Exhibit EE. Lake Charles Regional Airport Site Wetlands Delineation Report







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SENT VIA EMAIL

March 19, 2018

Lake Charles Regional Airport Site Wetlands Delineation Report

Mr. Gus Fontenot SWLA Economic Development Alliance 4310 Ryan Street Lake Charles, Louisiana 70605

RE: Wetland Delineation Report SWLA Economic Development Alliance Lake Charles Regional Airport Site Lake Charles, Louisiana

Dear Mr. Fontenot:

Arabie Environmental Solutions, LLC is pleased to provide this electronic copy of the Wetland Delineation Report for the referenced property. A copy of this report can been submitted to the Corps of Engineers with a request for a preliminary wetland determination upon your review and approval.

If you have any questions or need a bound copy of the report, please do not hesitate to contact us. We appreciate the opportunity to provide this service for you.

Sincerely,

C. Blaine Johnson, P.E. Senior Engineer

Attachment

cc: Taylor Gravois, CSRS, Inc. Elliott Boudreaux, CSRS, Inc.

WETLAND DELINEATION SWLA ECONOMIC DEVELOPMENT ALLIANCE LAKE CHARLES REGIONAL AIRPORT SITE LAKE CHARLES, CALCASIEU PARISH, LOUISIANA

Prepared for:

SWLA Economic Development Alliance 4310 Ryan Street Lake Charles, Louisiana 70605

March 19, 2018

C. Blaine Johnson, P.E. Senior Engineer

Cleveland R. Hoffpauir

Environmental Scientist

Prepared by:

Arabie Environmental Solutions, LLC P.O. Box 928 Lake Charles, Louisiana 70602 (337) 436-3248

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SUMMARY

An approximate 156-acre tract located west of Gulf Highway at the Lake Charles Regional Airport Facility in Lake Charles, Calcasieu Parish, Louisiana was evaluated for the presence of jurisdictional wetlands. The vegetation on the property is herbaceous (non-woody), and void of any trees, shrubs, or vines. Soils present on the property, as mapped by the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) include Crowley-Vidrine silt loams and Mowata-Vidrine silt loams. The vast majority of the investigated property is frequently baled for Bermuda hay.

The wetland delineation was performed in accordance with the procedures and methods as described in the U.S. Department of the Army Corps of Engineers (COE) 1987 Manual for Wetland Delineations and the Atlantic and Gulf Coastal Plain Regional Supplement 2010.

Based on the results of this delineation, approximately 1.05 acres of herbaceous wetlands are present within the property boundary. In addition to wetlands, approximately 18,400 linear feet of drains are also present on the investigated property. These drains may be considered Section 404 non-wetland waters by the COE.

1.0 INTRODUCTION

Arabie Environmental Solutions, LLC (Arabie Environmental) was retained by Southwest Louisiana Economic Development Alliance to conduct a wetland delineation of property located at the Lake Charles Regional Airport Facility in Lake Charles, Calcasieu Parish. The property is located in Section 6, Township 11 South, Range 8 West. The center of the property is located at Latitude 30° 7' 53.14" Longitude 93° 13' 0.86". The purpose of the delineation was to evaluate the tract for the potential presence of wetlands. A site location map is included as **Figure 1** and site diagrams are included as **Figures 2A** and **2B**. LIDAR imagery was also reviewed and is included as **Figure 3**.

Cleve Hoffpauir of Arabie Environmental performed the field evaluation on March 8th and 9th, 2018. Mr. Hoffpauir has a Bachelors of Science Degree in Environmental Science and has had specialized training in environmental investigations. Mr Hoffpauir has been performing wetland delineations for approximately ten years. Blaine Johnson managed the project. Mr. Johnson has over twenty years experience in environmental investigation and permitting, with over fifteen years experience in wetland permitting. Copies of the applicable Certificates of Training are included as **Attachment A**.

2.0 METHODOLOGY

The wetland delineation performed by Arabie Environmental was conducted in accordance with technical guidelines and methods for wetland delineations set forth by the COE in the 1987 Manual for Wetland Delineations and the Atlantic and Gulf Coastal Plains Regional Supplement 2010. These technical guidelines and methods utilize a multi-parameter approach to identify and delineate wetlands for the purposes of Section 404 of the Clean Water Act.

According to the COE 1987 Manual for Wetland Delineations, a site must have hydrophytic vegetation, hydric soils, and wetland hydrology in order for it to be classified as a wetland. The following definitions are from the COE 1987 Manual for Wetland Determinations:

Hydrophytic vegetation – the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. When hyrophytic vegetation comprises a community where indicators of hydric soils and wetland hydrology also occur, the area has wetland vegetation.

Wetland soils – a soil that is saturated, flooded, ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (US Department of Agriculture – Soil Conservation Service 1985). Hydric soils that occur in areas having positive indicators of hydrophytic vegetation and wetland hydrology are wetland soils.

Wetland hydrology – the sum total of wetness characteristics in areas that are inundated or have saturated soils for sufficient duration to support hydrophytic vegetation.

Prior to the site visit, the Calcasieu Parish Soil Survey prepared by the USDA-NRCS was reviewed. The purpose of that review was to determine the soil types as mapped by USDA. As indicated by the Soil Survey for Calcasieu Parish, soils on the delineated site include two soil types: Crowley-Vidrine silt loams (Cr) and Mowata-Vidrine silt loams (Mt). Mt soils are listed as hydric in Calcasieu Parish. In addition to the soils map, 1998, 2004, and 2008 infrared aerial photographs were reviewed. The soils maps and infrared photographs are included as **Attachment B**.

The delineation was begun by traversing the site and making a general evaluation of the topography and drainage features. Sample points were selected at appropriate locations to properly characterize the soil, vegetation, and hydrology on the investigated property. Ten representative sample points were selected and detailed evaluations were conducted at these locations. The data collected at these sample points were recorded on Wetland Data Forms and the location of each sample plot was marked with a Trimble Global Positioning Unit (GPS). The Wetland Data Forms are included as **Attachment C**.

After a general evaluation of the tract and conducting data points, a Trimble Global Positioning System (GPS) was utilized to map the wetland areas. Once GPS mapping was completed, geospatial data was imported into ArcView GIS for graphical display and land cover analysis.

3.0 SITE DESCRIPTION

The delineated property is located adjacent to and west of Gulf Highway, at the Lake Charles Regional Airport, in Calcasieu Parish. The tract is irregular in shape and encompasses approximately 156 acres. Based on aerial photography review, and past delineations near the site, the majority of the property is utilized as Bermuda hay pasture. As noted earlier in this report, the USDA-NRCS soil maps indicate that soils on the property consist of Crowley-Vidrine silt loams and Mowata-Vidrine silt loams. Inspections of the soil during the site investigation revealed that the soils are not consistent with the USDA-NRCS Soil Survey descriptions. The soils on the property are not intermounded as typically seen for these mapped soil types. The dominant vegetation present on the majority of the property consists of Bermuda grass (*Cynodon dactylon*), which is a facultative upland (FACU) species. FACU species do not thrive in wet conditions. Ten small wetland areas were identified on the property. These wetland areas were dominated by spike rush (*Eleocharis*) and carpet grass (*Axonopus fissifolius*) which are obligate wetland and facultative wetland respectively. These species commonly occur in wetlands.

Photographs of the sample locations were taken and are included as **Attachment D**.

4.0 FINDINGS

The tract of land was inspected with respect to the potential presence of wetlands. Ten sample points were selected to characterize the site. At these sample points, the soils, hydrology and vegetation were characterized and the information recorded on Wetland Data Forms. The findings of the delineation are described in the following sections.

4.1 VEGETATION

The typical dominant plant species that were encountered at the site included the following:

FACULTATIVE UPLAND

Paspalum notatum (Bahia grass) Cynodon dactylon (Bermuda grass)

FACULTATIVE

Paspalum urvillei (Vasey's grass)

FACULTATIVE WETLAND

Axonopus fissifolius (Carpet grass)

OBLIGATE WETLAND

Eleocharis palustris (Common Spike rush) *Eleocharis microcarpa* (Dwarf Spike rush)

Three of the ten sample points had a dominance of hydrophytic vegetation.

Arabie Environmental Solutions, LLC 3

4.2 SOILS

The review of the Soil Survey indicated that the delineated tract is located on two soil types: Crowley-Vidrine silt loams (Cr) and Mowata-Vidrine silt loams (Mt). Below is a brief description from the Soil Survey of Calcasieu Parish.

Cr soils are level, and somewhat poorly drained. They are on broad convex ridges on the Gulf Coast Prairies. This complex consists of small areas of Crowley and Vidrine soils that are so intermingled that they cannot be mapped separately at the scale selected. Areas are irregular in shape and range from 20 to 1,000 acres. The typical landscape consists of broad, convex ridges that contain many small convex mounds. The mounds are circular and range from 50 to 150 feet in diameter and 1 foot to 6 feet in height.

No mounds were identified within the areas of the investigated property mapped Cr. Inspections of the soil during the site investigation revealed that the characteristics of the Cr soils on the property were not consistent with the USDA-NRCS Soil Survey descriptions. Cr soils are not listed as hydric in Calcasieu Parish, however a small area in the northeast portion of the property mapped Cr was determined to contain hydric soils.

Mt soils are level, and poorly drained and somewhat poorly drained. They are located on broad flats on the Gulf Coast Prairies. This complex consists of small areas of Mowata and Vidrine soils that are so intermingled that they cannot be mapped separately at the scale selected. Areas are irregular in shape and most range from 40 to 2,000 acres. A few areas are as large as 5,000 acres. The typical landscape consists of broad flats that have many small convex mounds.

Mounds were not present on the areas of the investigated property mapped Mt. Inspections of the Mt soils during the site investigation revealed that these soils were not consistent with the USDA-NRCS Soil Survey descriptions. Mt soils are listed as hydric soils in Calcasieu Parish, however the majority of the areas mapped Mt soils did not demonstrate hydric soil characteristics as typically seen for this soil type.

4.3 HYDROLOGY

General observations and inspections of soil samples were performed to evaluate for wetland hydrology. Potential primary indicators include inundated areas, saturated soil in the upper 12 inches, free water in the soil, water marks, drainage patterns of wetlands, and sediment deposits. Sample plots 1, 3, and 6 exhibited primary wetland hydrology indicators such as high water table, saturation, and surface water. The secondary wetland hydrology indicator crawfish burrows was present in all of the sample plots with the exception of Plots 1 and 10. One primary indicator or two secondary indicators must be present for an area to have wetland hydrology. It should be noted that wetter than normal site conditions were present during the field investigations due to recent heavy rainfall in the area.

