make an official determination of wetlands or jurisdiction over property in Calcasieu Parish, Louisiana. This report was prepared in accordance with guidance found in the USACE's Wetlands Delineation Manual (Environmental Laboratory, 1987) and Interim Regional Supplement to the USACE's Wetland Delineation Manual (Environmental Laboratory, 2008).

Wetlands are defined as "areas that are inundated or saturated at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (40 CFR 230.3). The three diagnostic characteristics of wetlands are soils, vegetation, and hydrology. Wetlands must exhibit hydric soils, a prevalence of hydrophytic vegetation, and periodic soil saturation. Each of these characteristics as well as observations on modifications to normal circumstances will be described for the Site. Supporting data collected from 10 sample locations are presented in Appendix A.

2.0 <u>SITE DESCRIPTION</u>

2.1 <u>LOCATION</u>

The site is located off of Hwy 90 and Fabacher Road, west of Sulphur, Calcasieu Parish, Louisiana. It is geographically located at latitude 30.227148 and longitude -93.511193. The site is in Section 4 & 5, Township 10 South, Range 12 West, Calcasieu Parish. Figure 1 is a vicinity map showing the location of the site.

2.2 **DESCRIPTION**

The site is approximately ±1,000 acres located on the south side of Hwy 90 and east side of Fabacher Road It is generally rectangular in shape with rough dimensions of 9,250 feet by 5,000 feet. The site has 5,000 feet of frontage off of Fabacher Road and 9,250 feet of frontage along Highway 90 both of which it is accessible. The site consists of maintained agricultural fields that were previously used for agriculture purpose such as rice fields, soy bean, and milo fields. The site is currently being used for grazing cattle.

According to historical aerial photographs, the site has been used as agricultural farm land that ranged from rice fields, crawfish ponds, milo, soybean fields, and cattle pastures (see Figure 1, Exhibit 1, and Exhibit 2). There are currently no structures on the site. Photographs of the site are provided as an attachment.

3.0 <u>SITE INSPECTION</u>

3.1 **GENERAL**

On April 7th, 2014, SJB's wetland specialists inspected the site. Ten representative locations (shown in Figure 2) were chosen for making field observations and collecting soil samples in order to characterize the site. At each sample location, vegetation species were recorded, soil samples were collected for identification and determination of hydric properties, and observations were made on hydrologic conditions. Each sample location was photographed (see attachment provided at the end of the report).

3.2 PRELIMINARY DATA GATHERING

Prior to conducting any fieldwork, SJB conducted a desktop investigation of the site using a series of maps. These maps included a 1994 USGS 7.5-minute topographic map (USGS, 1998), a 1995 USDA soil survey (USDA, 1995), and a 2013 aerial photograph (USGS, 2014).

3.3 SAMPLE LOCATIONS

During the field investigation, SJB conducted an initial cursory evaluation of the entire site. After becoming familiar with the landscape features of the site, four sampling locations were chosen to characterize large homogeneous areas of habitat and to define potential wetland/non-wetland boundaries. A GPS unit was used to determine any potential wetland boundaries and soil samples were taken to identify soil types. All sample locations and wetland boundaries were flagged and mapped. The data collected during the site visit is included in the Figures, Exhibits, and Appendices of this report.

3.4 FIELD PERSONNEL

Field data was collected by Paul LeBlanc III and Jason LeBourgeois. Mr. LeBlanc has a Bachelor's degree in Fisheries from Louisiana State University. He has successfully completed a Wetland Delineation Certification Program given by the Wetland Training Institute. He has been conducting Wetland Delineations for the past 7 years. Mr. LeBourgeois has a Bachelor's degree from SELA University. He has successfully completed a Wetland Delineation Certification Program given by the Wetland Training Institute. He has been conducting Wetland Delineations for the past 3 years.

4.0 SITE DATA

4.1 SOILS

According to the soil survey developed by the USDA Soil Conservation Services (SCS), the site is underlain by Morey loam, Leton silt loam, and Mowata-Vidrine silt loam soils. Morey loam consists of soils poorly drained, moderately slow permeable with moderate runoff potential. Leton silt loam silt loam consists of soils poorly drained, moderately slow permeable with low runoff potential. Mowata-Vidrine silt loam silt loam consists of soils poorly drained, slow permeable with low runoff potential. Leton and Mowata-Vidine silt loams are listed as hydric soils (USDA, 1995). Morey silt loams are listed as hydric soils (USDA, 1995).

SJB collected soil samples up to 16 inches deep for each of the ten sample locations. The depth of each sample was sufficient to determine changes in the upper horizons and to observe field indicators of hydric soils. Soil samples were described and compared to descriptions and maps in the soil survey. Field observations confirm that the majority of the site appears to be underlain by Leton silt and Morey loams.

4.2 <u>VEGETATION</u>

The site is comprised of mixed pasture land habitat with smaller areas of forested habitat. The overstory species include laurel oak (*Quercus laurifolia*), water oak (*Quercus nigra*), Chinese tallow-tree (*Sapium sebiferum*), and black willow (*Salix nigra*).

Species observed during the inspection of the herbaceous shrub/seedling stratum include: Chinese tallow-tree (*Triadica sebifera*), common privet (*Ligustrum spp.*), broom sedge (*Andropogon virginicus*), rattle bush (*Sesbania drummondii*), bull thistle (*Cirsium vulgare*), brown-seed paspalum (*Paspalum plicatulum*), Bahia grass (*Paspalum notatum*), soft rush (*Juncus effusus*), Golden Rod (*Solidago nuttallii*), spike grass (*Eliocharis obtuse*).

Woody vines present during the inspection included Louisiana blackberry (*Rubus louisianus*) and poison ivy (*Toxicodendron radicans*). The wetland indicator status for these species range from facultative wetlands (FACW) to facultative (FAC). FACW species are typically found in both wetlands and non-wetland areas. FAC species typically grow in non-wetland areas but can also be found in wetlands.

4.3 HYDROLOGY

The average elevation on the site is approximately 15 feet above mean sea level. The site slopes in a south-easterly direction and has several depression areas located throughout. A roadside drainage ditch runs along the northern and western border of the property along Fabacher Road and Old Hwy 90. Several drainage swells run north to south along the site and empty into a large creek that runs west to east and then junction with a larger creek running north to south down the center of the site.

SJB observed positive indicators of wetland hydrology at four sample locations. These positive indicators included watermarks, water stained leaves, moss trimlines, sparsely vegetated areas, and drainage patterns of wetlands.

5.0 FINDINGS AND CONCLUSIONS

5.1 <u>FINDINGS</u>

Data were gathered and observations were made on the three diagnostic characteristics of jurisdictional wetlands on the $\pm 1,000$ -acre site. The findings include:

<u>Soils:</u> The soils observed on the site (Leton, Mowata-Vidrine, Morey, and Vidrine silt loams) are consistent with soil surveys developed by the USDA SCS (USDA, Service 1995). The soil survey is provided in Exhibit 2. Field data indicate that the majority of the site is underlain by Morey and Leton silt loams, in which Leton is listed as hydric soils. The hydric criteria for wetlands soils was met for four of the ten sample locations (Sample Locations 1, 4, 5, & 8).

<u>Vegetation</u>: Facultative vegetation is present throughout the entire site with hydrophytic vegetation located in pasture land and small isolated mix forested areas. Vegetation is primarily classified as facultative and facultative-wetland. The majority of the vegetation that is present on the site is considered hydrophytic. The vegetation criterion for wetlands was met at four sample locations.

<u>Hydrology:</u> Surface runoff throughout the site appears to drain in southeasterly direction. Indicators of wetland hydrology are present near the depression areas that are scattered throughout the site. The hydrology criteria for wetlands were met at four sample locations (Sample Locations 1, 4, 5, & 8).

<u>Potential Wetlands:</u> The site appears to have an areas identifiable as potential jurisdictional wetlands. Sample Location 1, 4, 5, & 8 were taken within these areas and meets all three criteria for wetlands. Potential wetlands located on the site are considered palustrine emergent wetlands and are located within the pasture habitat within the site (Figure 2).

5.2 CONCLUSIONS

Positive evidence of the three diagnostic characteristics for jurisdictional wetlands was found at Sample Location 1, 4, 5, & 8 shown on Figure 2. Based on this information, a total of five potential wetland area were identified within the site. This area was predominately found in the pasture areas within scattered depressions near the central portion of the site. The potential wetland boundary polygon was created with GPS points taken during the site visit and mapped on

to Figure 2. Based on the field data collected, there are approximately 7.70 acres of potential jurisdictional wetlands on the site.

The USACE, under the authority of the Clean Water Act, Section 404 and the Rivers and Harbors Act, Section 10 has the responsibility to make a final determination of the location and extent of jurisdictional wetlands and navigable waters on this property. This report represents the opinion of the investigators and should be considered preliminary until final determination is obtained from the USACE New Orleans District. However, the entire area is listed as prior converted croplands/wetlands (PC) and with proper documentation, these potential wetland areas may be exempt from any mitigation required as long as the land use is devoted to an agricultural use. Specific guidance for land use conversions from agricultural to non-agricultural use will be provided by the Corp of Engineers.

6.0 <u>REFERENCES</u>

- Environmental Laboratory, 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.
- Environmental Laboratory, 2008. Interim Regional Supplement to the Corp of Engineers Wetland Delineation Manual: Atlantic and Gulf Coast Plain Region. Vicksburg, MS. October 2008.
- U.S. Department of Agriculture, black-and-white aerial photography from 1940.
- U.S. Department of Agriculture, Soil Conservation Service. 1995. Soil mapping Units and Hydric Soils Designations, Louisiana. Third edition. 1995.
- U.S. Geological Survey. "Sulphur, Louisiana," 7.5-minute topographic quadrangle map, 1994.

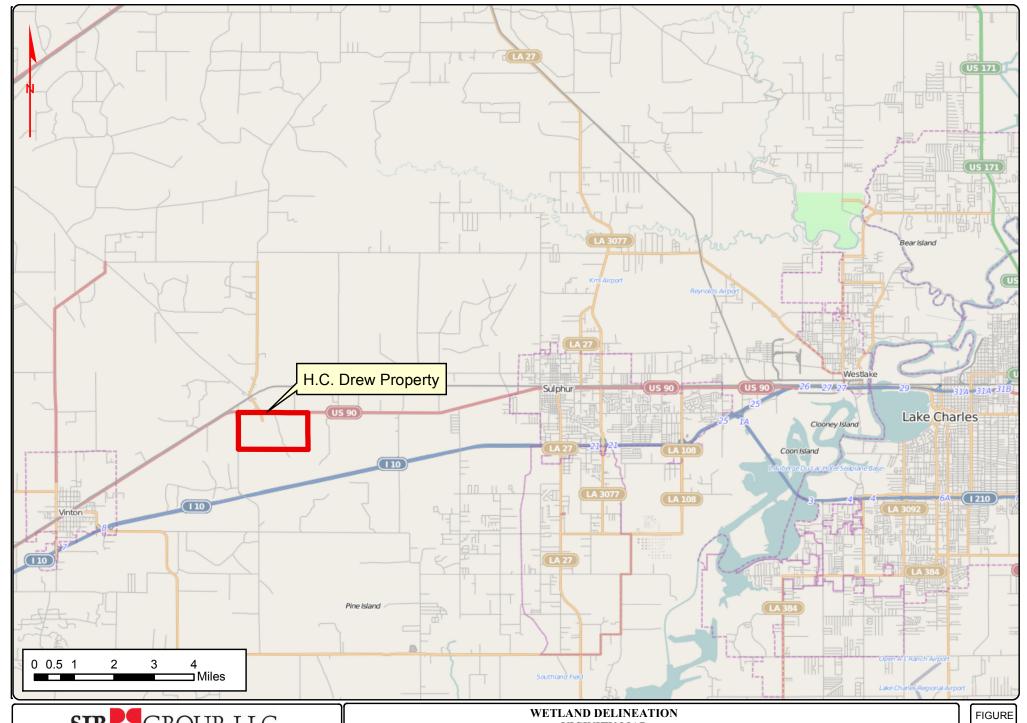
United States Geological Survey, color aerial photography from 2013.

B-93 H.C. Drew Property (1,000 ACRES)

