Exhibit CC. Woodley Plantation Site Wetlands Delineation Report

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Woodley Site Wetlands Delineation Report

Wetland Data Report

Woodley Plantation Site

Pointe Coupee Parish, Louisiana

Baton Rouge Area Chamber

564 Laurel Street

Baton Rouge, Louisiana 70801

February 2016

Prepared by:

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CK Project Number: 13343

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ATTACHMENTS

1.0 INTRODUCTION

The following report summarizes a wetland delineation conducted by CK Associates (CK) on a 355 acre property (project area) near Valverda, Louisiana. The purpose of this report is to identify areas that contain potential wetlands and other potential "Waters of the United States" (US) as defined in 33 C.F.R. § 328.3. The project area is located on Highway 77 in Pointe Coupee Parish, specifically at latitude 30°32'33.71"N and longitude 91°33'35.31"W within Sections 78, 79, 80, 81, 82, and 121 of Township 6 South and Range 9 East.

Waters of the US are aquatic areas that are either navigable or have a significant nexus to a navigable water. These areas are regulated by the US Army Corps of Engineers (USACE). Navigable waters are defined as "those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce" (33 C.F.R. § 329.4 [1986]). Any area below the ordinary high water mark, as defined in 33 C.F.R. § 328.3 (1993), may fall under Federal jurisdiction as a navigable water (33 C.F.R. § 329.11 [1986]).

Waters of the US, regardless of navigability, can generally be categorized as either: 1) deepwater aquatic habitats, 2) special aquatic sites, or 3) other waters of the US. Deepwater aquatic habitats are "areas that are permanently inundated at mean annual water depths greater than 6.6 feet or permanently inundated areas, less than or equal to 6.6 feet in depth that do not support rooted-emergent or woody plant species". Special aquatic sites include 1) sanctuaries and refuges, 2) wetlands, 3) mudflats, 4) vegetated shallows, 5) coral reefs, and 6) riffle and pool complexes. Other waters of the US include, but are not limited to 1) isolated wetlands and lakes, 2) intermittent streams, 3) prairie potholes, and 4) other waters that are not part of a tributary system to interstate waters or navigable waters of the US (USACE 1987).

Wetlands are classified as a special aquatic site and are defined as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (USACE 1987). These areas are referred to as "wetlands" throughout this report whereas deepwater aquatic habitats, special aquatic sites, streams, and other waters of the US are referred to as "other waters" in this report.

Three mandatory technical criteria for determining the presence of a wetland are, with exceptions, 1) prevalence of hydrophytic vegetation, 2) wetland hydrology, and 3) hydric soils (USACE 1987). Hydrophytic vegetation is defined as "the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content" (USACE 1987). The term wetland hydrology encompasses "the sum total of wetness characteristics in areas that are inundated or have saturated soils for a sufficient duration to support hydrophytic vegetation" (USACE 1987). A hydric soil is defined as "a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part" (USDA 2010).

2.0 PHYSIOGRAPHY, CLIMATE, AND SITE DESCRIPTION

The project area is located within Land Resource Region (LRR) O – Mississippi Delta Cotton and Feed Grains Region, in Major Land Resource Area (MLRA) 131A – Southern Mississippi River Alluvium. The topography of MLRA 131A is characterized by level or depressional to very undulating alluvial plains, backswamps, oxbows, natural levees, and terraces. Average elevations start at sea level in the southern part of the area and gradually rise to about 330 feet in the northwestern part. The lower Mississippi River and its tributaries drain nearly all of MLRA 131A, but the Atchafalaya River drains the extreme southwest part (USDA 2006).

The annual precipitation in MLRA 131A is 46 to 60 inches. The average annual temperature ranges from 56 to 69 degrees Fahrenheit (F), increasing from north to south. The freeze-free period averages 285 days and ranges from 210 to 355 days (USDA 2006).

Active agriculture comprises a majority of the project area, with wetland and non-wet inactive agriculture habitat. There are existing homesteads on the eastern part of the project area.

3.0 METHODS

CK visited the project area January 27, 2016 to determine the extent of potential wetlands and other waters of the US. The wetland delineation followed routine onsite field procedures as outlined by the USACE (1987 and 2010). Soil references include the NRCS (2015, 2016a, and 2016c) and USDA (2010). Plant nomenclature and wetland indicator status is taken from The National Wetland Plant List (Lichvar et al. 2014). Plant nomenclature not listed in The National Wetland Plant List is taken from the NRCS PLANTS Database (2016b).