5.0 CONCLUSIONS

An approximate 156-acre tract located along Gulf Highway at the Lake Charles Regional Airport Facility in Lake Charles, Calcasieu Parish, Louisiana was evaluated for the presence of jurisdictional wetlands. The wetland delineation was performed in accordance with the procedures and methods as described in the COE 1987 Manual for Wetland Delineations

The investigated property is comprised of pasture that is frequently baled for Bermuda hay and/or mowed. The majority of the property did not demonstrate characteristics typical of a wetland. A few depressional areas located on the property were determined to contain wetlands. These depressional areas demonstrated hydrophytic vegetation, wetland hydrology, and hydric soils and were determined to be wetlands. In addition to wetlands, many small drainage ditches are located on the property.

Based on the results of this delineation, 154.95 acres of non-wetlands, 1.05 acres of herbaceous wetlands and 18,400 linear feet of non-wetland waters (ditches) are present on the investigated property.

FIGURE 1

Site Location Map



FIGURE 2

Site Diagram





FIGURE 3

LIDAR Imagery



ATTACHMENT A

Certificates of Training

Richard Chinn Environmental Training, Inc.

certifies that

Cleve Hoffpauir

has successfully completed a

4 day 38 hour Army Corps of Engineers Wetland Delineation Training Program

issued Certificate No. 4666 and 3.8 CEUs on this first day of June, 2007, in Austin, Texas



Richard Chinn, PWS, CET,

Richard Chinn Environmental Training, Inc. 804 Cottage Hill Way, Brandon, FL 33511-8098 1.800.427.0307 • FAX: 1.888.457.6331 • info@richardchinn.com • http://www.richardchinn.com

This training has been based in part on the U.S. Army Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1 (1987 manual), as provided for in the training materials developed in conjunction with Section 307(e) of the Water Resources Development Act of 1990 for the Wetland Delineator Certification Program.



ATTACHMENT B

Infrared and Soil Maps







ATTACHMENT C

Wetland Data Forms

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Lake Charles Regional Airport City/	County: Lake Charles/Calcasieu Sampling Date: 3-8-2018
Applicant/Owner: SWLA Economic Development Alliance	County: Lake Charles/Calcasieu Sampling Date: <u>3-8-2018</u> State: LA Sampling Point: <u>1</u>
Investigator(s): Cleveland Hoffpauir Sec	tion Township Range [,] 6, 11S, 8W
Landform (hillslope, terrace, etc.): Slight Depression	al relief (concave, convex, none); Concave Slope (%); 0
Subregion (LRR or MLRA): LRR-T Lat: 3333364.0	08 Long: 478643.78 Datum: UTM 83
Soil Map Unit Name: Mowata Vidrine Silt Loams	08 Long: <u>478643.78</u> Datum: <u>UTM 83</u> NWI classification: <u>None</u>
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No X (If no, explain in Remarks.)
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> significantly distu	
Are Vegetation No_, Soil No_, or Hydrology No_ naturally problem	
	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No	Is the Sampled Area
Wetland Hydrology Present? Yes X No	within a Wetland? Yes X No
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Saturation (A3) High Water Table (A2) Hydrogen Sulfide Odor	
✓ Saturation (A3) ↓ Hydrogen Sulfide Odor ✓ Water Marks (B1) ↓ Oxidized Rhizospheres	
Sediment Deposits (B2)	이 가 있는 것 같은 것 같은 것이 있는 것은 것은 것 같은 바람이 있는 것 같이 있는 것 같이 있는 것 같은 것 같이 있는 것 같이 있다. 것 같은 것 같은 것 같은 것 같은 것 같은 것 같은 것
Drift Deposits (B3)	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Uther (Explain in Remain	그렇게 지난 것 같은 것 같
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No X Depth (inches):	
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes X No Depth (inches):	BGS
Saturation Present? Yes X No Depth (inches): 0-	16" Wetland Hydrology Present? Yes X No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), it available.
Remarks:	
Wetter than normal site conditions.	
BGS=Below Ground Surface	

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	% Cover			Dominance Test workshee		
ree Stratum (Plot size: <u>30</u>) None		1		Number of Dominant Species That Are OBL, FACW, or FA		(A)
						,
				Total Number of Dominant Species Across All Strata:	2	(B)
						_ (0)
				Percent of Dominant Species That Are OBL, FACW, or FA		(A/E
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-				Prevalence Index workshee	ət:	
				Total % Cover of:	Multiply by	<i>t</i> :
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50% of total cover:				FACW species	x 2 =	_
apling/Shrub Stratum (Plot size: 30)				FAC species	x 3 =	
None /				FACU species	x 4 =	_
				UPL species	x 5 =	
				Column Totals:	(A)	(B
				Prevalence Index = B/		
				Hydrophytic Vegetation Inc		
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SOIL

Sampling Point: 1

Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirm	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Feature %	Type ¹	Loc ²	Texture	Remarks
0-12	10YR 4/1	95	7.5YR 5/8	5	C	M, PL	Silty Clay	Saturated
					-			
<u>12-16</u>	10YR 4/2	90	7.5YR 5/8	 	<u>c</u>	M, PL	<u>Clay</u>	Saturated (Mn Masses)
Hydric Soil Histosol Histosol Histic Er Black Hi Hydroge Stratified Organic 5 cm Mu Organic 5 cm Mu Depleter Thick Da Coast P Sandy M Sandy C Sandy R Stripped Dark Su	bipedon (A2) stic (A3) an Sulfide (A4) d Layers (A5) Bodies (A6) (LRR P ucky Mineral (A7) (Li resence (A8) (LRR U uck (A9) (LRR P, T) d Below Dark Surface ark Surface (A12) rairie Redox (A16) (1 Mucky Mineral (S1) (Bleyed Matrix (S4) Redox (S5) Matrix (S6) rface (S7) (LRR P, S Layer (if observed)	r, T, U) RR P, T, U I) MLRA 150 LRR O, S)	LRRs, unless othe Polyvalue Ba Thin Dark Si Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depre Marl (F10) (I Depleted Oc √ Iron-Mangar Delta Ochric Reduced Ve Piedmont Flo	rwise no elow Surface (SS (y Mineral ed Matrix atrix (F3) Surface (rk Surface essions (F LRR U) thric (F11) hese Mass ace (F13) (F17) (M rtic (F18) boodplain S	ted.) ace (S8) (I 9) (LRR S, (F1) (LRF (F2) F6) e (F7) F8) (MLRA 1 (LRR P, T LRA 151) (MLRA 15 Soils (F19)	.RR S, T, I T, U) ₹ O) 51) (LRR O, P, , U) 50A, 150B) (MLRA 14	Indicators J) 1 cm N 2 cm N Reduc Piedm Anoma (MLI Red P Very S Other 3 Indic we unl 49A) A 149A, 153C	PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ : Muck (A9) (LRR O) Muck (A10) (LRR S) seed Vertic (F18) (outside MLRA 150A,B) nont Floodplain Soils (F19) (LRR P, S, T) alous Bright Loamy Soils (F20) RA 153B) rarent Material (TF2) Shallow Dark Surface (TF12) (Explain in Remarks) cators of hydrophytic vegetation and tland hydrology must be present, ess disturbed or problematic. 5, 153D) I Present? Yes X No

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Lake Charles Regional Airport	City/County: Lake Charles/Calcasieu Sampling Date: 3-8-2018
Applicant/Owner: SWLA Economic Development Alliance	State: LA Sampling Point: 2
	Section, Township, Range: 6, 11S, 8W
	Local relief (concave, convex, none): Convex Slope (%): 0-1
Subregion (LRR or MLRA): LRR-T Lat: 333	
Soil Map Unit Name: Mowata Vidrine Silt Loams	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time o	
	intly disturbed? Are "Normal Circumstances" present? Yes No X
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> naturally	
SUMMARY OF FINDINGS – Attach site map show	ing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area
Hydric Soil Present? Yes No X	within a Wetland? Yes No X
Wetland Hydrology Present? Yes No X	
Remarks:	and it is a s
Recent Rainfall; Wetter than Normal Site Co	inditions
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	bly) Surface Soil Cracks (B6)
Surface Water (A1)	(B13)
High Water Table (A2)	그는 김 정말 그 가지 않는 것이 같아요. 그는 것이 같아요. 이 바람이 많은 것이 같아요. 이 것이 많이
Saturation (A3)	그 같은 것 같아요. 이는 아이는 것 같아요. 이는 것 같아요. 🕞 🗖 이는 같은 것 같아요. 김 씨는 것이는 것 같아요. 이는 것 같아요. 이는 것 같아요.
	spheres along Living Roots (C3) 🛛 📙 Dry-Season Water Table (C2)
	educed Iron (C4)
	duction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surfa	
☐ Iron Deposits (B5) ☐ Other (Explain i ☐ Inundation Visible on Aerial Imagery (B7)	in Remarks) FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No X Depth (inch	hes):
Water Table Present? Yes No X Depth (inch	hes):
Saturation Present? Yes No X Depth (inch	hes): Wetland Hydrology Present? Yes No X
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial ph	hotos previous inspections) if available:
Remarks:	
	ω.
	·+·

				Sampling Point: 2	
20		Dominant		Dominance Test worksheet:	
r <u>ee Stratum</u> (Plot size: <u>30</u>)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 0	(A)
				Total Number of Dominant	
				Species Across All Strata: 1	(B)
				Percent of Dominant Species	
		· · · · · ·	,	That Are OBL, FACW, or FAC:	(A/E
				Prevalence Index worksheet:	
		_		Total % Cover of:Multiply by:	-
		= Total Cov		OBL species x 1 =	
50% of total cover:	20% of	total cover		FACW species x 2 =	
apling/Shrub Stratum (Plot size: <u>30</u>)				FAC species x 3 =	
				FACU species x 4 =	
				UPL species x 5 =	
				Column Totals: (A)	_ (B
				Prevalence Index = B/A =	
				Hydrophytic Vegetation Indicators:	1 (
				1 - Rapid Test for Hydrophytic Vegetation	
				2 - Dominance Test is >50%	
			1.000	$\begin{array}{c} 2 & -2 & -2 & -2 & -2 & -2 & -2 & -2 &$	
		= Total Cov	/er		-
50% of total cover:				Problematic Hydrophytic Vegetation ¹ (Explai	n)
erb Stratum (Plot size: <u>30</u>)				The discount of boundary of the development boundary of the	
Paspalum notatum	50	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology n be present, unless disturbed or problematic.	nust
Nothoscordum bivalve	10	No	FACU	Definitions of Four Vegetation Strata:	
Cynodon dactylon	10	No	FACU		
Axonopus fissifolius	5	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6	
Lobelia appendiculata	2	No	FAC	more in diameter at breast height (DBH), regardle height.	ess o
Salvia lyrata	2	No	FACU		
Sonchus asper	2	No	FACU	Sapling/Shrub – Woody plants, excluding vines, than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
the second s					
				Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall.	dles
				Woody vine – All woody vines greater than 3.28	ft in
1		$ \longrightarrow $		height.	
1					
1 2		= Total Cov			
1 2 50% of total cover: <u>40.5</u>		= Total Cov			
1 2 50% of total cover: <u>40.5</u>					
1	20% of				
1	20% of				
1	20% of				
1	20% of				
0	20% of	total cover		height. Hydrophytic	
1	20% of	total cover	16.2	height.	