WETLAND DELINEATION

FIGURES, ROUTINE DATA FORMS, EXHIBITS, PHOTOGRAPHS





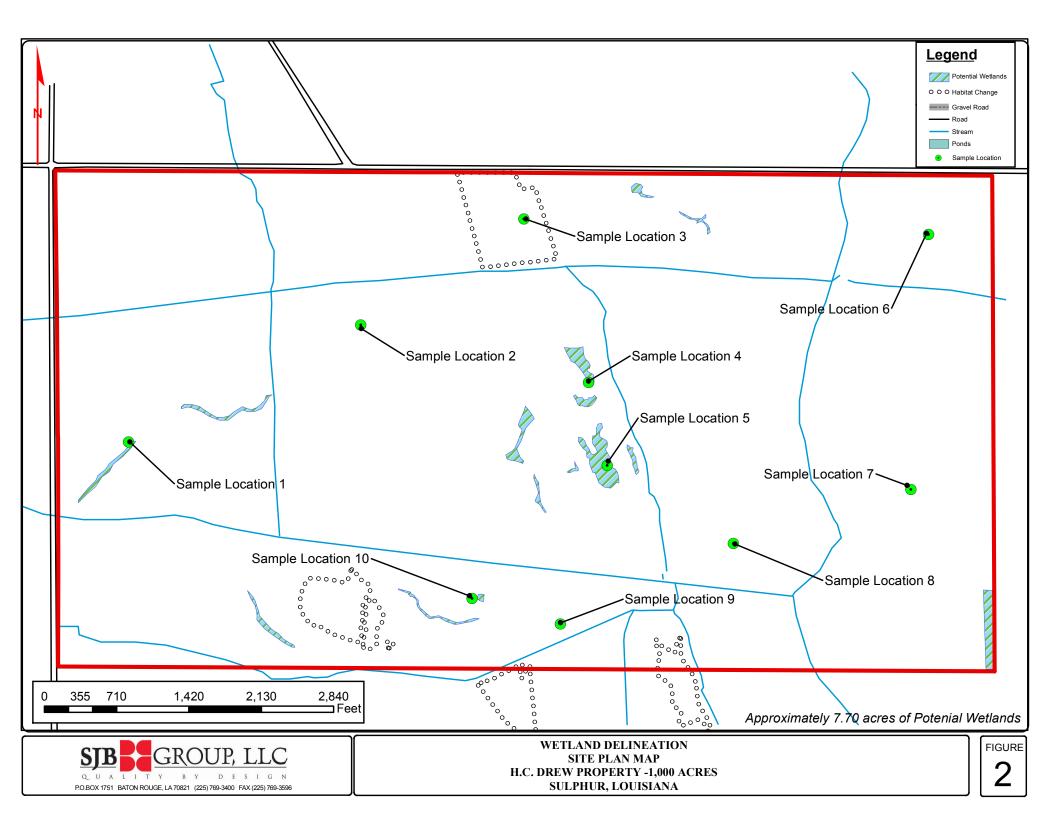
GROUP, LLC

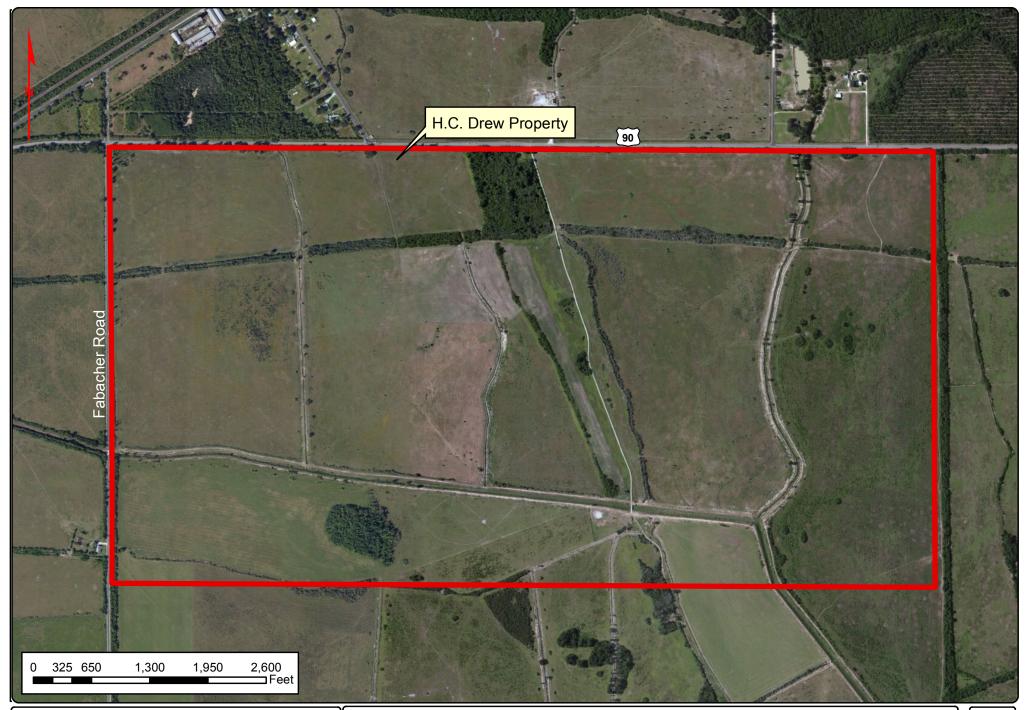
Q. U. A. L. I. T. Y. B. Y. D. E. S. I. G. N.

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VICINITY MAP
H.C. DREW PROPERTY -1,000 ACRES
SULPHUR, LOUISIANA

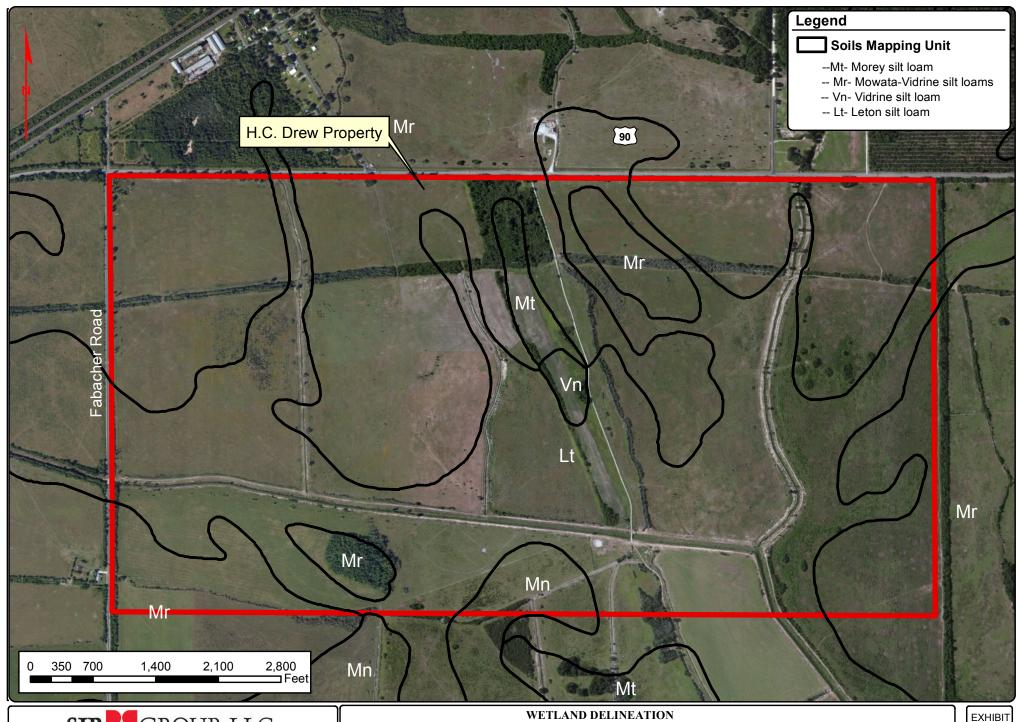
FIGUR







WETLAND DELINEATION AERIAL PHOTOGRAPH H.C. DREW PROPERTY -1,000 ACRES SULPHER, LOUISIANA



GROUP, LLC

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WETLAND DELINEATION
SOILS MAP
H.C. DREW PROPERTY -1,000 ACRES
SULPHUR, LOUISIANA



PHOTOGRAPH 1: Typical view of the habitat that dominates across the site.



PHOTOGRAPH 2: View of a damages storage tank located near the center of the site to the west of the gravel road.





PHOTOGRAPH 3: View of an above-ground storage tank located near the active farming area in the center of the site.



PHOTOGRAPH 4: View of above-ground storage tank near the north central portion of the site.





PHOTOGRAPH 5: View of are on the site were farming practices are active.



PHOTOGRAPH 6: View of farming equipment currently being used to manage the site.





PHOTOGRAPH 7: View of old farming equipment sitting to the west of the gravel road running down the center of the site.



PHOTOGRAPH 8: View of a pond used as a watering hole for cattle.





PHOTOGRAPH 9: View of main stream drainage system running through the center of the site.



PHOTOGRAPH 10: View of the current uses of the site; cattle pasture.





PHOTOGRAPH 11: View of the adjacent property types to the east and west of the site.



PHOTOGRAPH 12: View of the adjacent properties to the west of the site.





PHOTOGRAPH 13: View of the adjacent properties to the north of the site.



PHOTOGRAPH 14: View of construction debris located near the north central portion of the site.



WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:	H.C. Drew Property 1,000 acres	s Parish	: Calcasi	eu Sar	npling Date:	April 7, 2014
Applicant/Owner:	SWLA Economic Developme		State:		mple Point:	
	•		n, Township, Range:	Ga	Sect. 05, 10S, 11	
<u> </u>				, none). N/		
Landform (hillslope, terrace	·		relief (concave, convex	· · · · · · · · · · · · · · · · · · ·	Slope (%):	
,	T-Atlantic and Gulf Coast Lowland F		al. 30 13 12.21		30'32.31" Datum	
Soil Map Unit Name:		Leton silt loam	/Na) Vaa	NWI Classific		None
, ,	nditions on the site typical for this				in Remarks.)	V Na
	,SoilNo,or Hydrology		disturbed? Are "Norm		-	X No
	,Soil No ,or Hydrology			•	any answers in Rer	•
SUMMARY OF FINI	DINGS - Attach site map	showing sampl	ing point location	ns, transects	s, important fe	atures, etc.
Lludraphytic Vagatation D	recent? Vec V	No				
Hydrophytic Vegetation P	· · · · · · · · · · · · · · · · · · ·	No	a tha Camaniad Anaa			
Hydric Soil Present?	Yes X		s the Sampled Area	Vaa	V No	
Wetland Hydrology Prese	nt? Yes X	No w	vithin a Wetland?	Yes	<u>X</u> No	
Remarks:						
·	ined to be within a wetland due to	the presence of all 3 w	vetland criteria.			
HYDROLOGY Wetland hydrology I	ndicators:					
		II the constant			dicators (minimum o	t two required)
	nimum of one is required; check a				e Soil Cracks (B6)	0 (50)
Surface Water	· · · —	Aquatic Fauna (B13)	I DD IIV		ly Vegetated Conca	ve Surface (B8)
High Water Tab		Marl Deposits (B15) (ge Patterns (B10)	
X Saturation (A3)		Hydrogen Sulfide Odd			rim Lines (B16)	20)
Water Marks (E	· —	-	es on Living Roots(C3)		ason Water Table (0	<i>5</i> 2)
Sediment Depo	· · ·	Presence of Reduced			h Burrows (C8)	L (OO)
Drift Deposits (I		Recent Iron Reduction			tion Visible on Aerial	Imagery (C9)
Algal Mat or Cru	· ·	Thin Muck Surface (C	•		orphic Position (D2)	
Iron Deposits (E		Other (Explain in Ren	narks)		v Aquitard (D3)	
	ole on Aerial Imagery (B7)				eutral Test (D5)	
Water-Stained	_eaves (B9)			Sphagi	num moss (D8) (LRI	R T, U)
Field Observations:	V N. V	Denth Control	N/A			
Surface Water Present?	Yes No X	· · · / —	N/A			
Water Table Present?	Yes NoX		>20			
Saturation Present? (includes capillary fringe)	Yes <u>X</u> No	Depth (inches):	6 Wetland	Hydrology Prese	nt? Yes X	No
. , , , ,	ata (stream gauge, monitoring wel	I, aerial photos, previou	I us inspections), if availa	able:		
Remarks:						
A positive indication o	f wetland hydrology was observed	(at least one primary in	ndicator).			
A positive indication o	f wetland hydrology was observed	(at least two secondor	v indicators)			
A positive indication o	wettarid frydrology was observed	i (at least two secondar	y indicators).			

	VEGETATION	(Five Strata)	- Use scientific	names of plants
--	------------	---------------	------------------	-----------------

					Danis and Trades and about		
		Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:	30 ft.)	% cover	Species?	Status	Number of Dominant Species		
1. None Observed					That Are OBL, FACW, or FAC:	3	(A)
2							
3					Total Number of Dominant		
4					Species Across All Strata:	3	(B)
5							
6					Percent of Dominant Species		
			= Total Cover		That Are OBL, FACW, or FAC:	100%	(A/B)
	50% of total cover:		20% of total cover:				
Sapling Stratum (Plot size:	30 ft.)				Prevalence Index Worksheet:		
1. None Observed					Total % Cover of:	Multiply by	<u>/:</u>
2					OBL species 45	x 1 = 45	
3.					FACW species10	x 2 = 20	
4.					FAC species 45	x 3 = 135	
5.			· <u></u>	<u> </u>	FACU species 0	x 4 = 0	<u>-</u>
6.			· <u></u>	<u> </u>	UPL species 0	x 5 = 0	
			= Total Cover		Column Totals: 100	(A) 200	(B)
	50% of total cover:		20% of total cover:			. ,	``
Shrub Stratum (Plot size:					Prevalence Index = B/A =	2.00	
1. None Observed	<u> </u>						
2.		-	·		Hydrophytic Vegetation Indicator	rs:	
3.					1 - Rapid Test for Hydroph		
4					X 2 - Dominance Test is >50		
5		-			X 3 - Prevalence Index is ≤ 3		
					Problematic Hydrophytic V		,)
6			= Total Cover		T Toblematic Trydrophytic v	egetation (Explain	'/
	E00/ of total cover:				¹ Indicators of hydric soil and wetla	and budralagu must	
Horb Stratum (Plot size:	30 ft.)		20% of total cover:		be present, unless disturbed or pro		
Herb Stratum (Plot size:	<u> 30 II.</u>)	10	No	EAC	Definitions of Five Vegetation St		
Paspalum plicatulum Andronogon virginious		<u>10</u> 5	No No	FAC	_		
2. Andropogon virginicus			No No	FAC FAC	Tree - Woody plants, excluding wo	-	
3. Panicum virgatum		5	<u>No</u>	<u>FAC</u>	approximately 20 ft (6m) or more in		
4. Carex cherokeensis		15	<u>Yes</u>	FAC	(7.6 cm) or larger in diameter at bre	ast height (DBH).	
5. Solidago sempervirens		5	<u>No</u>	FACW	Sapling - Woody plants, excluding	woody vinos	
6. Juncus effusus		30	Yes	OBL	approximately 20 ft (6 m) or more in	•	
7. Sesbania drummondii		5	<u>No</u>	FACW	, , , ,	Theight and less	
8. Eleocharis obtusa		15	Yes	OBL	than 3 in. (7.6 cm) DBH.		
9					Charle Westernlands such discuss		
10					Shrub - Woody plants, excluding w	-	
11					approximately 3 to 20 ft (1 to 6 m) i	n neignt.	
		90	= Total Cover				
	50% of total cover:	45	20% of total cover:	18	Herb - All herbaceous (non-woody)		
Woody Vine Stratum (Plot size	: <u>30 ft.</u>)				herbaceous vines, regardless of siz		
1. Rubus argutus		10	Yes	FAC	plants, except woody vines, less the	an approximately	
2.					3 ft (1 m) in height.		
3							
4					Woody vine - All woody vines, reg	ardless of height.	
5							
		10	= Total Cover		Hydrophytic		
	50% of total cover:	5	20% of total cover:	2	Vegetation		
					Present? Yes X	No	
Remarks: (if observed, list n	norphological adaptati	one holow	١				
•							
A positive indication of hydro	phytic vegetation was	observed	(>50% of dominant	species index	xed as OBL, FACW, or FAC).		

