

Exhibit EE.

North Schaefer Site

Wetlands Delineation Report



North Schaefer Site Wetlands Delineation Report

WETLAND DELINEATION FOR NORTH SCHAFFER PROPERTY

**+/-30-Acre Tract
Section 23, Township-11-South, Range-5-East
St. Martin Parish, Louisiana**

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(CEI No. 223094)**



INTRODUCTION

At the request of One Acadiana, Coastal Environments, Inc. (CEI) conducted a wetland delineation on the North Schaffer Site, which is located to the east of U.S. HWY 90 on the north side of Forum Drive to the southeast of Broussard, Louisiana. The project area is an irregularly shaped tract that is +/- 30-acres located in Section 23, Township-11-South, Range-5-East in St. Martin Parish, Louisiana (Figure 1). The wetland determination process is required to support the Louisiana Economic Development (LED) Site Certification process through One Acadiana and managed by CSRS, LLC. The property center is located at Latitude 30°04'42.23"N and Longitude 91°55'31.09"W; the property elevation was 26 to 28 feet.

On November 7, 2023, a CEI biologist, experienced with conducting wetland delineations, performed a field investigation of the +/- 30-ac tracts, hereafter referred to as the North Schaffer site to map potential wetlands. This report, authored by CEI, summarizes the findings of the field investigation and wetland delineation of the project area. The project does not have a formal property boundary survey. The project boundary for the wetland delineation report and map used the information provided by the client along with best professional judgement to produce the property boundary.

One of the tasks for the property was to ascertain if the previous farmland fell under the Prior Converted Cropland (PCC) Under the Clean Water Act (CWA) Section 404 exclusion for wetlands. Because the property has been under agriculture for over 60+ years, there was the opportunity that the property was excluded under the CWA. The Natural Resources Conservation Services (NRCS) was contacted to discuss the property and the PCC designation. Upon discussion with the NRCS, it was determined that the property could have an exclusion as a PCC. Because the property was converted from farmland to potential development acreage, it no longer meets the PCC designation. The property must be under active agricultural use within five years of the change of use to meet the exclusion. The property's use was changed from agriculture to vacant land in 2013-2014 which is over nine years. Any potential wetlands on the property would be jurisdictional under the CWA Section 404.

METHODOLOGY

Prior to the pedestrian survey of the project area, preliminary information was obtained from the Natural Resources Conservation Services (NRCS) Soil Survey of St. Martin Parish, LA, the United States Fish and Wildlife Service (FWS), National Wetlands Inventory (NWI), the United States Geological Survey (USGS), Topographical Maps, and Google Earth Imagery (November 30, 2022). These information sources were used only to identify potential wetlands in the project area during field investigations.

The wetland investigation consisted of surveying several transects across the project area and delineating potential wetlands according to the protocol outlined in the 1987 *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Atlantic and Gulf Coastal Plain Regional Supplement* (U.S. Army Corps of Engineers 2015).

The wetland determination was based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. These three criteria must be present if an area is to be considered jurisdictional by the U.S. Army Corps of Engineers (USACE). Sites are considered non-jurisdictional by the

USACE if under normal circumstances (area not altered in last 5 years), and any of these three criteria are absent. For areas exhibiting signs of disturbed conditions, consideration must be given to what conditions would be present if disturbance did not occur.

Each sample site was mapped with the aid of a sub-meter accurate Global Positioning System (GPS) with real-time data capabilities and the representative vegetation and soil samples were photographed. Soil samples were compared with Munsell Soil-Color Charts (2009). Sample sites were classified as wetland or upland based on the site investigation and the boundaries were mapped with the GPS.

VEGETATION

CEI identified the dominant plant communities during the course of the field investigation and determined the presence of hydrophytic vegetation. Hydrophytic vegetation is prevalent in an area where the dominant plant community or communities are adapted to life in soils that are permanently or periodically saturated (Environmental Laboratory 1987). Wetland Data Forms were performed for each of the vegetated communities within the property and included in Appendix A. Photographs were taken of all the vegetated communities on the property; these photographs can be found in Appendix B of this report. The USACE *Atlantic and Gulf Coastal Plain 2014 Regional Wetland Plant List* was consulted in determining the wetland indicator status for the Atlantic and Gulf Coastal Plain region.

The majority of the property is open fields that are regularly maintained by mowing. The open fields were former agricultural fields (sugarcane production) that have been farmed since the 1950s. The agriculture production ceased in 2012 (estimated using Google Earth), and these fields had a large amount of soil work (grading) completed in 2013 to 2014. The site had all the natural drainage features and crop rows graded to level fields with new drainage ditches created along the center and property edges. All these man-made features and open fields can be seen on the 2023 Google Earth aerial photography of the property (Figure 2). The property is mostly flat with a gradual slope into the man-made drainage features found throughout the project area. Seven sample plots were established within the property and data was recorded on Wetland Data Forms included in Appendix A.

There were two (2) habitats in the property boundary-upland open field and areas: upland fields and lower isolated fields. The upper fields were dominated with upland pioneer emergent species such as tall goldenrod (*Solidago altissima*), Brazilian vervain (*Verbena incompta*), and beggar lice (*Desmodium triflorum*) with thick growth of upland grass such as Bermuda grass (*Cynodon dactylon*). The other vegetation was dominated by facultative pioneer emergent species with scattered FACW emergent species (located in isolated former row areas). The soils in the upland fields had brown chromas with little to no mottling. These fields are regularly maintained by bush hogging.

Within these two habitats, there were some non-jurisdictional wetland areas in the man-made drainage features on the west/center portion of the property that directly drain to the west then south into roadside ditches. There were also some potential non-jurisdictional wetland areas in these lower fields found on the northeastern portion of the property. These areas became isolated low pockets after the property was graded in 2013-14 that may hold water during heavy rain events. This area does not have any connectivity to any potential jurisdictional drainage features. These

areas do have hydrophytic emergent vegetation such as soft rush (*Juncus effusus*) and dotted smartweed (*Persicaria punctata*) as well as upland species such as Bermuda grass and tall goldenrod. There was a small amount of scrub/shrub growth within the lower field area at the extreme northeast corner of the property was dominated by black willow (*Salix nigra*). In the lower non-jurisdictional wetland areas, the soil had some dark grey chromas with mottling as well as dark chromas with no mottles. All of the soils in the open field areas had multiple chromas, hues, and textures indicating the presence of fill material/historic grading.

Sample plots U01 through U05 were performed in the upland field habitat areas. NW01 and NW02 were performed in the lower isolated field and man-made drainage features located on the property. These areas did meet the two criteria for wetlands, but because of the lack of connectivity to Section 10 waters of the U.S., we perceive these areas should be labeled as non-jurisdictional wetlands.

There was no National Wetland Inventory (NWI) wetland designated areas associated with the property. Figure 5 is a map taken from the NWI website showing the property location and wetland indicator status associated with the site.

HYDROLOGY

Hydrology is influenced by factors such as geomorphic position, seasonal and long-term rainfall patterns, drainage patterns, soil type, and the conditions of the local water table. The two non-jurisdictional wetland areas within the property had no primary indicators, but these areas did have multiple secondary indicators of hydrology. These secondary indicators were crawfish burrows, drainage patterns, and a positive FAC-Neutral test. These lower areas may only hold water during heavy rain events and convey water off the open field areas and through the man-made drainage features. It must be noted that this region has experienced an extreme drought over the past few months.

The higher open field areas throughout the site did not meet the hydrological indicator criteria for wetlands. CEI determined the absence of wetland hydrology in these areas by on-site visual observation of geomorphic and hydrologic characteristics. Because of the good natural and man-made graded slope, these areas did not contain any primary or secondary indicators of wetland hydrology. To classify a sample site as having the presence of wetland hydrology, at least one primary indicator and two secondary indicators must be observed. Therefore, these higher areas throughout the property are considered uplands. Figure 4 is an ESRI 2023 Lidar Mosaic that shows the elevation changes for the property as well as the adjacent areas around the property.

The Federal Emergency Management Agency (FEMA) Flood Map Service Center (MSC) was accessed to look at the flood elevation for the property. The property location and surrounding areas are mapped as Zone X which has a 1% chance of annual flooding. A National Flood Hazard Layer FIRMette map was downloaded from the FEMA MSC site and included as Figure 6.

Additional photographs of the man-made drainage features and roadside ditches associated with the property boundaries were included at the end on Appendix B (Figures B.22 through B.26).

