Exhibit FF. Dequincy Industrial Park Wetlands Delineation Report

SWLA ECONOMIC DEVELOPMENT ALLIANCE

CSRS
IMAGINE SHAPE DELIVER

September 10, 2018

Via Electronic Mail

Dequincy Industrial Park Wetlands Delineation Report

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

Re: Wetland Data Report
Dequincy Industrial Park
Calcasieu Parish, Louisiana
Providence Project No. 1204-006

Dear Mr. Fontenot:

On behalf of SWLA Economic Development Alliance (SWLA), Providence Engineering and Environmental Group LLC (Providence) is submitting this wetland data report requesting a preliminary jurisdictional determination (JD) for the proposed Dequincy Industrial Park (hereinafter referred to as Site) in Calcasieu Parish, Louisiana.

BACKGROUND

The purpose of this report is to present field data, habitat descriptions, and other pertinent information on the three diagnostic characteristics of wetlands. This report was prepared in accordance with the *Corps of Engineers Wetlands Delineation Manual* (U.S. Army Corps of Engineers, Waterways Experiment Station 1987) and subsequent guidance provided in the Regional Supplement to the *Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (U.S. Army Corps of Engineers, Wetland Regulatory Assistance Program 2010). On August 23, 2018, Providence biologists visited the Site and collected field data on the three diagnostic wetland parameters – soils, vegetation, and hydrology.

Prior to field reconnaissance, Providence reviewed the Natural Resources Conservation Service (NRCS) Web Soil Survey (2018), the *Soil Survey of Calcasieu Parish* (United States Department of Agriculture, Soil Conservation Service 1995), United States Geological Survey (USGS) 7.5-minute topographic maps, and relevant aerial photography. Included for your review are: **Figure 1** - Vicinity Map, **Figure 2** - Site Location Map, **Figure 3** – Aerial Photograph, **Figure 4** – Site Plan, **Figure 5** – Digital Elevation Model, **Figure 6** – Soils Map, **Exhibit 1** – Copies of Site Photographs, and **Exhibit 2** – Routine Wetland Determination Data Forms – Atlantic and Gulf Coastal Plain Region.

PROJECT LOCATION & DESCRIPTION

The 47.38-acre Site is 2.01 miles southwest of Dequincy, Calcasieu Parish, Louisiana and centered at Latitude 30.436262°; Longitude -93.466239° (**Figure 1**). Access is via West 4th Street, Airpark Drive, and

Lions Club Road. The Site is characterized by upland forest, potential palustrine forested (PFO), palustrine scrub-shrub (PSS), and palustrine emergent (PEM) wetlands, and potential Other Waters of the U. S.

SOILS

The NRCS Web Soil Survey was used to determine mapped soil series. The revised official series descriptions were used to confirm profile matrix, redox features, and texture of soils underlying the Site. The Web Soil Survey shows that the Site may be underlain by two soil map units. **Table 1** shows the soil map units' individual soil components, component percentage, and hydric status in Calcasieu Parish (NRCS Survey Area Data, Version 13, Oct 3, 2017).

Table 1: NRCS Web Soil Survey Data

Map Unit Name	Soil Series/Component	Component Percentage	Hydric status
Cd: Caddo-Messer complex, 0 to 1 percent slopes			
	Caddo	50-65	Yes
	Messer	20-35	No
	Guyton	0-15	Yes
	Glenmora	0-15	No
Ge: Glenmora silt loam, 1 to 3 percent slopes			
	Glenmora	80-95	Yes
	Messer	0-10	No
	Caddo	0-5	Yes
	Kinder	0-5	Yes

Providence collected soil samples between the surface and approximately 16 inches. The depth of each sample was sufficient to determine changes in upper horizons and to observe field indicators of hydric soils. Based on field observations, the wetland criterion for hydric soils was met at seven of the 16 sample locations established by Providence to characterize the Site.

VEGETATION[1]

Indicator statuses for the dominant vegetation on the Site consist of facultative upland (FACU), facultative (FAC), facultative wetland (FACW), and obligate (OBL) plant species. A complete list of species is included in the attached data forms (**Exhibit 2**). The wetland criterion for a prevalence of hydrophytic vegetation was met at 10 of the 16 sample locations established by Providence to characterize the Site.

HYDROLOGY

The Site is in the Upper Calcasieu watershed; within the USGS Hydrologic Unit Code (HUC) 08080203. Hydrology on the Site is influenced by rainfall and sheetflow in conformance with changes in elevation and backwater flooding

[1] Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner. 2014. *The National Wetland Plant List*: 2014 Update of Wetland Ratings. Phytoneuron 2014-41: 1-42

from Calcasieu River. The primary and secondary indicators of wetland hydrology observed on the Site included, algal mat or crust, surface soil cracks, sediment deposits, oxidized rhizospheres on living roots, drainage patterns, crayfish burrows, geomorphic position, and FAC-Neutral test. The wetland criterion for hydrology was met at six of the 16 sample locations established by Providence to characterize the Site.

CONCLUSIONS

Positive evidence of all three diagnostic characteristics for wetlands was found at five of the 16 sample locations established to characterize the Site. Evidence of poor drainage found in association with hydric soils and predominantly hydrophytic vegetation was considered sufficient to confirm the presence of potential jurisdictional wetlands. It appears that approximately 4.92 acres of potential jurisdictional wetlands and approximately 6,180 linear feet of potential Other Waters of the U.S. are present on the Site.

As requested in the solicitation for wetland services provided to Providence on June 6, 2018, below are the responses to the following questions:

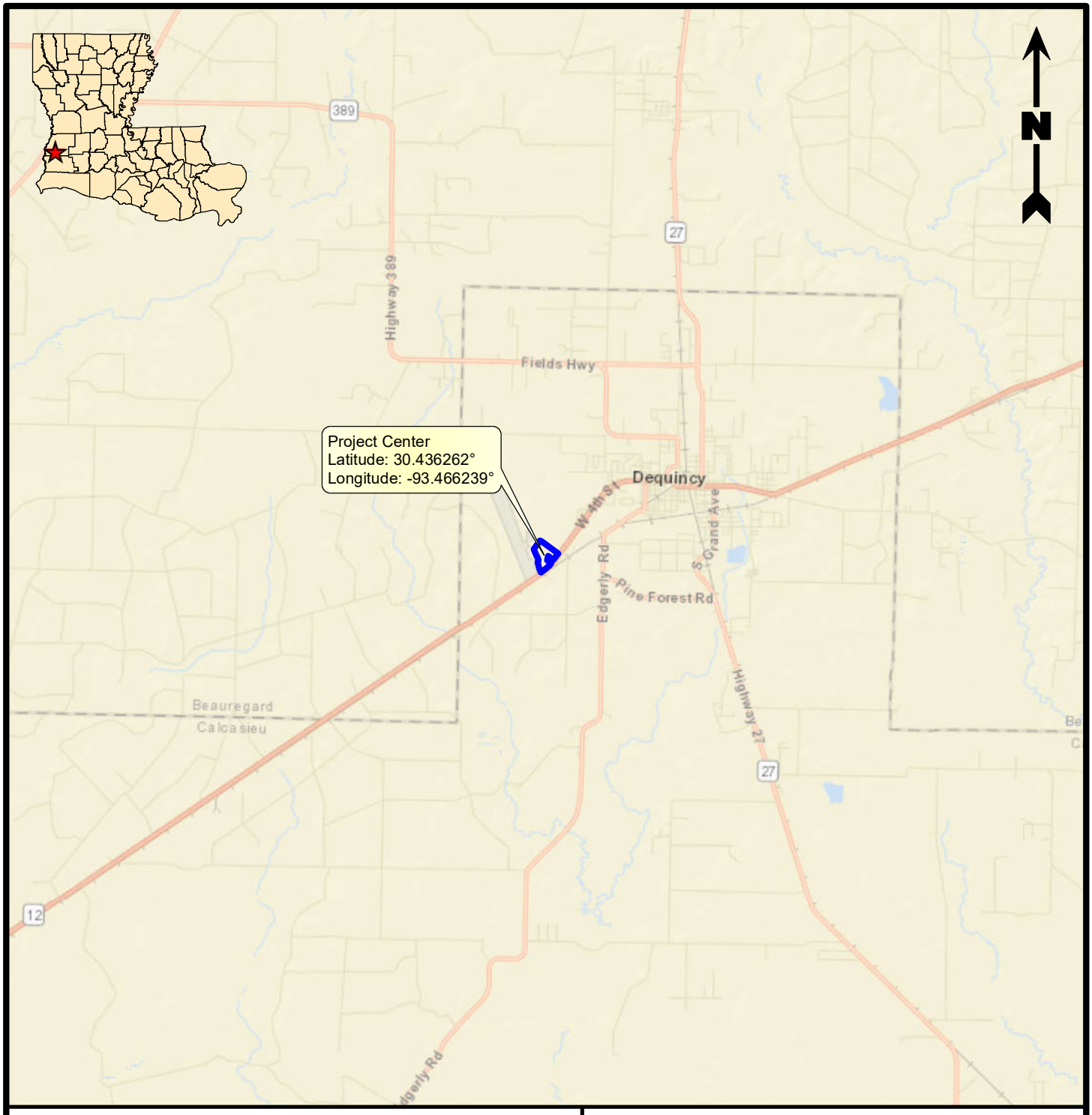
1. **Do wetlands and/or other waterways exist on or near the site?**
    a. Yes, wetlands and other waters are present on the site and are included in the attached figures and shapefiles.
2. **If wetlands are present, has a section 404 Permit Application been submitted to USACE?**
    a. No
3. **If wetlands are present, has a section 404 Permit Application been received from USACE?**
    a. No
4. **If wetlands are present, have all wetlands on the site been mitigated?**
    a. No
5. **If wetlands are present, have all wetlands on the site been mitigated?**
    a. No

If you have any questions, please contact me at (225) 766-7400 or timkimmel@providenceeng.com.