A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

Sampling Point: 1_PEM

Depth	Matrix			Redox F	eatures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-6	10YR 4/1	100	None				Silt Loam			
6-20	10YR 5/1	95	10YR 6/2	5	С	M	Silt Loam			
										
	concentration, D=Dep					² Location: Pl	_=Pore Lining, M=Matrix			
•	s Indicators: (Appl	licable to a	· ·		•		Indicators for Proble			
Histoso	` '				Surface (S8) (L		1 cm Muck (A9)	•		
	Epipedon (A2)				e (S9) (LRR S,	•	2 cm Muck (A10) (LRR S)			
Black Histic (A3) Loamy Mucky Mineral (F1) (LRF					. , .	0)	Reduced Vertic (F18) (outside MLRA 150A,B) Piedmont Floodplain Soils (F19) (LRR P, S, T)			
Hydrogen Sulfide (A4)Loamy Gleyed Matrix Stratified Layers (A5) Depleted Matrix (F3)										
Stratified Layers (A5)				,	,		Anomalous Bright Loamy Soils (F20) (MLRA 153B)			
Organic Bodies (A6) (LRR P, T, U)				Redox Dark Surface (F6) Depleted Dark Surface (F7)				Red Parent Material (TF2)		
5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U)			· —	X Redox Depressions (F8)				Very Shallow Dark Surface (TF12)		
	luck (A9) (LRR P, T)	•		Marl (F10) (LRR U)			Other (Explain in Remarks)			
	ed Below Dark Surfa				F11) (MLRA 1 5	51)	(=	,		
	Dark Surface (A12)	,	Iron-Ma	anganese l	Masses (F12) (LRR O, P, T)	³ Indicators of I	nydrophytic vegetation and		
Coast	Prairie Redox (A16)	(MLRA 15	DA) Umbrio	Umbric Surface (F13) (LRR P, T, U)			wetland hydrology must be present,			
Sandy	Mucky Mineral (S1)	(LRR O, S) Delta C	Chric (F17) (MLRA 151)		unless disturb	ed or problematic.		
Sandy	Gleyed Matrix (S4)		Reduce	ed Vertic (F	18) (MLRA 15	0A, 150B)				
Sandy	Redox (S5)		Piedmo	nt Floodpl	ain Soils (F19)	(MLRA 149A)				
Strippe	ed Matrix (S6)		Anoma	Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)						
Dark S	urface (S7) (LRR P,	S, T, U)								
Restrictive	Layer (if observed)):								
Type:										
Depth (inches):						Hydric	c Soil Present? Yes X No			
Remarks:										

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:	H.C. Drov	w Property 1,000 ac	roe Dar	rish:	Calcasieu	Sampling	Date:	April 7, 2014
Applicant/Owner:			ment Alliance / LED	Stat			Point:	2 U
Investigator(s):	P. LeBlanc			-	p, Range:		t. 04, 10S, 11	
Landform (hillslope, terra					ave, convex, no			
Subregion (LRR or MLR							/ I0" Datum	_
Soil Map Unit Name:						NWI Classification:		None
Are climatic / hydrologic	conditions on	the site typical for th	is time of year? (Y	es / No)	Yes	(if no, explain in Re	marks.)	
Are Vegetation	lo,Soil	No ,or Hydrolog	/ No significan	tly disturbed?	Are "Normal (Circumstances" prese	ent? Yes	X No
Are Vegetation	lo,Soil	No ,or Hydrology	/ No naturally p	problematic?	(If r	needed, explain any a	answers in Rei	marks.)
SUMMARY OF FI	NDINGS -	Attach site ma	ap showing sam	pling poin	t locations	s, transects, im	portant fe	atures, etc.
Hydrophytic Vegetation	Present?	Yes X	No					
Hydric Soil Present?	i rodoni.	Yes	No X	Is the Samp	led Area			
Wetland Hydrology Pre	sent?	Yes	No X	within a We		Yes	No	х
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							_	
Remarks:								
This point was dete	rmined not to	he within a wetland	due to the lack of hydr	ic soils and we	tland hydrology	ı,		
This point was dete	illilled flot to	be within a wettand	due to the lack of flydi	ic soils and we	tiana nyarologi	y.		
HYDROLOGY Wetland hydrolog	v Indicatore:							
_		and the second transfer of the off	-II that and A			Secondary Indicato		of two required)
		ne is required; check		2)		Surface Soil	` '	nua Curtana (DO)
Surface Water 1	. ,		_ Aquatic Fauna (B1 Marl Deposits (B15)	•		Drainage Pa		ave Surface (B8)
Saturation (A			Hydrogen Sulfide (Moss Trim Li		
Water Marks	-		Oxidized Rhizosph		Roots(C3)		Water Table (C2)
Sediment De			Presence of Reduc		110010(00)	Crayfish Buri	-	02)
Drift Deposits			Recent Iron Reduc		oils (C6)			I Imagery (C9)
Algal Mat or			Thin Muck Surface		()		Position (D2)	
Iron Deposits			Other (Explain in F			Shallow Aqui	-	
Inundation V	sible on Aerial	I Imagery (B7)	_			X FAC-Neutral	Test (D5)	
Water-Staine	d Leaves (B9))				Sphagnum m	noss (D8) (LR	R T, U)
					1			
Field Observations:								
Surface Water Present			Depth (inches):	N/A				
Water Table Present?	Yes		Depth (inches):	>20	Wattan Jila	de de ma Bassa do	W	N. V
Saturation Present? (includes capillary fring	Yes e)	No <u>X</u>	Depth (inches):	>20	wetiand Hy	drology Present?	Yes	No <u>X</u>
	•	gauge monitoring w	vell, aerial photos, prev	vious inspection	ns) if available			
Dodding Roodiaga	Data (otroam	gaago, momoning v	ion, donai priotos, prot	nous moposiisi	noj, ii avaliabio	•		
Remarks:								
No positive indication	on of wetland h	nydrology was obsei	ved.					

Sampling Point:	2_U
-	

		Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:	30 ft)	% cover	Species?	Status	Number of Dominant Species		
1. None Observed	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<u> </u>		That Are OBL, FACW, or FAC:	2	(A)
2.							(, ,)
3.					Total Number of Dominant		
					Species Across All Strata:	3	(B)
4					Opecies Across Air Strata.		(D)
5					Derecht of Deminent Charles		
6			= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	67%	(A/B)
	FOO/ of total covers				That Are OBL, FACW, or FAC.	0776	(AVD)
Conling Stratum (Diet size)	•		20% of total cover:		Prevalence Index Worksheet:		
Sapling Stratum (Plot size:	30 ft.)					NA John Land	
1. None Observed					Total % Cover of:	Multiply by:	
2.					· —	1 = 0	
3					' 	2 = 0	
4					· —	3 = 120	
5					•	4 = 200	
6					•	5 = 0	
			= Total Cover		Column Totals: 90 (A	A) <u>320</u>	(B)
	50% of total cover:		20% of total cover:				
Shrub Stratum (Plot size:	30 ft.)				Prevalence Index = B/A =	3.56	
1. None Observed							
2					Hydrophytic Vegetation Indicators:		
3					1 - Rapid Test for Hydrophytic	c Vegetation	
4					X 2 - Dominance Test is >50%		
5					3 - Prevalence Index is ≤ 3.0 ¹	1	
6.					Problematic Hydrophytic Veg	etation ¹ (Explain)	
			= Total Cover		<u> </u>		
	50% of total cover:		20% of total cover:		¹ Indicators of hydric soil and wetland	hydrology must	
Herb Stratum (Plot size:	30 ft.)		•		be present, unless disturbed or proble		
1. Ligustrum sinense		5	No	FAC	Definitions of Five Vegetation Strate		
Paspalum notatum		30	Yes	FACU	Tree - Woody plants, excluding wood		
Cirsium vulgare		10	No	FACU	approximately 20 ft (6m) or more in he	-	
Andropogon virginicus		15	Yes	FAC	(7.6 cm) or larger in diameter at breas	-	
5. Panicum virgatum		5	No	FAC	(7.5 om) of larger in diameter at broad	t noight (BBH).	
6. Paspalum plicatulum		15	Yes	FAC	Sapling - Woody plants, excluding wo	ody vines,	
7. Schizachyrium scoparium		10	No No	FACU	approximately 20 ft (6 m) or more in he	-	
		10		1 400	than 3 in. (7.6 cm) DBH.	J	
8					,		
9			-		Shrub - Woody plants, excluding woo	dy vines	
10					approximately 3 to 20 ft (1 to 6 m) in h	-	
11			T		approximately 6 to 20 it (1 to 6 iii) iii ii	oigni.	
	500/ // /		= Total Cover	40	Herb - All herbaceous (non-woody) pla	ante includina	
	50% of total cover:	45	20% of total cover:	18	herbaceous vines, regardless of size,		
Woody Vine Stratum (Plot size:	30 ft)						
1. None Observed					plants, except woody vines, less than	approximately	
2					3 ft (1 m) in height.		
3							
4					Woody vine - All woody vines, regard	less of height.	
5							
			= Total Cover		Hydrophytic		
	50% of total cover:		20% of total cover:		Vegetation		
					Present? Yes X No	'	
Remarks: (if observed, list me	orphological adaptati	ons below).				
A positive indication of hydrop	shytic vogetation was	obsonica	(>50% of dominant	enocios indes	vod as ORL EACW or EACV		
A positive indication of hydrop	myno vegeranon was	onseived	(~50 % OF GOTHINANT	apenies index	GOU AS ODE, I AOVV, UI FAO).		

Depth	Matrix			Redox F	eatures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-7	10YR 3/2	100	None				Loam		
7-20	10YR 3/1	98	7.5YR 5/8	2	С	M	Loam		
1									
	Concentration, D=Dep					² Location: Pl	L=Pore Lining, M=Matrix	1	
•	ls Indicators: (Appl	icable to a	•		•	DD 0 T II)		ematic Hydric Soils ³ :	
Histos	` '				Surface (S8) (L	· · · · · · · ·	1 cm Muck (A9)		
	Epipedon (A2)				e (S9) (LRR S,	•	2 cm Muck (A10	, ,	
	Histic (A3)			-	neral (F1) (LRR	0)		(F18) (outside MLRA 150A,B	
Hydrogen Sulfide (A4)Loamy Gleyed Matrix (F2)								olain Soils (F19) (LRR P, S, T)	
Stratified Layers (A5)Depleted Matrix (F3)Depleted Matrix (F3)							ht Loamy Soils (F20)		
Organic Bodies (A6) (LRR P, T, U) Redox Dark					,		(MLRA 153B)	oriol (TEQ)	
					ırface (F7)		Red Parent Material (TF2) Very Shallow Dark Surface (TF12)		
	//uck (A9) (LRR P, T)	•		Depression	` '		Other (Explain in Remarks)		
	ed Below Dark Surfa			(10) (LRR I	'F11) (MLRA 1 5	:4\	Other (Explain ii	i Kelliaiks)	
	ed Below Dark Suna Dark Surface (A12)	ce (ATT)		,	Masses (F12) (,	³ Indicators of	hydrophytic vegetation and	
	Prairie Redox (A16)	MI DA 15		•	F13) (LRR P, T			logy must be present,	
	Mucky Mineral (S1)	•	· —	•	') (MLRA 151)	, 0,	unless disturb	ed or problematic.	
	Gleyed Matrix (S4)	LIKIK O, O		•	7 (MERA 101) 18) (MLRA 15	0A 150B)			
	Redox (S5)			,	ain Soils (F19)	•			
	ed Matrix (S6)			•	. ,		A, 153C, 153D)		
	Surface (S7) (LRR P,	S, T, U)		3	, , , , , , , , , , , , , , , , , , , ,	-, (,,		
Restrictive	Layer (if observed)	:							
Type:									
Depth (ii	nches):					Hydric	Soil Present? Yes _	NoX	
Remarks:									

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:		ew Property 1,000 ac		Parish:	Calcasieu			April 7, 2014
Applicant/Owner:		A Economic Develop					Point:	
Investigator(s):	P. LeBlan			Section, Townsh			t. 04, 10S, 11\	
Landform (hillslope, ter				Local relief (cond			Slope (%):	
Subregion (LRR or ML				ion Lat: 30° 1	3′ 34.4 <i>7″</i> L	ong: -93° 29'49		
Soil Map Unit Name: Are climatic / hydrologi		the site typical for th		(Vos / No)	Yes	_ NWI Classification (if no, explain in R		None
, ,		No ,or Hydrology	•	· —				¥ No
Are Vegetation		No ,or Hydrolog		lly problematic?		needed, explain any	-	
					·			
SUMMARY OF F	INDINGS .	- Attach site ma	ap snowing sa	ampling poli	nt locations	s, transects, in	iportant rea	atures, etc.
Hydrophytic Vegetation	n Present?	Yes X	No					
Hydric Soil Present?		Yes X	No	Is the Sam	pled Area			
Wetland Hydrology P	esent?	Yes	No <u>X</u>	within a We	etland?	Yes	No	X
Remarks: This point was de	termined not to	be within a wetland	due to the lack of w	retland hydrology	:			
Wetland hydrolo	gy Indicators	:				Secondary Indicate	ors (minimum o	f two required)
Primary Indicators	(minimum of	one is required; check	all that apply)				Cracks (B6)	
Surface Wa	iter (A1)		Aquatic Fauna			Sparsely Ve	getated Concav	ve Surface (B8)
High Water		_	Marl Deposits (I			Drainage Pa	atterns (B10)	
Saturation (Hydrogen Sulfic			Moss Trim L		
Water Mark	` '		_	spheres on Living	g Roots(C3)	· · · · · · · · · · · · · · · · · · ·	Water Table (C	;2)
	eposits (B2)			duced Iron (C4)	2 11 (00)	Crayfish Bu		. (00)
Drift Depos				duction in Tilled S	Soils (C6)		isible on Aerial	Imagery (C9)
Algal Mat o			Thin Muck Surf				Position (D2)	
Iron Deposi		al Imagery (B7)	Other (Explain i	in Remarks)		Shallow Aqu		
	ned Leaves (B					X FAC-Neutra	moss (D8) (LRF) T III
Water-Stall	ieu Leaves (D	9)				Opilagilulli	11033 (D0) (LIKI	. 1, 0,
Field Observations:								
Surface Water Preser	nt? Yes	No X	Depth (inches	s): N/A				
Water Table Present?	? Yes	No X	Depth (inches	s): >20				
Saturation Present?		NoX	Depth (inches	s): >20	Wetland Hy	drology Present?	Yes	NoX
(includes capillary frin	ge)							
Describe Recorde	d Data (stream	n gauge, monitoring v	vell, aerial photos, p	revious inspection	ons), if available	e:		
Remarks:								
No positivo indica	tion of wotland	l hydrology was obsei	wod					
ino positive iliuica	lion of welland	Trydrology was obser	veu.					