SOILS

The St. Martin Parish Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/>; Accessed 11/12/2023) maps only one soil series within the project area. The soil that was mapped on the subject property according to the NRCS Web Soil Survey: Coteau-Frost complex, gently undulating. The Coteau soils are non-hydric soils found on terraces and are somewhat poorly drained. The Frost soil inclusion is a hydric soil that is found on flat, depressional areas and is poorly drained. Because of the higher areas of the property, the soil on the site was mostly of the Coteau complex.

Because the property was impacted by past farming and grading activities including the addition of fill material, past row cropping, grading of entire site, and drainage improvements, most of the onsite soils did not match the describe soil features representative of the mapped soil series. The drainage improvements and grading made most of the site well-drained, as well as some of the non-hydric soil to become isolated non-jurisdictional wetland areas. A copy of the NRCS Web Soil Survey Report soil map with the above-mentioned soil designations on the property boundary is included as Figure 7. Photographs were taken of all the observed soils on the property in each sample point; these photographs can be found in Appendix B of this report.

CONCLUSION

Of the +/- 30-acres on the subject property, approximately 1.6-acres of the property were found to be non-jurisdictional wetlands. Because these non-jurisdictional wetlands contain some low, isolated areas with no direct connectivity to any Section 10 waters of the U.S., they were delineated and mapped in the project area during the course of the field investigation (Figures 2 and 3). The majority of the property was mapped as upland areas because of the upland grasses, non-hydric soils, and lack of hydrology. These areas were mapped as non-wetland upland areas (+/- 28.4-acres). While CEI followed USACE protocol and used best professional judgment in this wetland determination investigation, the USACE has final authority in the jurisdictional determination of wetlands within the project area.

REFERENCES

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, Louisiana. 100 pp. +append.

FEMA Flood Map Service Center Website

FIRMette map taken from <https://www.fema.gov/flood-maps>. Accessed by Hunter Guidry in October and November 2023.

Google Earth Pro. 1989 to 2023. Excerpt from color aerial photographs. Accessed by Hunter Guidry in October and November 2023.

The IAEA Marine Radioactivity Information System (MARIS)

LiDAR elevation map taken from <https://maris.iaea.org/home> website. Accessed by Katlin O'Shee in November 2023.

U.S. Army Corps of Engineers. 2014. Atlantic and Gulf Coastal Plain 2014 Regional Wetland Plant List. 2014.

U.S. Army Corps of Engineers. 2015. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0). November 2015.

U.S Fish and Wildlife Service- National Wetland Inventory website:

<http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed by Hunter Guidry in October and November 2023.

U.S. Department of Agriculture- Natural Resource Conservation Service- Plants Database website:

<https://plants.sc.egov.usda.gov/home>- Accessed by Hunter Guidry on multiple dates in October and November 2023.

U.S. Department of Agriculture- Natural Resource Conservation Service- Web Soil Survey

website: <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>- Accessed by Hunter Guidry on multiple dates in October and November 2023.

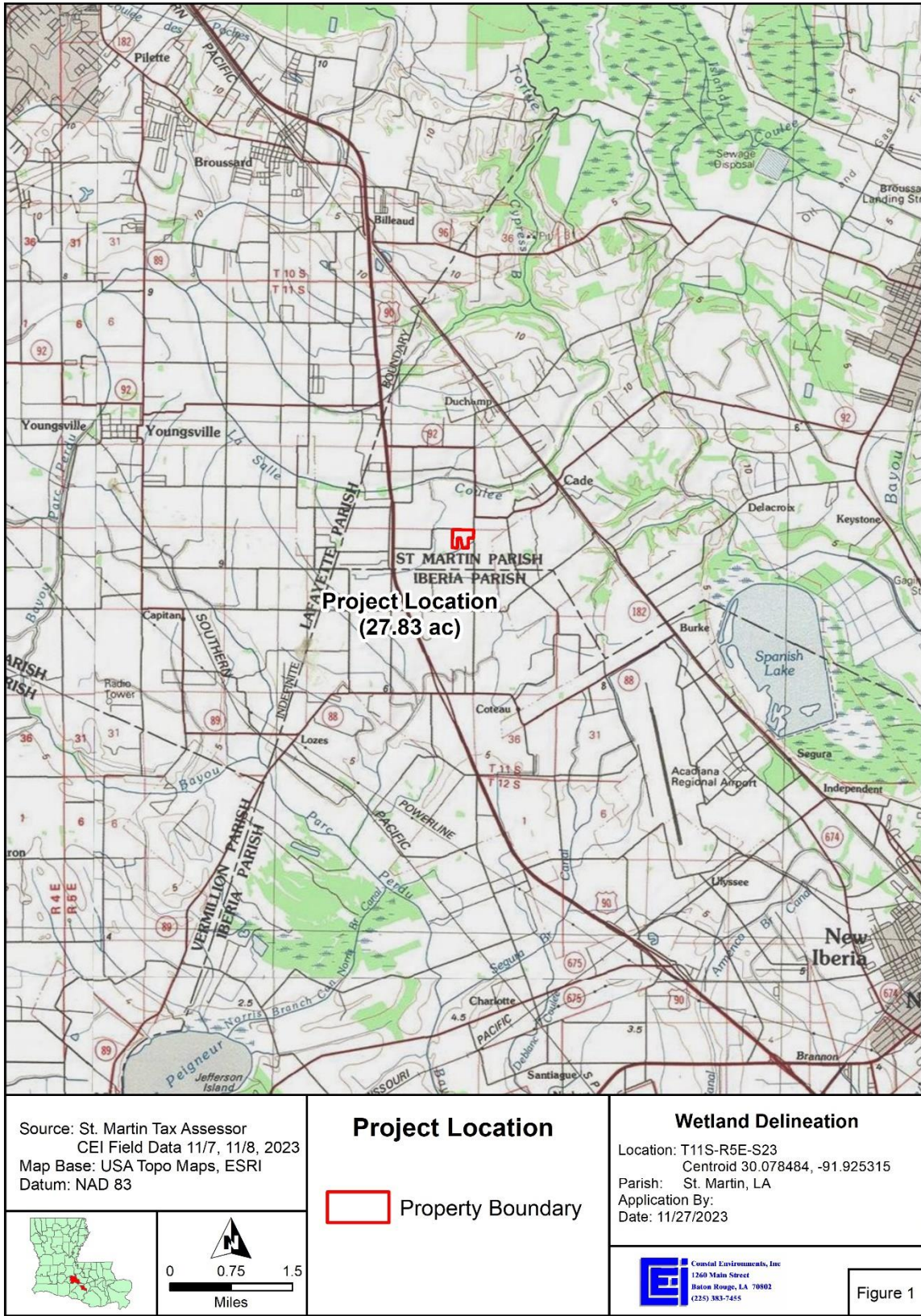


Figure 1: Site Location Map.



Figure 2: Potential Non-Jurisdictional Wetlands and Property Boundaries on USGS Quad sheet.