Sincerely,

Tim Kimmel
Environmental Scientist, AWS
Providence Engineering and Environmental Group LLC
1201 Main Street
Baton Rouge, Louisiana 70802

FIGURES



2 1 0 2 Miles

Legend

Limits of Delineation (47.38 Acres)

Reference

Base map comprised of ESRI StreetMap USA data.

Vicinity Map

Wetland Data Report/Request for
Preliminary Jurisdictional Determination
Calcasieu Parish, Louisiana

SWLA Economic Development Alliance

Dequincy Industrial Park

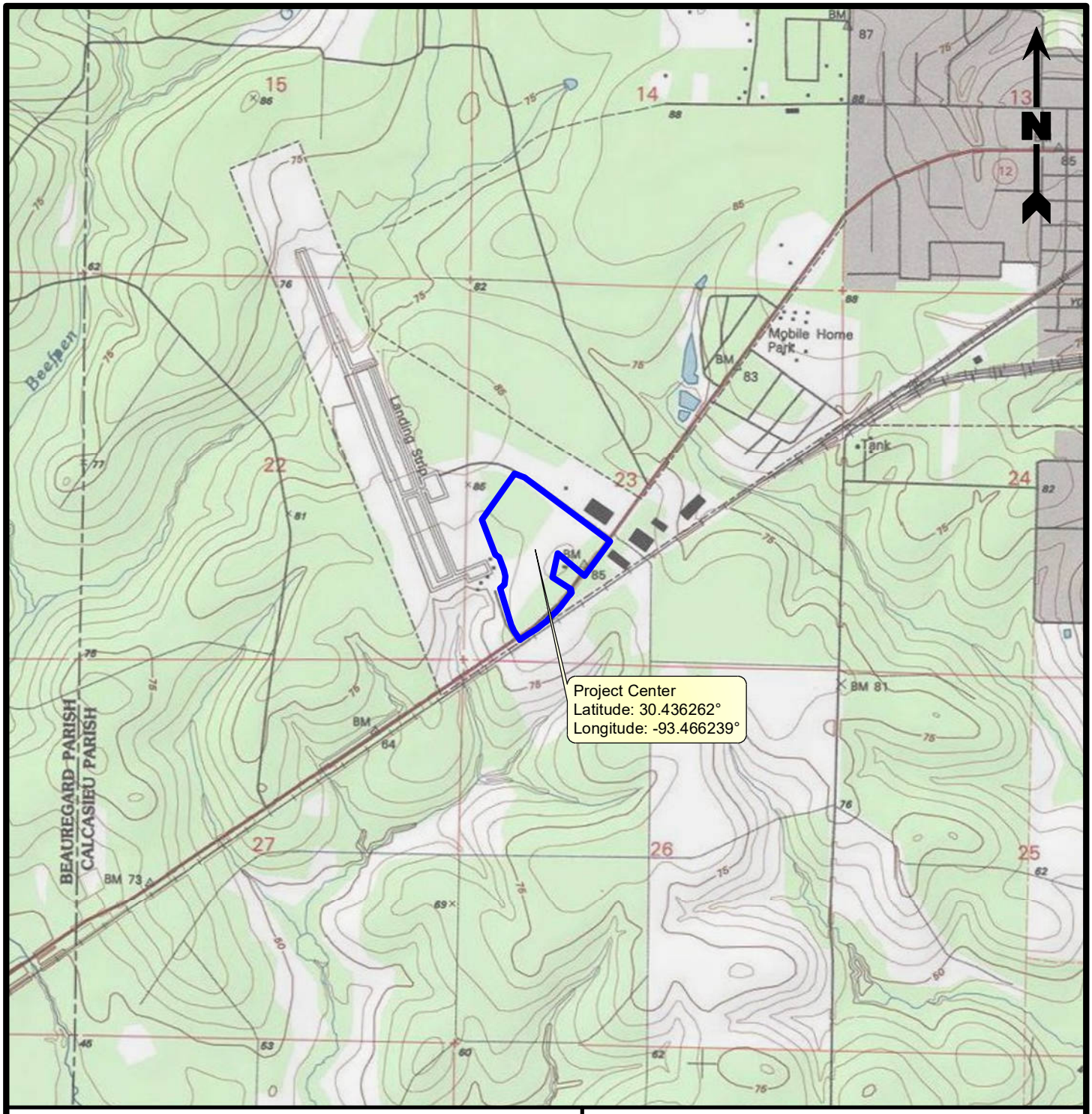
PROVIDENCE

Drawn By	CMM	08/28/18
Checked By	RS	08/28/18
Approved By	RS	08/28/18

Project Number 1204-006

Drawing Number 1204-006-A001

1 Figure



2,000 1,000 0 2,000 Feet

Legend

Limits of Delineation (47.38 Acres)

Reference

Base map comprised of United States Geological Survey (USGS) 7.5-minute topographic map, "Moss Bluff, LA".

Site Location Map

Wetland Data Report/Request for
Preliminary Jurisdictional Determination
Calcasieu Parish, Louisiana