Sampling Point:	3_U
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		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:	30 ft.)	% cover	Species?	Status	Number of Dominant Species	
1. Quercus laurifolia	·	20	Yes	FACW	That Are OBL, FACW, or FAC: 6	(A)
2. Quercus nigra		25	Yes	FAC		
3. Triadica sebifera		20	Yes	FAC	Total Number of Dominant	
4. Salix nigra		5	No	OBL	Species Across All Strata: 7 ((B)
5.			· <u></u>			
6.			· <u></u>		Percent of Dominant Species	
		70	= Total Cover		That Are OBL, FACW, or FAC: 86% ((A/B)
	50% of total cover:	35	20% of total cover:	14		
Sapling Stratum (Plot size:	30 ft.)			<u></u>	Prevalence Index Worksheet:	
1. Triadica sebifera		15	Yes	FAC	Total % Cover of: Multiply by:	
2.					OBL species 5 x 1 = 5	
3.			· <u></u>		FACW species 20 x 2 = 40	
4.			· <u></u>		FAC species 95 x 3 = 285	
5.			· <u></u>		FACU species 10 x 4 = 40	
6.			· <u></u>		UPL species 0 x 5 = 0	
		15	= Total Cover		Column Totals: 130 (A) 370	(B)
	50% of total cover:	7.5	20% of total cover:	3		` ′
Shrub Stratum (Plot size:					Prevalence Index = B/A = 2.85	
4 Linuxtuun sinsuss	, ,	20	Yes	FAC		
2.					Hydrophytic Vegetation Indicators:	
3.			·		1 - Rapid Test for Hydrophytic Vegetation	
4.			·		X 2 - Dominance Test is >50%	
5.			·		X 3 - Prevalence Index is ≤ 3.0 ¹	
6.			·		Problematic Hydrophytic Vegetation ¹ (Explain)	
s		20	= Total Cover			
	50% of total cover		20% of total cover:	4	¹ Indicators of hydric soil and wetland hydrology must	
Herb Stratum (Plot size:			2070 01 10101 007011		be present, unless disturbed or problematic.	
1 Nana Obsamued	,				Definitions of Five Vegetation Strata:	
2.			·		Tree - Woody plants, excluding woody vines,	
3.			·		approximately 20 ft (6m) or more in height and 3 in.	
4.			·		(7.6 cm) or larger in diameter at breast height (DBH).	
5.			· —		(7.0 only of larger in diameter at breast neight (BBH).	
			· —		Sapling - Woody plants, excluding woody vines,	
6			·		approximately 20 ft (6 m) or more in height and less	
7					than 3 in. (7.6 cm) DBH.	
8.			· —			
9					Shrub - Woody plants, excluding woody vines,	
10			· —		approximately 3 to 20 ft (1 to 6 m) in height.	
11			= Total Cover			
	EOO/ of total agreem		20% of total cover:		Herb - All herbaceous (non-woody) plants, including	
Woody Vine Stratum (Blot size)	50% of total cover:		20% of total cover.		herbaceous vines, regardless of size, and woody	
Woody Vine Stratum (Plot size:	30 ft)	40	Vaa	FACIL	plants, except woody vines, less than approximately	
Rubus trivialis Tavianda administrativa and income.		10	Yes	FACU	3 ft (1 m) in height.	
2. <u>Toxicodendron radicans</u>		15	Yes	FAC	on (1 m) in noight.	
3.			· —		Woody vine - All woody vines, regardless of height.	
4			· —		Woody vine - All woody vines, regardless of neight.	
5			Total Cours		Uvdvanhutia	
	500/ - () - ()		= Total Cover	_	Hydrophytic	
	50% of total cover:	12.5	20% of total cover:	5	Vegetation	
					Present? Yes X No	
December 1971	and the state of the state of		.			
Remarks: (if observed, list me	orphological adaptat	ions below).			
A positive indication of hydrop	hytic vegetation was	s observed	(>50% of dominant	species inde	xed as OBL, FACW, or FAC).	

A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

Sampling Point: ______3_U

	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
nches) 0-5	10YR 4/2	100	None		<u>, ypc</u>		Silt Loam	rtomanto
5-20	10YR 5/2	90	10YR 4/6	10			Silt Loam	
0 20	10110 3/2		1011(4/0				Ont Loan	
								
							 .	
						21		
	oncentration, D=Dep	•				Location: F	PL=Pore Lining, M=Mati	
•	Indicators: (Appl	icable to al	•		,			lematic Hydric Soils ³ :
Histoso					Surface (S8) (L	· · · · · · · ·	1 cm Muck (A9	
	pipedon (A2)				e (S9) (LRR S ,	· ·	2 cm Muck (A1	
	listic (A3)			-	neral (F1) (LRR	O)		(F18) (outside MLRA 150A ,I
	en Sulfide (A4)		Loamy	Gleyed Ma	atrix (F2)		Piedmont Floor	dplain Soils (F19) (LRR P, S, 1
Stratifie	d Layers (A5)		Deplete	ed Matrix (I	- 3)		Anomalous Brig	ght Loamy Soils (F20)
Organic	Bodies (A6) (LRR	P, T, U)	Redox	Dark Surfa	ce (F6)		(MLRA 153B)	
5 cm M	ucky Mineral (A7) (L	.RR P, T, U)	Deplete	ed Dark Su	rface (F7)		Red Parent Ma	terial (TF2)
Muck P	resence (A8) (LRR	U)	X Redox	Depression	ns (F8)		Very Shallow D	ark Surface (TF12)
1 cm M	uck (A9) (LRR P, T))	Marl (F	10) (LRR I	J)		Other (Explain	in Remarks)
Deplete	d Below Dark Surfa	ce (A11)	Deplete	ed Ochric (F11) (MLRA 1 5	51)		
Thick D	ark Surface (A12)		Iron-Ma	anganese l	Masses (F12) (LRR O, P, T)	³ Indicators o	f hydrophytic vegetation and
Coast F	Prairie Redox (A16)	(MLRA 150			13) (LRR P, T			ology must be present,
	Mucky Mineral (S1)) (MLRA 151)	•	unless distur	bed or problematic.
	Gleyed Matrix (S4)	, -,			18) (MLRA 15	0A. 150B)		
	Redox (S5)				ain Soils (F19)			
	d Matrix (S6)					-	9A, 153C, 153D)	
	` '	C T II)		ious brigin	Loanly Solis (i	20) (WEKA 14	3A, 133C, 133D)	
Dark St	urface (S7) (LRR P,	3, 1, 0)						
estrictive l	aver (if observed)							
	Layer (if observed)	:			Type:			
Туре:		:						
						Hydri	c Soil Present? Yes	X No
Туре:		:				Hydri	c Soil Present? Yes	X No
Туре:		-				Hydri	c Soil Present? Yes	X No
Type: Depth (in						Hydri	c Soil Present? Yes	X No
Type: Depth (independent of the content of the cont			ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (independent of the content of the cont	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (independent of the content of the cont	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (independent of the content of the cont	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (independent of the content of the cont	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No
Type: Depth (in	ches):		ved.			Hydri	c Soil Present? Yes	X No

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:	H.C. Drew Property 1,000 acre	s Parish:	Calcasie	eu Samplii	ng Date: A	pril 7, 2014
Applicant/Owner:	SWLA Economic Developm		State:		e Point:	4_PEM
• • • • • • • • • • • • • • • • • • • •			Township, Range:		ect. 04, 10S, 11W	_
• . ,			· -			
Landform (hillslope, terrace	·		elief (concave, convex			0-5
,	T-Atlantic and Gulf Coast Lowland		: 30-13 24.25		5.18" Datum:	N/A
Soil Map Unit Name:		Morey sil loam	N	NWI Classification	-	None
, ,	nditions on the site typical for this	•		(if no, explain in I	· ·	
	,Soil No ,or Hydrology		isturbed? Are "Norm	•		(No
Are Vegetation No	,Soil No ,or Hydrology	No naturally prob	lematic?	(If needed, explain any	y answers in Rema	arks.)
SUMMARY OF FIND	DINGS - Attach site map	showing sampli	ng point locatio	ns, transects, i	mportant feat	tures, etc.
	·		.			•
Hydrophytic Vegetation Pr	resent? Yes X	No				
Hydric Soil Present?	Yes X	No Is	the Sampled Area			
Wetland Hydrology Preser	nt? Yes X	No w	thin a Wetland?	Yes X	No	
Remarks:						
HYDROLOGY	ined to be within a wetland due to	the presence of all 3 we	янала сптела.			
Wetland hydrology li	ndicators:			Secondary Indica	ators (minimum of t	wo required)
Primary Indicators (mi	nimum of one is required; check a	all that apply)			oil Cracks (B6)	
X Surface Water (Aquatic Fauna (B13)			egetated Concave	Surface (B8)
High Water Tab	· ·	Marl Deposits (B15) (L	.RR U)		Patterns (B10)	(,
X Saturation (A3)		Hydrogen Sulfide Odo	· ·		Lines (B16)	
Water Marks (B		Oxidized Rhizospheres			n Water Table (C2	2)
Sediment Depos		Presence of Reduced	- · · ·		urrows (C8)	-)
						magam, (CO)
Drift Deposits (E		Recent Iron Reduction			Visible on Aerial In	nagery (C9)
Algal Mat or Cru	· ·	Thin Muck Surface (C	-		ic Position (D2)	
Iron Deposits (B	· · · · · · · · · · · · · · · · · · ·	Other (Explain in Rem	arks)		quitard (D3)	
	le on Aerial Imagery (B7)				ral Test (D5)	
Water-Stained I	_eaves (B9)			Sphagnum	moss (D8) (LRR 1	T, U)
Field Observations:						
Surface Water Present?	Yes <u>X</u> No	Depth (inches):	3			
Water Table Present?	Yes NoX		-20			
Saturation Present?	Yes <u>X</u> No	Depth (inches):	5 Wetland	Hydrology Present?	Yes X	No
(includes capillary fringe)						
Describe Recorded Da	ata (stream gauge, monitoring we	ll, aerial photos, previous	s inspections), if availa	ıble:		
Remarks:						
A positive indication of	f wetland hydrology was observed	d (at least one primary in	dicator).			

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

		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:	30 ft.)	% cover	Species?	Status	Number of Dominant Species	
1. None Observed					That Are OBL, FACW, or FAC: 3	(A)
2.						
3.					Total Number of Dominant	
4.					Species Across All Strata: 3	(B)
5.			•			(_)
			· —		Percent of Dominant Species	
6			= Total Cover		·	/ / /D)
	•		-		That Are OBL, FACW, or FAC: 100%	(A/B)
	·		20% of total cover:		Prevalence Index Worksheet:	
Sapling Stratum (Plot size:	30 ft.)					
· · · · · ·		10	Yes	FAC	Total % Cover of: Multiply	by:
2			<u> </u>		OBL species x 1 = 5	50
3					FACW species x 2 = 5	i0
4.			<u> </u>		FAC species 30 x 3 = 9	0
5.					FACU species 0 x 4 = 0	0
6.			,			0
		10	= Total Cover			90 (B)
	50% of total cover:		20% of total cover:	2		(2)
Shrub Stratum (Plot size:	·		20 % Of total cover.		Prevalence Index = B/A = 1.81	
	30 ft.)				Prevalence index = b/A = 1.61	
1. None Observed			-			
2			- —		Hydrophytic Vegetation Indicators:	
3			-		1 - Rapid Test for Hydrophytic Vegetation	
4			<u> </u>		X 2 - Dominance Test is >50%	
5					X 3 - Prevalence Index is ≤ 3.0 ¹	
6					Problematic Hydrophytic Vegetation ¹ (Explanation)	ain)
			= Total Cover			
	50% of total cover:		20% of total cover:		¹ Indicators of hydric soil and wetland hydrology mu	ıst
Herb Stratum (Plot size:	30 ft.)				be present, unless disturbed or problematic.	
Paspalum plicatulum		5	No	FAC	Definitions of Five Vegetation Strata:	
Andropogon virginicus		10	No No	FAC	Tree - Woody plants, excluding woody vines,	
3. Panicum virgatum		5	<u>No</u>	FAC FAC	approximately 20 ft (6m) or more in height and 3 in.	
4. Carex cherokeensis		5	<u>No</u>	FACW	(7.6 cm) or larger in diameter at breast height (DBH).
5. Solidago sempervirens		10	<u>No</u>	FACW	Canling Woods plants evaluating woods vines	
6. Juncus effusus		30	Yes	OBL	Sapling - Woody plants, excluding woody vines,	
7. Sesbania drummondii		10	No	FACW	approximately 20 ft (6 m) or more in height and less	
8. Eleocharis obtusa		20	Yes	OBL	than 3 in. (7.6 cm) DBH.	
9						
10.			·		Shrub - Woody plants, excluding woody vines,	
11.					approximately 3 to 20 ft (1 to 6 m) in height.	
		95	= Total Cover			
	50% of total cover		20% of total cover:	19	Herb - All herbaceous (non-woody) plants, including	1
Woody Vino Stratum (Plot aiza	·	47.0	20 % of total cover.		herbaceous vines, regardless of size, and woody	•
Woody Vine Stratum (Plot size	: <u>30 ft.</u>)				plants, except woody vines, less than approximately	,
1. None Observed	 -		. —		3 ft (1 m) in height.	
2			-		on (1 m) in neight.	
3			- —		Man harden Allerander in a consultant of height	
4			-		Woody vine - All woody vines, regardless of height	•
5			<u> </u>			
			= Total Cover		Hydrophytic	
	50% of total cover:		20% of total cover:		Vegetation	
	•		•		Present? Yes X No	
Remarks: (if observed, list m	norphological adaptati	ons helow	<u> </u>			
Remarks. (ii observed, list ii	iorpriological adaptati	OLIS DEIOM).			
A positive indication of hydro	phytic vegetation was	observed	(>50% of dominant	species index	xed as OBL, FACW, or FAC).	
A positive indication of hydro	phytic vegetation was	observed	(Prevalence Index i	s ≤ 3.00).		
			•	•		

Sampling Point: 4_PEM

Depth	Matrix			Redox F	eatures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-5	10YR 4/2	100	None				Silt Loam			
5-20	10YR 5/2	90	10YR 4/6	10	С	M	Silt Loam			
		<u> </u>								
	 Concentration, D=Dep					² Location: Pl	 L=Pore Lining, M=Matrix	•		
•	s Indicators: (Appl	icable to	· ·		•		Indicators for Proble			
Histoso	,				Surface (S8) (L		1 cm Muck (A9)	•		
<u> </u>				e (S9) (LRR S ,	•	2 cm Muck (A10)	•			
Black Histic (A3) Loamy Mucky Mineral (F1) (LF					O)					
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F				atrix (F2)		 ·	olain Soils (F19) (LRR P, S, T			
<u> </u>				ed Matrix (F3)		Anomalous Brigh	nt Loamy Soils (F20)		
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)				ace (F6)		(MLRA 153B)				
5 cm M	lucky Mineral (A7) (L	RR P, T,	U)Deplete	ed Dark Su	urface (F7)		Red Parent Mate	,		
	Presence (A8) (LRR	•	X Redox	•	, ,		Very Shallow Da	rk Surface (TF12)		
1 cm M	Muck (A9) (LRR P, T))	Marl (F	10) (LRR	U)		Other (Explain in	Remarks)		
Deplet	ed Below Dark Surfa	ce (A11)	Deplete	ed Ochric ((F11) (MLRA 1 5	51)				
Thick [Dark Surface (A12)		Iron-Ma	anganese l	Masses (F12) (RR O, P, T) *Indicators of hydrophytic vegetation and wetland hydrology must be present.				
Coast	Prairie Redox (A16)	(MLRA 15	0A) Umbric	Surface (I	F13) (LRR P, T ,	U)	•	0, 1		
Sandy	Mucky Mineral (S1)	(LRR O, S	Delta C	chric (F17	7) (MLRA 151)		unless disturbed or problematic.			
Sandy	Gleyed Matrix (S4)		Reduce	ed Vertic (F	F18) (MLRA 15 6	DA, 150B)				
Sandy	Redox (S5)		Piedmo	nt Floodpl	lain Soils (F19)	(MLRA 149A)				
Strippe	ed Matrix (S6)		Anoma	lous Bright	t Loamy Soils (F	20) (MLRA 149	A, 153C, 153D)			
Dark S	Surface (S7) (LRR P,	S, T, U)								
Restrictive	Layer (if observed)	:								
Type:										
Depth (ir	nches):					Hydric	Soil Present? Yes _	X No		
Remarks:										
	ndication of hydric so									