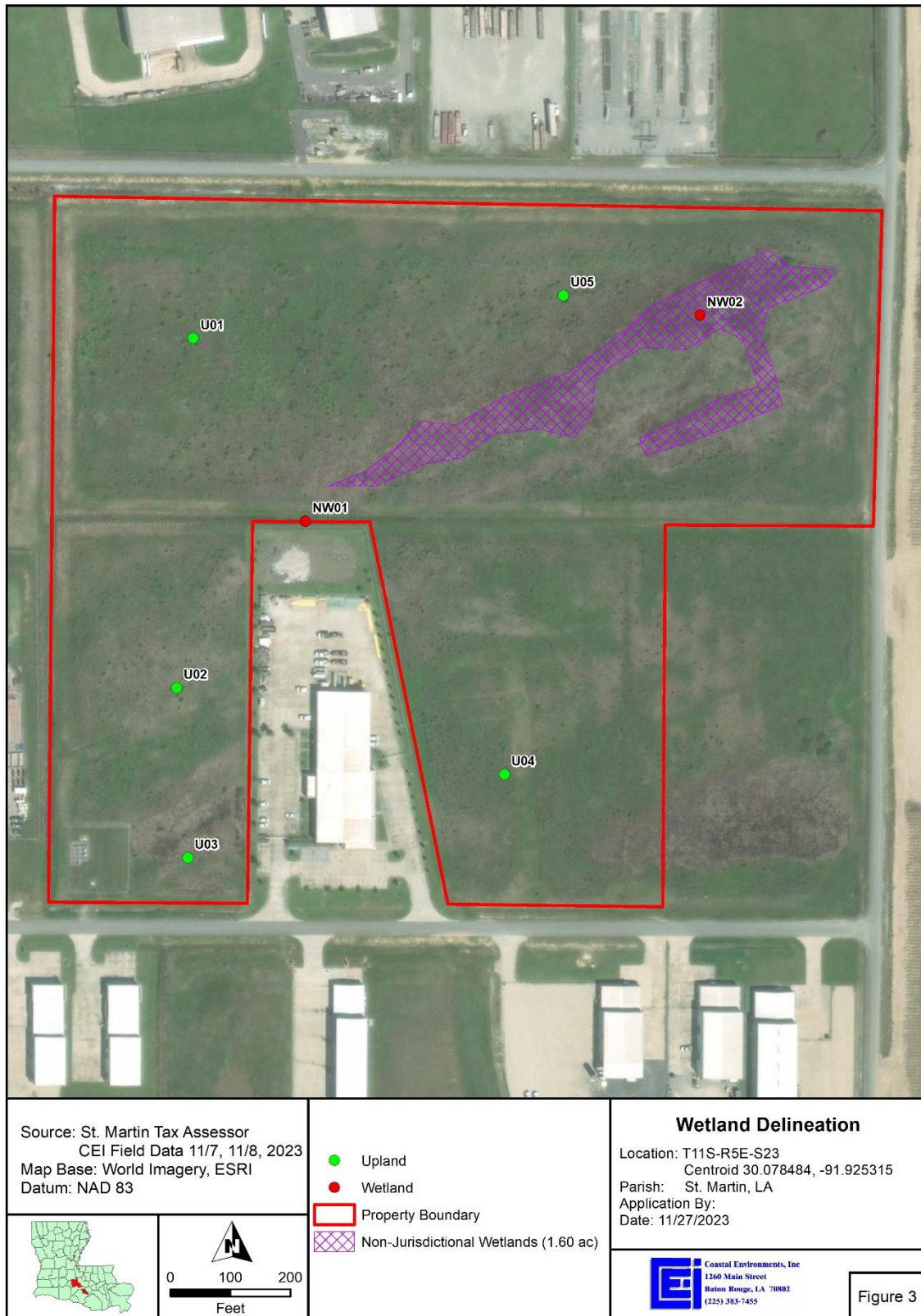


Figure 3: Potential Non-Jurisdictional Wetland and Property Boundaries on 2023 Google Earth Image.

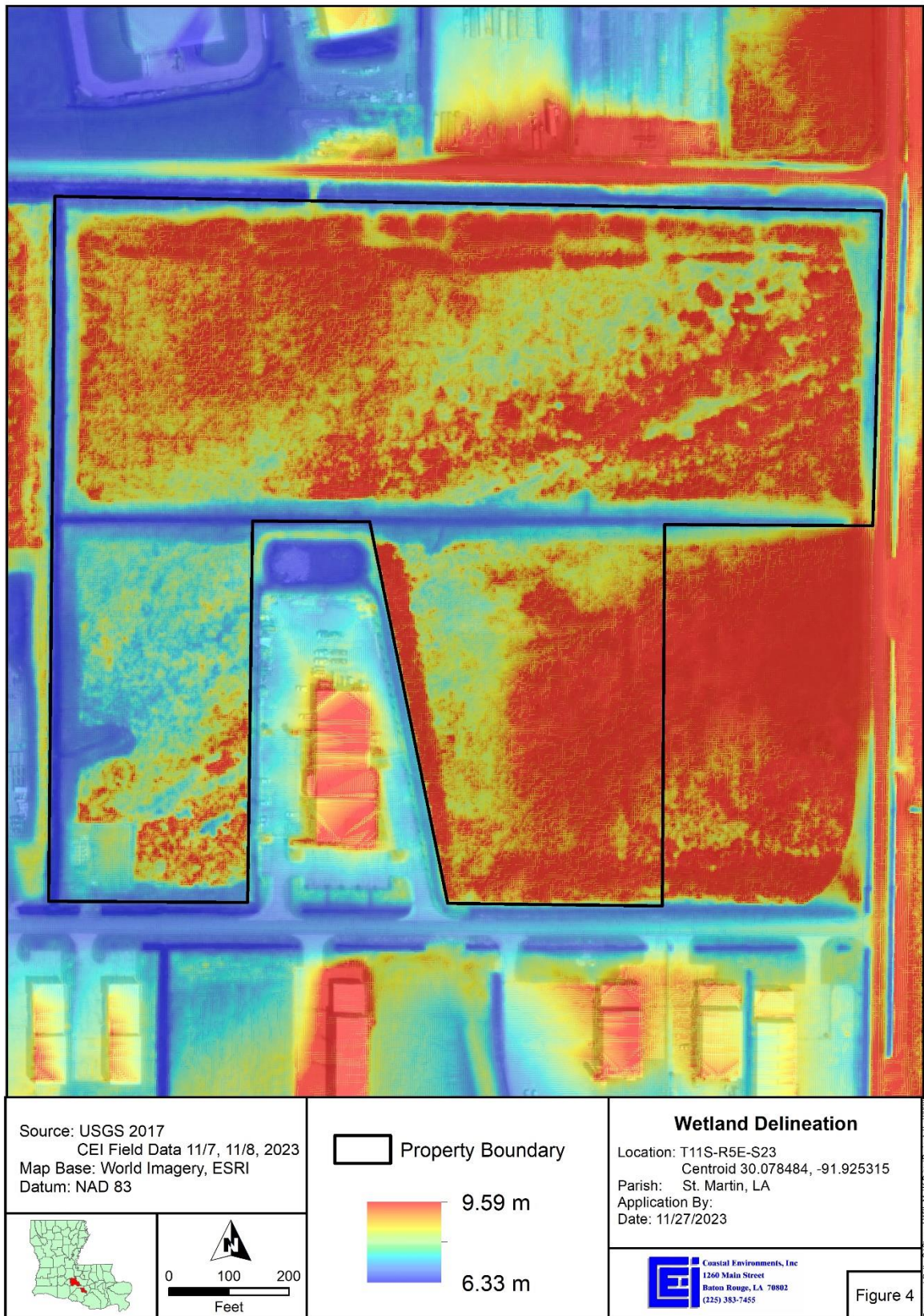


Figure 4: WORLD IMAGERY, ESRI 2023 Lidar Mosaic and Property Boundaries.