SWLA Economic Development Alliance

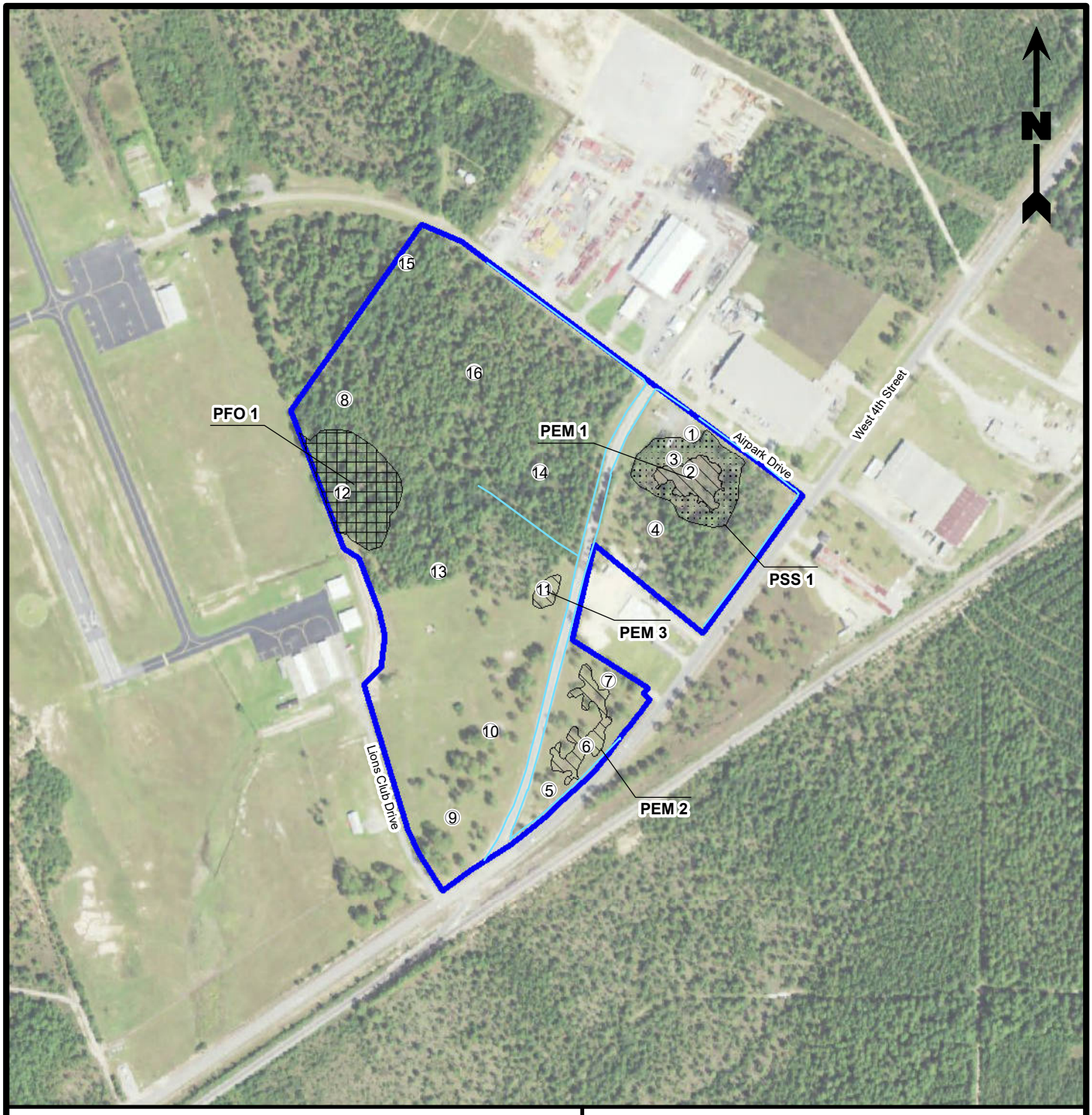
Dequincy Industrial Park

PROVIDENCE

Drawn By	CMM	08/28/18
Checked By	RS	08/28/18
Approved By	RS	08/28/18

Project Number	1204-006
Drawing Number	1204-006-A002

2 Figure



500 250 0 500 Feet

Legend

- Limits of Delineation (47.38 Acres)
- Sample Locations
- Potential Other Waters of the U.S. (~6,180 Linear Feet)

Potential Jurisdictional Wetlands (4.92 Acres)

- PEM (1.39 Acres)
- PFO (2.10 Acres)
- PSS (1.43 Acres)

Reference

Base map comprised of 2017 aerial photograph from USDA/FSA - Aerial Photography Field Office.

Aerial Photograph

Wetland Data Report/Request for Preliminary Jurisdictional Determination
Calcasieu Parish, Louisiana

SWLA Economic Development Alliance

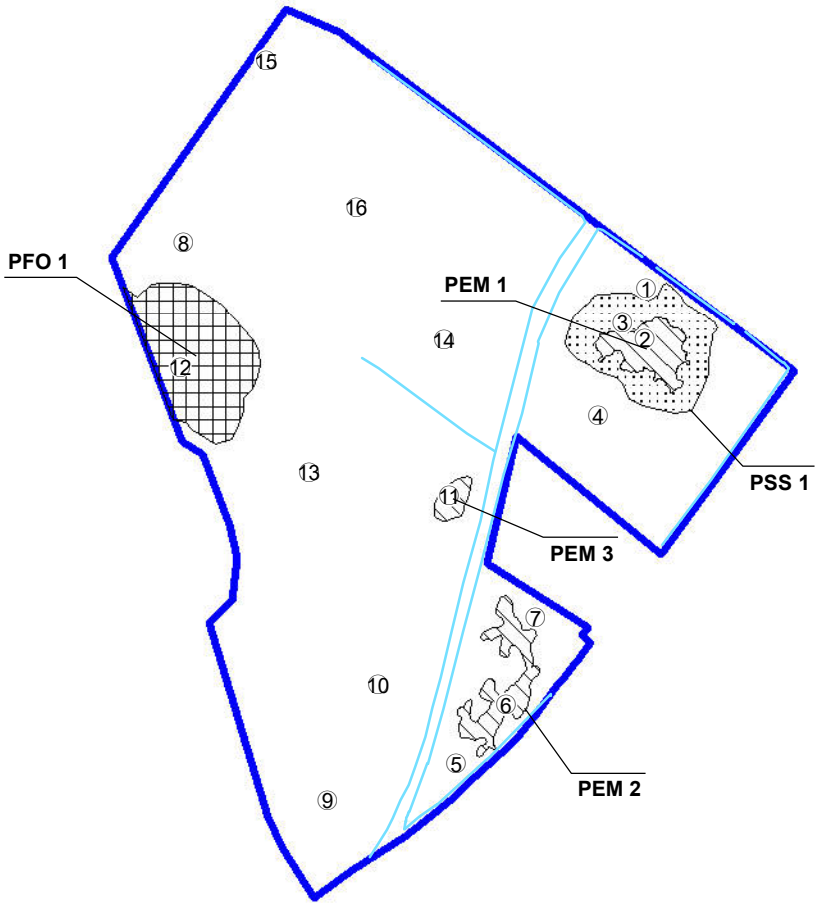
Dequincy Industrial Park

PROVIDENCE

Drawn By	TDJ	9/7/18
Checked By	TK	9/7/18
Approved By	RS	9/7/18

Project Number	1204-006
Drawing Number	1204-006-A006

3 Figure



500 250 0 500 Feet

Legend

- Limits of Delineation (47.38 Acres)
- Sample Locations
- Potential Other Waters of the U.S. (~6,180 Linear Feet)

Potential Jurisdictional Wetlands (4.92 Acres)

- PEM (1.39 Acres)
- PFO (2.10 Acres)
- PSS (1.43 Acres)

Site Plan

Wetland Data Report/Request for
Preliminary Jurisdictional Determination
Calcasieu Parish, Louisiana

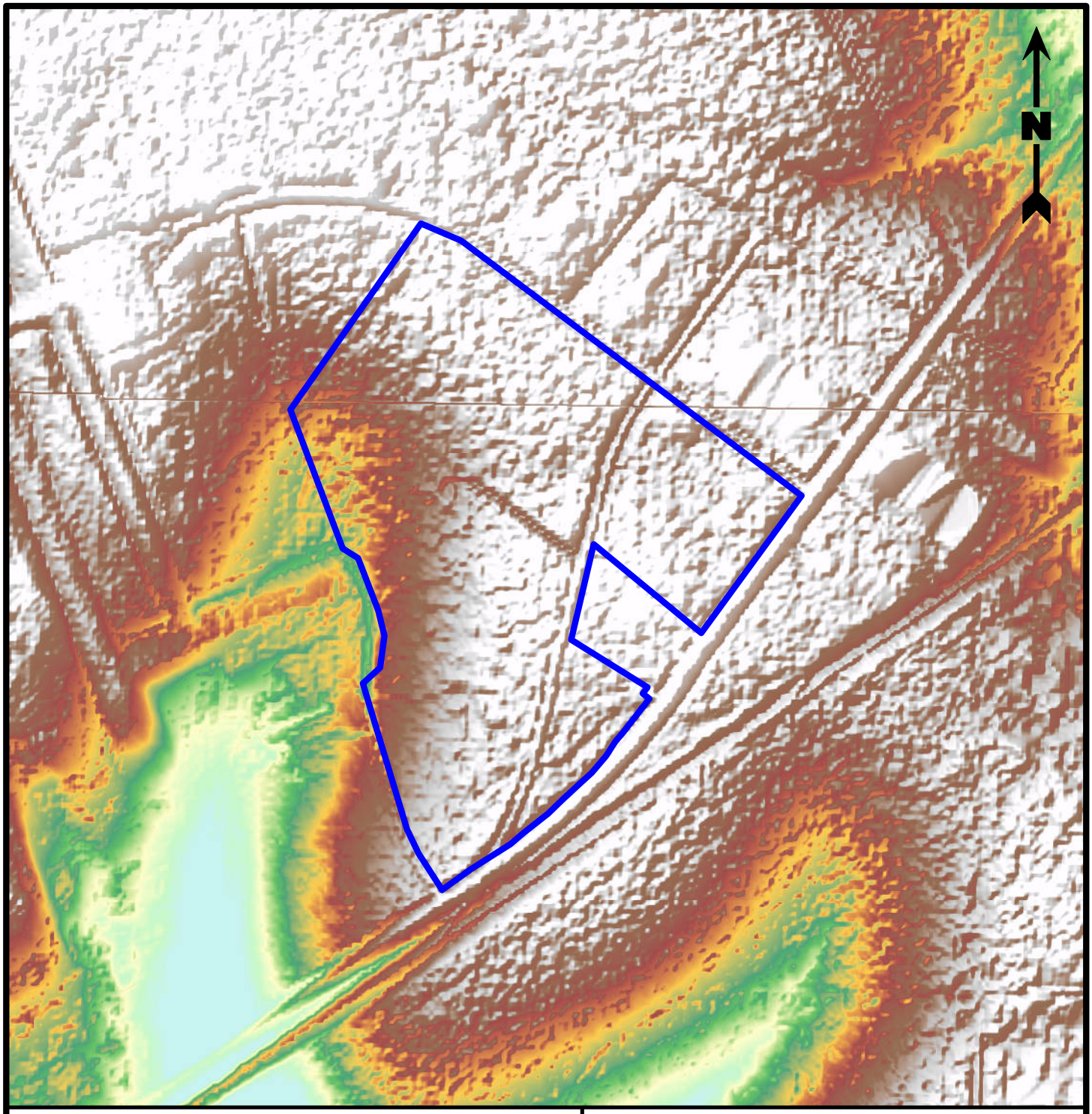
SWLA Economic Development Alliance

Dequincy Industrial Park

PROVIDENCE

Drawn By	TDJ	9/7/18
Checked By	TK	9/7/18
Approved By	RS	9/7/18

Project Number	1204-006
Drawing Number	1204-006-A007
4	Figure



500 250 0 500 Feet

Legend

Limits of Delineation (47.38 Acres)