Project/Site:		ew Property 1,000 ac		Parish:	Calcasieu		_Sampling Date		7, 2014
Applicant/Owner:		LA Economic Develop				LA	_ Sample Point		_PEM
Investigator(s):		nc and	J. LeBourgois					10S, 11W	
Landform (hillslope, terr				Local relief (cond					0-5
Subregion (LRR or MLF				egion Lat: 30° 1	3′ 12.42″ L		93° 29'40.29"		N/A
Soil Map Unit Name: Are climatic / hydrologic		n the cite tunical for th		(Vos / No)	Voc	_	ssification: plain in Remarl		ie
		No , or Hydrolog		·					No
		No ,or Hydrolog		ally problematic?			-	ers in Remarks	_
					•		•		•
SUMMARY OF F	INDINGS	- Attach site m	ap snowing s	ampling poli	nt locations	s, transe	ects, impor	tant reatur	es, etc.
Hydrophytic Vegetatio	n Present?	Yes <u>X</u>	No						
Hydric Soil Present?		Yes X	No	Is the Sam	oled Area				
Wetland Hydrology Pr	esent?	Yes X	No	within a We	etland?	Yes	<u> </u>	No	
Remarks: This point was det	ermined to be	e within a wetland due	to the presence o	f all 3 wetland crite	eria.				
HADBOLOCA									
HYDROLOGY Wetland hydrolog	gy Indicators	<u> </u>				Secondo	ry Indicators (n	ninimum of two	required)
		one is required; chec	k all that apply)				rface Soil Crac		required)
X Surface Wa			K Aquatic Fauna	ı (B13)	,			ed Concave Su	urface (B8)
High Water				(B15) (LRR U)			ainage Pattern		, ,
X Saturation (A3)	<u> </u>	Hydrogen Sulf	ide Odor (C1)		Mc	oss Trim Lines	(B16)	
Water Mark	s (B1)		Oxidized Rhizo	ospheres on Living	g Roots(C3)	Dr	y-Season Wate	er Table (C2)	
Sediment D	eposits (B2)		Presence of R	educed Iron (C4)		X Cr	ayfish Burrows	(C8)	
Drift Deposi	ts (B3)		Recent Iron Re	eduction in Tilled S	Soils (C6)	Sa	turation Visible	on Aerial Imag	gery (C9)
Algal Mat or	Crust (B4)	_	Thin Muck Sur			Ge	eomorphic Posi	tion (D2)	
Iron Deposit	ts (B5)	_	Other (Explain	in Remarks)		Sh	allow Aquitard	(D3)	
		ial Imagery (B7)					C-Neutral Tes		
Water-Stain	ned Leaves (B	39)				Sp	hagnum moss	(D8) (LRR T, U	J)
Field Observations:									
Surface Water Preser	nt? Yes	X No	Depth (inche	es): 8					
Water Table Present?	_	No X							
Saturation Present?	_	X No			Wetland Hy	drology Pr	esent? Yes	s <u>X</u> No	o
(includes capillary fring				, <u> </u>	-				
Describe Recorde	d Data (strear	m gauge, monitoring	well, aerial photos,	previous inspection	ons), if available	e:			
Remarks:									
A positive indication	on of wetland	hydrology was observ	ved (at least one pr	imary indicator).					
A manistra in diansi		hda.a.la.aa.a.a.la.a.a.a.			-\				
A positive indication	on of wetland	hydrology was observ	/ed (at least two se	econdary indicators	S).				

VEGETATION	(Five Strata)	 Use scientific 	names of plants.

					Deminance Test werksheet	
		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:	30 ft.)	% cover	Species?	Status	Number of Dominant Species	
1. None Observed			_		That Are OBL, FACW, or FAC: 6	(A)
2						
3.					Total Number of Dominant	
4.			<u></u>		Species Across All Strata: 6	(B)
5.			-			. ()
			· · · · · · · · · · · · · · · · · · ·		Percent of Dominant Species	
6			= Total Cover		·	(A/B)
	500/ of total account		-		That Are OBL, FACW, or FAC: 100%	(AVD)
			20% of total cover:		Prevalence Index Worksheet:	
Sapling Stratum (Plot size:	30 ft.)					
		15	Yes	FAC	Total % Cover of: Multiply by	<u>": </u>
2			<u> </u>		OBL species x 1 = 40	
3					FACW species 30	
4			_		FAC species 30	
5					FACU species 0 x 4 = 0	
6.					UPL species 0 x 5 = 0	
-		15	= Total Cover		Column Totals: 100 (A) 190	(B)
	50% of total cover:		20% of total cover:	3		(-/
Shrub Stratum (Plot size:		7.0	2070 01 10101 00701.		Prevalence Index = B/A = 1.90	
1. None Observed	<u> </u>				1 revalence index = B/A = 1.30	
					Ibulaankutis Vanstatian ladiastans	
2.					Hydrophytic Vegetation Indicators:	
3					1 - Rapid Test for Hydrophytic Vegetation	
4			<u> </u>		X 2 - Dominance Test is >50%	
5					X 3 - Prevalence Index is ≤ 3.0 ¹	
6			_		Problematic Hydrophytic Vegetation ¹ (Explain	1)
			= Total Cover			
	50% of total cover:		20% of total cover:		¹ Indicators of hydric soil and wetland hydrology must	
Herb Stratum (Plot size:	30 ft.)		•		be present, unless disturbed or problematic.	
Paspalum plicatulum	<u> </u>	5	No	FAC	Definitions of Five Vegetation Strata:	
Andropogon virginicus		5	No	FAC	Tree - Woody plants, excluding woody vines,	
						
3. Panicum virgatum		5	No No	FAC	approximately 20 ft (6m) or more in height and 3 in.	
4. Carex cherokeensis		10	<u>Yes</u>	FACW	(7.6 cm) or larger in diameter at breast height (DBH).	
5. Solidago sempervirens		10	Yes	FACW	Sapling - Woody plants, excluding woody vines,	
6. Juncus effusus		25	Yes	OBL		
7. Sesbania drummondii		10	Yes	FACW	approximately 20 ft (6 m) or more in height and less	
8. Eleocharis obtusa		15	Yes	OBL	than 3 in. (7.6 cm) DBH.	
9			<u> </u>			
10.					Shrub - Woody plants, excluding woody vines,	
11.					approximately 3 to 20 ft (1 to 6 m) in height.	
		85	= Total Cover			
	50% of total cover:		20% of total cover:	17	Herb - All herbaceous (non-woody) plants, including	
Woody Vina Stratum (Dlat aire		42.5	20 % Of total cover.		herbaceous vines, regardless of size, and woody	
Woody Vine Stratum (Plot size:	: <u>30 ft.</u>)				plants, except woody vines, less than approximately	
1. None Observed					3 ft (1 m) in height.	
2			<u> </u>		3 it (1 iii) iii neight.	
3					Managharina Allananda Sana arandhara (Chaish)	
4					Woody vine - All woody vines, regardless of height.	
5						
			= Total Cover		Hydrophytic	
	50% of total cover:		20% of total cover:		Vegetation	
					Present? Yes X No	
Remarks: (if observed, list m	norphological adaptat	ions below	r).			
•						
A positive indication of hydro	phytic vegetation was	observed	(>50% of dominant	species index	ked as OBL, FACW, or FAC).	
A positive indication of hydro	phytic vegetation was	observed	l (Prevalence Index is	$s \le 3.00$).		

Sampling Point: 5_PEM

Pepth	Matrix			Redox F	eatures						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-5	10YR 4/2	100	None				Silt Loam				
5-20	10YR 5/2	90	10YR 4/6	10		M	Silt Loam				
		<u> </u>		<u> </u>							
		_									
	Concentration, D=De					² Location: Pl	 L=Pore Lining, M=Matrix				
-	ls Indicators: (App	icable to a	•		•			ematic Hydric Soils ³ :			
Histos	` '				Surface (S8) (L		1 cm Muck (A9)	•			
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, I					T, U)	2 cm Muck (A10) (LRR S)				
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O)						O)	Reduced Vertic (F18) (outside MLRA 150A,				
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)							Piedmont Flood	olain Soils (F19) (LRR P, S, T)			
Stratified Layers (A5) Depleted Matrix (F3)						Anomalous Brigh	nt Loamy Soils (F20)				
Organi	ic Bodies (A6) (LRR	P, T, U)	Redox	Dark Surfa	ice (F6)		(MLRA 153B)				
5 cm N	/lucky Mineral (A7) (I	RR P, T, U	J)Deplete	ed Dark Su	rface (F7)		Red Parent Mate	erial (TF2)			
Muck I	Presence (A8) (LRR	U)	X Redox	Depression	ns (F8)		Very Shallow Da	rk Surface (TF12)			
1 cm N	Muck (A9) (LRR P, T)	Marl (F	10) (LRR l	J)		Other (Explain in	Remarks)			
Deplet	ed Below Dark Surfa	ce (A11)	Deplete	ed Ochric (F11) (MLRA 1 5	51)					
Thick I	Dark Surface (A12)		Iron-Ma	anganese M	Masses (F12) (LRR O, P, T)					
Coast	Prairie Redox (A16)	(MLRA 150	OA)Umbrid	Surface (F	13) (LRR P, T ,	U)	wetland hydrology must be present,				
Sandy	Mucky Mineral (S1)	(LRR O, S	Delta C	Ochric (F17) (MLRA 151)		unless disturbed or problematic.				
Sandy	Gleyed Matrix (S4)		Reduce	ed Vertic (F	18) (MLRA 15	DA, 150B)					
Sandy	Redox (S5)		Piedmo	ont Floodpl	ain Soils (F19)	(MLRA 149A)					
Strippe	ed Matrix (S6)		Anoma	lous Bright	Loamy Soils (F	20) (MLRA 149	A, 153C, 153D)				
Dark S	Surface (S7) (LRR P,	S, T, U)									
Restrictive	Layer (if observed)):									
Type:											
Depth (ii	nches):					Hydric	Soil Present? Yes _	X No			
Remarks:						1					
A 115 1	ndication of hydric so	il waa ahaa	nuod								

Project/Site:	H.C. Drow	Property 1,000 ac	eros Par	rish:	Calcasieu	Sampling	Date:	April 7, 2014
Applicant/Owner:			oment Alliance / LED	Stat			Point:	6_U
Investigator(s):	P. LeBlanc			-	p, Range:		t. 03, 10S, 11	
Landform (hillslope, terrad					ave, convex, no			
Subregion (LRR or MLRA							93" Datum	
Soil Map Unit Name:	, <u> </u>					NWI Classification	<u> </u>	None
Are climatic / hydrologic c	onditions on th	e site typical for th	nis time of year? (Y	es / No)	Yes	_ _ (if no, explain in Re	emarks.)	
Are Vegetation N	Soil <u>N</u>	or Hydrolog	y No significan	tly disturbed?	Are "Normal (Circumstances" prese	ent? Yes	X No
Are Vegetation No.	,Soil <u>N</u>	or Hydrolog	y <u>No</u> naturally i	oroblematic?	(If n	needed, explain any a	answers in Rer	marks.)
SUMMARY OF FIN	IDINGS - A	Attach site ma	ap showing sam	nolina poin	t locations	s. transects. im	portant fe	atures, etc.
			3	J				
Hydrophytic Vegetation	Orocont?	Voc	No. V					
Hydrophytic Vegetation Hydric Soil Present?		Yes X	No X No	Is the Samp	lod Aroa			
Wetland Hydrology Pres		Yes X	No X	within a We		Yes	No	х
wettand Trydrology Tres	GIIL:		110 <u>X</u>	within a we	tialia :	163	_ 110	
Remarks:				l				
			described and arthurs		e e e e e e e e e e e e e e e e e e e	d books to so		
This point was deter	nined not to be	e within a wetland	due to the lack of hydr	ophytic vegeta	tion and wetlan	nd hydrology.		
HYDROLOGY								
Wetland hydrology	Indicators:					Secondary Indicate	ors (minimum c	of two required)
Primary Indicators (r	ninimum of one	is required; checl	k all that apply)			Surface Soil	Cracks (B6)	
Surface Wate	r (A1)		Aquatic Fauna (B1	3)		Sparsely Ve	getated Conca	ave Surface (B8)
High Water Ta	able (A2)	_	Marl Deposits (B1	5) (LRR U)		Drainage Pa	tterns (B10)	
Saturation (A3	·)	_	Hydrogen Sulfide (Odor (C1)		Moss Trim L	ines (B16)	
Water Marks	B1)	_	Oxidized Rhizosph	eres on Living	Roots(C3)	Dry-Season	Water Table (C2)
Sediment Dep	osits (B2)		Presence of Redu	ced Iron (C4)		X Crayfish Bur	rows (C8)	
Drift Deposits	(B3)		Recent Iron Reduc	tion in Tilled S	oils (C6)	Saturation V	isible on Aeria	I Imagery (C9)
Algal Mat or C	rust (B4)		Thin Muck Surface	e (C7)		Geomorphic	Position (D2)	
Iron Deposits	(B5)		Other (Explain in F	Remarks)		Shallow Aqu	itard (D3)	
Inundation Vis	ible on Aerial Ir	magery (B7)				FAC-Neutral	Test (D5)	
Water-Stained	Leaves (B9)					Sphagnum n	noss (D8) (LRI	R T, U)
					Т			
Field Observations:			5 4 6 1 3					
Surface Water Present?			Depth (inches):	N/A				
Water Table Present?	Yes		Depth (inches):	>20	Watland Hou	duala es Duana es 40	V	No. V
Saturation Present? (includes capillary fringe	Yes)	NoX	Depth (inches):	>20	wettand nyt	drology Present?	Yes	No <u>X</u>
,	,	auge monitoring v	well, aerial photos, prev	ious inspection	ns) if available			
Describe Recorded I	zata (Stream ge	auge, monitoring v	well, deliai priotos, pre	nous mopeonor	15), ii avaliable	•		
Remarks:								
No positive indication	n of wetland hy	drology was obse	rved.					