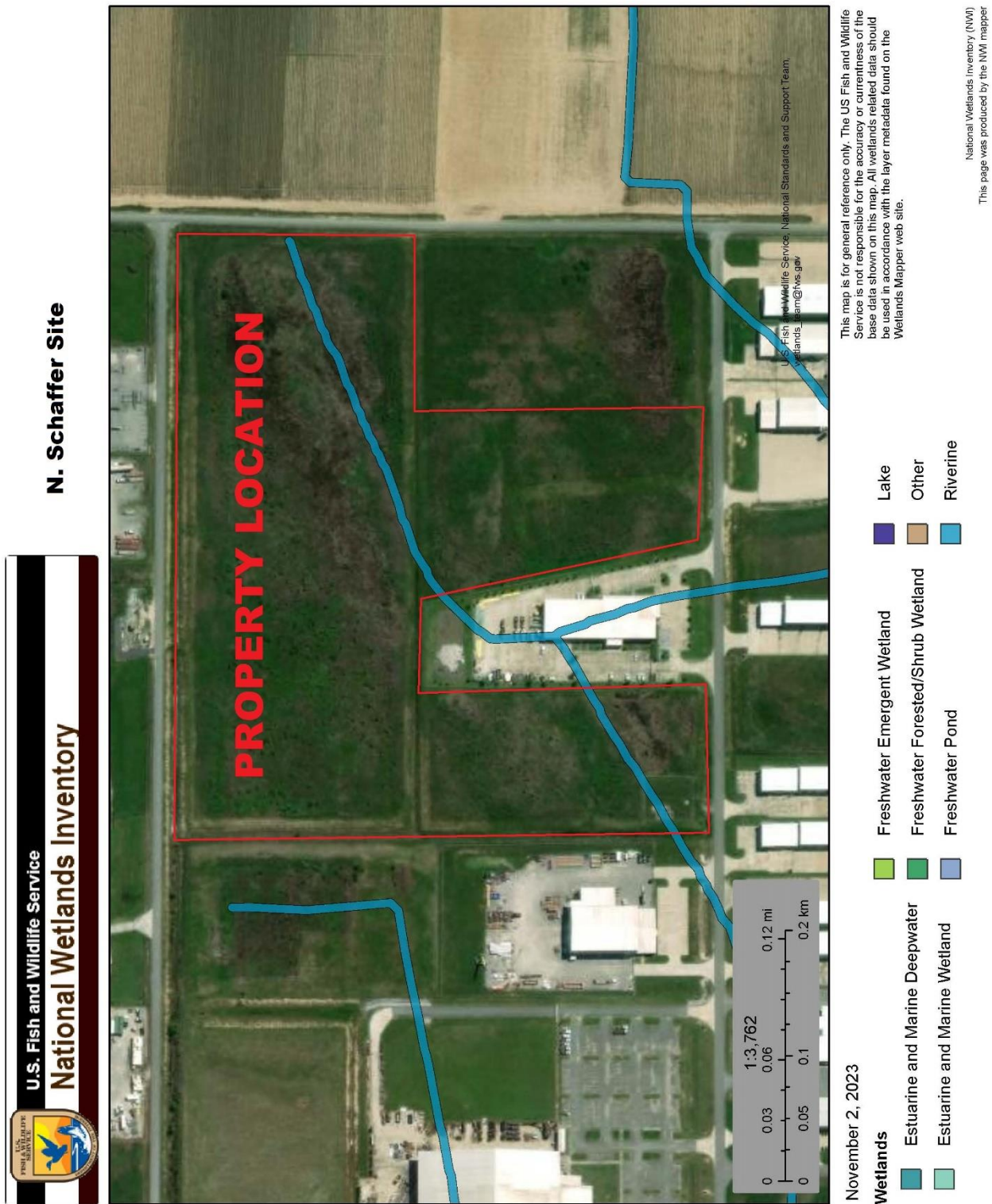


Figure 5: NWI map and property location (in red).



Custom Soil Resource Report Soil Map

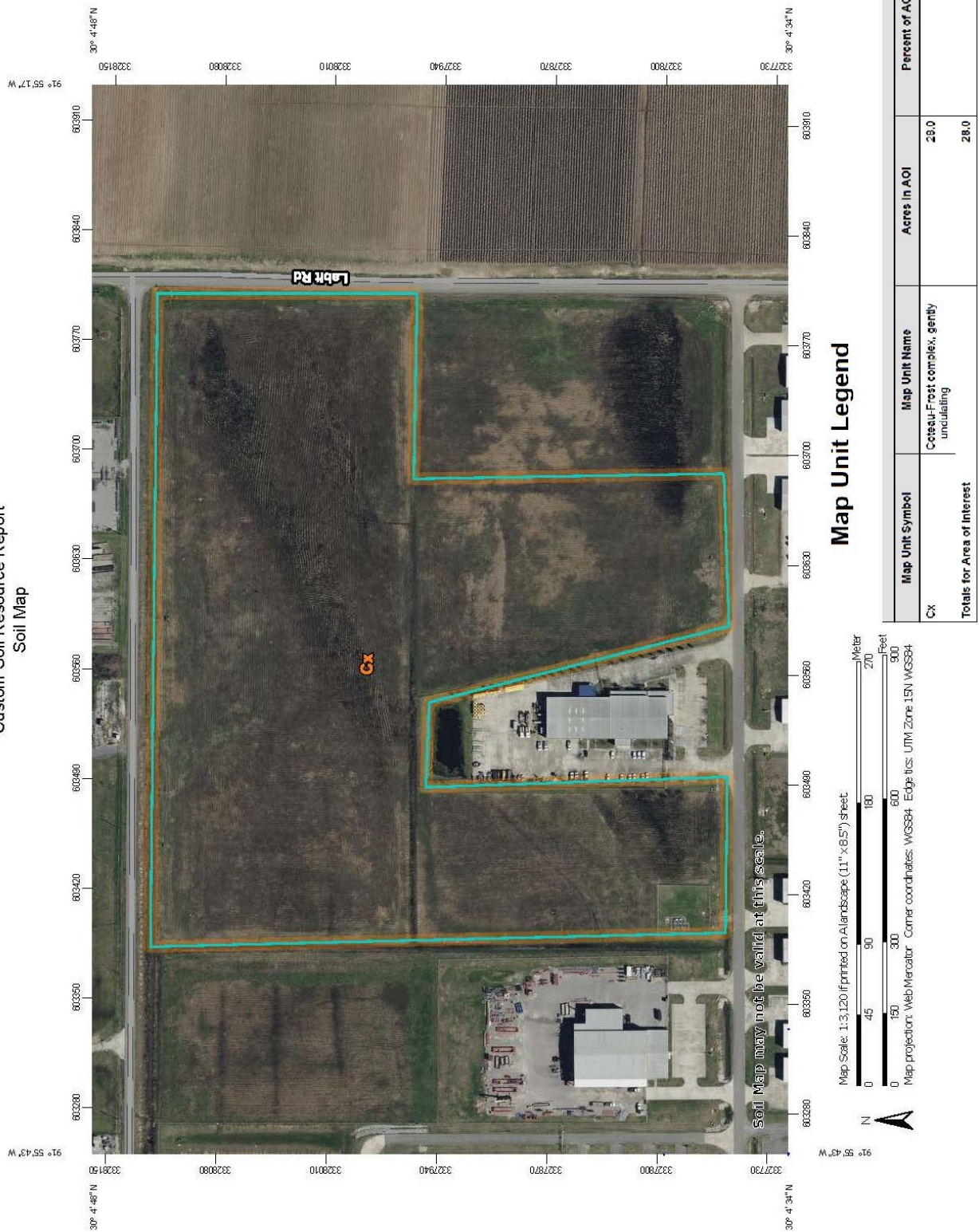


Figure 7: NRCS Web Soil Survey Report and Property Boundaries.

Appendix A

Field Inspection Data Forms

One Acadiana

**Section 23, Township-11-South, Range-5-East
St. Martin Parish, Louisiana**

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: North Schaefer Site City/County: Broussard/St. Martin Parish Sampling Date: 11/7/23
 Applicant/Owner: One Acadiana State: LA Sampling Point: U01
 Investigator(s): Hunter Guidry Section, Township, Range: Sec 23; T-11-S; R-5-E
 Landform (hillslope, terrace, etc.): Open Field Local relief (concave, convex, none): Convex Slope (%): 0-1
 Subregion (LRR or MLRA): LLR-O Lat: 30°04'45.00"N Long: 91°55'35.34"W Datum: NAD 88
 Soil Map Unit Name: Coteau-Frost complex, gently undulating NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation Y, Soil Y, or Hydrology Y* significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X*
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: High open field at northwest property corner. *Area was a former sugarcane field that was graded and flattened. Site was graded to drain into created drainage ditches. Area is experiencing extreme drought.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ Aquatic Fauna (B13) ☐ High Water Table (A2) ☐ Marl Deposits (B15) (LRR U) ☐ Saturation (A3) ☐ Hydrogen Sulfide Odor (C1) ☐ Water Marks (B1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Sediment Deposits (B2) ☐ Presence of Reduced Iron (C4) ☐ Drift Deposits (B3) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7) ☐ Iron Deposits (B5) ☐ Other (Explain in Remarks) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)		Secondary Indicators (minimum of two required) ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Site is well drained. Former sugarcane rows were graded to drain into adjacent created drainage features along property center and edge. The slope is graded to the west into drainage ditch. The grading was done around 10 years ago and no further was performed since the site was graded.		

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

 Sampling Point: U01

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>65</u></td> <td>x 3 = <u>195</u></td> </tr> <tr> <td>FACU species <u>25</u></td> <td>x 4 = <u>100</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>120</u> (A)</td> <td><u>340</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.83</u>	Total % Cover of:	Multiply by:	OBL species <u>15</u>	x 1 = <u>15</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>65</u>	x 3 = <u>195</u>	FACU species <u>25</u>	x 4 = <u>100</u>	UPL species _____	x 5 = _____	Column Totals: <u>120</u> (A)	<u>340</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>15</u>	x 1 = <u>15</u>																	
FACW species <u>15</u>	x 2 = <u>30</u>																	
FAC species <u>65</u>	x 3 = <u>195</u>																	
FACU species <u>25</u>	x 4 = <u>100</u>																	
UPL species _____	x 5 = _____																	
Column Totals: <u>120</u> (A)	<u>340</u> (B)																	
50% of total cover: _____ 20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Herb Stratum (Plot size: _____)																		
1. Willowleaf aster (<i>Symphyotrichum praealtum</i>)	5	N	FACW	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)														
2. Tall Goldenrod (<i>Solidago altissima</i>)	20	Y	FACU															
3. Climbing Japanese fern (<i>Lygodium japonicum</i>)	5	N	FAC															
4. Vasey grass (<i>Paspalum urvillei</i>)	5	N	FAC															
5. Rubus sp.	10	N	FAC															
6. Bushy bluestem (<i>Andropogon glomeratus</i>)	10	N	FACW															
7. Hairy panic grass (<i>Dichanthelium acuminatum</i>)	25	Y	FAC															
8. Spike rush (<i>Eleocharis</i> sp.)	15	Y	OBL															
9. Brazilian vervain (<i>Verbena incompta</i>)	5	N	FACU															
10. Calico aster (<i>Symphyotrichum lateriflorum</i>)	5	N	FAC															
11. Rough-leaf dogwood (<i>Cornus drummondii</i>)	10	N	FAC															
12. Late flowering thorough-wort (<i>Eupatorium serotinum</i>)	5	N	FAC															
120 = Total Cover																		
50% of total cover: <u>60</u> 20% of total cover: <u>24</u>																		
Woody Vine Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Remarks: (If observed, list morphological adaptations below). Very small pockets from past grading support spike-rush growth. FAC Neutral Test: 1:1 (Negative)																		