Elevation (Feet above Sea Level)

High : 90

Low : 65

Reference

Digital Elevation Model data obtained from United States Geological Survey, National Elevation Database (NED)

Digital Elevation Model

Wetland Data Report/Request for Preliminary Jurisdictional Determination
Calcasieu Parish, Louisiana

SWLA Economic Development Alliance

Dequincy Industrial Park

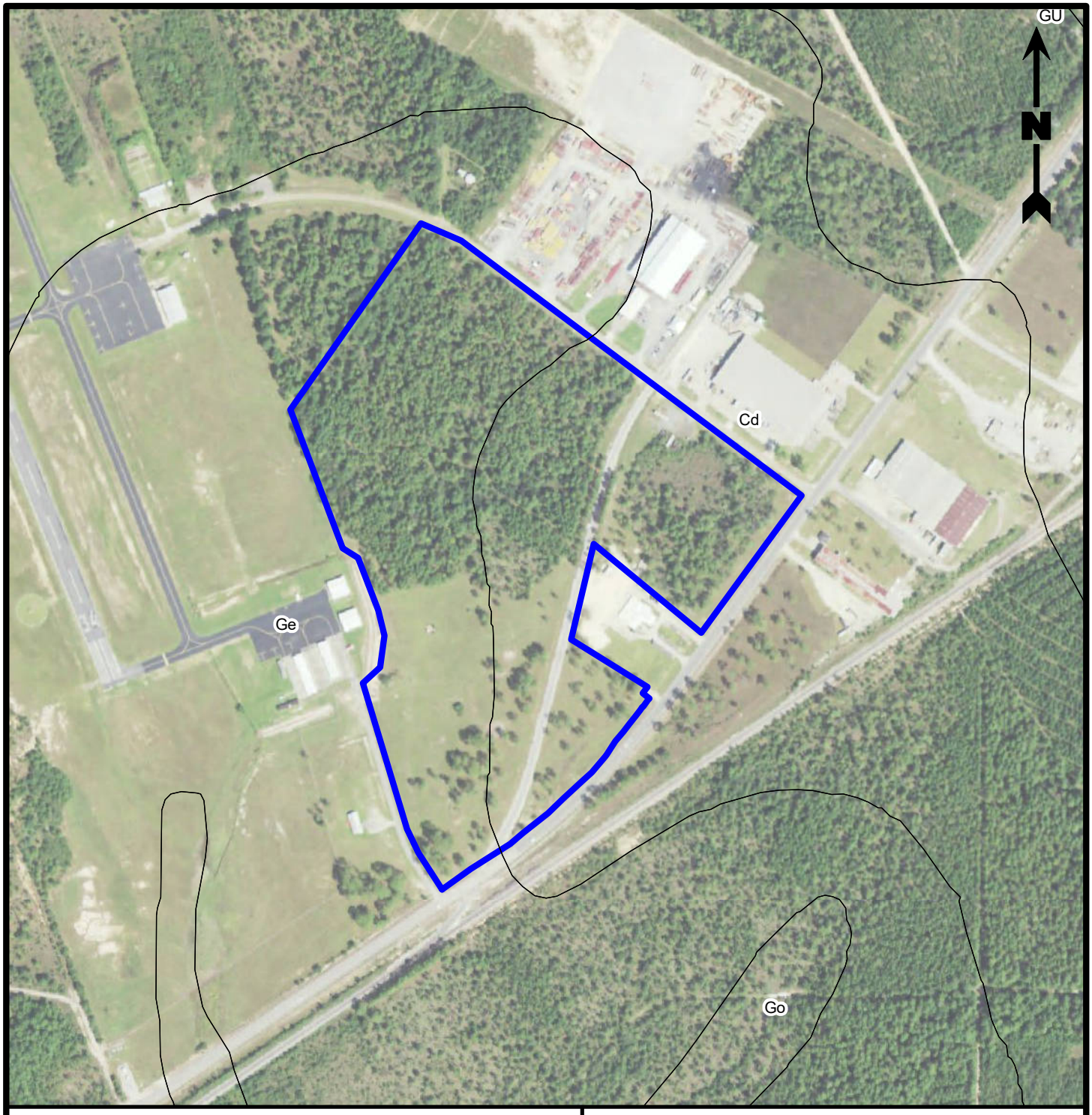
PROVIDENCE

Drawn By	TDJ	9/7/18
Checked By	TK	9/7/18
Approved By	RS	9/7/18

Project Number 1204-006

Drawing Number 1204-006-A008

5 Figure



500 250 0 500 Feet

Legend

Limits of Delineation (47.38 Acres)

Soils

Cd - Caddo-Messer complex, 0 to 1 percent slopes
Ge - Glenmora silt loam, 1 to 3 percent slopes

Reference

Soils data obtained from Natural Resources Conservation Service (NRCS) data-server.

Soils Map

Wetland Data Report/Request for Preliminary Jurisdictional Determination
Calcasieu Parish, Louisiana

SWLA Economic Development Alliance

Dequincy Industrial Park

PROVIDENCE

Drawn By	TDJ	9/7/18
Checked By	TK	9/7/18
Approved By	RS	9/7/18

Project Number	1204-006
Drawing Number	1204-006-A009

6
Figure

EXHIBIT 1

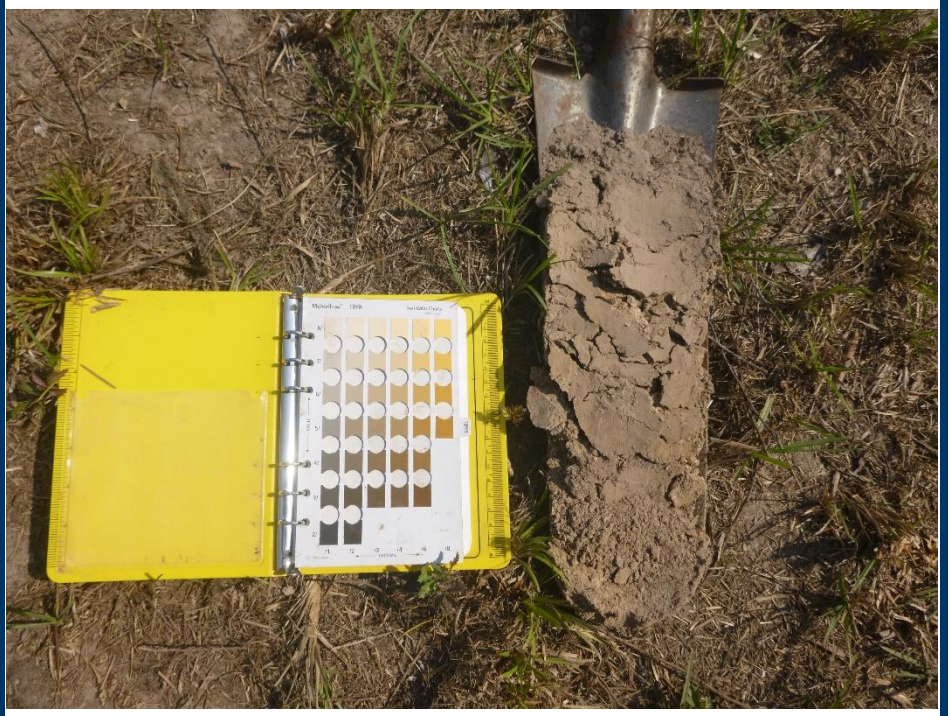
COPIES OF SITE PHOTOGRAPHS

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #1A

Direction:
N/A

Comments:
View of soil profile at Sample Location 1.



Photograph #1B

Direction:
East

Comments:
View of habitat and typical landscape features at Sample Location 1.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #2A

Direction:
N/A

Comments:
View of soil profile at Sample Location 2.

Photograph #2B

Direction:
West

Comments:
View of habitat and typical landscape features at Sample Location 2.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #3A

Direction:
N/A

Comments:
View of soil profile at Sample Location 3.

Photograph #3B

Direction:
East

Comments:
View of habitat and typical landscape features at Sample Location 3.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #4A

Direction:

N/A

Comments:

View of soil profile at Sample Location 4.

Photograph #4B

Direction:

West

Comments:

View of habitat and typical landscape features at Sample Location 4.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #5A

Direction:

N/A

Comments:

View of soil profile at Sample Location 5.

Photograph #5B

Direction:

South

Comments:

View of habitat and typical landscape features at Sample Location 5.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #6A

Direction:

N/A

Comments:

View of soil profile at Sample Location 6.

Photograph #6B

Direction:

East

Comments:

View of habitat and typical landscape features at Sample Location 6.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #7A

Direction:

N/A

Comments:

View of soil profile at Sample Location 7.