SOIL

Sampling Point: 2

Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Featur %	Type ¹	Loc ²	Texture	Remarks
)-3	10YR 4/3	98	7.5YR 4/6	2	С	М	Silt Loam	
3-10	10YR 4/2	60	10YR 5/4	40	С	М	Clay	Fill
10-16	10YR 4/2	100					Silt Loam	
Type: C=Cr ydric Soil Histosol Histosol Histic Er Black Hi Hydroge Stratified Organic 5 cm Mu Muck Pr 1 cm Mu Depleter Thick Da Coast Pi Sandy M Sandy M Sandy M Sandy R Stripped Dark Su Restrictive I Type:	10YR 4/2	100 100 pepletion, RM licable to a licable to a (ICRR P, T, U) (MLRA 156 (LRR O, S (LRR O, S , S, T, U) d):	1=Reduced Matrix, M I LRRs, unless other Polyvalue B Thin Dark S Loamy Muc Loamy Gley Depleted M Redox Dark Redox Dark Inon-Manga Umbric Surf Delta Ochrid Reduced Ve Piedmont F	IS=Maske erwise no elow Surf urface (Si ky Minera red Matrix atrix (F3) : Surface (ark Surface cressions (I LRR U) chric (F11 nese Mas face (F13) c (F17) (M ertic (F18) loodplain	ed Sand Gr ted.) ace (S8) (L 9) (LRR S, 1 (F1) (LRF (F2) (F6) ee (F7) F8)) (MLRA 1 ses (F12) ((LRR P, T ILRA 151) (MLRA 15 Soils (F19)	ains. RR S, T, T T, U) CO) 51) LRR O, P , U) 50A, 150B (MLRA 1	Silt Loam	PL=Pore Lining, M=Matrix. 5 for Problematic Hydric Soils³: Muck (A9) (LRR O) Muck (A10) (LRR S) ced Vertic (F18) (outside MLRA 150A,E toont Floodplain Soils (F19) (LRR P, S, T alous Bright Loamy Soils (F20) RA 153B) Parent Material (TF2) Shallow Dark Surface (TF12) (Explain in Remarks) cators of hydrophytic vegetation and tland hydrology must be present, less disturbed or problematic.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Lake Charles Regional Airport	City/County: Lake Charl	es/Calcasieu	Sampling Date: 3-8-2018
Applicant/Owner: SWLA Economic Development Alliance		State: LA	
	Section, Township, Range		
Landform (hillslope, terrace, etc.): Depression Subregion (LRR or MLRA): LRR-T Lat: 3 Soil Map Unit Name: Crowley Vidrine Silt Loams	Local relief (concave, con 333924.42 Lon	vex, none): <u>Concave</u> _{ig: 479374.14}	
Are climatic / hydrologic conditions on the site typical for this time Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> signifi Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> natura SUMMARY OF FINDINGS – Attach site map sho	e of year? Yes No X cantly disturbed? Are "No Illy problematic? (If need	(If no, explain in F rmal Circumstances" ed, explain any answe	Remarks.) present? Yes No _X ers in Remarks.)
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: No No	within a Wetland?		No
Recent Rainfall; Wetter than Normal Site C		36	
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
Saturation (A3) Hydrogen Su Water Marks (B1) Oxidized Rhi: Sediment Deposits (B2) Presence of I Drift Deposits (B3) Recent Iron F Algal Mat or Crust (B4) Thin Muck Su	a (B13) s (B15) (LRR U) Ifide Odor (C1) zospheres along Living Roots (C Reduced Iron (C4) Reduction in Tilled Soils (C6)	Sparsely Ve Drainage Pa Moss Trim L Ory-Season Crayfish Bur Saturation V Geomorphic Shallow Aqu FAC-Neutral	ines (B16) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) .Position (D2) itard (D3)
Surface Water Present? Yes X No Depth (in Water Table Present? YesNo X Depth (in Saturation Present? Yes X No Depth (in (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial	nches): nches): Wetla	nd Hydrology Preser f available:	nt? Yes X No
Remarks: Standing Water in Plot 3.			

	Dominant		Dominance Test worksheet:
1.10 Contraction (1.10)	Species?		Number of Dominant Species That Are OBL, FACW, or FAC: ² (A)
			Total Number of Dominant Species Across All Strata: 2 (B)
			Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/E
			Prevalence Index worksheet:
	_	4	Total % Cover of: Multiply by:
	= Total Cov	er	OBL species x 1 =
20% of	total cover	<u> </u>	FACW species x 2 =
			FAC species x 3 =
			FACU species x 4 =
			UPL species x 5 =
		-	Column Totals: (A) (B
			Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
			$_$ 3 - Prevalence Index is $\leq 3.0^{1}$
		er	Problematic Hydrophytic Vegetation ¹ (Explain)
20% of	total cover		
			¹ Indicators of hydric soil and wetland hydrology must
40	Yes	FACW	be present, unless disturbed or problematic.
30	Yes	OBL	Definitions of Four Vegetation Strata:
5	No	FAC	Tree Month plants evaluding vince 2 in (7.6 cm)
5	No	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of
5	No	OBL	height.
2	No	FACU	Sapling/Shrub – Woody plants, excluding vines, less
2	No	OBL	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2	No	FACW	Herb – All herbaceous (non-woody) plants, regardles:
			of size, and woody plants less than 3.28 ft tall.
			Wendy vine All woody vince greater than 2.28 ft in
1			Woody vine – All woody vines greater than 3.28 ft in height.
91	= Total Cov	rer	
20% of	total cover	18.2	
	-		
_	_		Hydrophytic
	= Total Cov	/er	Hydrophytic Vegetation
and the second s	= Total Cov		

SOIL

Sampling Point: 3

		to the aspin				or contirn	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	edox Feature %	Type ¹	Loc ²	Texture	Remarks
0-16	10YR 4/2		.5YR 4/6	5	C	M, PL	Silt Loam	Saturated
	A STREET A DAMA		how on the Origin					
				_	<u></u>	-		
						······		
	-			-			<u> </u>	
	States and States and			1				A New York Comercia (March Marco)
	oncentration, D=De					ains.		PL=Pore Lining, M=Matrix.
	Indicators: (Applie	cable to all LF	<u>22</u> 3 : 0226.00		1. G			for Problematic Hydric Soils ³ :
Histosol				Below Surfa				Auck (A9) (LRR O)
Black Hi	pipedon (A2)			Surface (S9) ucky Mineral				/luck (A10) (LRR S) ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)			eyed Matrix (. 0)		ont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)			Matrix (F3)	-/			alous Bright Loamy Soils (F20)
	Bodies (A6) (LRR F	P, T, U)		ark Surface (F	6)			RA 153B)
5 cm Mu	ucky Mineral (A7) (L	RR P, T, U)	Depleted	Dark Surface	(F7)		Red P	arent Material (TF2)
Muck Pr	esence (A8) (LRR I	J)	Redox De	pressions (F	8)		U Very S	hallow Dark Surface (TF12)
	uck (A9) (LRR P, T)) (LRR U)			U Other	(Explain in Remarks)
	d Below Dark Surfac	ce (A11)		Ochric (F11)	2 C 10 C 10 C 10 C 10 C	and the second s	- 3	
	ark Surface (A12)	MI DA 150A)		ganese Mass				cators of hydrophytic vegetation and land hydrology must be present,
	rairie Redox (A16) (/lucky Mineral (S1) (urface (F13) (nric (F17) (ML		, 0)		ess disturbed or problematic.
-	Gleyed Matrix (S4)	LINI 0, 0)		Vertic (F18) (0A. 150B)		cas disturbed of problematic.
	Redox (S5)			Floodplain S				
	Matrix (S6)						A 149A, 153C	, 153D)
	rface (S7) (LRR P,		1		112			
Restrictive	Layer (if observed)):						
Type:			_				1.1.1.1.1.1	
Depth (in	ches):		- C				Hydric Soil	Present? Yes X No
Remarks:							4	

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Lake Charles Regional Airport	_ City/County: Lake Charles/	Calcasieu	Sampling Date: 3-8-2018
Applicant/Owner: SWLA Economic Development Alliance		State: LA	Sampling Point: 4
	_ Section, Township, Range: 6		
Landform (hillslope, terrace, etc.): Relatively Flat Subregion (LRR or MLRA): LRR-T Lat: 3333 Soil Map Unit Name: Mowata-Vidrine Silt Loams	_ Local relief (concave, convex,	none): <u>None</u> 179219.13	Slope (%); 0-1 Datum: UTM 83
Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> significant Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> naturally p SUMMARY OF FINDINGS – Attach site map showir	ly disturbed? Are "Norma problematic? (If needed, or an	(If no, explain in F I Circumstances" explain any answe	Remarks.) present? Yes No_X ers in Remarks.)
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes X No	 Is the Sampled Area within a Wetland? 	Yes	No <u>X</u>
Recent Rainfall; Wetter than Normal Site Cor Area is Frequently Baled for Bermuda Hay.	nditions.		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Sediment Deposits (B2)	15) (LRR U) 9 Odor (C1) 9 oheres along Living Roots (C3) 9 uced Iron (C4) 9 uction in Tilled Soils (C6) 9 ce (C7)	Drainage Pa Moss Trim L Dry-Season Crayfish Bur Saturation V Geomorphic Shallow Aqu FAC-Neutra	Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) : Position (D2) uitard (D3)
Field Observations: Surface Water Present? Yes No X Depth (inche Water Table Present? Yes No X Depth (inche Saturation Present? Yes No X Depth (inche (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial pho	es): Wetland H	Hydrology Prese ailable:	nt? Yes No_X
Remarks: Few Crawfish Burrows in Plot 4 ±1 inch of rainfall recently			