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: U01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10 YR 3/4	100					silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Organic Bodies (A6) (LRR P, T, U)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
☐ Muck Presence (A8) (LRR U)
☐ 1 cm Muck (A9) (LRR P, T)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Coast Prairie Redox (A16) (MLRA 150A)
☐ Sandy Mucky Mineral (S1) (LRR O, S)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
☐ Thin Dark Surface (S9) (LRR S, T, U)
☐ Loamy Mucky Mineral (F1) (LRR O)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Marl (F10) (LRR U)
☐ Depleted Ochric (F11) (MLRA 151)
☐ Iron-Manganese Masses (F12) (LRR O, P, T)
☐ Umbric Surface (F13) (LRR P, T, U)
☐ Delta Ochric (F17) (MLRA 151)
☐ Reduced Vertic (F18) (MLRA 150A, 150B)
☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Reduced Vertic (F18) (outside MLRA 150A,B)
☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
☐ Anomalous Bright Loamy Soils (F20)
 (MLRA 153B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Area was a former sugarcane field. Agriculture rows were graded 9-10 years ago.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: North Schaeffer Site City/County: Broussard/St. Martin Parish Sampling Date: 11/7/23
 Applicant/Owner: One Acadiana State: LA Sampling Point: U02
 Investigator(s): Hunter Guidry Section, Township, Range: Sec. 23; T-11-S; R-5-E
 Landform (hillslope, terrace, etc.): Open field Local relief (concave, convex, none): Convex Slope (%): 0-1
 Subregion (LRR or MLRA): LRR-O Lat: 30°04'39.9"N Long: 91°55'36.17"W Datum: NAD88
 Soil Map Unit Name: Coteau-Frost complex, gently undulating NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X* (If no, explain in Remarks.)
 Are Vegetation Y, Soil Y, or Hydrology Y* significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X*
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: High area along west/center boundary of the site. *Area was a former sugarcane field that was graded and flattened. Site was graded to drain into created drainage ditches. Area is experiencing extreme drought.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ Aquatic Fauna (B13) ☐ High Water Table (A2) ☐ Marl Deposits (B15) (LRR U) ☐ Saturation (A3) ☐ Hydrogen Sulfide Odor (C1) ☐ Water Marks (B1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Sediment Deposits (B2) ☐ Presence of Reduced Iron (C4) ☐ Drift Deposits (B3) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7) ☐ Iron Deposits (B5) ☐ Other (Explain in Remarks) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)		Secondary Indicators (minimum of two required) ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Site is well drained. Former sugarcane rows were graded to drain into adjacent created drainage features along property center and edge. The slope is graded to the west into drainage ditch. The grading was done around 10 years ago and no further was performed since the site was graded.		

Sampling Point: U02

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	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)
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No _____
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Herb Stratum (Plot size: _____)				
1. Tall Goldenrod (<i>Solidago altissima</i>)	20		FACU	
2. Bermuda grass (<i>Cynodon dactylon</i>)	20		FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. Spike rush (<i>Eleocharis</i> sp.)	10		OBL	
6. Calico aster (<i>Symphyotrichum lateriflorum</i>)	10		FAC	
7. Willowleaf aster (<i>Symphyotrichum praealtum</i>)	10		FACW	
8. Beggar lice (Tick clover) <i>Desmodium triflorum</i>	5		FACU	
9. Vasey grass (<i>Paspalum urvillei</i>)	10		FAC	
10. Bushy bluestem (<i>Andropogon glomeratus</i>)	5		FACW	
11. Barnyard grass (<i>Echinochloa crus-galli</i>)	5		FACW	
12. Rubus sp.	5		FAC	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Remarks: (If observed, list morphological adaptations below).				

SOIL

Sampling Point: U02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10 YR 3/3	95	10 YR 4/4	5	C	M	Silt loam	
6-20	10 YR 3/2	90	10 YR 5/1	5	C	M	Silt loam	
			10 YR 4/4	5	C	PL	Silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Organic Bodies (A6) (LRR P, T, U)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
☐ Muck Presence (A8) (LRR U)
☐ 1 cm Muck (A9) (LRR P, T)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Coast Prairie Redox (A16) (MLRA 150A)
☐ Sandy Mucky Mineral (S1) (LRR O, S)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
☐ Thin Dark Surface (S9) (LRR S, T, U)
☐ Loamy Mucky Mineral (F1) (LRR O)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Marl (F10) (LRR U)
☐ Depleted Ochric (F11) (MLRA 151)
☐ Iron-Manganese Masses (F12) (LRR O, P, T)
☐ Umbric Surface (F13) (LRR P, T, U)
☐ Delta Ochric (F17) (MLRA 151)
☐ Reduced Vertic (F18) (MLRA 150A, 150B)
☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Reduced Vertic (F18) (outside MLRA 150A,B)
☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
☐ Anomalous Bright Loamy Soils (F20)
 (MLRA 153B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Area was a former sugarcane field. Agriculture rows were graded 9-10 years ago.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: North Schaefer Site City/County: Broussard/St. Martin Parish Sampling Date: 11/7/23
 Applicant/Owner: One Acadiana State: LA Sampling Point: U03
 Investigator(s): Hunter Guidry Section, Township, Range: Sec 23; T-11-S; R-5-E
 Landform (hillslope, terrace, etc.): Open Field Local relief (concave, convex, none): Convex Slope (%): 0-1
 Subregion (LRR or MLRA): LRR-O Lat: 30°04'36.81"N Long: 91°55'35.51"W Datum: NAD88
 Soil Map Unit Name: Coteau-Frost complex, gently undulating NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X* (If no, explain in Remarks.)
 Are Vegetation Y, Soil Y, or Hydrology Y* significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X*
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Small pocket as southwest property corner. *Area was a former sugarcane field that was graded and flattened. Site was graded to drain into created drainage ditches. Area is experiencing unusually extreme drought conditions.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ Aquatic Fauna (B13) ☐ High Water Table (A2) ☐ Marl Deposits (B15) (LRR U) ☐ Saturation (A3) ☐ Hydrogen Sulfide Odor (C1) ☐ Water Marks (B1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Sediment Deposits (B2) ☐ Presence of Reduced Iron (C4) ☐ Drift Deposits (B3) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7) ☐ Iron Deposits (B5) ☐ Other (Explain in Remarks) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)		Secondary Indicators (minimum of two required) ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: This area may hold water during heavy rain events. There is no connectivity to the adjacent ditch to the south. Former sugarcane rows were graded to drain into adjacent created drainage features along property center and edge. The slope is graded to the west into drainage ditch. The grading was done around 10 years ago and no further was performed since the site was graded.		