VEGETATION	(Five Strata)	- Use scientific	names of plants

					Dominance Test worksheet:		
		Absolute	Dominant	Indicator			
Tree Stratum (Plot size:	30 ft.)	% cover	Species?	Status	Number of Dominant Species	ı	/A)
1. None Observed			<u> </u>		That Are OBL, FACW, or FAC:		(A)
2							
3					Total Number of Dominant		(D)
4					Species Across All Strata: 2	2	(B)
5							
6			T-1-1-0		Percent of Dominant Species	0/	(A (D)
	500/ - (1-1-)		= Total Cover		That Are OBL, FACW, or FAC: 50	<u>%</u>	(A/B)
One l'an Otratana (Diataina		-	20% of total cover:		Prevalence Index Worksheet:		
Sapling Stratum (Plot size:						المناط والمناط	
· · · · · ·			· ———			Multiply by: 0	
2.					·		
3.			<u> </u>				
4			<u> </u>		<u> </u>		
5.					·		
6			= Total Cover		UPL species	270	(P)
	EOO/ of total covers		20% of total cover:		Column rotals (A)	210	(B)
Chrub Stratum (Blot size:			20% of total cover.		Prevalence Index = B/A =	3.60	
Shrub Stratum (Plot size: 1. None Observed					Frevalence index = B/A =	3.00	
2.	.	-	· <u></u>		Hydrophytic Vegetation Indicators:		
3.			· ———		1 - Rapid Test for Hydrophytic Vege	etation	
4.			· ———		2 - Dominance Test is >50%	riation i	
5.			· ———		3 - Prevalence Index is ≤ 3.0 ¹		
6.		-	· <u></u>		Problematic Hydrophytic Vegetation	¹ (Explain)	
o		-	= Total Cover			(=/\pi\a)	
	50% of total cover:		20% of total cover:		¹ Indicators of hydric soil and wetland hydrol	logy must	
Herb Stratum (Plot size:	30 ft.)		2070 01 10101 00101.		be present, unless disturbed or problematic.	ogy maoi	
Paspalum plicatulum		15	Yes	FAC	Definitions of Five Vegetation Strata:		
Paspalum notatum		35	Yes	FACU	Tree - Woody plants, excluding woody vines	S.	
Cirsium vulgare		10		FACU	approximately 20 ft (6m) or more in height an		
Andropogon virginicus		10	No	FAC	(7.6 cm) or larger in diameter at breast heigh		
5. Panicum virgatum		5	No No	FAC	(1.10 om) of larger in diameter at 2.10det field.	. (55).	
6.			· <u> </u>		Sapling - Woody plants, excluding woody vii	nes,	
7.					approximately 20 ft (6 m) or more in height a	nd less	
8.		-			than 3 in. (7.6 cm) DBH.		
9.							
10.					Shrub - Woody plants, excluding woody vine	es,	
11.			· -		approximately 3 to 20 ft (1 to 6 m) in height.		
		75	= Total Cover				
	50% of total cover:	37.5	20% of total cover:	15	Herb - All herbaceous (non-woody) plants, in	ncluding	
Woody Vine Stratum (Plot size	e: 30 ft.)		•		herbaceous vines, regardless of size, and wo	oody	
1. None Observed					plants, except woody vines, less than approx	imately	
2.					3 ft (1 m) in height.		
3.							
4.					Woody vine - All woody vines, regardless of	height.	
5.							
			= Total Cover		Hydrophytic		
	50% of total cover:		20% of total cover:		Vegetation		
					Present? Yes NoX	<u> </u>	
Remarks: (if observed, list n	norphological adaptat	ions below	·).				
No positive indication of hydronical				t eneries ind	eved as FAC- or drier)		
ino positive indication of nydi	opinytic vegetation wa	as observe	a (=50 % oi doilillan	ir sheries ilia	executes i AC or utilet).		

Sampling Point: 6_U

Sampling Point: 6_U

	scription: (Describe	acpt						
epth	Matrix	0/	Color (moint)	Redox F		Loc ²	Touture	Domorko
nches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	LOC	Texture	Remarks
0-6	10YR 4/1	100 05	None 10VP 6/2				Silt Loam	
6-20	10YR 5/1	95	10YR 6/2	5		M	Silt Loam	
								
					-			
						2		
<i>-</i>	Concentration, D=Depoint Is Indicators: (Appl	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			Location: Pl	L=Pore Lining, M=Matrix	•
-		icable to all	•		•	DD C T III	Indicators for Proble	<u>-</u>
	ol (A1)				Surface (S8) (L I	· · · · · ·	1 cm Muck (A9) (· ·
	Epipedon (A2)				(S9) (LRR S,	· ·	2 cm Muck (A10)	
	Histic (A3)			-	eral (F1) (LRR	0)	·	F18) (outside MLRA 150A,E
	gen Sulfide (A4)			Gleyed Ma				ain Soils (F19) (LRR P, S, T
	ied Layers (A5)	5 - 10		ed Matrix (F	•			t Loamy Soils (F20)
	ic Bodies (A6) (LRR			Dark Surfa	` '		(MLRA 153B)	
	Mucky Mineral (A7) (L			ed Dark Su			Red Parent Mate	` '
	Presence (A8) (LRR	•	X Redox	•	` '		Very Shallow Dar	, ,
	Muck (A9) (LRR P, T)			10) (LRR (-		Other (Explain in	Remarks)
	ted Below Dark Surfa	ce (A11)		•	F11) (MLRA 15	•	31 11 4 41	
	Dark Surface (A12)			•	Masses (F12) (ydrophytic vegetation and ogy must be present,
	Prairie Redox (A16)	•			¹ 13) (LRR P, T,	U)	-	ed or problematic.
	Mucky Mineral (S1)	(LRR O, S)) (MLRA 151)			
	Gleyed Matrix (S4)			-	18) (MLRA 15 0			
Sandy	Redox (S5)		Piedmo	ont Floodpla	ain Soils (F19) (MLRA 149A)		
Strippe	ed Matrix (S6)		Anoma	lous Bright	Loamy Soils (F	20) (MLRA 149	A, 153C, 153D)	
Dark S	Surface (S7) (LRR P,	S, T, U)						
octrictivo	Layer (if observed)							
	Layer (II observed)	•						
Type:	. — .							
Depth (i	nches):					Hydric	Soil Present? Yes	X No
emarks:								
	ndication of hydric so	ii was observ	/ea.					
positive in	,							
positive in								
positive in								
positive in	,							
positive in	,							
positive in								
positive in								
positive in								
positive in								
positive in								
positive in								
positive in								
a positive in								

Project/Site:	H.C. Dr	ew Property 1,000 acr	es	Parish:	Calcasieu	ı Samp	ling Date:	April 7, 2014
Applicant/Owner:		LA Economic Developr			State:		ole Point:	
Investigator(s):	P. LeBlan		J. LeBourgois	Section, Town			Sect. 04, 10S, 1	
Landform (hillslope, terra					ncave, convex,		Slope (%	
Subregion (LRR or MLR)							0.5,50 (76 05.22" Datu	
Soil Map Unit Name:	(). <u>17466116</u>	no and Gun Godot Lowiding	Morey sil loam		10 00.01	NWI Classificat		None
Are climatic / hydrologic	conditions or	n the site typical for thi			Yes	(if no, explain in		
, ,	lo ,Soil	**	•	· · · · · ·		I Circumstances" p	=	X No
	lo ,Soil			rally problematic		f needed, explain a	_	
					•	• •	•	•
SUMMARY OF FI	NDINGS -	- Attach site ma	p showing s	sampling po	oint location	ns, transects,	important f	eatures, etc.
Hydrophytic Vegetation	Present?	Yes	No X					
Hydric Soil Present?		Yes	No X	Is the Sa	mpled Area			
Wetland Hydrology Pre	sent?	Yes	No X	'	Wetland?	Yes	No	X
Remarks:				l .				
This point was dete	rmined not to	o be within a wetland c	due to the lack of	all three wetland	I criteria.			
Wetland hydrolog	y Indicators	:				Secondary India	cators (minimum	of two required)
Primary Indicators (minimum of	one is required; check	all that apply)				Soil Cracks (B6)	
Surface Water	`		Aquatic Faun	a (B13)				cave Surface (B8)
High Water T			_	(B15) (LRR U)			Patterns (B10)	, ,
Saturation (A			_	fide Odor (C1)			m Lines (B16)	
Water Marks	•			ospheres on Liv	ing Roots(C3)		on Water Table	(C2)
Sediment De			_	Reduced Iron (C		X Crayfish		
Drift Deposits			_	Reduction in Tille	•			ial Imagery (C9)
Algal Mat or 0			Thin Muck Su		,		hic Position (D2	
Iron Deposits				n in Remarks)			Aquitard (D3)	,
		ial Imagery (B7)		,			itral Test (D5)	
Water-Staine							m moss (D8) (L l	RR T. U)
	u 200,00 (2	0)				opinagina	(= 0, (=	, -,
Field Observations:								
Surface Water Present	? Yes	No X	Depth (inch	es): N/A				
Water Table Present?	Yes		Depth (inch	· ——				
Saturation Present?	Yes		_ ' '	,	Wetland H	ydrology Present	? Yes	No X
(includes capillary fringe		· · · ·				,		
Describe Recorded	Data (stream	m gauge, monitoring w	ell, aerial photos,	, previous inspec	tions), if availab	le:		
Remarks:								
No positive indication	on of wetland	d hydrology was observ	ved.					
·		, 0,						

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

					Deminance Test worksheet:		
= Or reserve (Distriction	22 "	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:	30 ft.)	% cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	2	(4)
1. None Observed			· ——		That Are OBL, FACW, or FAC:	2	(A)
2			·		Total Number of Dominant		
3 4					Species Across All Strata:	4	(B)
5.					opecies / toross / tir otrata.		(D)
6.			·		Percent of Dominant Species		
			= Total Cover		That Are OBL, FACW, or FAC:	50%	(A/B)
			20% of total cover:		, ,		,
Sapling Stratum (Plot size:			•		Prevalence Index Worksheet:		
None Observed					Total % Cover of:	Multiply by	
2.					OBL species 0	x 1 = 0	
3.					FACW species 10	x 2 = 20	
4			<u> </u>		FAC species 50	x 3 = 150	
5			. <u>———</u>		FACU species 40	x 4 = 160	
6			. <u>——</u>		UPL species 0	x 5 = 0	
			= Total Cover		Column Totals: 100	(A) 330	(B)
	50% of total cover:		20% of total cover:				
Shrub Stratum (Plot size:	30 ft.)				Prevalence Index = B/A =	3.30	
2.					Hydrophytic Vegetation Indicate	ors:	
3.			· <u></u>		1 - Rapid Test for Hydrop		
4.			· <u></u>		2 - Dominance Test is >5	0%	
5.					3 - Prevalence Index is ≤	3.0 ¹	
6			<u> </u>		Problematic Hydrophytic	Vegetation ¹ (Explain)
			= Total Cover				
	50% of total cover:		20% of total cover:		¹ Indicators of hydric soil and wet	and hydrology must	
Herb Stratum (Plot size:	30 ft.)				be present, unless disturbed or pr	oblematic.	
Paspalum plicatulum		15	Yes	FAC	Definitions of Five Vegetation S	trata:	
2. Paspalum notatum		25	Yes	FACU	Tree - Woody plants, excluding w	roody vines,	
3. Cirsium vulgare		15	Yes	FACU	approximately 20 ft (6m) or more i	•	
4. Andropogon virginicus		25	Yes	FAC	(7.6 cm) or larger in diameter at be	east height (DBH).	
5. Panicum virgatum		10	No	FAC	Senting Weeds plants evaluation	a woody vinos	
6. Sesbania drummondii		10	No	FACW	Sapling - Woody plants, excluding approximately 20 ft (6 m) or more		
7			·		than 3 in. (7.6 cm) DBH.	in neight and less	
8			·		than 3 in. (7.0 cm) DBH.		
9			· —		Shrub - Woody plants, excluding	woody vines	
10			· —		approximately 3 to 20 ft (1 to 6 m)		
11		400			approximately 5 to 20 ft (1 to 5 ff)	iii ricigiit.	
	500/ of total covers		= Total Cover	20	Herb - All herbaceous (non-wood)	nlants including	
Woody Vino Stratum (Blot size	50% of total cover: 30 ft.)	50	20% of total cover:	20	herbaceous vines, regardless of s	,	
Woody Vine Stratum (Plot size 1. None Observed	. <u>30 II.</u>)				plants, except woody vines, less t		
2.					3 ft (1 m) in height.	,	
					, ,		
3 4			· ——		Woody vine - All woody vines, re	gardless of height.	
5.							
o			= Total Cover		Hydrophytic		
	50% of total cover:		20% of total cover:		Vegetation		
		-			Present? Yes	No X	
Remarks: (if observed, list m	norphological adaptati	ions below).				
·			•	ot appaisa is d	oved as EAC- or dries		
No positive indication of hydr	opriyuc vegetation wa	as observe	a (200% of dominan	ii species ii10i	EXEC AS FACT OF GIRE!).		

Sampling Point: 7_U

Matrix Redox Features	1 cm Muck (A9 2 cm Muck (A1 Reduced Vertic	lematic Hydric Soils ³ :) (LRR O)
107 10YR 3/2 100 None — — — — — — — — — — — — — — — — — — —	L=Pore Lining, M=Matr Indicators for Prob 1 cm Muck (A9) 2 cm Muck (A1) Reduced Vertic Piedmont Flood Anomalous Brig (MLRA 153B)	elematic Hydric Soils ³ : (LRR O) () (LRR S) () (LRR S) () (URR S)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Plydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR P, T) Polyvalue Below Surface (S8) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Oepleted Dark Surface (F6) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	L=Pore Lining, M=Matr Indicators for Prob 1 cm Muck (A9 2 cm Muck (A1 Reduced Vertic Piedmont Flood Anomalous Brig	elematic Hydric Soils ³ : (LRR O) () (LRR S) () (LRR S) () (URR S)
lydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	Indicators for Prob 1 cm Muck (A9 2 cm Muck (A1 Reduced Vertic Piedmont Flood Anomalous Brig (MLRA 153B)	elematic Hydric Soils ³ : (LRR O) () (LRR S) () (LRR S) () (URR S)
lydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	Indicators for Prob 1 cm Muck (A9 2 cm Muck (A1 Reduced Vertic Piedmont Flood Anomalous Brig (MLRA 153B)	elematic Hydric Soils ³ : (LRR O) () (LRR S) () (LRR S) () (URR S)
lydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	Indicators for Prob 1 cm Muck (A9 2 cm Muck (A1 Reduced Vertic Piedmont Flood Anomalous Brig (MLRA 153B)	elematic Hydric Soils ³ : (LRR O) () (LRR S) () (LRR S) () (URR S)
lydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	Indicators for Prob 1 cm Muck (A9 2 cm Muck (A1 Reduced Vertic Piedmont Flood Anomalous Brig (MLRA 153B)	elematic Hydric Soils ³ : (LRR O) () (LRR S) () (LRR S) () (URR S)
lydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	Indicators for Prob 1 cm Muck (A9 2 cm Muck (A1 Reduced Vertic Piedmont Flood Anomalous Brig (MLRA 153B)	elematic Hydric Soils ³ : (LRR O) () (LRR S) () (LRR S) () (URR S)
lydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	Indicators for Prob 1 cm Muck (A9 2 cm Muck (A1 Reduced Vertic Piedmont Flood Anomalous Brig (MLRA 153B)	elematic Hydric Soils ³ : (LRR O) () (LRR S) () (LRR S) () (URR S)
lydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	Indicators for Prob 1 cm Muck (A9 2 cm Muck (A1 Reduced Vertic Piedmont Flood Anomalous Brig (MLRA 153B)	lematic Hydric Soils ³ :) (LRR O) 0) (LRR S) c (F18) (outside MLRA 150A,
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Stratified Layers (A7) (LRR P, T, U) Depleted Matrix (F3) Redox Dark Surface (F6) Stratified Layers (A7) (LRR P, T, U) Redox Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	1 cm Muck (A9 2 cm Muck (A1 Reduced Vertic Piedmont Flood Anomalous Brig (MLRA 153B)) (LRR O) 0) (LRR S) c (F18) (outside MLRA 150A,
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR P, T) Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Depleted Matrix (F2) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	2 cm Muck (A1 Reduced Vertic Piedmont Flood Anomalous Brig (MLRA 153B)	0) (LRR S) c (F18) (outside MLRA 150A,
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Loamy Mucky Mineral (F1) (LRR O) Loamy Mucky Mineral (F1) (LRR O) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U)	Reduced Vertice Piedmont Flood Anomalous Brid (MLRA 153B)	(F18) (outside MLRA 150A,
Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U)	Piedmont Flood Anomalous Brig (MLRA 153B)	
Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Stratified Layers (A5) Redox Dark Surface (F6) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) Arr (F10) (LRR U)	Anomalous Briç (MLRA 153B)	
Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U)	(MLRA 153B)	
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	•	Jili Loanly Solis (1 20)
Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	Neu Faielii ivia	torial (TE2)
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)		` '
		Park Surface (TF12)
Depleted Below Dark Surface (A11)Depleted Ochric (F11) (MLRA 151)	Other (Explain	in Remarks)
TI: 1.0 ((A40)	31	f hydrophytic vegetation and
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T)		rology must be present,
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)		bed or problematic.
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)		•
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 14)	9A, 153C, 153D)	
Dark Surface (S7) (LRR P, S, T, U)		
and the Company of the company of		
estrictive Layer (if observed):		
Type:	0.11.0	
Depth (inches): Hydric	Soil Present? Yes	NoX
emarks:		
lo positive indication of hydric soils was observed.		