20	Absolute	Desertere				
			t Indicator	Dominance Test worksheet:		
ree Stratum (Plot size: <u>30</u>)	% Cover	Species	2 Status	Number of Dominant Species		
None				That Are OBL, FACW, or FAC: _0 (A		
				Total Number of Dominant		
				Species Across All Strata: 1 (E		
				Percent of Dominant Species		
				That Are OBL, FACW, or FAC: 0 (A		
		<u> </u>		Prevalence Index worksheet:		
				Total % Cover of:Multiply by:		
		= Total Co	ver	OBL species x 1 =		
50% of total cover:	20% of total cover:			FACW species x 2 =		
apling/Shrub Stratum (Plot size: 30)				FAC species x 3 =		
None				FACU species x 4 =		
×				UPL species x 5 =		
				Column Totals: (A) (
				Prevalence Index = B/A =		
				Hydrophytic Vegetation Indicators:		
				1 - Rapid Test for Hydrophytic Vegetation		
				3 - Prevalence Index is ≤3.0 ¹		
				Problematic Hydrophytic Vegetation ¹ (Explain)		
50% of total cover	20% 0	Ftotal covo				
50% of total cover:	20% o	f total cove	r:			
erb Stratum (Plot size: 30)				¹ Indicators of hydric soil and wetland hydrology mus		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon	60	Yes	FACU	be present, unless disturbed or problematic.		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua	60 10	Yes No	FACU FACU			
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne	60 10 5	Yes No No	FACU FACU FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus	60 10 5 5	Yes No No No	FACU FACU FACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve	60 10 5 5 2	Yes No No No	FACU FACU FACU FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2	Yes No No No No No	FACU FACU FACU FACW FACU FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2	Yes No No No No No	FACU FACU FACU FACW FACU FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2	Yes No No No No No	FACU FACU FACU FACW FACU FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2	Yes No No No No No	FACU FACU FACU FACW FACU FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2	Yes No No No No No	FACU FACU FACU FACW FACU FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lee than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall.		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2	Yes No No No No No	FACU FACU FACU FACW FACU FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2	Yes No No No No No	FACU FACU FACU FACW FACU FACU	 be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft tall. 		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2 	Yes No No No No No	FACU FACU FACW FACU FACU FACU	 be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft tall. 		
erb Stratum (Plot size: <u>30</u>) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2 84	Yes No No No No	FACU FACU FACW FACU FACU FACU	 be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft tall. 		
erb Stratum (Plot size: 30) Cynodon dactylon) Poa annua	60 10 5 2 2 2 84	Yes No No No = Total Co	FACU FACU FACW FACU FACU FACU	 be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft tall. 		
erb Stratum (Plot size: 30) Cynodon dactylon) Poa annua	60 10 5 2 2 2 84	Yes No No No = Total Co	FACU FACU FACW FACU FACU FACU	 be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft tall. 		
erb Stratum (Plot size: 30) Cynodon dactylon) Poa annua	60 10 5 2 2 2 84	Yes No No No = Total Co	FACU FACU FACW FACU FACU FACU	 be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft tall. 		
erb Stratum (Plot size: 30) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2 84	Yes No No No = Total Co	FACU FACU FACW FACU FACU FACU	 be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft tall. 		
erb Stratum (Plot size: 30) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2 84	Yes No No No = Total Co	FACU FACU FACW FACU FACU FACU	 be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft tall. 		
erb Stratum (Plot size: 30) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2 84	Yes No No No = Total Co	FACU FACU FACW FACU FACU FACU	 be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft i height. 		
erb Stratum (Plot size: 30) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2 - - - - - - - - - - - - -	Yes No No No No Total Cove f total cove	FACU FACU FACU FACU FACU FACU FACU FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic		
erb Stratum (Plot size: 30) Cynodon dactylon Poa annua Lolium perenne Juncus marginatus Nothoscordum bivalve Dichanthelium sphaerocarpon	60 10 5 2 2 2 	Yes No No No No Total Cove	FACU FACU FACU FACU FACU FACU FACU FACU	 be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft i height. 		

SOIL

Sampling Point: 4

Depth	Matrix			dox Featur				
nches)					a long a second			Remarks
	1 3 5 A 5 A 5 A							
-16	10YR 4/3	98	7.5YR 4/6	_ 2	<u> </u>	M	Silt Loam	
inches) 	Color (moist) 10YR 4/2 10YR 4/3 10YR 4/3 10YR 4/3 Dencentration, D=De Indicators: (Applie (A1) Dipedon (A2) stic (A3) In Sulfide (A4) d Layers (A5) Bodies (A6) (LRR F Indicators: (A7) (L esence (A8) (LRR F, T) d Below Dark Surface (A12) rairie Redox (A16) (Indicators: (A12) rairie Redox (A16) (Deved Matrix (S4) Idedox (S5) Matrix (S6) rface (S7) (LRR P, 1) Cayer (if observed)	P, T, U) RR P, T, U) Cable to all I Cable to all I Dietion, RM= Cable to all I Cable to all I Ca	Color (moist) 7.5YR 4/6 7.5YR 4/6 7.5YR 4/6 Reduced Matrix, I Res, unless oth Polyvalue B Thin Dark S Loamy Muc Loamy Gle C Depleted M Redox Darl Depleted D Redox Dep Marl (F10) Depleted C Iron-Manga) Umbric Sur Delta Ochri Reduced V Piedmont F	2 2 2 4 2 4 4 5 4 5 4 5 4 5 4 5 4 5 4 5	<u>Type¹</u> C C C C C C C C C C C C C C C C C C C	_RR S, T, T, U) ₹ O) 51) (LRR O, P 7, U) 50A, 150B (MLRA 1	Silt Loam Silt Loam Silt Loam 2 2 2 2 2 2 2 2 2 2 2 2 2	PL=Pore Lining, M=Matrix. PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ : uck (A9) (LRR O) uck (A10) (LRR S) d Vertic (F18) (outside MLRA 150A, Int Floodplain Soils (F19) (LRR P, S, T ous Bright Loamy Soils (F20) A 153B) rent Material (TF2) hallow Dark Surface (TF12) Explain in Remarks) ators of hydrophytic vegetation and and hydrology must be present, ss disturbed or problematic. 153D) Present? Yes X No
Project/Site: Lake Charles Regional Airport	City/County: Lake Charles	/Calcasieu	Sampling Date: 3-9-2018					
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Applicant/Owner: SWLA Economic Development Alliance		State: LA	Sampling Point: 5					
	Section, Township, Range:							
Landform (hillslope, terrace, etc.): Relatively Flat to Gently Sloping Subregion (LRR or MLRA): LRR-T Lat: 33334 Soil Map Unit Name: Mowata-Vidrine Silt Loams	in a interesting and	None	Slope (%): 0-1 Datum: UTM 83					
Are climatic / hydrologic conditions on the site typical for this time of ye Are Vegetation No , Soil No , or Hydrology No significantly Are Vegetation No , Soil No , or Hydrology No naturally pr SUMMARY OF FINDINGS – Attach site map showing	disturbed? Are "Norm oblematic? (If needed	al Circumstances" r , explain any answe	present? Yes No X rs in Remarks.)					
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes No X No X Remarks: Image: Solution of the second sec	Is the Sampled Area within a Wetland?		No_X					
Recent Rainfall; Wetter than Normal Site Cond Area is Frequently Baled for Bermuda Hay.	litions.							
HYDROLOGY								
Sediment Deposits (B2)	3) 5) (LRR U) Ddor (C1) eres along Living Roots (C3) ced Iron (C4) tion in Tilled Soils (C6) (C7)	□ Surface Soil □ Sparsely Veg □ Drainage Pa □ Moss Trim L □ Dry-Season ☑ Crayfish Bur □ Saturation V □ Geomorphic □ Shallow Aqu □ FAC-Neutral	getated Concave Surface (B8) tterns (B10) ines (B16) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) Position (D2) itard (D3)					
Surface Water Present? Yes No X Depth (inchess Water Table Present? Yes No X Depth (inchess Saturation Present? Yes No X Depth (inchess (includes capillary fringe) No X Depth (inchess Describe Recorded Data (stream gauge, monitoring well, aerial photogram Remarks:): Wetland		nt? Yes No_X					
Very Few Crawfish Burrows in Plot 5 ±1 inch of rainfall recently								