Photograph #7B

Direction:

South

Comments:

View of habitat and typical landscape features at Sample Location 7.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #8A

Direction:
N/A

Comments:
View of soil profile at Sample Location 8.

Photograph #8B

Direction:
East

Comments:
View of habitat and typical landscape features at Sample Location 8.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #9A

Direction:

N/A

Comments:

View of soil profile at Sample Location 9.

Photograph #9B

Direction:

South

Comments:

View of habitat and typical landscape features at Sample Location 9.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #10A

Direction:

N/A

Comments:

View of soil profile at Sample Location 10.

Photograph #10B

Direction:

North

Comments:

View of habitat and typical landscape features at Sample Location 10.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #11A

Direction:

N/A

Comments:

View of soil profile at Sample Location 11.

Photograph #11B

Direction:

South

Comments:

View of habitat and typical landscape features at Sample Location 11.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #12A

Direction:
N/A

Comments:
View of soil profile at Sample Location 12.

Photograph #12B

Direction:
East

Comments:
View of habitat and typical landscape features at Sample Location 12.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #13A

Direction:

N/A

Comments:

View of soil profile at Sample Location 13.

Photograph #13B

Direction:

West

Comments:

View of habitat and typical landscape features at Sample Location 13.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #14A

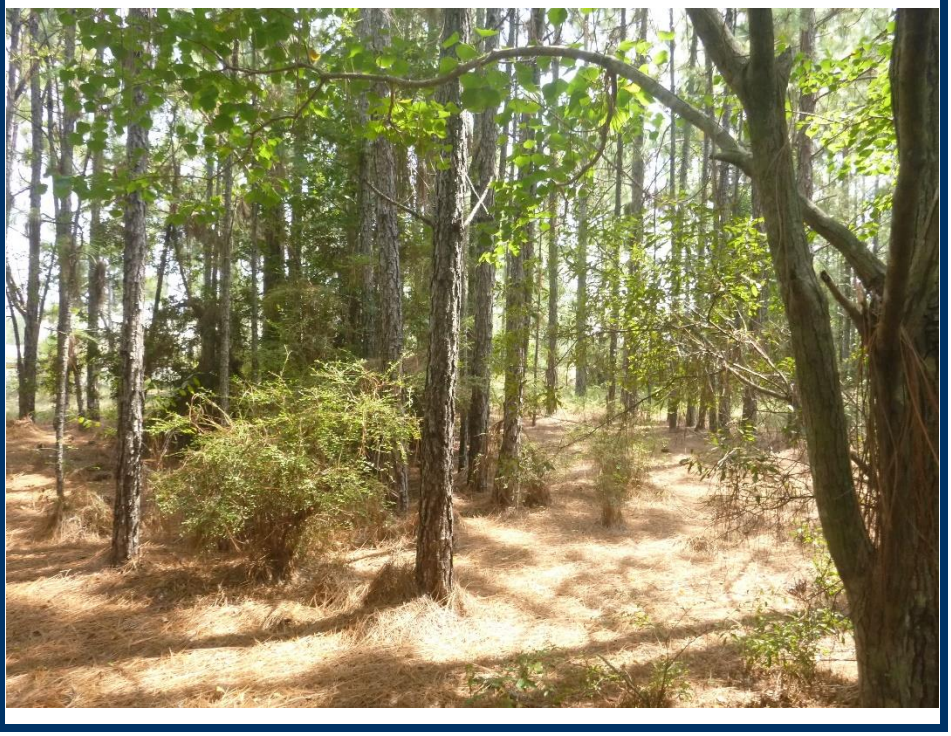
Direction:
N/A

Comments:
View of soil profile at Sample Location 14.

Photograph #14B

Direction:
South

Comments:
View of habitat and typical landscape features at Sample Location 14.



Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #15A

Direction:

N/A

Comments:

View of soil profile at Sample Location 15.

Photograph #15B

Direction:

North

Comments:

View of habitat and typical landscape features at Sample Location 15.

Site Name: Dequincy Industrial Park
Site Location: Calcasieu Parish, Louisiana
Date: August 23, 2018

Photograph #16A

Direction:
N/A

Comments:
View of soil profile at Sample Location 16.

Photograph #16B

Direction:
North

Comments:
View of habitat and typical landscape features at Sample Location 16.

EXHIBIT 2

ROUTINE WETLAND DETERMINATION DATA FORMS – ATLANTIC AND GULF COASTAL PLAIN REGION

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL1
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43725 Long: -93.46425 Datum: NAD83
Soil Map Unit Name: Caddo-Messer complex, 0 to 1 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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	No **X**	
Hydric Soil Present?	Yes	No **X**	**Is the Sampled Area within a Wetland?** Yes No **X**
Wetland Hydrology Present?	Yes	No **X**	

Remarks:

This point was determined not to be within a wetland due to the lack of all three wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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 **X**	Depth (inches): **N/A**	
Water Table Present?	Yes	No **X**	Depth (inches): **>20**	
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches): **>20**	**Wetland Hydrology Present?** Yes No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

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

Sampling Point: **SL1**

	Absolute	Dominant	Indicator
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 30 ft.)			
1. *Paspalum notatum*	60	Yes	FACU
2. *Euphorbia maculata*	20	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**80**	x 4 =	**320**
UPL species	**0**	x 5 =	**0**
Column Totals:	**80** (A)		**320** (B)

Prevalence Index = B/A = **4.00**

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 must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

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

No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC− or drier).

SOIL

Sampling Point: **SL1**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 5/3	90	10YR 5/8	10	C	M	Silt	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

No positive indication of hydric soils was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL2
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43689 Long: -93.46426 Datum: NAD83
Soil Map Unit Name: Caddo-Messer complex, 0 to 1 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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 **X**	No	**Is the Sampled Area within a Wetland?**	**Yes X** **No**
Hydric Soil Present?	Yes **X**	No		
Wetland Hydrology Present?	Yes **X**	No		

Remarks:

This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- **X** Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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)
- **X** Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- **X** Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- **X** FAC-Neutral Test (D5)
- ____ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes ____	No **X**	Depth (inches):	**N/A**
Water Table Present?	Yes ____	No **X**	Depth (inches):	**>20**
Saturation Present? (includes capillary fringe)	Yes ____	No **X**	Depth (inches):	**>20**

Wetland Hydrology Present? **Yes X** **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

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

Sampling Point: **SL2**

	Absolute	Dominant	Indicator
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30 ft.)			
1. *Cephalanthus occidentalis*	10	Yes	OBL
2. *Baccharis halimifolia*	10	Yes	FAC
3.			
4.			
5.			
6.			
	20 = Total Cover		
50% of total cover:	10	20% of total cover:	4
Herb Stratum (Plot size: 30 ft.)			
1. *Dichanthelium dichotomum*	60	Yes	FAC
2. *Rhynchospora inexpansa*	60	Yes	FACW
3. *Rhynchospora colorata*	50	Yes	FACW
4. *Juncus effusus*	35	No	OBL
5. *Rhexia mariana*	30	No	FACW
6. *Fuirena breviseta*	25	No	OBL
7. *Eriocaulon decangulare*	25	No	OBL
8.			
9.			
10.			
11.			
	285 = Total Cover		
50% of total cover:	142.5	20% of total cover:	57
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **5** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**95**	x 1 =	**95**
FACW species	**140**	x 2 =	**280**
FAC species	**70**	x 3 =	**210**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**305** (A)		**585** (B)

Prevalence Index = B/A = **1.92**

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤ 3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** **X** **No** ____

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

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

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

SOIL

Sampling Point: **SL2**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 5/1	80	7.5YR 4/6	20	C	M&PL	Silt	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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)
- **X** 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

A positive indication of hydric soil was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL3
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43701 Long: -93.46444 Datum: NAD83
Soil Map Unit Name: Caddo-Messer complex, 0 to 1 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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 **X**	No	**Is the Sampled Area within a Wetland?**	**Yes X** **No**
Hydric Soil Present?	Yes **X**	No		
Wetland Hydrology Present?	Yes **X**	No		

Remarks:

This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- **X** Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- **X** Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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)
- **X** Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- **X** FAC-Neutral Test (D5)
- ____ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes ____ No **X**	Depth (inches):	**N/A**
Water Table Present?	Yes ____ No **X**	Depth (inches):	**>20**
Saturation Present? (includes capillary fringe)	Yes ____ No **X**	Depth (inches):	**>20**

Wetland Hydrology Present? **Yes X** **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

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

Sampling Point: **SL3**

	Absolute	Dominant	Indicator
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status
1. *Triadica sebifera*	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Sapling Stratum (Plot size: 30 ft.)			
1. *Quercus nigra*	30	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Shrub Stratum (Plot size: 30 ft.)			
1. *Baccharis halimifolia*	40	Yes	FAC
2. *Triadica sebifera*	30	Yes	FAC
3. *Cephalanthus occidentalis*	30	Yes	OBL
4.			
5.			
6.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Herb Stratum (Plot size: 30 ft.)			
1. *Dichanthelium dichotomum*	60	Yes	FAC
2. *Rhexia mariana*	40	Yes	FACW
3. *Juncus effusus*	40	Yes	OBL
4. *Eleocharis montevidensis*	30	No	FACW
5. *Rhynchospora colorata*	25	No	FACW
6. *Eriocaulon decangulare*	10	No	OBL
7.			
8.			
9.			
10.			
11.			
	205 = Total Cover		
50% of total cover: 102.5	20% of total cover: 41		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **8** (A)