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

 Sampling Point: U03

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>120</u> (A)</td> <td><u>325</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.71</u>	Total % Cover of:	Multiply by:	OBL species <u>15</u>	x 1 = <u>15</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>40</u>	x 3 = <u>120</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species _____	x 5 = _____	Column Totals: <u>120</u> (A)	<u>325</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>15</u>	x 1 = <u>15</u>																	
FACW species <u>35</u>	x 2 = <u>70</u>																	
FAC species <u>40</u>	x 3 = <u>120</u>																	
FACU species <u>30</u>	x 4 = <u>120</u>																	
UPL species _____	x 5 = _____																	
Column Totals: <u>120</u> (A)	<u>325</u> (B)																	
50% of total cover: _____ 20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Herb Stratum (Plot size: _____)																		
1. Soft rush (<i>Juncus effusus</i>)	25	Y	FACW	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)														
2. Tall Goldenrod (<i>Solidago altissima</i>)	25	Y	FACU															
3. Vasey grass (<i>Paspalum urvillei</i>)	25	Y	FAC															
4. Calico aster (<i>Symphyotrichum lateriflorum</i>)	5	N	FAC															
5. Willowleaf aster (<i>Symphyotrichum praealtum</i>)	5	N	FACW															
6. Late flowering thorough-wort (<i>Eupatorium serotinum</i>)	5	N	FAC															
7. Bushy bluestem (<i>Andropogon glomeratus</i>)	5	N	FACW															
8. Brazilian vervain (<i>Verbena incompta</i>)	5	N	FACU															
9. Dotted smartweed (<i>Persicaria punctata</i>)	10	N	OBL															
10. Rubus sp.	5	N	FAC															
11. Spike rush (<i>Eleocharis</i> sp.)	5	N	OBL															
12. _____	_____	_____	_____															
120 = Total Cover																		
50% of total cover: <u>60</u> 20% of total cover: <u>24</u>																		
Woody Vine Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Remarks: (If observed, list morphological adaptations below). Low area that may hold water to support soft rush, spike rush, and smart weed. FAC Neutral: 1:1 (Negative)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.														
				Hydrophytic Vegetation Present? Yes <u>X</u> No _____														

SOIL

Sampling Point: U03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10 YR 3/3	95	10 YR 4/4	5			silt	
6-14	10 YR 3/2	85	10 YR 3/3	10			silt	
			10 YR 4/4	5			silt	
14-20	10 YR 3/2	80	10 YR 5/1	10			silty clay	
			10 YR 4/4	10			silty clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Organic Bodies (A6) (LRR P, T, U)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
☐ Muck Presence (A8) (LRR U)
☐ 1 cm Muck (A9) (LRR P, T)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Coast Prairie Redox (A16) (MLRA 150A)
☐ Sandy Mucky Mineral (S1) (LRR O, S)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
☐ Thin Dark Surface (S9) (LRR S, T, U)
☐ Loamy Mucky Mineral (F1) (LRR O)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Marl (F10) (LRR U)
☐ Depleted Ochric (F11) (MLRA 151)
☐ Iron-Manganese Masses (F12) (LRR O, P, T)
☐ Umbric Surface (F13) (LRR P, T, U)
☐ Delta Ochric (F17) (MLRA 151)
☐ Reduced Vertic (F18) (MLRA 150A, 150B)
☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Reduced Vertic (F18) (outside MLRA 150A,B)
☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
☐ Anomalous Bright Loamy Soils (F20)
 (MLRA 153B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

Area was a former sugarcane field. Agriculture rows were graded 9-10 years ago.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: North Schaefer Site City/County: Broussard/St. Martin Parish Sampling Date: 11/7/23
 Applicant/Owner: One Acadiana State: LA Sampling Point: U04
 Investigator(s): Hunter Guidry Section, Township, Range: Sec 23; T-11-S; R-5-E
 Landform (hillslope, terrace, etc.): Open Field Local relief (concave, convex, none): Convex Slope (%): 0-1
 Subregion (LRR or MLRA): LRR-O Lat: 30°04'38.75"N Long: 91°55'29.06"W Datum: NAD88
 Soil Map Unit Name: Coteau-Frost complex, gently undulating NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X* (If no, explain in Remarks.)
 Are Vegetation Y, Soil Y, or Hydrology Y* significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X*
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: High open field at the southeast side of the property. *Area was a former sugarcane field that was graded and flattened. Site was graded to drain into created drainage ditches. Area is experiencing extreme drought.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ Aquatic Fauna (B13) ☐ High Water Table (A2) ☐ Marl Deposits (B15) (LRR U) ☐ Saturation (A3) ☐ Hydrogen Sulfide Odor (C1) ☐ Water Marks (B1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Sediment Deposits (B2) ☐ Presence of Reduced Iron (C4) ☐ Drift Deposits (B3) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7) ☐ Iron Deposits (B5) ☐ Other (Explain in Remarks) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)		Secondary Indicators (minimum of two required) ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Site is well drained. Former sugarcane rows were graded to drain into adjacent created drainage features along property center and edge. The slope is graded to the west into drainage ditch. The grading was done around 10 years ago and no further was performed since the site was graded.		

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

 Sampling Point: U04

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Herb Stratum (Plot size: _____)				
1. <u>E. baccharis</u> (Groundsel bush) <i>Baccharis halimifolia</i>	5	N	FAC	
2. <u>Bushy bluestem</u> (<i>Andropogon glomeratus</i>)	10	N	FACW	
3. <u>Tall Goldenrod</u> (<i>Solidago altissima</i>)	20	Y	FACU	
4. <u>Calico aster</u> (<i>Symphyotrichum lateriflorum</i>)	5	N	FAC	
5. <u>Willowleaf aster</u> (<i>Symphyotrichum praealtum</i>)	5	N	FACW	
6. <u>Brazilian vervain</u> (<i>Verbena incompta</i>)	5	N	FACU	
7. <u>Rubus</u> sp.	10	N	FAC	
8. <u>Chamberbitter</u> (<i>Phyllanthus urinaria</i>)	20	Y	FAC	
9. <u>Spike rush</u> (<i>Eleocharis</i> sp.)	20	Y	OBL	
10. <u>Climbing Japanese fern</u> (<i>Lygodium japonicum</i>)	5	N	FAC	
11. <u>Hairy panic grass</u> (<i>Dichanthelium acuminatum</i>)	20	Y	FAC	
12. <u>Beggar lice</u> (Tick clover) <i>Desmodium triflorum</i>	5	N	FACU	
130 = Total Cover				
50% of total cover: 65 20% of total cover: 26				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

 Total Number of Dominant Species Across All Strata: 4 (B)

 Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>65</u>	x 3 = <u>195</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species _____	x 5 = _____
Column Totals: <u>130</u> (A)	<u>365</u> (B)

Prevalence Index = B/A = 2.8

Hydrophytic Vegetation Indicators:
☐ 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 must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: (If observed, list morphological adaptations below).

Very small pockets from past grading support spike-rush growth.
FAC Neutral Test: 2:1 (Negative)

SOIL

Sampling Point: U04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10 YR 3/3	100					silt loam	
8-20	10 YR 4/2	95	10 YR 4/4	5	C	M	silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Organic Bodies (A6) (LRR P, T, U)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
☐ Muck Presence (A8) (LRR U)
☐ 1 cm Muck (A9) (LRR P, T)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Coast Prairie Redox (A16) (MLRA 150A)
☐ Sandy Mucky Mineral (S1) (LRR O, S)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
☐ Thin Dark Surface (S9) (LRR S, T, U)
☐ Loamy Mucky Mineral (F1) (LRR O)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Marl (F10) (LRR U)
☐ Depleted Ochric (F11) (MLRA 151)
☐ Iron-Manganese Masses (F12) (LRR O, P, T)
☐ Umbric Surface (F13) (LRR P, T, U)
☐ Delta Ochric (F17) (MLRA 151)
☐ Reduced Vertic (F18) (MLRA 150A, 150B)
☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Reduced Vertic (F18) (outside MLRA 150A,B)
☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
☐ Anomalous Bright Loamy Soils (F20)
 (MLRA 153B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Area was a former sugarcane field. Agriculture rows were graded 9-10 years ago.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: North Schaefer Site City/County: Broussard/St. Martin Parish Sampling Date: 11/7/23
 Applicant/Owner: One Acadiana State: LA Sampling Point: U05
 Investigator(s): Hunter Guidry Section, Township, Range: Sec 23; T-11-S; R-5-E
 Landform (hillslope, terrace, etc.): Open Field Local relief (concave, convex, none): Convex Slope (%): 0-1
 Subregion (LRR or MLRA): LRR-O Lat: 30°04'45.77"N Long: 91°55'29.26"W Datum: NAD88
 Soil Map Unit Name: Coteau-Frost complex, gently undulating NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X* (If no, explain in Remarks.)
 Are Vegetation Y, Soil Y, or Hydrology Y* significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X*
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: High open field along the northern portion and northeast corner of the property. *Area was a former sugarcane field that was graded and flattened. Site was graded to drain into created drainage ditches. Area is experiencing extreme drought.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ Aquatic Fauna (B13) ☐ High Water Table (A2) ☐ Marl Deposits (B15) (LRR U) ☐ Saturation (A3) ☐ Hydrogen Sulfide Odor (C1) ☐ Water Marks (B1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Sediment Deposits (B2) ☐ Presence of Reduced Iron (C4) ☐ Drift Deposits (B3) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7) ☐ Iron Deposits (B5) ☐ Other (Explain in Remarks) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)		Secondary Indicators (minimum of two required) ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Site is well drained. Former sugarcane rows were graded. The slope is graded to the west into drainage ditch. The grading was done around 10 years ago and no further was performed since the site was graded.		