annt Indicator Dominance Test worksheet: Status Number of Dominant Species Image: Status Total Number of Dominant Species Image: Status Total Number of Dominant Species Image: Status Total Number of Dominant Species Image: Status Percent of Dominant Species Image: Status Prevalence Index worksheet: Image: Status Total % Cover of: OBL species Image: Status Image: Status Yercus Image: Status Status Image: Status Yercus Image: Status Yercus Image: Status Yercus Image: Status Yercus Image: Status Yercus <t< th=""><th>1 =</th></t<>	1 =
Introduction of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: OBL species Species FACW species FACU species FACU Prevalence Index = B/A = Hydrophytic Vegetation Indica 1 - Rapid Test for Hydrophy 2 - Dominance Test is >509 3 - Prevalence Index is ≤3.0 Cover FACU The and test of pour Vegetation Total Cover Thit for the and the an	1 (B) 0 (A/B Multiply by: (A/B 1 =
	1 (B) 0 (A/B) Multiply by: (A/B) 1 =
Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: OBL species OBL species FACW species FAC species FACU species Column Totals: Output to Vegetation Indication Prevalence Index = B/A = Hydrophytic Vegetation Indication 1 - Rapid Test for Hydrophytic Vegetation Indication 3 - Prevalence Index is <3.0	0 (A/E Multiply by: 1 = 2 = 3 = 4 = 5 = (B) ators: /tic Vegetation % 0 ¹ egetation ¹ (Explain) tland hydrology must problematic. n Strata: vines, 3 in. (7.6 cm) c
	0 (A/E Multiply by: 1 = 2 = 3 = 4 = 5 = (B) ators: /tic Vegetation % 0 ¹ egetation ¹ (Explain) tland hydrology must problematic. n Strata: vines, 3 in. (7.6 cm) c
Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet:	Multiply by: 1 = 2 = 3 = 3 = 4 = 5 = A) ators: /tic Vegetation % p1 egetation ¹ (Explain) tland hydrology must problematic. n Strata: vines, 3 in. (7.6 cm) of the strate
Image: Constraint of the text of tex of text of text of tex of tex of text of t	Multiply by: 1 = 2 = 3 = 3 = 4 = 5 = A) ators: /tic Vegetation % p1 egetation ¹ (Explain) tland hydrology must problematic. n Strata: vines, 3 in. (7.6 cm) c
Prevalence Index worksheet: Total % Cover of: OBL species pver: FACW species FACU species YACU species YACU species YACU Prevalence Index = B/A = YACU Prevalence Index = B/A = YACU Prevalence Index = B/A = Hydrophytic Vegetation Indications YACU Prevalence Index is <3.0	Multiply by: 1 = 2 = 3 = 3 = 4 = 5 = A) ators: /tic Vegetation % p1 egetation ¹ (Explain) tland hydrology must problematic. n Strata: vines, 3 in. (7.6 cm) c
Prevalence Index worksheet: Total % Cover of: OBL species pver: FACW species FACU species Yevalence Index worksheet: OBL species FACW species FACU species Yevalence Index Yevalence Index Prevalence Index Output Prevalence Index Prevalence Index Prevalence Index Prevalence Index Prevalence Index Sector Prevalence Index Sector Yeve Prevalence Index Sector Yeve Problematic Hydrophytic Vegetation Indice Yever: Yeve FACU FACU FACU FACU FACU FACU FACU FAC Definitions of Four Vegetation Tree – Woody plants, excluding more in diameter at breast height	1 =
	1 =
Cover OBL species x pver: FACW species x FAC species x FACU species x FACU species x VPL species x Column Totals: (/ Prevalence Index B/A = Hydrophytic Vegetation Indica 1 - Rapid Test for Hydrophy 2 - Dominance Test is >50% 3 - Prevalence Index is <3.0	<pre>2 =</pre>
FACW species x FAC species x FAC species x FAC species x FACU species x FACU species x UPL species x Column Totals: (/ Prevalence Index B/A = Hydrophytic Vegetation Indica 1 - Rapid Test for Hydrophy 2 - Dominance Test is >509 3 - Prevalence Index is <3.0	<pre>2 =</pre>
FAC species x FACU species x FACU species x UPL species x UPL species x Column Totals: (/ Prevalence Index = B/A = Hydrophytic Vegetation Indication 1 - Rapid Test for Hydrophy 2 - Dominance Test is >50% 3 - Prevalence Index is <3.0	: 3 = : 4 = : 5 = : 5 = (B) : ators: /tic Vegetation % 0 ¹ egetation ¹ (Explain) tland hydrology must problematic. n Strata: (vines, 3 in. (7.6 cm) c
FACU species x UPL species x UPL species x Column Totals: (// Prevalence Index = B/A = Hydrophytic Vegetation Indica 1 - Rapid Test for Hydrophy 2 - Dominance Test is >509 3 - Prevalence Index is ≤3.0 Cover Problematic Hydrophytic Vegetation FACU FACU FACU FACU FACU FAC Tree – Woody plants, excluding more in diameter at breast height	4 =
UPL species x Column Totals: (/ Prevalence Index = B/A = (/ Hydrophytic Vegetation Indica 1 - Rapid Test for Hydrophy 2 - Dominance Test is >509 3 - Prevalence Index is <3.0	 5 = (B) ators: vtic Vegetation b) egetation¹ (Explain) tland hydrology must problematic. n Strata: vines, 3 in. (7.6 cm) components
Column Totals: (/ Prevalence Index = B/A = Hydrophytic Vegetation Indica 1 - Rapid Test for Hydrophy 2 - Dominance Test is >509 2 - Dominance Test is >509 3 - Prevalence Index is ≤3.0 Cover 3 - Prevalence Index is ≤3.0 Problematic Hydrophytic Vegetation 1 FACU 1 - Rapid Test for Hydrophytic Vegetation FACU 1 - Prevalence Index is ≤3.0 FACU 1 - Problematic Hydrophytic Vegetation FACU 1 - Problematic Soft hydric soil and we be present, unless disturbed or FACU Definitions of Four Vegetation FAC Tree – Woody plants, excluding more in diameter at breast height	A) (B) ators: /tic Vegetation % 0 ¹ egetation ¹ (Explain) tland hydrology must problematic. n Strata:
Prevalence Index = B/A = Hydrophytic Vegetation Indica 1 - Rapid Test for Hydrophy 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 Cover 9 0 1 1 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 Cover Problematic Hydrophytic Vegetation Problematic Hydrophytic Vegetation FACU FACU FAC Definitions of Four Vegetation Tree – Woody plants, excluding more in diameter at breast height	ators: /tic Vegetation % p ¹ egetation ¹ (Explain) tland hydrology must problematic. h Strata: vines, 3 in. (7.6 cm) c
Hydrophytic Vegetation Indica 1 - Rapid Test for Hydrophy 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 Cover Problematic Hydrophytic Vegetation FACU FACU FACU FACU FAC Tree – Woody plants, excluding more in diameter at breast heigl	ators: /tic Vegetation % p ¹ egetation ¹ (Explain) tland hydrology must problematic. h Strata: vines, 3 in. (7.6 cm) o
Hydrophytic Vegetation Indica 1 - Rapid Test for Hydrophy 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 Cover Problematic Hydrophytic Vegetation FACU FACU FACU FACU FAC Tree – Woody plants, excluding more in diameter at breast heigl	ators: /tic Vegetation % p ¹ egetation ¹ (Explain) tland hydrology must problematic. h Strata: vines, 3 in. (7.6 cm) o
	vtic Vegetation % b ¹ egetation ¹ (Explain) tland hydrology must problematic. h Strata:
	% getation ¹ (Explain) tland hydrology must problematic. n Strata: vines, 3 in. (7.6 cm) o
Gover 3 - Prevalence Index is ≤3.0 Cover Problematic Hydrophytic Vertic over: 1 FACU 1 FACU Definitions of hydric soil and we be present, unless disturbed or FACU Definitions of Four Vegetation FAC Tree – Woody plants, excluding more in diameter at breast height	o ¹ egetation ¹ (Explain) tland hydrology must problematic. n Strata: n vines, 3 in. (7.6 cm) o
Cover Problematic Hydrophytic Ve FACU IIndicators of hydric soil and we be present, unless disturbed or FACU Definitions of Four Vegetation FAC Tree – Woody plants, excluding more in diameter at breast height	egetation ¹ (Explain) tland hydrology must problematic. n Strata:
FACU ¹ Indicators of hydric soil and we be present, unless disturbed or FACU Definitions of Four Vegetation FACU Tree – Woody plants, excluding more in diameter at breast height	tland hydrology must problematic. n Strata: vines, 3 in. (7.6 cm) o
FACU ¹ Indicators of hydric soil and we be present, unless disturbed or FACU Definitions of Four Vegetation FACU Tree – Woody plants, excluding more in diameter at breast height	problematic. n Strata: vines, 3 in. (7.6 cm) o
FACU be present, unless disturbed or FACU Definitions of Four Vegetation FACU Tree – Woody plants, excluding more in diameter at breast height	problematic. n Strata: vines, 3 in. (7.6 cm) o
FACU Definitions of Four Vegetation FACU Tree – Woody plants, excluding more in diameter at breast height	Strata: vines, 3 in. (7.6 cm) o
FACU FAC FAC FAC	vines, 3 in. (7.6 cm) o
FAC Tree – Woody plants, excluding more in diameter at breast height	
FAC more in diameter at breast height	
height.	in (Deri), regulatore e
	. excluding vines, less
than 3 in. DBH and greater than	
Ilerk All herbesseus (pap use	adu) alanta ragardiaa
	han 3.28 ft tall.
	greater than 3.28 ft in
over: 10.0	
Present? Yes	No X
Sver	
al	Herb – All herbaceous (non-wo of size, and woody plants less the Woody vine – All woody vines height.

Color (moist) 3 10YR 4/3	%	Color (moist)	%	es Type ¹	Loc ²	Texture	Remarks
	98	7.5YR 3/4	2	C	M	Silt Loam	
2 10YR 3/2	95	7.5YR 3/4	5	C	M	Silt Loam	
-16 10YR 4/3	100					Silt Loam	
	P, T, U) Epletion, RM: icable to all U) ace (A11) (MLRA 150) (LRR O, S) S, T, U) I):		S=Maske rwise no elow Surf urface (St cy Minera ed Matrix (F3) Surface (rk Surface (rk Surface (F11) essions (I LRR U) thric (F11) here Mas ace (F13) (F17) (M rtic (F18) boodplain	Ed Sand Gr ted.) ace (S8) (I 9) (LRR S, 1 (F1) (LRF (F2) F6) e (F7) F8)) (MLRA 1 Ses (F12) ((LRR P, T LRA 151) (MLRA 15 Soils (F19)	ains. .RR S, T, T, U) 2 O) 51) LRR O, P ; U) 50A, 150B (MLRA 1	Silt Loam	t Material (TF2) ow Dark Surface (TF12) lain in Remarks) s of hydrophytic vegetation and hydrology must be present, disturbed or problematic.

Project/Site: Lake Charles Regional Airport	_ City/County: Lake Charles/Calcasieu Sampling Date: 3-9-2018
Applicant/Owner: SWLA Economic Development Alliance	State: LA Sampling Point: 6
	_ Section, Township, Range: 6, 11S, 8W
Landform (hillslope, terrace, etc.): Slight Dression Subregion (LRR or MLRA): LRR-T Lat: 3333	Local relief (concave, convex, none): Concave Slope (%): 0 3344.66 Long: 478828.60 Datum: UTM 83
Soil Map Unit Name: Mowata-Vidrine Silt Loams	NWI classification:
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> naturally p	ly disturbed? Are "Normal Circumstances" present? Yes No X
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: Yes X No	- Is the Sampled Area - within a Wetland? Yes X No
Recent Rainfall; Wetter than Normal Site Cor	iditions.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Sediment Deposits (B2) Presence of Red Drift Deposits (B3) Recent Iron Redu Algal Mat or Crust (B4) Thin Muck Surface Iron Deposits (B5) Other (Explain in Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	B13) Sparsely Vegetated Concave Surface (B8) 15) (LRR U) Drainage Patterns (B10) a Odor (C1) Moss Trim Lines (B16) beheres along Living Roots (C3) Dry-Season Water Table (C2) uced Iron (C4) Crayfish Burrows (C8) uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) ce (C7) Geomorphic Position (D2) Remarks) Shallow Aquitard (D3) V FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Surface Water Present? Yes X No Depth (inche Water Table Present? Yes X No Depth (inche Saturation Present? Yes X No Depth (inche (includes capillary fringe) Yes X No Depth (inche	
Describe Recorded Data (stream gauge, monitoring well, aerial pho Remarks: ±1 inch of rainfall recently BGS=Below Ground Surface	itos, previous inspections), if available:

EGETATION (Four Strata) – Use scientific na	1996-1916	and and the second			pling Point: 6			
Free Stratum (Plot size: 30)		Dominant Species?		Dominance Test worksheet:				
None	_% COVEL			Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)		
				Total Number of Dominant				
				Species Across All Strata:	3	(B)		
				Percent of Dominant Species				
			<u></u>	That Are OBL, FACW, or FAC:	100	(A/E		
				Prevalence Index worksheet:				
				Total % Cover of:				
				OBL species				
50% of total cover:	20% of	total cover		FAC species				
apling/Shrub Stratum (Plot size: 30)		1100		FACU species				
Sesbania punicea			FAC		x 5 =			
·				Column Totals: (
		÷			~	_ (0		
				Prevalence Index = B/A	=)	_		
·				Hydrophytic Vegetation India	ators:			
<u>.</u>				1 - Rapid Test for Hydroph	ytic Vegetation			
				2 - Dominance Test is >50	%			
L	-			3 - Prevalence Index is ≤3	.0 ¹			
		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)				
50% of total cover: <u>1</u>	20% of	total cover	0.4					
erb Stratum (Plot size: <u>30</u>)				¹ Indicators of hydric soil and we		must		
Axonopus fissifolius	40	Yes	FACW	be present, unless disturbed or problematic.				
Eleocharis microcarpa	30	Yes	OBL	 Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless of 				
Juncus marginatus	5	No	FACW					
Juncus effusus	5	No	OBL					
Paspalum urvellei	5	No	FAC	height.				
Ludwigia repens	2	No	OBL	Sapling/Shrub - Woody plants				
Cynodon dactylon	2	No	FACU	than 3 in. DBH and greater tha	n 3.28 ft (1 m) tal	I .		
Solidago sempervirens	2	No	FACW	Herb – All herbaceous (non-wood of size, and woody plants less		ardless		
0	2.27					0.0.1.		
1.			-	Woody vine – All woody vines height.	greater than 3.2	8πin		
2.								
	94	= Total Cov	er					
50% of total cover: 47		total cover						
Voody Vine Stratum (Plot size:)			_					
None								
	1							
	1.0							
	· · · · · ·		-					
				Hydrophytic				
		= Total Cov	/er	Vegetation				
·				Present? Yes X No				
4 5		10101 001		Decembra Vee X				

Depth (inches) Co				Dadas	. Castura				of indicators.)
	Matrix or (moist)	%	Color (r	moist)	Feature %	s Type ¹	Loc ²	Texture	Remarks
0-16 <u>10YF</u>			5YR 4/6		10	C	M	Silty Clay	Saturated
¹ Type: C=Concentr	ation. D=Dep	letion, RM=	Reduced N	Matrix, MS	=Masked	Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil Indicate Histosol (A1) Histic Epipedon Black Histic (A3 Hydrogen Sulfid Stratified Layers Organic Bodies 5 cm Mucky Mir Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surf Coast Prairie Re Sandy Mucky M Sandy Gleyed M Sandy Redox (S Stripped Matrix	(A2)) le (A4) s (A5) (A6) (LRR P (A8) (LRR U (A8) (LRR U (LRR P, T) Dark Surfac ace (A12) edox (A16) (N ineral (S1) (L Matrix (S4) S5)	, T, U) RR P, T, U) I) e (A11) MLRA 150A)	Poly Thir Loa Loa V Dep Red Dep Red Mar Dep Iron Uml Delt Red Piec	yvalue Bel n Dark Sur my Mucky my Gleyed obleted Math dox Dark S obleted Dark dox Depres of (F10) (LF obleted Och n-Mangane bric Surfac ta Ochric (duced Vert dmont Floo	ow Surfa face (S9) Mineral d Matrix (rix (F3) Surface (F R U) ric (F11) ric (F11) ric (F13) (F17) (ML ic (F18) (odplain S	ce (S8) (L (LRR S, (F1) (LRF F2) 6) (F7) 8) (MLRA 1 es (F12) (LRR P, T .RA 151) MLRA 15 oils (F19)	T, U) 2 O) 2 T) 2 T) 2 T) 3 T) 3 T) 3 T) 3 T) 3 T) 3 T) 3 T) 3	U) 1 cm M 2 cm M Reduct Piedm Anoma (MLI Red P Very S Other , T) ³ Indic wet	for Problematic Hydric Soils ³ : Muck (A9) (LRR O) Muck (A10) (LRR S) ted Vertic (F18) (outside MLRA 150A,B) tent Floodplain Soils (F19) (LRR P, S, T) alous Bright Loamy Soils (F20) RA 153B) arent Material (TF2) Shallow Dark Surface (TF12) (Explain in Remarks) cators of hydrophytic vegetation and tland hydrology must be present, ess disturbed or problematic.
Dark Surface (S Restrictive Layer (i Type: Depth (inches): _ Remarks:			_					Hydric Soil	Present? Yes X No
Satura	ted 0-16'	Π							

Project/Site: Lake Charles Regional Airport	_ City/County: Lake Charles	/Calcasieu	Sampling Date: 3-9-2018
Applicant/Owner: SWLA Economic Development Alliance			Sampling Point: 7
	Section, Township, Range:		
Landform (hillslope, terrace, etc.); Relatively Flat	Local relief (concave, convex	none); None	Slope (%); 0-1
Subregion (LRR or MLRA): LRR-T Lat: 333	3040.27 Long:	478971.05	Datum: UTM 83
Soil Map Unit Name: Mowata-Vidrine Silt Loams			cation:
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No X		
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> significar			
Are Vegetation No , Soil No , or Hydrology No naturally		explain any answe	
SUMMARY OF FINDINGS – Attach site map showi			
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes X No	 Is the Sampled Area within a Wetland? 		No <u>X</u>
Recent Rainfall; Wetter than Normal Site Co Area is Frequently Baled for Bermuda Hay.	naitions.		
HYDROLOGY			
Wetland Hydrology Indicators:			ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	1 2 2 4		Cracks (B6)
Surface Water (A1)			getated Concave Surface (B8)
☐ High Water Table (A2) ☐ Marl Deposits (E ☐ Saturation (A3) ☐ Hydrogen Sulfid		Drainage Pa	and a set where a set of the set
	pheres along Living Roots (C3)		Water Table (C2)
Sediment Deposits (B2)	1) - S. C. C. C. M. S. C. M. S. M. M. S. M.	Crayfish Bu	
	uction in Tilled Soils (C6)	Saturation V	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)			Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in ☐ Inundation Visible on Aerial Imagery (B7)	n Remarks)	Shallow Aqu	and the second se
Water-Stained Leaves (B9)			moss (D8) (LRR T, U)
Field Observations:		- 1 - 3	
Surface Water Present? Yes No X Depth (inch			
Water Table Present? Yes No X Depth (inch			2.2 1 2.2 1
Saturation Present? Yes No X Depth (inch	es): Wetland	Hydrology Prese	nt? Yes No X
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial ph	l otos, previous inspections), if av	ailable:	
Remarks:			
Very Few Crawfish Burrows in Plot 7			
±1 inch of rainfall recently			

/EGETATION (Four Strata) – Use scientific r	names of p	lants.		Sampling Point: 7		
20		Dominan		Dominance Test worksheet:		
ree Stratum (Plot size: <u>30</u>)			? Status	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)		
*						
				Total Number of Dominant Species Across All Strata: 1 (B)		
·				Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)		
				That Are OBL, FACW, or FAC: (A/B)		
*				Prevalence Index worksheet:		
				Total % Cover of: Multiply by:		
				OBL species x 1 =		
50% of total cover:				FACW species x 2 =		
Sapling/Shrub Stratum (Plot size: 30)	2070 0			FAC species x 3 =		
Ness				FACU species x 4 =		
				UPL species x 5 =		
				Column Totals: (A) (B)		
·				Prevalence Index = B/A =		
				Hydrophytic Vegetation Indicators:		
				1 - Rapid Test for Hydrophytic Vegetation		
·				2 - Dominance Test is >50%		
<u>.</u>				3 - Prevalence Index is ≤3.0 ¹		
		= Total Co		Problematic Hydrophytic Vegetation ¹ (Explain)		
50% of total cover:	20% o	f total cove	r:			
Herb Stratum (Plot size: <u>30</u>)	85	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
Andropogon virginicus	5	No	FAC	Definitions of Four Vegetation Strata:		
3 Stellaria media	2	No	FACU			
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of		
5				height.		
5						
				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
7						
3				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
	÷ *					
0			· · · · · · · · · · · · · · · · · · ·	Woody vine – All woody vines greater than 3.28 ft in		
11				height.		
2	92		(<u></u>)			
		= Total Co		1		
50% of total cover: <u>16</u>	20% 0	f total cove	r:	C		
Noody Vine Stratum (Plot size:)						
None)				
		·	(<u></u>			
3						
l			·			
5				Hydrophytic		
		= Total Co	ver	Vegetation Present? Yes <u>No X</u>		
50% of total cover:	20% 0	f total cove	r:	Present? Tes No		
Remarks: (If observed, list morphological adaptations be	elow).					
Bermuda Hay Pasture						

Project/Site: Lake Charles Regional Airport	City/County: Lake Charles	s/Calcasieu	Sampling Date: 3-9-2018			
Applicant/Owner: SWLA Economic Development Alliance		State: LA	_ Sampling Point: 8			
	Section, Township, Range:					
Landform (hillslope, terrace, etc.): Relatively Flat Subregion (LRR or MLRA): LRR-T Lat:	Local relief (concave, conve	None). None	Slope (%). 0-1			
Subregion (I BB or MI BA): LRR-T	3333163.74	479167.41	Oope (%)			
Soll Map Unit Name: Mowata-Vidrine Silt Loams	Long.	NIA/I close if	ication: Datum:			
Are climatic / hydrologic conditions on the site typical for this tim	A Street Mark					
Are Vegetation No , Soil No , or Hydrology No signif						
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> natur	ally problematic? (If needed	l, explain any answ	ers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map sho	wing sampling point locat	tions, transect	s, important features, etc.			
Hydrophytic Vegetation Present? Yes No X						
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes X No	Is the Sampled Area		×			
Wetland Hydrology Present? Yes No X	within a Wetland?	Yes	No			
Remarks:						
Recent Rainfall; Wetter than Normal Site Condition	ns.					
Area is Frequently Baled for Bermuda Hay.						
Plot Location Chosen due to Wet Signatures on 20	004 Infrared Aerial.					
Dominant Vegetation Cynodon dactylon (FACU)						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that a	(ylage	Surface Soi	I Cracks (B6)			
Surface Water (A1)	na (B13)		egetated Concave Surface (B8)			
	s (B15) (LRR U)	Drainage Patterns (B10)				
	lfide Odor (C1)	Moss Trim I				
Water Marks (B1) Oxidized Rhi	zospheres along Living Roots (C3)		Water Table (C2)			
Sediment Deposits (B2)	Reduced Iron (C4)	🗹 Crayfish Bu	rrows (C8)			
Drift Deposits (B3)	Reduction in Tilled Soils (C6)	Saturation \	/isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	urface (C7)	Geomorphic	c Position (D2)			
	in in Remarks)	Shallow Aqu	uitard (D3)			
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra				
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No X Depth (i						
Water Table Present? Yes No X Depth (i			×			
Saturation Present? Yes <u>No X</u> Depth (i (includes capillary fringe)	nches): Wetland	I Hydrology Prese	nt? Yes No_X			
Describe Recorded Data (stream gauge, monitoring well, aeria	photos, previous inspections), if a	vailable:				
Remarks:						
Very Few Crawfish Burrows in Plot 8.						
±1 inch of rainfall recently.						
Area ditched to improve drainage for hay p	roduction.					