Total Number of Dominant Species Across All Strata: **8** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**80**	x 1 =	**80**
FACW species	**95**	x 2 =	**190**
FAC species	**165**	x 3 =	**495**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**340** (A)		**765** (B)

Prevalence Index = B/A = **2.25**

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- **X** 2 - Dominance Test is >50%
- **X** 3 - Prevalence Index is ≤ 3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes X No** ___

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

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

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

SOIL

Sampling Point: **SL3**

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 5/1	90	7.5YR 4/4	10	C	M&PL	Silt	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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)
- **X** 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

A positive indication of hydric soil was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL4
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Hilltop Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43633 Long: -93.46463 Datum: NAD83
Soil Map Unit Name: Caddo-Messer complex, 0 to 1 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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	No **X**	
Hydric Soil Present?	Yes	No **X**	**Is the Sampled Area within a Wetland?** Yes No **X**
Wetland Hydrology Present?	Yes	No **X**	

Remarks:

This point was determined not to be within a wetland due to the lack of all three wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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 **X**	Depth (inches): **N/A**
Water Table Present?	Yes	No **X**	Depth (inches): **>20**
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches): **>20**

Wetland Hydrology Present? Yes No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

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

Sampling Point: **SL4**

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *Pinus palustris*	80	Yes	FACU
2. *Triadica sebifera*	30	Yes	FAC
3.			
4.			
5.			
6.			
	110 = Total Cover		
50% of total cover: 55		20% of total cover: 22	
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:		20% of total cover:	
Shrub Stratum (Plot size: 30 ft.)			
1. *Ilex vomitoria*	50	Yes	FAC
2. *Triadica sebifera*	10	No	FAC
3.			
4.			
5.			
6.			
	60 = Total Cover		
50% of total cover: 30		20% of total cover: 12	
Herb Stratum (Plot size: 30 ft.)			
1. *Rubus trivialis*	50	Yes	FACU
2. *Schizachyrium scoparium*	35	Yes	FACU
3. *Paspalum floridanum*	10	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5		20% of total cover: 19	
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **2** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **40%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**10**	x 2 =	**20**
FAC species	**90**	x 3 =	**270**
FACU species	**165**	x 4 =	**660**
UPL species	**0**	x 5 =	**0**
Column Totals:	**265** (A)		**950** (B)

Prevalence Index = B/A = **3.58**

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 must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

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

No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC− or drier).

SOIL

Sampling Point: **SL4**

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 5/3	100	None	—	—	—	Silt Loam	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

No positive indication of hydric soils was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL5
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43382 Long: -93.46575 Datum: NAD83
Soil Map Unit Name: Caddo-Messer complex, 0 to 1 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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	No **X**	
Hydric Soil Present?	Yes **X**	No	**Is the Sampled Area within a Wetland?** Yes No **X**
Wetland Hydrology Present?	Yes	No **X**	

Remarks:

This point was determined not to be within a wetland due to the lack of hydrophytic vegetation and wetland hydrology.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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 **X**	Depth (inches): **N/A**	
Water Table Present?	Yes	No **X**	Depth (inches): **>20**	
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches): **>20**	**Wetland Hydrology Present?** Yes No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

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

Sampling Point: **SL5**

	Absolute	Dominant	Indicator
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 30 ft.)			
1. *Paspalum dilatatum*	80	Yes	FAC
2. *Digitaria ciliaris*	70	Yes	FACU
3. *Poa annua*	30	No	FACU
4. *Dichanthelium sphaerocarpon*	30	No	FACU
5. *Asclepias longifolia*	10	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
	220 = Total Cover		
50% of total cover: 110	20% of total cover: 44		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **1** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

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

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**90**	x 3 =	**270**
FACU species	**130**	x 4 =	**520**
UPL species	**0**	x 5 =	**0**
Column Totals:	**220** (A)		**790** (B)

Prevalence Index = B/A = **3.59**

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 must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

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

No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC− or drier).

SOIL

Sampling Point: **SL5**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 5/3	100	None	—	—	—	Silt Loam	
4-10	10YR 5/1	90	10YR 4/4	10	C	M	Silt Loam	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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)
- **X** 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

A positive indication of hydric soil was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL6
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43425 Long: -93.46534 Datum: NAD83
Soil Map Unit Name: Caddo-Messer complex, 0 to 1 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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 **X**	No	**Is the Sampled Area within a Wetland?**	**Yes X** **No**
Hydric Soil Present?	Yes **X**	No		
Wetland Hydrology Present?	Yes **X**	No		

Remarks:

This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- **X** Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- **X** Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- **X** Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- **X** FAC-Neutral Test (D5)
- ____ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes	No **X**	Depth (inches):	**N/A**
Water Table Present?	Yes	No **X**	Depth (inches):	**>20**
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches):	**>20**

Wetland Hydrology Present? **Yes X** **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

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

Sampling Point: **SL6**

	Absolute	Dominant	Indicator
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 30 ft.)			
1. *Rhynchospora colorata*	60	Yes	FACW
2. *Paspalum dilatatum*	50	Yes	FAC
3. *Rhexia mariana*	50	Yes	FACW
4. *Eleocharis montevidensis*	40	No	FACW
5. *Rhynchospora caduca*	25	No	OBL
6. *Fuirena breviseta*	25	No	OBL
7.			
8.			
9.			
10.			
11.			
	250 = Total Cover		
50% of total cover: 125	20% of total cover: 50		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**50**	x 1 =	**50**
FACW species	**150**	x 2 =	**300**
FAC species	**50**	x 3 =	**150**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**250** (A)		**500** (B)

Prevalence Index = B/A = **2.00**

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- **X** 2 - Dominance Test is >50%
- **X** 3 - Prevalence Index is ≤ 3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** **X** **No** ___

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

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

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

SOIL

Sampling Point: **SL6**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 6/1	95	10YR 4/8	5	C	PL	Silt	
3-16	10YR 5/1	80	7.5YR 6/8	20	C	M&PL	Silt	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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)
- **X** 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

A positive indication of hydric soil was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL7
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43488 Long: -93.46512 Datum: NAD83
Soil Map Unit Name: Caddo-Messer complex, 0 to 1 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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	No **X**	
Hydric Soil Present?	Yes **X**	No	**Is the Sampled Area within a Wetland?** Yes No **X**
Wetland Hydrology Present?	Yes	No **X**	

Remarks:

This point was determined not to be within a wetland due to the lack of hydrophytic vegetation and wetland hydrology.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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 **X**	Depth (inches): **N/A**	
Water Table Present?	Yes	No **X**	Depth (inches): **>20**	
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches): **>20**	**Wetland Hydrology Present?** Yes No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

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

Sampling Point: **SL7**

	Absolute	Dominant	Indicator
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status
1. *Pinus palustris*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30 ft.)			
1. *Morella cerifera*	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 30 ft.)			
1. *Digitaria ciliaris*	60	Yes	FACU
2. *Paspalum notatum*	35	Yes	FACU
3. *Paspalum dilatatum*	20	No	FAC
4. *Dichanthelium sphaerocarpon*	20	No	FACU
5. *Liatris spicata*	20	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
	155 = Total Cover		
50% of total cover: 77.5	20% of total cover: 31		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **1** (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: **25%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**50**	x 3 =	**150**
FACU species	**120**	x 4 =	**480**
UPL species	**0**	x 5 =	**0**
Column Totals:	**170** (A)		**630** (B)

Prevalence Index = B/A = **3.71**

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 must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

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

No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC− or drier).