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

 Sampling Point: U05

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Herb Stratum (Plot size: _____)				
1. Bushy bluestem (<i>Andropogon glomeratus</i>)	20	Y	FACW	
2. E. baccharis (Groundsel bush) <i>Baccharis halimifolia</i>	10	N	FAC	
3. Tall Goldenrod (<i>Solidago altissima</i>)	20	Y	FACU	
4. Brazilian vervain (<i>Verbena incompta</i>)	5	N	FACU	
5. Willowleaf aster (<i>Symphotrichum praealtum</i>)	5	N	FACW	
6. Calico aster (<i>Symphotrichum lateriflorum</i>)	10	N	FAC	
7. Hairy panic grass (<i>Dichanthelium acuminatum</i>)	20	Y	FAC	
8. Beggar lice (Tick clover) <i>Desmodium triflorum</i>	15	Y	FACU	
9. Rubus sp.	5	N	FAC	
10. Wax myrtle (<i>Morella cerifera</i>)	5	N	FAC	
11. Beaked panic grass (<i>Panicum anceps</i>)	5	N	FAC	
12. _____	_____	_____	_____	
120 = Total Cover				
50% of total cover: 60 20% of total cover: 24				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Remarks: (If observed, list morphological adaptations below).				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

 Total Number of Dominant Species Across All Strata: 4 (B)

 Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>55</u>	x 3 = <u>165</u>
FACU species <u>35</u>	x 4 = <u>140</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>120</u> (A)	<u>365</u> (B)

Prevalence Index = B/A = 3.04

Hydrophytic Vegetation Indicators:
☐ 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 must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No X

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10 YR 3/4	95	10 YR 4/4	5	C	M	silt	
12-20	10 YR 3/4	60	10 YR 2/2	30	C	M	silty clay	
				10	C	M	silty clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Organic Bodies (A6) (LRR P, T, U)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
☐ Muck Presence (A8) (LRR U)
☐ 1 cm Muck (A9) (LRR P, T)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Coast Prairie Redox (A16) (MLRA 150A)
☐ Sandy Mucky Mineral (S1) (LRR O, S)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
☐ Thin Dark Surface (S9) (LRR S, T, U)
☐ Loamy Mucky Mineral (F1) (LRR O)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Marl (F10) (LRR U)
☐ Depleted Ochric (F11) (MLRA 151)
☐ Iron-Manganese Masses (F12) (LRR O, P, T)
☐ Umbric Surface (F13) (LRR P, T, U)
☐ Delta Ochric (F17) (MLRA 151)
☐ Reduced Vertic (F18) (MLRA 150A, 150B)
☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Reduced Vertic (F18) (outside MLRA 150A,B)
☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
☐ Anomalous Bright Loamy Soils (F20)
(MLRA 153B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: North Schaefer Site City/County: Broussard/St. Martin Parish Sampling Date: 11/7/23
 Applicant/Owner: One Acadiana State: LA Sampling Point: NW01
 Investigator(s): Hunter Guidry Section, Township, Range: Sec 23; T-11-S; R-5-E
 Landform (hillslope, terrace, etc.): Lower Non-Wet Ditch Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR-O Lat: 30°04'42.25"N Long: 91°55'32.9"W Datum: NAD88
 Soil Map Unit Name: Coteau-Frost complex, gently undulating NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation Y, Soil Y, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Low created drainage ditch along southern portion of southwest areas of the property. *Area was a former sugarcane field that was graded and flattened. Site was graded to drain into created drainage ditches. Area is experiencing extreme drought.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ Aquatic Fauna (B13) ☐ High Water Table (A2) ☐ Marl Deposits (B15) (LRR U) ☐ Saturation (A3) ☐ Hydrogen Sulfide Odor (C1) ☐ Water Marks (B1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Sediment Deposits (B2) ☐ Presence of Reduced Iron (C4) ☐ Drift Deposits (B3) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7) ☐ Iron Deposits (B5) ☐ Other (Explain in Remarks) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)		Secondary Indicators (minimum of two required) ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☒ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ FAC-Neutral Test (D5) ☐ Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Low ditch area that was created 9-10 years about when property was graded and leveled. This ditch does not have the connectivity to adjacent ditches to be considered jurisdictional. Features does convey storm water during heavy rain events, but water does not stay in ditch area for long.		

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

 Sampling Point: NW01

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>57</u></td> <td>x 2 = <u>114</u></td> </tr> <tr> <td>FAC species <u>13</u></td> <td>x 3 = <u>39</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>183</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.83</u>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>57</u>	x 2 = <u>114</u>	FAC species <u>13</u>	x 3 = <u>39</u>	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: <u>100</u> (A)	<u>183</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>30</u>	x 1 = <u>30</u>																	
FACW species <u>57</u>	x 2 = <u>114</u>																	
FAC species <u>13</u>	x 3 = <u>39</u>																	
FACU species _____	x 4 = _____																	
UPL species _____	x 5 = _____																	
Column Totals: <u>100</u> (A)	<u>183</u> (B)																	
50% of total cover: _____ 20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Herb Stratum (Plot size: _____)																		
1. Soft rush (<i>Juncus effusus</i>)	45	Y	FACW	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)														
2. Smartweed, dotted (<i>Persicaria punctata</i>)	30	Y	OBL															
3. Cyperus sp.	5	N	FACW															
4. Bushy bluestem (<i>Andropogon glomeratus</i>)	5	N	FACW															
5. Vasey grass (<i>Paspalum urvillei</i>)	5	N	FAC															
6. Calico aster (<i>Symphotrichum lateriflorum</i>)	3	N	FAC															
7. Willowleaf aster (<i>Symphotrichum praealtum</i>)	2	N	FACW															
8. Fox tail, yellow (yellow bristle-grass) <i>Setaria pumila</i>	2	N	FAC															
9. Beaked panic grass (<i>Panicum anceps</i>)	3	N	FAC															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
100 = Total Cover																		
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>																		
Woody Vine Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Remarks: (If observed, list morphological adaptations below). Area is lower drainage feature that conveys water during rain events. FAC Neutral Test: 2:0 (Positive)																		

SOIL

Sampling Point: NW01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10 YR 3/2	90	10 YR 4/6	5	C	M	silt	
			10 YR 5/1	5	C	M	silt	
6-20	10 YR 3/2	80	10 YR 4/6	10	C	M	silty clay	
			10 YR 5/1	10	C	M	silty clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Organic Bodies (A6) (LRR P, T, U)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
☐ Muck Presence (A8) (LRR U)
☐ 1 cm Muck (A9) (LRR P, T)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Coast Prairie Redox (A16) (MLRA 150A)
☐ Sandy Mucky Mineral (S1) (LRR O, S)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
☐ Thin Dark Surface (S9) (LRR S, T, U)
☐ Loamy Mucky Mineral (F1) (LRR O)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Marl (F10) (LRR U)
☐ Depleted Ochric (F11) (MLRA 151)
☐ Iron-Manganese Masses (F12) (LRR O, P, T)
☐ Umbric Surface (F13) (LRR P, T, U)
☐ Delta Ochric (F17) (MLRA 151)
☐ Reduced Vertic (F18) (MLRA 150A, 150B)
☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Reduced Vertic (F18) (outside MLRA 150A,B)
☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
☐ Anomalous Bright Loamy Soils (F20)
 (MLRA 153B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Soils in drainage feature are hydric- hold enough water during rain events to become hydric.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: North Schaefer Site City/County: Broussard/St. Martin Parish Sampling Date: 11/7/23
 Applicant/Owner: One Acadiana State: LA Sampling Point: NW02
 Investigator(s): Hunter Guidry Section, Township, Range: Sec 23; T-11-S; R-5-E
 Landform (hillslope, terrace, etc.): Low area former sugarcane field Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR-O Lat: 30°04'42.25"N Long: 91°55'32.9"W Datum: NAD 88
 Soil Map Unit Name: Coteau-Frost complex, gently undulating NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation Y, Soil Y, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Low area at northeast corner of property that may hold water after rain events. Former sugarcane rows were graded. The slope is graded to the west into drainage ditch. The grading was done around 10 years ago and no further grading work was performed since the site was graded.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ Aquatic Fauna (B13) ☐ High Water Table (A2) ☐ Marl Deposits (B15) (LRR U) ☐ Saturation (A3) ☐ Hydrogen Sulfide Odor (C1) ☐ Water Marks (B1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Sediment Deposits (B2) ☐ Presence of Reduced Iron (C4) ☐ Drift Deposits (B3) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7) ☐ Iron Deposits (B5) ☐ Other (Explain in Remarks) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)		Secondary Indicators (minimum of two required) ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☒ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ FAC-Neutral Test (D5) ☐ Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Low area that holds water during rain events. Does not have any connectivity to adjacent ditches to the east or to the south to be considered jurisdictional. Isolated wetland pocket.		