Project/Site:	H.C. Dr	ew Property 1,000 ac	res	Parish:	Calcasieu	Sampling	g Date:	April 7, 2014
Applicant/Owner:		LA Economic Develop		-	ate:		Point:	8 U
Investigator(s):	P. LeBlan		J. LeBourgois	Section, Townsh			t. 04, 10S, 11	
Landform (hillslope, terra				•				
Subregion (LRR or MLR)	· · · —			=			0.0po (/o/. .00" Datum	
Soil Map Unit Name:	(). <u>1740an</u>	ilo dila Gali Godot Edwari	Leton silt loam		<u> </u>	NWI Classification		None
Are climatic / hydrologic	conditions of	n the site typical for th			Yes	(if no, explain in R	-	
, ,	lo ,Soil	• • • • • • • • • • • • • • • • • • • •	•	· · · · · · · · · · · · · · · · · · ·		(" no, explain in to	-	X No
	lo ,Soil			rally problematic?		needed, explain any		
					,			,
SUMMARY OF FI	NDINGS	- Attach site ma	ap showing :	sampling poi	nt locations	s, transects, in	iportant fe	atures, etc.
Hydrophytic Vegetation	Present?	Yes	No X					
Hydric Soil Present?		Yes X	No No	Is the Sam	nled Area			
Wetland Hydrology Pre	sent?	Yes Yes	No X	within a W	="	Yes	No	X
Welland Hydrology Fre	ociit:	100	<u> </u>	- ••••••••	ctiana i	103	_	
Remarks:								
This point was dete	rmined not to	o be within a wetland	due to the lack of	hydrophytic veget	ation and wetlar	nd hydrology.		
Wetland hydrolog	y Indicators	i:				Secondary Indicate	ors (minimum o	of two required)
Primary Indicators (minimum of	one is required; check	all that apply)				Cracks (B6)	1 /
Surface Water	`		Aquatic Faun	a (B13)				ive Surface (B8)
High Water T			_	s (B15) (LRR U)			atterns (B10)	,
Saturation (A				Ifide Odor (C1)		Moss Trim L		
Water Marks	•		_	zospheres on Livin	g Roots(C3)		Water Table (C2)
Sediment De				Reduced Iron (C4)		X Crayfish Bu	-	- /
Drift Deposits				Reduction in Tilled				I Imagery (C9)
Algal Mat or 0			Thin Muck Su		(,		Position (D2)	
Iron Deposits				n in Remarks)		Shallow Aqu		
		ial Imagery (B7)		ir iir rtornanto)		FAC-Neutra		
Water-Staine							moss (D8) (LR	RT III
Water Stairle	a Leaves (B	٥)				Opinagram i	11000 (DO) (E IX	, 0,
Field Observations:								
Surface Water Present	? Yes	No X	Depth (inch	nes): N/A				
Water Table Present?	Yes		Depth (inch	· ——				
Saturation Present?	Yes		_ ' '	, 	Wetland Hy	drology Present?	Yes	No X
(includes capillary fringe		NO	Doptii (iiioii	103). <u></u>	Wethana riy	urology i resenti	103	110
Describe Recorded	Data (strear	m gauge, monitoring w	vell, aerial photos	, previous inspecti	ons), if available): 		
Remarks:								
Kemarks.								
No positive indication	on of wetland	d hydrology was obser	ved					
140 pooliivo maioalio	ni oi woudin	Triyarology was obser	vou.					

VEGETATION	(Five Strata)	- Use scientific	names of plants

					Dominance Test worksheet:	
Tree Charters (Diet sine)	20 # \	Absolute	Dominant	Indicator		
Tree Stratum (Plot size:	30 ft.)	% cover	Species?	Status	Number of Dominant Species	(4)
1. None Observed					That Are OBL, FACW, or FAC:1	(A)
2			. .		Total Ministran of Demoirant	
3			· — -		Total Number of Dominant	(D)
4					Species Across All Strata: 3	(B)
5						
6					Percent of Dominant Species	
			= Total Cover		That Are OBL, FACW, or FAC: 33%	(A/B)
			20% of total cover:		Prevalence Index Worksheet:	
Sapling Stratum (Plot size:	30 ft.)					
<u>_</u>			. <u> </u>		Total % Cover of: Multiply by:	
2			. <u> </u>		OBL species 0 x 1 = 0	
3					FACW species 0	
4			. <u> </u>		FAC species 40 x 3 = 120	
5.					FACU species 60 x 4 = 240	
6			. <u> </u>		UPL species 0 x 5 = 0	
			= Total Cover		Column Totals: 100 (A) 360	(B)
	50% of total cover:		20% of total cover:			
Shrub Stratum (Plot size:					Prevalence Index = B/A = 3.60	
1 None Observed	,					
2.					Hydrophytic Vegetation Indicators:	
3.					1 - Rapid Test for Hydrophytic Vegetation	
4.					2 - Dominance Test is >50%	
5.					$\frac{\text{3 - Prevalence Index is } \leq 3.0^{1}$	
6.					Problematic Hydrophytic Vegetation ¹ (Explain)	
0			= Total Cover			
	FOO/ of total cover:		20% of total cover:		¹ Indicators of hydric soil and wetland hydrology must	
Herb Stratum (Plot size:	30 ft.)		20% Of total cover.		be present, unless disturbed or problematic.	
	30 ii. j	10	No	FAC	Definitions of Five Vegetation Strata:	
Paspalum plicatulum Paspalum potatum		<u>10</u> 35	. <u>No</u> Yes	FACU	Tree - Woody plants, excluding woody vines,	
Paspalum notatum Circium vulgara			·			
Cirsium vulgare Andropogon virginiava		15	· — ·	FACU_	approximately 20 ft (6m) or more in height and 3 in.	
4. Andropogon virginicus		20		FAC	(7.6 cm) or larger in diameter at breast height (DBH).	
5. Panicum virgatum		10	No	FAC	Sapling - Woody plants, excluding woody vines,	
6			·		approximately 20 ft (6 m) or more in height and less	
7						
8			· — ·		than 3 in. (7.6 cm) DBH.	
9						
10					Shrub - Woody plants, excluding woody vines,	
11					approximately 3 to 20 ft (1 to 6 m) in height.	
		90	= Total Cover			
	50% of total cover:	45	20% of total cover:	18	Herb - All herbaceous (non-woody) plants, including	
Woody Vine Stratum (Plot size:	30 ft)				herbaceous vines, regardless of size, and woody	
1. Rubus Trivialis		10	Yes	FACU	plants, except woody vines, less than approximately	
2.					3 ft (1 m) in height.	
3.						
4.					Woody vine - All woody vines, regardless of height.	
5.						
		10	= Total Cover		Hydrophytic	
	50% of total cover:		•	2	Vegetation	
					Present? Yes No X	
Remarks: (if observed, list me	ornhological adaptati	ions below	1		. I	
itemarks. (ii observed, list mi	Jipilologicai adaptati	OHS DEIOW	<i>)</i> .			
No positive indication of hydro	phytic vegetation wa	as observe	d (≥50% of dominan	t species inde	exed as FAC- or drier).	

Sampling Point: 8_U

Depth	Matrix			Redox F	eatures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-6	10YR 4/1	100	None	_			Silt Loam		
6-20	10YR 5/1	95	10YR 6/2	5	С	M	Silt Loam		
		<u> </u>		<u> </u>					
	Concentration, D=De	•				² Location: P	L=Pore Lining, M=Matrix		
•	s Indicators: (Appl	icable to a	•		•	DD C T II)		ematic Hydric Soils ³ :	
Histoso	,				Surface (S8) (L l		1 cm Muck (A9)	•	
	Epipedon (A2)				e (S9) (LRR S , '	•	2 cm Muck (A10	, ,	
	Histic (A3)		 '	•	neral (F1) (LRR	0)		(F18) (outside MLRA 150A,E	
	gen Sulfide (A4)			Gleyed Ma	` '			olain Soils (F19) (LRR P, S, T	
Stratified Layers (A5)			 ·	Depleted Matrix (F3) Redox Dark Surface (F6)				Anomalous Bright Loamy Soils (F20)	
	c Bodies (A6) (LRR				` '		(MLRA 153B)		
	Mucky Mineral (A7) (L		· — ·	Depleted Dark Surface (F7)				erial (TF2)	
	Presence (A8) (LRR	-	X Redox	•	` '		 ·	ark Surface (TF12)	
	fluck (A9) (LRR P, T)			10) (LRR I	•		Other (Explain in	n Remarks)	
	ed Below Dark Surfa	ice (A11)		,	(F11) (MLRA 15	•	31	h	
	Dark Surface (A12)			ū	Masses (F12) (T) sindicators of hydrophytic vegetation and wetland hydrology must be present, 		
	Prairie Redox (A16)				F13) (LRR P, T,	U)	•	ed or problematic.	
	Mucky Mineral (S1)	(LRR O, S		-	') (MLRA 151)			·	
	Gleyed Matrix (S4)			,	=18) (MLRA 15 0	•			
	Redox (S5)				ain Soils (F19)	•			
	ed Matrix (S6)		Anoma	lous Bright	t Loamy Soils (F	(20) (MLRA 14 9	9A, 153C, 153D)		
Dark S	urface (S7) (LRR P,	S, T, U)							
Restrictive	Layer (if observed)):							
Type:									
Depth (ir	nches):					Hydrid	Soil Present? Yes _	X No	
Remarks:									

Project/Site:	H.C. Dre	ew Property 1,000 ac	res	Parish:	Calcasieu	Samp	ling Date:	April 7, 2014
Applicant/Owner:		A Economic Develop		-	state:		ole Point:	9 U
Investigator(s):	P. LeBland		J. LeBourgois	Section, Towns			Sect. 04, 10S, 1	
Landform (hillslope, terra				_	ncave, convex, i			
Subregion (LRR or MLRA				_			43.63" Datur	
Soil Map Unit Name:			lidland silty clay		12 00.21	NWI Classificat		None
Are climatic / hydrologic				(Yes / No)	Yes	(if no, explain in	-	
, ,	l o ,Soil	• •	•	· · · · · · · · · · · · · · · · · · ·		Circumstances" pr	· ·	X No
	l o ,Soil	No ,or Hydrolog		urally problematic		needed, explain ar	_	
					•		•	,
SUMMARY OF FII	IDINGS -	Attach site ma	ap showing	sampling po	int location	s, transects,	important fe	∍atures, etc.
Hydrophytic Vegetation	Present?	Yes	No X					
Hydric Soil Present?		Yes X	No	Is the Sai	npled Area			
Wetland Hydrology Pres	sent?	Yes	No X	within a \	=	Yes	No	X
				-				
Remarks:				l .				
This point was dete	mined not to	be within a wetland	due to the lack o	of hydrophytic veg	etation and wetla	and hydrology.		
Wetland hydrology	/ Indicators:					Secondary Indic	ators (minimum	of two required)
Primary Indicators (minimum of c	one is required; checl	c all that apply)				Soil Cracks (B6)	
Surface Water	er (A1)		Aquatic Faur	na (B13)		Sparsely	Vegetated Conc	ave Surface (B8)
High Water T	able (A2)		Marl Deposit	s (B15) (LRR U)		Drainage	Patterns (B10)	
Saturation (A	3)		Hydrogen Su	ulfide Odor (C1)		Moss Trir	n Lines (B16)	
Water Marks	(B1)		Oxidized Rhi	izospheres on Livi	ng Roots(C3)	Dry-Seas	on Water Table	(C2)
Sediment Dep	oosits (B2)		Presence of	Reduced Iron (C4)	X Crayfish E	Burrows (C8)	
Drift Deposits	(B3)		Recent Iron	Reduction in Tilled	Soils (C6)	Saturation	n Visible on Aeria	al Imagery (C9)
Algal Mat or 0	Crust (B4)		Thin Muck S	urface (C7)		Geomorp	hic Position (D2))
Iron Deposits	(B5)		Other (Expla	in in Remarks)		Shallow A	Aquitard (D3)	
Inundation Vi	sible on Aeria	al Imagery (B7)	_			FAC-Neu	tral Test (D5)	
Water-Staine	d Leaves (B	9)				Sphagnur	m moss (D8) (LF	≀R T, U)
Field Observations:								
Surface Water Present	? Yes	No X	Depth (inc	hes): N/A				
Water Table Present?	Yes	No X	Depth (inc	hes): >20				
Saturation Present?	Yes	No X	Depth (inc	hes): >20	Wetland H	ydrology Present?	Yes	No X
(includes capillary fringe	;)			-			-	
Describe Recorded	Data (stream	n gauge, monitoring v	vell, aerial photos	s, previous inspec	tions), if availabl	le:		
Remarks:								
No positive indication	n of wetland	hydrology was obser	ved.					