SOIL

Sampling Point: **SL7**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	95	10YR 4/6	5	C	M	Silt	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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)
- **X** 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

A positive indication of hydric soil was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL8
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43752 Long: -93.46809 Datum: NAD83
Soil Map Unit Name: Glenmora silt loam, 1 to 3 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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 **X**	No	
Hydric Soil Present?	Yes	No **X**	**Is the Sampled Area within a Wetland?** Yes No **X**
Wetland Hydrology Present?	Yes	No **X**	

Remarks:

This point was determined not to be within a wetland due to the lack of hydric soils and wetland hydrology.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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)
- **X** FAC-Neutral Test (D5)
- ____ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes	No **X**	Depth (inches): **N/A**
Water Table Present?	Yes	No **X**	Depth (inches): **>20**
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches): **>20**

Wetland Hydrology Present? Yes No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

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

Sampling Point: **SL8**

	Absolute	Dominant	Indicator
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status
1. *Pinus palustris*	40	Yes	FACU
2. *Quercus nigra*	50	Yes	FAC
3. *Celtis laevigata*	30	Yes	FACW
4. *Acer rubrum*	15	No	FAC
5.			
6.			
	135 = Total Cover		
50% of total cover: 67.5	20% of total cover: 27		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30 ft.)			
1. *Ilex vomitoria*	30	Yes	FAC
2. *Ligustrum sinense*	25	Yes	FAC
3. *Morella cerifera*	15	No	FAC
4. *Rubus trivialis*	15	No	FACU
5.			
6.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Herb Stratum (Plot size: 30 ft.)			
1. *Thelypteris kunthii*	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **5** (A)

Total Number of Dominant Species Across All Strata: **6** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **83%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**40**	x 2 =	**80**
FAC species	**135**	x 3 =	**405**
FACU species	**55**	x 4 =	**220**
UPL species	**0**	x 5 =	**0**
Column Totals:	**230** (A)		**705** (B)

Prevalence Index = B/A = **3.07**

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- **X** 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 must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** **X** **No** ___

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

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

SOIL

Sampling Point: **SL8**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 7/4	95	10YR 6/8	5	C	M	Silt	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

No positive indication of hydric soils was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL9
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43355 Long: -93.46681 Datum: NAD83
Soil Map Unit Name: Glenmora silt loam, 1 to 3 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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	No **X**	
Hydric Soil Present?	Yes	No **X**	**Is the Sampled Area within a Wetland?** Yes No **X**
Wetland Hydrology Present?	Yes	No **X**	

Remarks:

This point was determined not to be within a wetland due to the lack of all three wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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)
- **X** 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 **X**	Depth (inches): **N/A**
Water Table Present?	Yes	No **X**	Depth (inches): **>20**
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches): **>20**

Wetland Hydrology Present? Yes No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

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

Sampling Point: **SL9**

	Absolute	Dominant	Indicator
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 30 ft.)			
1. *Eleocharis tenuis*	50	Yes	FACW
2. *Paspalum notatum*	40	Yes	FACU
3. *Digitaria ciliaris*	40	Yes	FACU
4. *Dichanthelium sphaerocarpon*	20	No	FACU
5. *Asclepias longifolia*	20	No	FAC
6. *Diodia teres*	10	No	FACU
7.			
8.			
9.			
10.			
11.			
	180 = Total Cover		
50% of total cover: 90	20% of total cover: 36		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **1** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**50**	x 2 =	**100**
FAC species	**20**	x 3 =	**60**
FACU species	**110**	x 4 =	**440**
UPL species	**0**	x 5 =	**0**
Column Totals:	**180** (A)		**600** (B)

Prevalence Index = B/A = **3.33**

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 must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

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

No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC− or drier).

SOIL

Sampling Point: **SL9**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 7/4	90	10YR 6/8	10	C	M	Silt	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

No positive indication of hydric soils was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL10
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43457 Long: -93.46690 Datum: NAD83
Soil Map Unit Name: Glenmora silt loam, 1 to 3 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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 **X**	No	
Hydric Soil Present?	Yes	No **X**	**Is the Sampled Area within a Wetland?** Yes No **X**
Wetland Hydrology Present?	Yes **X**	No	

Remarks:

This point was determined not to be within a wetland due to the lack of hydric soils.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- **X** Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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)
- **X** 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 **X**	Depth (inches): **N/A**
Water Table Present?	Yes	No **X**	Depth (inches): **>20**
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches): **>20**

Wetland Hydrology Present? Yes **X** No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

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

Sampling Point: **SL10**

	Absolute	Dominant	Indicator
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 30 ft.)			
1. *Eleocharis tenuis*	50	Yes	FACW
2. *Paspalum notatum*	40	Yes	FACU
3. *Digitaria ciliaris*	40	Yes	FACU
4. *Rhynchospora caduca*	30	No	OBL
5. *Dichanthelium sphaerocarpon*	20	No	FACU
6. *Asclepias longifolia*	20	No	FAC
7. *Diodia teres*	10	No	FACU
8.			
9.			
10.			
11.			
	210 = Total Cover		
50% of total cover: 105	20% of total cover: 42		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **1** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**30**	x 1 =	**30**
FACW species	**50**	x 2 =	**100**
FAC species	**20**	x 3 =	**60**
FACU species	**110**	x 4 =	**440**
UPL species	**0**	x 5 =	**0**
Column Totals:	**210** (A)		**630** (B)

Prevalence Index = B/A = **3.00**

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤ 3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** **X** **No** ____

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

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

SOIL

Sampling Point: **SL10**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 5/2	98	10YR 4/6	2	C	PL	Silt	
2-16	10YR 5/4	90	10YR 4/8	10	C	M&PL	Silt	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

No positive indication of hydric soils was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL11
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43574 Long: -93.46585 Datum: NAD83
Soil Map Unit Name: Caddo-Messer complex, 0 to 1 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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 **X**	No	**Is the Sampled Area within a Wetland?**	**Yes X** **No**
Hydric Soil Present?	Yes **X**	No		
Wetland Hydrology Present?	Yes **X**	No		

Remarks:

This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- **X** Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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)
- **X** Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- **X** FAC-Neutral Test (D5)
- ____ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes ____ No **X**	Depth (inches):	**N/A**
Water Table Present?	Yes ____ No **X**	Depth (inches):	**>20**
Saturation Present? (includes capillary fringe)	Yes ____ No **X**	Depth (inches):	**>20**

Wetland Hydrology Present? **Yes X** **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

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

Sampling Point: **SL11**

	Absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 30 ft.)			
1. *Rhynchospora colorata*	40	Yes	FACW
2. *Rhexia mariana*	30	Yes	FACW
3. *Eleocharis tenuis*	30	Yes	FACW
4. *Fuirena breviseta*	25	No	OBL
5. *Digitaria ciliaris*	10	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
	135 = Total Cover		
50% of total cover: 67.5	20% of total cover: 27		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**25**	x 1 =	**25**
FACW species	**100**	x 2 =	**200**
FAC species	**0**	x 3 =	**0**
FACU species	**10**	x 4 =	**40**
UPL species	**0**	x 5 =	**0**
Column Totals:	**135** (A)		**265** (B)

Prevalence Index = B/A = **1.96**

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- **X** 2 - Dominance Test is >50%
- **X** 3 - Prevalence Index is ≤ 3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** **X** **No** ___

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

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

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

SOIL

Sampling Point: **SL11**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	85	10YR 5/8	10	C	M	Silt	
			10YR 4/6	5	C	PL		

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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)
- **X** 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

A positive indication of hydric soil was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL12
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43663 Long: -93.46809 Datum: NAD83
Soil Map Unit Name: Glenmora silt loam, 1 to 3 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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 **X**	No	**Is the Sampled Area within a Wetland?**	**Yes X** **No**
Hydric Soil Present?	Yes **X**	No		
Wetland Hydrology Present?	Yes **X**	No		

Remarks:

This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- **X** Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- **X** Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- **X** Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- **X** Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- **X** FAC-Neutral Test (D5)
- ____ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes ____ No **X**	Depth (inches):	**N/A**
Water Table Present?	Yes ____ No **X**	Depth (inches):	**>20**
Saturation Present? (includes capillary fringe)	Yes ____ No **X**	Depth (inches):	**>20**

Wetland Hydrology Present? **Yes X** **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

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

Sampling Point: **SL12**

	Absolute	Dominant	Indicator
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status
1. *Quercus nigra*	50	Yes	FAC
2. *Celtis laevigata*	45	Yes	FACW
3. *Salix nigra*	30	No	OBL
4. *Acer rubrum*	30	No	FAC
5. *Triadica sebifera*	20	No	FAC
6.			
	175 = Total Cover		
50% of total cover: 87.5	20% of total cover: 35		
Sapling Stratum (Plot size: 30 ft.)			
1. *Quercus nigra*	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Shrub Stratum (Plot size: 30 ft.)			
1. *Morella cerifera*	70	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Herb Stratum (Plot size: 30 ft.)			
1. *Cyperus virens*	60	Yes	FACW
2. *Rhynchospora colorata*	35	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **6** (A)

Total Number of Dominant Species Across All Strata: **6** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**30**	x 1 =	**30**
FACW species	**140**	x 2 =	**280**
FAC species	**180**	x 3 =	**540**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**350** (A)		**850** (B)

Prevalence Index = B/A = **2.43**

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- **X** 2 - Dominance Test is >50%
- **X** 3 - Prevalence Index is ≤ 3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** **X** **No** ___

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

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

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

SOIL

Sampling Point: **SL12**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 5/2	95	10YR 5/8	5	C	M&PL	Silt	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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)
- **X** 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

A positive indication of hydric soil was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL13
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43589 Long: -93.46701 Datum: NAD83
Soil Map Unit Name: Glenmora silt loam, 1 to 3 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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	No **X**	
Hydric Soil Present?	Yes	No **X**	**Is the Sampled Area within a Wetland?** Yes No **X**
Wetland Hydrology Present?	Yes	No **X**	

Remarks:

This point was determined not to be within a wetland due to the lack of all three wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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 **X**	Depth (inches): **N/A**	
Water Table Present?	Yes	No **X**	Depth (inches): **>20**	
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches): **>20**	**Wetland Hydrology Present?** Yes No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

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

Sampling Point: **SL13**

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *Pinus palustris*	70	Yes	FACU
2.			
3.			
4.			
5.			
6.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30 ft.)			
1. *Morella cerifera*	50	Yes	FAC
2. *Ligustrum sinense*	35	Yes	FAC
3. *Rubus trivialis*	20	No	FACU
4.			
5.			
6.			
	105 = Total Cover		
50% of total cover: 52.5	20% of total cover: 21		
Herb Stratum (Plot size: 30 ft.)			
1. *Rubus trivialis*	20	Yes	FACU
2. *Liatris spicata*	20	Yes	FAC
3. *Schizachyrium scoparium*	20	Yes	FACU
4. *Toxicodendron radicans*	10	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **6** (B)

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

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**115**	x 3 =	**345**
FACU species	**130**	x 4 =	**520**
UPL species	**0**	x 5 =	**0**
Column Totals:	**245** (A)		**865** (B)

Prevalence Index = B/A = **3.53**

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 must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

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

No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC− or drier).