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

 Sampling Point: NW02

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>47</u></td> <td>x 2 = <u>94</u></td> </tr> <tr> <td>FAC species <u>18</u></td> <td>x 3 = <u>54</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>238</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.16</u>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>47</u>	x 2 = <u>94</u>	FAC species <u>18</u>	x 3 = <u>54</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species _____	x 5 = _____	Column Totals: <u>110</u> (A)	<u>238</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>30</u>	x 1 = <u>30</u>																	
FACW species <u>47</u>	x 2 = <u>94</u>																	
FAC species <u>18</u>	x 3 = <u>54</u>																	
FACU species <u>15</u>	x 4 = <u>60</u>																	
UPL species _____	x 5 = _____																	
Column Totals: <u>110</u> (A)	<u>238</u> (B)																	
50% of total cover: _____ 20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: _____) 1. <u>Black Willow (Salix nigra)</u> <u>10</u> <u>Y</u> <u>OBL</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____																		
_____ = Total Cover																		
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
Herb Stratum (Plot size: _____) 1. <u>Soft rush (Juncus effusus)</u> <u>40</u> <u>Y</u> <u>FACW</u> 2. <u>Vasey grass (Paspalum urvillei)</u> <u>10</u> <u>Y</u> <u>FAC</u> 3. <u>Tall Goldenrod (Solidago altissima)</u> <u>15</u> <u>Y</u> <u>FACU</u> 4. <u>Calico aster (Symphyotrichum lateriflorum)</u> <u>5</u> <u>N</u> <u>FAC</u> 5. <u>Mist flower, Blue (Conoclinium coelestinum)</u> <u>2</u> <u>N</u> <u>FAC</u> 6. <u>Typha sp.</u> <u>10</u> <u>Y</u> <u>OBL</u> 7. <u>Cyperus sp.</u> <u>>2</u> <u>N</u> <u>FACW</u> 8. <u>Smartweed, dotted (Persicaria punctata)</u> <u>10</u> <u>Y</u> <u>OBL</u> 9. <u>Willowleaf aster (Symphyotrichum praealtum)</u> <u>5</u> <u>N</u> <u>FACW</u> 10. <u>Eupatorium compositifolium</u> <u>>1</u> <u>N</u> <u>FAC</u> 11. _____ 12. _____																		
_____ = Total Cover																		
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>																		
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____																		
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Hydrophytic Vegetation Present? Yes <u>X</u> No _____																		
Remarks: (If observed, list morphological adaptations below). Typha sp. was cut; could not properly identify. FAC Neutral Test: 4:1 (Positive)																		

SOIL

Sampling Point: NW02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10 YR 3/2	95	10 YR 4/6	3	C	M	silty clay	
			10 YR 5/1	2	C	M	silty clay	
4-20	10 YR 3/2	80	10 YR 4/6	10	C	M	silty clay	
			10 YR 5/1	10	C	M	silty clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Organic Bodies (A6) (LRR P, T, U)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
☐ Muck Presence (A8) (LRR U)
☐ 1 cm Muck (A9) (LRR P, T)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Coast Prairie Redox (A16) (MLRA 150A)
☐ Sandy Mucky Mineral (S1) (LRR O, S)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
☐ Thin Dark Surface (S9) (LRR S, T, U)
☐ Loamy Mucky Mineral (F1) (LRR O)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Marl (F10) (LRR U)
☐ Depleted Ochric (F11) (MLRA 151)
☐ Iron-Manganese Masses (F12) (LRR O, P, T)
☐ Umbric Surface (F13) (LRR P, T, U)
☐ Delta Ochric (F17) (MLRA 151)
☐ Reduced Vertic (F18) (MLRA 150A, 150B)
☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Reduced Vertic (F18) (outside MLRA 150A,B)
☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
☐ Anomalous Bright Loamy Soils (F20)
 (MLRA 153B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Soils in isolated wetland feature are hydric- hold enough water during rain events to become hydric

Appendix B

Photographs of Typical Vegetative Communities and Soil Profiles

**One Acadiana
Section 23, Township-11-South, Range-5-East
St. Martin Parish, Louisiana**



Figure B.1 Photograph of soil sample from Sample Site U01- (CEI 11-07-23)- Upland areas on northwest property corner.



Figure B.2 Photograph looking to the west of open field areas at Sample Site U01- (CEI 11-07-23)- Upland areas on northwest property corner.



Figure B. Photograph looking to the east of open field areas at Sample Site U01- (CEI 11-07-23)- Upland areas on northwest property corner.



Figure B.4 Photograph of soil sample from Sample Site U02- (CEI 11-07-23)- Upland areas on southwest property corner.



Figure B.5 Photograph looking to the west of open field areas at Sample Site U02- (CEI 11-07-23)- Upland areas on southwest property corner.



Figure B.6 Photograph looking to the east of open field areas at Sample Site U02- (CEI 11-07-23)- Upland areas on southwest property corner.



Figure B.7 Photograph of soil sample from Sample Site U03- (CEI 11-07-23)- Upland areas on center-west property area.



Figure B.8 Photograph looking to the west of open field areas at Sample Site U03- (CEI 11-07-23)- Upland areas on center-west property area.



Figure B.9 Photograph looking to the east of open field areas at Sample Site U03- (CEI 11-07-23)- Upland areas on center-west property area.



Figure B.10 Photograph of soil sample from Sample Site U04- (CEI 11-07-23)- Upland areas on southeast corner of property.



Figure B.11 Photograph looking west of vegetated areas at Sample Site U04- (CEI 11-07-23)-
Upland areas on southeast corner of property.



Figure B.12 Photograph looking east of vegetated areas at Sample Site U04- (CEI 11-07-23)-
Upland areas on southeast corner of property.



Figure B.13 Photograph of soil sample from Sample Site U05- (CEI 11-07-23)- Upland areas on northeast area of property.



Figure B.14 Photograph looking west of vegetated areas at Sample Site U05- (CEI 11-07-23)- Upland areas on northeast area of property.



Figure B.15 Photograph looking east of vegetated areas at Sample Site U05- (CEI 11-07-23)- Upland areas on southeast area of property.



Figure B.16 Photograph of soil sample from Sample Site NW01- (CEI 11-07-23)- Lower ditch at center/west side of property. Ditch was created by past grubbing activities from agricultural land conversion and should be non-jurisdictional wetlands.



Figure B.17 Photograph looking to the east along ditch showing vegetated areas (ditch) at Sample Site NW01- (11-07-23)- Lower ditch at center/west side of property. Ditch was created by past grubbing activities from agricultural land conversion and should be non-jurisdictional wetlands.



Figure B.18 Photograph looking to the east along ditch showing vegetated areas (ditch) at Sample Site NW01- (11-07-23)- Lower ditch at center/west side of property. Ditch was created by past grubbing activities from agricultural land conversion and should be non-jurisdictional wetlands.



Figure B.19 Photograph of soil sample from Sample Site NW02- (CEI 11-07-23)- Lower field area at center/northeast property corner. Lower areas were created by past grubbing activities from agricultural land conversion and should be non-jurisdictional wetlands.



Figure B.20 Photograph looking to the east showing vegetated areas (scrub/shrub and fields) at Sample Site NW02- (11-07-23)- Lower field area at center/northeast property corner. Lower areas were created by past grubbing activities from agricultural land conversion and should be non-jurisdictional wetlands.



Figure B.21 Photograph looking to the west showing vegetated areas in lower field at Sample Site NW02- (11-07-23)- Lower field area at center/northeast property corner. Lower areas were created by past grubbing activities from agricultural land conversion and should be non-jurisdictional wetlands.



Figure B.22 View looking to the west along the front part portion of property - (CEI 11-07-23).



Figure B.23 View looking to the east from southwest property corner showing the roadside drainage ditch along southern boundary - (CEI 11-07-23).



Figure B.24 View looking to the north from southwest property corner showing the drainage ditch along western boundary - (CEI 11-07-23).



Figure B.25 View looking to the south from northwest property corner showing the roadside drainage ditch along the eastern boundary - (CEI 11-07-23).



Figure B.26 View looking to the west from northwest property corner showing the roadside drainage ditch along northern boundary - (CEI 11-07-23).