VEGETATION	(Four	Strata) -	Use	scientific	names	of pla	ants.
------------	-------	-----------	-----	------------	-------	--------	-------

EGETATION (Four Strata) – Use scientific n	annoo or p			oun	pling Point: <u>8</u>			
30		Dominant		Dominance Test worksheet:				
<u>Tree Stratum</u> (Plot size: <u>30</u>) 1. <u>None</u>	and states	Species?		Number of Dominant Species That Are OBL, FACW, or FAC:	_1(A			
2				Total Number of Dominant				
3				Species Across All Strata:	2 (B			
4								
5				Percent of Dominant Species That Are OBL, FACW, or FAC:	50 (A			
3					(*			
7				Prevalence Index worksheet:	and the second second			
8				Total % Cover of:	Multiply by:			
		= Total Co		OBL species >	< 1 =			
50% of total cover:				FACW species >	(2 =			
Sapling/Shrub Stratum (Plot size: 30)				FAC species >	(3 =			
1. None				FACU species >	(4 =			
2.				UPL species >	(5 =			
				Column Totals: (/	A) (
3								
				Prevalence Index = B/A =				
				Hydrophytic Vegetation Indic	ators:			
				1 - Rapid Test for Hydrophy	ytic Vegetation			
·				2 - Dominance Test is >50°	%			
3				3 - Prevalence Index is ≤3.	01			
	= Total Cover			Problematic Hydrophytic Ve	egetation ¹ (Explain)			
50% of total cover:	20% of	total cover	·	C. F. D. C. Brit Started				
Herb Stratum (Plot size: 30)				¹ Indicators of hydric soil and we	tland hydrology mus			
1. Cynodon dactylon	60	Yes	FACU	be present, unless disturbed or problematic.				
2. Paspalum urvellei	30	Yes	FAC	Definitions of Four Vegetation	n Strata:			
3. Stellaria media	2	No	FACU	Tree – Woody plants, excluding	vines 3 in (7.6 cm)			
4. Andropogon virginicus	2	No	FAC	more in diameter at breast heig				
5, Phalaris angusta	2	No	FACW	height.				
5. Eragrostis spectabilis	2	No	FACU	Sapling/Shrub – Woody plants	excluding vines les			
7				than 3 in. DBH and greater than	n 3.28 ft (1 m) tall.			
		1	1	Hark All back second (see	- 4. 5 1			
)				Herb – All herbaceous (non-wo of size, and woody plants less t				
10.								
11				Woody vine – All woody vines	greater than 3.28 ft in			
//////////////////////////////////////				height.				
12	98	T-1-1 0						
500 51 1 1 49		= Total Co						
50% of total cover: 49	20% 01	total cover						
Noody Vine Stratum (Plot size:)								
I. None			-					
2								
3			i					
4			·					
5				Hydrophytic				
		= Total Co	/er	Vegetation				
50% of total cover:	20% of	total cover	:	Present? Yes	No_X			
	low).							
	low							

Depth (inches)	Matriz Color (moist)		Color (moist)	edox Featu %	res Type	Loc ²	Texture	Remarks
0-8	10YR 4/2	99	5YR 4/6	1	C	M	Silt Loam	Nomano
8-16	10YR 5/2	95	5YR 4/6	5	- c		Silt Loam	
0-10	101 K 5/2	90	511(4/0				Jit Loan	
		_					يت بيستين	
				10.00		1		
17		Dentation DA		MO-Mosk	and Cound		21 apation: DI -	Dere Lining M-Matrix
			Reduced Matrix, LRRs, unless ot			Jians.		Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso	1.	mousie to un				(LRR S, T, 1		(A9) (LRR O)
	pipedon (A2)			Surface (S				(A10) (LRR S)
	listic (A3)			ucky Miner				ertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)			eyed Matri		N 18	Contraction of the second sec second second sec	loodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		Depleted I	Matrix (F3)				Bright Loamy Soils (F20)
	Bodies (A6) (LRF			rk Surface	4 6		(MLRA 1	
	ucky Mineral (A7)	And the state of t		Dark Surfa				Material (TF2)
=	resence (A8) (LRI uck (A9) (LRR P,		Marl (F10)	pressions	(F8)		and the second sec	ow Dark Surface (TF12) lain in Remarks)
	ed Below Dark Sur	Contraction in the second second		Ochric (F1	1) (MI RA	151)		air in Remarks)
	ark Surface (A12)			C. C. L. C.) (LRR O, P	T) ³ Indicators	s of hydrophytic vegetation and
	Prairie Redox (A16			urface (F13				hydrology must be present,
Sandy I	Mucky Mineral (S1) (LRR O, S)	Delta Och	ric (F17) (N	ILRA 15	1)	unless d	listurbed or problematic.
promotion of the local data and the	Gleyed Matrix (S4))				150A, 150B		
	Redox (S5)			a second designed of	the second second second	9) (MLRA 14		= 1
	d Matrix (S6)		Anomalou	is Bright Lo	amy Soils	s (F20) (MLF	RA 149A, 153C, 153	D)
	urface (S7) (LRR F Layer (if observe						1.	
	Layer (in observe	Juj.						
Type:	aboo).						Hydric Soil Pres	sent? Yes X No
Depth (in	icnes):						Hydric Soll Pres	sent? Yes <u>×</u> No
Remarks: F	ew Redox F	eatures	Observed fro	om 0-16	5"			

Project/Site: Lake Charles Regional Airport	_ City/County: Lake Charles/Calcasieu Sampling Date: 3-9-2018
Applicant/Owner: SWLA Economic Development Alliance	State: LA Sampling Point: 9
	_ Section, Township, Range: 6, 11S, 8W
Landform (hillslope, terrace, etc.): Relatively Flat Subregion (LRR or MLRA): LRR-T Lat: 333 Soil Map Unit Name: Mowata-Vidrine Silt Loams	_ Local relief (concave, convex, none): <u>None</u> Slope (%): <u>0-1</u> 3373.01 Long: <u>479288.25</u> Datum: <u>UTM 83</u> NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation \underline{No} , Soil \underline{No} , or Hydrology \underline{No} significant Are Vegetation \underline{No} , Soil \underline{No} , or Hydrology \underline{No} naturally provide the typical set of the typical formula of the typical formula of the typical for the typical fo	ly disturbed? Are "Normal Circumstances" present? Yes No X
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X Remarks: No X	
Recent Rainfall; Wetter than Normal Site Cor Area is Frequently Baled for Bermuda Hay.	nditions.
HYDROLOGY	
Sediment Deposits (B2)	B13) Sparsely Vegetated Concave Surface (B8) 15) (LRR U) Drainage Patterns (B10) 9 Odor (C1) Moss Trim Lines (B16) 9 odor (C1) Dry-Season Water Table (C2) 9 uced Iron (C4) Image Patterns (C8) 9 uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) 9 ce (C7) Geomorphic Position (D2)
Surface Water Present? Yes No X Depth (inche Water Table Present? Yes No X Depth (inche Saturation Present? Yes No X Depth (inche (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial pho	es): Wetland Hydrology Present? Yes No X
Remarks: Very Few Crawfish Burrows in Plot 9. ±1 inch of rainfall recently.	

Specie Specie = Total 0 f total co = Total 0 f total co	Cover ver: Cover ver: Cover ver: Cover ver: FACU FACU FACU FACU FACU	Number of Dominant Species That Are OBL, FACW, or FAC:0()Total Number of Dominant Species Across All Strata:1()Percent of Dominant Species That Are OBL, FACW, or FAC:0()Percent of Dominant Species That Are OBL, FACW, or FAC:0()Prevalence Index worksheet: Total % Cover of:Multiply by: Multiply by:()OBL species $\times 1 =$ ()FACW species $\times 2 =$ ()FACW species $\times 3 =$ ()FACU species $\times 3 =$ ()FACU species $\times 5 =$ ()Olumn Totals:(A)()Prevalence Index = B/A =()Prevalence Index = B/A =()Prevalence Index is $\leq 3.0^1$ ()Prevalence Index is $\leq 3.0^1$ ()Problematic Hydrophytic Vegetation 1()Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic.Definitions of Four Vegetation Strata:Tree – Woody plants, excluding vines, 3 in. (7.6 cn more in diameter at breast height (DBH), regardless height.
= Total 0 f total co = Total 0 f total co = Total 0 f total co <u>Yes</u> <u>No</u> <u>No</u>	Cover ver: Cover ver: Cover ver: Cover ver: FACU FACU FACU FACU FACU	Total Number of Dominant Species Across All Strata: 1 () Percent of Dominant Species That Are OBL, FACW, or FAC: 0 () Prevalence Index worksheet:
= Total 0 f total co = Total 0 f total co = = Total 0 f total co f total co <u>Yes</u> <u>No</u> <u>No</u>	Cover ver: Cover ver: Cover ver: Cover ver: FACU FACU FACU FACU	Species Across All Strata: 1 (Percent of Dominant Species 0 (That Are OBL, FACW, or FAC: 0 (Prevalence Index worksheet: ((Total % Cover of: Multiply by: (OBL species $\times 1 =$ (FACW species $\times 2 =$ (FACU species $\times 3 =$ (FACU species $\times 3 =$ (UPL species $\times 4 =$ (UPL species $\times 5 =$ (Column Totals: (A) (Prevalence Index = B/A = (Hydrophytic Vegetation Indicators: (1 - Rapid Test for Hydrophytic Vegetation (2 - Dominance Test is >50% 3 - Prevalence Index is $\leq 3.0^1$ Problematic Hydrophytic Vegetation ¹ (Explain) 1 Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.
= Total 0 f total co = Total 0 f total co = Total 0 f total co f total co	Cover ver: Cover ver: Cover ver: Cover ver: FACU FACU FACU FACU	That Are OBL, FACW, or FAC: 0 Prevalence Index worksheet:
= Total 0 f total co = Total 0 f total co = Total 0 f total co <u>Yes</u> <u>No</u> <u>No</u>	Cover ver: Cover ver: Cover ver: FACU FACU FACU FACU FACU	That Are OBL, FACW, or FAC: 0 Prevalence Index worksheet:
= Total (f total co = Total (= Total co f total co f total co <u>Yes</u> <u>No</u> <u>No</u>	Cover ver: Cover ver: Cover ver: FACU FACU FACU FACU FACU	Total % Cover of: Multiply by: OBL species $x 1 =$ FACW species $x 2 =$ FAC species $x 3 =$ FAC species $x 3 =$ FACU species $x 4 =$ UPL species $x 5 =$ Column Totals: (A) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is $\leq 3.0^1$ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.
= Total (f total co =	Cover ver:	OBL species x 1 = FACW species x 2 = FAC species x 3 = FAC species x 3 = FAC species x 4 = UPL species x 5 = Column Totals: (A) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01
= Total (f total co =	ver:	FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) Prevalence Index = B/A =
f total co	ver:	FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) Prevalence Index = B/A =
= Total 0 f total co <u>Yes</u> <u>No</u> <u>No</u>	Cover ver: FACU FACU FACU FACU FACU	FACU species x 4 = UPL species x 5 = Column Totals: (A) Prevalence Index = B/A =
= Total 0 f total co <u>Yes</u> <u>No</u> <u>No</u>	Cover ver: FACU FACU FACU FACU FACU	UPL species x 5 =
= Total 0 f total co <u>Yes</u> <u>No</u> <u>No</u>	Cover Ver: FACU FACU FACU FACU	Column Totals:(A) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mu be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.
= Total 0 f total co <u>Yes</u> <u>No</u> <u>No</u>	Cover ver: FACU FACU FACU FACU	 Prevalence Index = B/A =
= Total 0 f total co <u>Yes</u> <u>No</u> <u>No</u>	Cover Ver: FACU FACU FACU FACU FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.
= Total 0 f total co <u>Yes</u> <u>No</u> <u>No</u>	Cover ver: FACU FACU FACU FACU	 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.
= Total (f total co <u>Yes</u> <u>No</u> <u>No</u>	Cover ver: FACU FACU FACU FACU	 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.
= Total of f total co Yes No No No	Cover ver: FACU FACU FACU FACU	 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.
f total co Yes No No No	FACU FACU FACU FACU FACU	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.
Yes No No No	FACU FACU FACU FACU	 ¹Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cn more in diameter at breast height (DBH), regardless height.
No No No	FACU FACU FACU	 be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cn more in diameter at breast height (DBH), regardles height.
No No No	FACU FACU FACU	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cn more in diameter at breast height (DBH), regardles height.
No No	FACU FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cn more in diameter at breast height (DBH), regardles height.
	-	more in diameter at breast height (DBH), regardles height.
		height.
		Sapling/Shrub – Woody plants, excluding vines, le
		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
		Herb – All herbaceous (non-woody) plants, regard
		of size, and woody plants less than 3.28 ft tall.
		 Woody vine – All woody vines greater than 3.28 ft height
-		_ height.
= Total	Cover	
f total co	ver: 18.8	
-		
	-	-
		1
= Total	Cover	- Hydrophytic Vegetation
		Present? Yes <u>No X</u>
	= Total (f total co	