SOIL

Sampling Point: **SL13**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 5/3	95	10YR 5/8	5	C	M	Silt	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

No positive indication of hydric soils was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL14
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43686 Long: -93.46592 Datum: NAD83
Soil Map Unit Name: Glenmora silt loam, 1 to 3 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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 **X**	No	
Hydric Soil Present?	Yes	No **X**	**Is the Sampled Area within a Wetland?** Yes No **X**
Wetland Hydrology Present?	Yes	No **X**	

Remarks:

This point was determined not to be within a wetland due to the lack of hydric soils and wetland hydrology.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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 **X**	Depth (inches): **N/A**
Water Table Present?	Yes	No **X**	Depth (inches): **>20**
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches): **>20**

Wetland Hydrology Present? Yes No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

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

Sampling Point: **SL14**

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *Pinus palustris*	70	Yes	FACU
2. *Triadica sebifera*	20	Yes	FAC
3.			
4.			
5.			
6.			
	90 = Total Cover		
50% of total cover: 45		20% of total cover: 18	
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:		20% of total cover:	
Shrub Stratum (Plot size: 30 ft.)			
1. *Morella cerifera*	50	Yes	FAC
2. *Ligustrum sinense*	35	Yes	FAC
3. *Rubus trivialis*	20	No	FACU
4. *Triadica sebifera*	10	No	FAC
5.			
6.			
	115 = Total Cover		
50% of total cover: 57.5		20% of total cover: 23	
Herb Stratum (Plot size: 30 ft.)			
1. *Rubus trivialis*	20	Yes	FACU
2. *Liatris spicata*	20	Yes	FAC
3. *Schizachyrium scoparium*	20	Yes	FACU
4. *Toxicodendron radicans*	10	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		
50% of total cover: 35		20% of total cover: 14	
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **4** (A)

Total Number of Dominant Species Across All Strata: **7** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **57%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**145**	x 3 =	**435**
FACU species	**130**	x 4 =	**520**
UPL species	**0**	x 5 =	**0**
Column Totals:	**275** (A)		**955** (B)

Prevalence Index = B/A = **3.47**

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- **X** 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 must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** **X** **No** ___

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

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

SOIL

Sampling Point: **SL14**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 6/4	90	10YR 6/8	10	C	M	Silt	
4-16	10YR 5/3	80	10YR 3/6	15	C	PL	Silt	
			10YR 4/8	5	C	M		

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

No positive indication of hydric soils was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL15
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43883 Long: -93.46743 Datum: NAD83
Soil Map Unit Name: Caddo-Messer complex, 0 to 1 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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 **X**	No	
Hydric Soil Present?	Yes	No **X**	**Is the Sampled Area within a Wetland?** Yes No **X**
Wetland Hydrology Present?	Yes	No **X**	

Remarks:

This point was determined not to be within a wetland due to the lack of hydric soils and wetland hydrology.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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 **X**	Depth (inches): **N/A**
Water Table Present?	Yes	No **X**	Depth (inches): **>20**
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches): **>20**

Wetland Hydrology Present? Yes No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

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

Sampling Point: **SL15**

	Absolute	Dominant	Indicator
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status
1. *Pinus palustris*	40	Yes	FACU
2. *Triadica sebifera*	40	Yes	FAC
3. *Quercus nigra*	30	Yes	FAC
4.			
5.			
6.			
	110 = Total Cover		
50% of total cover: 55		20% of total cover: 22	
Sapling Stratum (Plot size: 30 ft.)			
1. *Pinus palustris*	25	Yes	FACU
2.			
3.			
4.			
5.			
6.			
	25 = Total Cover		
50% of total cover: 12.5		20% of total cover: 5	
Shrub Stratum (Plot size: 30 ft.)			
1. *Triadica sebifera*	10	Yes	FAC
2. *Morella cerifera*	20	Yes	FAC
3. *Ilex vomitoria*	20	Yes	FAC
4.			
5.			
6.			
	50 = Total Cover		
50% of total cover: 25		20% of total cover: 10	
Herb Stratum (Plot size: 30 ft.)			
1. *Schizachyrium scoparium*	70	Yes	FACU
2. *Rubus argutus*	30	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50		20% of total cover: 20	
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **6** (A)

Total Number of Dominant Species Across All Strata: **9** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **67%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**150**	x 3 =	**450**
FACU species	**135**	x 4 =	**540**
UPL species	**0**	x 5 =	**0**
Column Totals:	**285** (A)		**990** (B)

Prevalence Index = B/A = **3.47**

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- **X** 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 must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** **X** **No** ___

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

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

SOIL

Sampling Point: **SL15**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/3	100	None	—	—	—	Silt Loam	
6-16	10YR 5/3	95	10YR 5/8	5	C	M&PL	Silt Loam	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

No positive indication of hydric soils was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dequincy Industrial Park Parish: Calcasieu Sampling Date: August 23, 2018
Applicant/Owner: SWLA Economic Development Alliance State: Louisiana Sample Point: SL16
Investigator(s): B.McNabb and T. Jones Section, Township, Range: Sec. 23 - T7S -R11W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR or MLRA): LRR T Lat: 30.43790 Long: -93.46657 Datum: NAD83
Soil Map Unit Name: Glenmora silt loam, 1 to 3 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No
Are Vegetation **No**, Soil **No**, or Hydrology **No** 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 **X**	No	
Hydric Soil Present?	Yes	No **X**	**Is the Sampled Area within a Wetland?** Yes No **X**
Wetland Hydrology Present?	Yes	No **X**	

Remarks:

This point was determined not to be within a wetland due to the lack of hydric soils and wetland hydrology.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15) **(LRR U)**
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots(C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

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 **X**	Depth (inches):	**N/A**
Water Table Present?	Yes	No **X**	Depth (inches):	**>20**
Saturation Present? (includes capillary fringe)	Yes	No **X**	Depth (inches):	**>20**

Wetland Hydrology Present? Yes No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

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

Sampling Point: **SL16**

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *Pinus palustris*	70	Yes	FACU
2. *Triadica sebifera*	20	Yes	FAC
3.			
4.			
5.			
6.			
	90 = Total Cover		
50% of total cover: 45		20% of total cover: 18	
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:		20% of total cover:	
Shrub Stratum (Plot size: 30 ft.)			
1. *Morella cerifera*	50	Yes	FAC
2. *Ligustrum sinense*	35	Yes	FAC
3. *Rubus trivialis*	20	No	FACU
4. *Triadica sebifera*	10	No	FAC
5.			
6.			
	115 = Total Cover		
50% of total cover: 57.5		20% of total cover: 23	
Herb Stratum (Plot size: 30 ft.)			
1. *Rubus trivialis*	20	Yes	FACU
2. *Liatris spicata*	20	Yes	FAC
3. *Schizachyrium scoparium*	20	Yes	FACU
4. *Toxicodendron radicans*	10	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		
50% of total cover: 35		20% of total cover: 14	
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
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: **4** (A)

Total Number of Dominant Species Across All Strata: **7** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **57%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**145**	x 3 =	**435**
FACU species	**130**	x 4 =	**520**
UPL species	**0**	x 5 =	**0**
Column Totals:	**275** (A)		**955** (B)

Prevalence Index = B/A = **3.47**

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- **X** 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 must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** **X** **No** ___

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

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

SOIL

Sampling Point: **SL16**

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 5/3	100	None	—	—	—	Silt	

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

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

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5)
- ____ Organic Bodies (A6) **(LRR P, T, U)**
- ____ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ____ Muck Presence (A8) **(LRR 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 Soils[3]:

- ____ 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)

[3]Indicators 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:

No positive indication of hydric soils was observed.