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

		Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:	30 ft.)	% cover		Status	Number of Dominant Species		
1. None Observed	<u> </u>	70 00 001	Орсоюз:	Otatus	That Are OBL, FACW, or FAC:	2	(A)
			•		That Ale OBL, I ACW, OI I AC.		(^)
2							
3					Total Number of Dominant	_	
4			<u> </u>		Species Across All Strata:	4	(B)
5			<u> </u>				
6					Percent of Dominant Species		
			= Total Cover		That Are OBL, FACW, or FAC:	50%	(A/B)
	50% of total cover:		20% of total cover:				
Sapling Stratum (Plot size:	-				Prevalence Index Worksheet:		
	, ,				Total % Cover of:	Multiply by:	r:
2.					OBL species 0		
			. — -		FACW species 0		
3.							
4			-		FAC species 40	x 3 = 120	
5			<u> </u>		FACU species 50	x 4 = 200	
6			<u> </u>		UPL species0	x 5 = 0	
			= Total Cover		Column Totals: 90	(A) 320	(B)
	50% of total cover:		20% of total cover:				
Shrub Stratum (Plot size:	30 ft.)				Prevalence Index = B/A =	3.56	
1. None Observed	,						
					Hydrophytic Vegetation Indicate	nre:	-
2.					1 - Rapid Test for Hydrop		
3			. — .				
4					2 - Dominance Test is >5		
5					3 - Prevalence Index is ≤		
6			<u> </u>		Problematic Hydrophytic	Vegetation (Explain))
			= Total Cover				
	50% of total cover:		20% of total cover:		¹ Indicators of hydric soil and wetla	and hydrology must	
Herb Stratum (Plot size:	30 ft.)		•		be present, unless disturbed or pro		
Paspalum plicatulum		15	Yes	FAC	Definitions of Five Vegetation S		-
Paspalum notatum		30	Yes	FACU	Tree - Woody plants, excluding w		
-					* * * * * * * * * * * * * * * * * * * *	-	
3. Cirsium vulgare		10		FACU	approximately 20 ft (6m) or more in	· ·	
		15	Yes	FAC	(7.6 cm) or larger in diameter at br	east height (DBH).	
5. Panicum virgatum		10	<u>No</u>	FAC	1		
6					Sapling - Woody plants, excluding		
7.					approximately 20 ft (6 m) or more it	in height and less	
8.			· ———		than 3 in. (7.6 cm) DBH.		
9							
10.			. — -		Shrub - Woody plants, excluding v	woodv vines,	
-					approximately 3 to 20 ft (1 to 6 m)		
11					approximatory of to 20 ft (1 to 2 ft.)	iii iioigiit.	
			_= Total Cover		All back assessed from the second	N. Corto Cantonillan	
	50% of total cover:	40	20% of total cover:	16	Herb - All herbaceous (non-woody		
Woody Vine Stratum (Plot size:	30 ft.)				herbaceous vines, regardless of si		
1. Rubus trivialis		10	Yes	FACU	plants, except woody vines, less th	nan approximately	
2.			· ———		3 ft (1 m) in height.		
3.							
					Woody vine - All woody vines, reg	nardless of height.	
4					1.000,	jul 0.000 1 5	
5			·				
			= Total Cover		Hydrophytic		
	50% of total cover:	5	20% of total cover:	2	Vegetation		
					Present? Yes	No X	
Remarks: (if observed, list mo	orphological adaptati	ions below	<i>'</i>).				-
•			•				
No positive indication of hydro	phytic vegetation wa	as observe	d (≥50% of dominan	t species inde	exed as FAC- or drier).		

Sampling Point: 9_U

Sampling Point: 9_U

Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-9	10YR 4/2	100	None				Silty Clay Loam	
9-20	10YR 4/1	85	7.5YR 5/8	15	С	М	Silty Clay Loam	
								
	Concentration, D=De					² Location: F	PL=Pore Lining, M=Matrix	
•	s Indicators: (App	licable to al	-		•		Indicators for Proble	
Histos					Surface (S8) (L	· · · · ·	1 cm Muck (A9) (
	Epipedon (A2)				e (S9) (LRR S,	· ·	2 cm Muck (A10)	
	Histic (A3)			-	neral (F1) (LRR	0)		18) (outside MLRA 150A,E
	gen Sulfide (A4)		·	Gleyed Ma				ain Soils (F19) (LRR P, S, T
	ed Layers (A5)	D T 1"		ed Matrix (•			Loamy Soils (F20)
	ic Bodies (A6) (LRR			Dark Surfa			(MLRA 153B)	:-L (TEO)
	Mucky Mineral (A7) (I				ırface (F7)		Red Parent Mate	
	Presence (A8) (LRR	-	X Redox	•	` '		Very Shallow Dar	
	Muck (A9) (LRR P, T)	-		(10) (LRR	-	:4\	Other (Explain in	Remarks)
	ed Below Dark Surfa Dark Surface (A12)	ice (ATT)			[F11) (MLRA 15 Masses (F12) (=	³ Indicators of h	ydrophytic vegetation and
	Prairie Redox (A16)	(MI PA 150)		-	F13) (LRR P, T,			ogy must be present,
	Mucky Mineral (S1)	-	· —	,	') (MLRA 151)	0,	unless disturbe	d or problematic.
	Gleyed Matrix (S4)	(LIKIK O, O)			7 (MLRA 131) =18) (MLRA 15 0	1Δ 150R)		
	Redox (S5)			-	ain Soils (F19)			
	ed Matrix (S6)			-		•	9A, 153C, 153D)	
	Surface (S7) (LRR P ,	S. T. U)			(.	20) (2	,,,	
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
Restrictive	Layer (if observed)):						
Type:								
Depth (ii			<u> </u>			Hydri	c Soil Present? Yes	X No
							_	
Remarks:								
A positive in	ndication of hydric so	il was obser	ved.					

Project/Site:	H.C. Drew Property 1,000 acre	es Paris	h: Calcasi	eu Sami	pling Date:	April 7, 2014
Applicant/Owner:	SWLA Economic Developn		State:		ple Point:	10 PEM
· ·			ion, Township, Range:		Sect. 04, 10S, 11V	
Investigator(s):						0-5
Landform (hillslope, terrac			Il relief (concave, convex		Slope (%):	
,	T-Atlantic and Gulf Coast Lowland		_at. <u>30 12 37.70</u>		9'58.17" Datum:	
Soil Map Unit Name:	- Attion of the test of the form	Leton silt loam	- /N-) V	NWI Classifica		None
, ,	onditions on the site typical for this	•		(if no, explain i	•	V Na
Are Vegetation No			/ disturbed? Are "Norm	-		X No
Are Vegetation No	,Soil No ,or Hydrology	No naturally pr	obiematic?	(If needed, explain a	any answers in Ren	iaiks.)
SUMMARY OF FIN	DINGS - Attach site map	p showing samp	ling point location	ons, transects,	important fea	atures, etc.
Hydrophytic Vegetation F	Propert? Vec V	No				
Hydrophytic Vegetation F		No	la tha Camania d Anaa			
Hydric Soil Present?	Yes X		Is the Sampled Area	Vac	v Na	
Wetland Hydrology Prese	ent? Yes X	No	within a Wetland?	Yes	<u> </u>	
Remarks:						
·	nined to be within a wetland due t	o the presence of all 3	wetland criteria.			
HYDROLOGY Wetland hydrology	Indicators					
					icators (minimum of	f two required)
	ninimum of one is required; check		<u> </u>		Soil Cracks (B6)	2 ((22)
X Surface Water	· ·	_ Aquatic Fauna (B13			Vegetated Concav	e Surface (B8)
High Water Ta		Marl Deposits (B15)			Patterns (B10)	
X Saturation (A3)	· · · · · · · · · · · · · · · · · · ·	_ Hydrogen Sulfide Od			im Lines (B16)	
Water Marks (I	· ·	_	res on Living Roots(C3)		son Water Table (C	C2)
Sediment Depo		Presence of Reduce			Burrows (C8)	
Drift Deposits (· ·	_	on in Tilled Soils (C6)		on Visible on Aerial	Imagery (C9)
Algal Mat or Cr		Thin Muck Surface (phic Position (D2)	
Iron Deposits (Other (Explain in Re	emarks)		Aquitard (D3)	
	ble on Aerial Imagery (B7)				utral Test (D5)	
Water-Stained	Leaves (B9)			Sphagnu	um moss (D8) (LRR	R T, U)
Field Observations:						
Surface Water Present?	Yes <u>X</u> No	_ Depth (inches):				
Water Table Present?	Yes NoX	Depth (inches):	>20			
Saturation Present?	Yes <u>X</u> No	Depth (inches):	6 Wetland	Hydrology Present	? Yes <u>X</u>	_ No
(includes capillary fringe)						
Describe Recorded D	Data (stream gauge, monitoring we	ell, aerial photos, previo	ous inspections), if availa	able:		
Remarks:						
A positive indication of	of wetland hydrology was observe	d (at least one primary	indicator).			
A positive indication of	of wetland hydrology was observe	d (at least two seconda	ary indicators).			

Tree Stratum (Plot size: 30 ft.)

1. None Observed

Sapling Stratum (Plot size: 30 ft.)

1. None Observed

Shrub Stratum (Plot size: 30 ft.)

Herb Stratum (Plot size: 30 ft.)

3. Panicum virgatum

5. Solidago sempervirens

7. Eleocharis obtusa

10._____

Woody Vine Stratum (Plot size: _____30 ft.__)

1. None Observed

2. Andropogon virginicus

None Observed

1. Paspalum plicatulum

4. Carex cherokeensis

6. Juncus effusus

Absolute

% cover

Indicator

Status

FAC

FAC

FAC

<u>FACW</u>

<u>F</u>ACW

OBL

OBL

Dominant

Species?

____ = Total Cover

= Total Cover

= Total Cover

85 = Total Cover

50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>

No

No___

No

No __

Yes

Yes

No

50% of total cover: _____ 20% of total cover: ____

50% of total cover: _____ 20% of total cover: ____

15

5____

5____

25

20

50% of total cover: 20% of total cover:

Sa	ampling Point:		10_PEM	
Dominance Test w	orksheet:			
Number of Dominar	nt Species			
That Are OBL, FAC	W, or FAC:	:	2	(A)
	-			
Total Number of Do	minant			
Species Across All	Strata:	:	2	(B)
Percent of Dominar	•			
That Are OBL, FAC	SW, or FAC:	10	0%	(A/B)
Prevalence Index	Worksheet:			
	Cover of:		Multiply by:	
OBL species	45	x 1 =	45	
· -	15		30	
FAC species	25	x 3 =	75	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	85	(A)	150	(B
Hydrophytic Veger 1 - Rapid T X 2 - Domina X 3 - Prevale	Test for Hydrop ance Test is >5 ence Index is ≤	hytic Vego 0% 3.0 ¹		
Hydrophytic Vege 1 - Rapid T X 2 - Domina X 3 - Prevale Problemati	tation Indicato Fest for Hydrop ance Test is >5 ence Index is ≤ ic Hydrophytic \	hytic Vego 0% 3.0 ¹ Vegetation	etation n ¹ (Explain)	
Hydrophytic Veger 1 - Rapid T X 2 - Domina X 3 - Prevale Problemati	tation Indicator Fest for Hydrop ance Test is >5 ence Index is ≤ ic Hydrophytic \(\)	hytic Vego 0% 3.0 ¹ Vegetation	etation n ¹ (Explain) llogy must	<u> </u>
Hydrophytic Vege 1 - Rapid T X 2 - Domina X 3 - Prevale Problemati	tation Indicator Fest for Hydrop Fance Test is >5 Fance Index is ≤ Fic Hydrophytic Notes to soil and wetle Fic soil and wetle Fidesturbed or pro	hytic Vegrows 3.0 ¹ Vegetation and hydroblematic.	etation n ¹ (Explain) llogy must	
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Remarks:	(if observed	list morphological	adaptations	helow)

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).

50% of total cover: _____ 20% of total cover: ____

A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

Yes X No ____

Present?

Depth Matrix				Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-6	10YR 4/1	100	None	_			Silt Loam		
6-20	10YR 5/1	95	10YR 6/2	5	С	M	Silt Loam		
									
Type: C=C	Concentration, D=De	pletion, RM	=Reduced Matrix, N	 IS=Masked	d Sand Grains.	² Location: P	L=Pore Lining, M=Matrix		
Hydric Soil	s Indicators: (App	licable to a	all LRRs, unless ot	herwise n	oted.)		Indicators for Proble	ematic Hydric Soils ³ :	
Histosol (A1)			Polyva	Polyvalue Below Surface (S8) (LRR S, T, U)				1 cm Muck (A9) (LRR O)	
Histic Epipedon (A2)			Thin Da	Thin Dark Surface (S9) (LRR S, T, U)				2 cm Muck (A10) (LRR S)	
Black Histic (A3)			Loamy	Loamy Mucky Mineral (F1) (LRR O)				Reduced Vertic (F18) (outside MLRA 150A,B	
Hydrogen Sulfide (A4)			Loamy	Loamy Gleyed Matrix (F2)				Piedmont Floodplain Soils (F19) (LRR P, S, T	
Stratified Layers (A5)			Deplete	Depleted Matrix (F3)				Anomalous Bright Loamy Soils (F20)	
Organi	ic Bodies (A6) (LRR	Redox	Redox Dark Surface (F6)				(MLRA 153B)		
5 cm Mucky Mineral (A7) (LRR P, T, U)			J) Deplete	Depleted Dark Surface (F7)				Red Parent Material (TF2)	
Muck Presence (A8) (LRR U)			X Redox	X Redox Depressions (F8)				Very Shallow Dark Surface (TF12)	
1 cm Muck (A9) (LRR P, T)			Marl (F	Marl (F10) (LRR U)				Other (Explain in Remarks)	
Depleted Below Dark Surface (A11)			Deplete	Depleted Ochric (F11) (MLRA 151)					
Thick Dark Surface (A12)			Iron-Ma	Iron-Manganese Masses (F12) (LRR O, P, T)				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
Coast Prairie Redox (A16) (MLRA 150A)			DA)Umbric	Umbric Surface (F13) (LRR P, T, U)					
Sandy	Mucky Mineral (S1)) Delta C	Delta Ochric (F17) (MLRA 151)						
Sandy	Gleyed Matrix (S4)	Reduce	Reduced Vertic (F18) (MLRA 150A, 150B)						
Sandy	Redox (S5)		Piedmo	ont Floodpl	ain Soils (F19)	(MLRA 149A)			
Strippe	ed Matrix (S6)		Anoma	lous Bright	Loamy Soils (F	F20) (MLRA 14 9	9A, 153C, 153D)		
Dark S	Surface (S7) (LRR P	, S, T, U)							
Restrictive	Layer (if observed):							
Type:									
Depth (inches):				Hydric				c Soil Present? Yes X No	
Remarks:									
A positive ir	ndication of hydric so	oil was obse	erved.						