Depth	cription: (Describe Matrix	e to the de	pth needed to docur Redr	ment the		or confir	m the absence of i	ndicators.)
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	_Loc ²		Remarks
0-8	10YR 4/3	98	5YR 4/4	2	С	М	Silt Loam	
8-16	10YR 3/2	98	5YR 4/4	2	С	М	Silt Loam	
(inches) 0-8 8-16 Type: C=Cc Hydric Soil I Histosol Histosol Histosol Histic Ep Black Hi Hydroge Stratifiec Organic Stratifiec Organic Stratifiec Organic Stratifiec Organic Stratifiec Organic Stratifiec Depletec Sandy M Sandy G Sandy R Stripped Dark Sun Restrictive I Type: Depth (inc	Color (moist) 10YR 4/3 10YR 3/2 10YR 3/2 0 10YR 3/	98 98 98 98 98 98 98 98 98 98 98 98 98 9	Color (moist) 5YR 4/4 5YR 4/4 5YR 4/4 Fyr 4/4	2 2 2 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	<u>Type</u> ¹ <u>C</u> <u>C</u> <u>C</u> <u>C</u> <u>C</u> <u>C</u> <u>C</u> <u>C</u> <u>C</u> <u>C</u>	M M ains. RR S, T, T, U) & O) 51) LRR O, P , U) 50A, 150B (MLRA 1	Silt Loam Silt L	=Pore Lining, M=Matrix. Problematic Hydric Soils ³ : (A9) (LRR O) (A10) (LRR S) /ertic (F18) (outside MLRA 150A,B) Floodplain Soils (F19) (LRR P, S, T) s Bright Loamy Soils (F20) 153B) It Material (TF2) ow Dark Surface (TF12) olain in Remarks) rs of hydrophytic vegetation and I hydrology must be present, disturbed or problematic. 3D)

Project/Site: Lake Charles Regional Airport	_ City/County: Lake Charles/	Calcasieu	Sampling Date: 3-9-2018
Applicant/Owner: SWLA Economic Development Alliance			
	Section, Township, Range: _6		
Landform (hillslope, terrace, etc.): Relatively Flat	Local relief (concave, convex,	none): None	Slope (%): 0-1
Subregion (LRR or MLRA): LRR-T Lat: 333	2897.91 Long: 4	479003.74	Datum: UTM 83
Soil Map Unit Name: Mowata-Vidrine Silt Loams			cation:
Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> significan Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> naturally SUMMARY OF FINDINGS – Attach site map showing	tly disturbed? Are "Norma problematic? (If needed,	l Circumstances" explain any answe	present? Yes No X ers in Remarks.)
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X Remarks: No X X	 Is the Sampled Area within a Wetland? 	Yes	No X
Recent Rainfall; Wetter than Normal Site Cor Area is Frequently Baled for Bermuda Hay.	nditions.		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Sediment Deposits (B2) Presence of Red Drift Deposits (B3) Recent Iron Red Algal Mat or Crust (B4) Thin Muck Surfa Iron Deposits (B5) Other (Explain in Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	15) (LRR U) e Odor (C1) pheres along Living Roots (C3) luced Iron (C4) uction in Tilled Soils (C6) ce (C7)	Drainage Pa Moss Trim L Dry-Season Crayfish Bui Saturation V Geomorphic Shallow Aqu FAC-Neutra	Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) : Position (D2) uitard (D3)
Field Observations: Surface Water Present? Yes No X Depth (inche Water Table Present? Yes No X Depth (inche Saturation Present? Yes No X Depth (inche (includes capillary fringe)	es):	Hydrology Prese	nt? Yes No_X
Describe Recorded Data (stream gauge, monitoring well, aerial pho Remarks: ±1 inch of rainfall recently.	otos, previous inspections), if ava	nilable:	

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

20			nt Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cove	er Species	s? Status	Number of Dominant Species
1. None				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3		- /		Species Across All Strata: (B)
4				Percent of Dominant Species
5	_		· · · · · ·	That Are OBL, FACW, or FAC: 0 (A/B)
6				
7				Prevalence Index worksheet:
8			10 2 3	Total % Cover of:Multiply by:
		= Total C	over	OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30)				FAC species x 3 =
N1				FACU species x 4 =
				UPL species x 5 =
2				Column Totals: (A) (B)
3				
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8	_		1000	3 - Prevalence Index is ≤3.0 ¹
	1	= Total C		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20%	of total cov	er:	
Herb Stratum (Plot size: 30)				Tradication of brodule and southeast broductions are
1. Cynodon dactylon	80	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Lolium perenne	10	No	FACU	Definitions of Four Vegetation Strata:
3. Nothoscordum bivalve	5	No	FACU	Deminions of Four Vegetation of ata.
4 Paspalum dilatatum	2	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
		-		more in diameter at breast height (DBH), regardless of height.
5				noight
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb - All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11	-			height.
12			_	
	97	= Total C	over	
50% of total cover: 48.5	20%	of total cov	er: 19.4	
Woody Vine Stratum (Plot size:)				
1. None				
2	1			
3	-			
4		÷ ÷		10. 10. 10. Th
5				Hydrophytic
		_ = Total C		Vegetation Present? Yes <u>No X</u>
50% of total cover:		of total cov	er:	
Remarks: (If observed, list morphological adaptations be	elow).			
Bermuda Hay Pasture				

Depth	Matrix	%		x Featur		Loc ²	Trades	Demails
(inches) 0-10	Color (moist) 10YR 4/3	98	Color (moist) 5YR 4/4	2	<u>Type¹</u> C	 M	<u>Texture</u> Silt Loam	Remarks
					-	-)	- <u></u>	
10-16	10YR 3/2	95	5YR 4/4	5	<u> </u>	<u>M</u>	Silt Loam	
Hydric Soil Histoso Histic E Black H Hydrog Stratifie Organic 5 cm M Huck P 1 cm M Deplete Thick D Coast F Sandy f Sandy f Sandy f Sandy f Castrictive Type: Depth (in Remarks:	Indicators: (Applie I (A1) pipedon (A2) listic (A3) en Sulfide (A4) d Layers (A5) e Bodies (A6) (LRR I ucky Mineral (A7) (L resence (A8) (LRR P, T) d Below Dark Surfac ark Surface (A12) Prairie Redox (A16) (Mucky Mineral (S1) (Gleyed Matrix (S4) Redox (S5) d Matrix (S6) urface (S7) (LRR P, Layer (if observed) ches):	cable to al P, T, U) RR P, T, U J) ce (A11) MLRA 150 LRR O, S) S, T, U) ::	Redox Depre Marl (F10) (L Depleted Oci Iron-Mangan Umbric Surfa Delta Ochric Reduced Ven Piedmont Flo	rwise no elow Suff inface (Si y Minera ed Matrix trix (F3) Surface (rk Surface essions (I .RR U) hric (F11 ese Mas ace (F13) (F17) (M tric (F18) bodplain Bright Loa	nted.) ace (S8) (I 9) (LRR S, I (F1) (LRF (F2) (F6) ee (F7) F8)) (MLRA 1 Ses (F12) ((LRR P, T ILRA 151) (MLRA 1! Soils (F19) amy Soils (_RR S, T, T, U) ₹ O) 51) (LRR O, F T, U) 50A, 150E (MLRA 1	Indicators for U) 1 cm Muck 2 cm Muck Reduced V Piedmont I Anomalous (MLRA 1 Red Paren Very Shall Other (Exp P, T) ³ Indicator wetlanc unless (149A) RA 149A, 153C, 153	nt Material (TF2) ow Dark Surface (TF12) olain in Remarks) rs of hydrophytic vegetation and d hydrology must be present, disturbed or problematic.

ATTACHMENT D

Site Photographs



Photograph 1 Sample Plot 1



Photograph 2 General View of Plot 1



Photograph 3 Sample Plot 2



Photograph 4 General View of Plot 2



Photograph 5 Sample Plot 3



Photograph 6 General View of Plot 3



Photograph 7 Sample Plot 4



Photograph 8 General View of Plot 4



Photograph 9 Sample Plot 5



Photograph 10 General View of Plot 5



Photograph 11 Sample Plot 6



Photograph 12 General View of Plot 6



Photograph 13 Sample Plot 7



Photograph 14 General View of Plot 7



Photograph 15 Sample Plot 8



Photograph 16 General View of Plot 8



Photograph 17 Sample Plot 9



Photograph 18 General View of Plot 9



Photograph 19 Sample Plot 10



Photograph 20 General View of Plot 10



Photograph 21 View of Typical Small Ditches Traversing Property



Photograph 22 View of Drainage Ditch along Gulf Highway