Prior to conducting the field investigation, CK reviewed available aerial photography, soil survey data, elevation data (Light Detection and Ranging [LiDAR] contours and Digital Elevation Models [DEM]), topographic maps, and National Wetland Inventory (NWI) data. Data points were established within the dominant plant communities of the project area. Observations of soils, vegetation, and hydrology were documented at each data point location (Attachment A). Potential wetlands and waters of the US, and data point locations were mapped utilizing Trimble® GeoXT® Differential Global Positioning System (DGPS) with real-time corrections. Acreage was obtained by exporting the data from the DGPS unit into ESRI® ArcMap Version 10.3. Digital photographs were taken of the soil profile and surrounding vegetation at each data point (Attachment A).

Wetland hydrology was based on the observation of wetland hydrology indicators, as described by USACE (2010). Wetland hydrology criteria were met if one primary indicator was observed or a minimum of two secondary indicators were observed.

All vegetative species present within each data point plot were documented for all vegetation strata, including the tree stratum, sapling/shrub stratum, herbaceous stratum, and woody vines stratum. Percent absolute cover for each species was determined by

ocular estimation. Plant communities met hydrophytic vegetation criteria if all dominant species across all strata are classified as obligatory and/or facultative-wet, or if greater than 50% of all dominant species from all strata were classified as obligatory, facultative-wet, and/or facultative species, or if the prevalence index is 3.0 or less (USACE 2010). Dominant species were selected using the "50/20 rule" described by the USACE (2010).

Soil profiles were obtained by excavating an approximate 12- to 16-inch soil pit. Soil color was recorded by matching soil samples throughout the profile to color chips contained in a Munsell soil color chart. The presence or absence of hydric soils was determined utilizing the methods and procedures outlined by the USACE (2010), including, but not limited to, the observation of the hydric soil indicators described by the USACE (2010).

4.0 RESULTS

Five data points (DP) were collected during the field investigation. DP1, DP2, and DP3 were located within wetlands. DP4 was located within non-wetlands.

4.1 Hydrology

Primary wetland hydrology indicators (surface water, saturation, sediment deposits, drift deposits, algal mat or crust, water-stained leaves, and/or oxidized rhizospheres on living roots) and/or secondary hydrology indicators (drainage patterns, crawfish burrows, saturation visible on aerial imagery, and/or FAC-Neutral test) were observed at DP1, DP2, DP3. No primary or secondary wetland hydrology indicators were observed at DP4.

4.2 Vegetation

The wet, inactive agriculture habitat is dominated by peatree (*Sesbania herbacea*) and rice button American-aster (*Symphyotrichum dumosum*) in the sapling-shrub stratum. The herbaceous stratum is dominated by virginia buttonweed (*Diodia virginiana*), variable flat sedge (*Cyperus difformis*), curly dock (*Rumex crispus*), ricefield flatsedge (*Cyperus iria*), and green flat sedge (*Cyperus virens*).

The non-wet, inactive agriculture habitat is dominated by great ragweed (*Ambrosia trifida*) in the sapling shrub stratum. Southern dewberry (*Rubus trivialis*) and Carolina horse-nettle (*Solanum carolinense*) dominate the herbaceous stratum.

The active agricultural fields are dominated by annual blue grass (*Poa annua*).

4.3 Soils

The project area is underlain by the following soils (Figure 4):

a. Ce: Commerce silt loam, 0 to 1 percent slopes
b. Cm: Commerce silty clay loam

c. Ct: Convent silt loam, 0 to 1 percent slopes
d. Se: Sharkey silty clay loam
e. Sf: Sharkey clay, 0 to 1 percent slopes, rarely flooded, south

All of the above soils are designated as hydric according to the National Hydric Soils List (NRCS 2015). The depleted matrix hydric soil indicator was observed at DP1, DP2, DP3, and DP4.

4.4 Questions Pertaining to Regulatory Authority

CK has also addressed the items below, as directed in the request for proposal:

1. Identify any bodies of water on or abutting the site and identify the authority with jurisdiction over them.
    - The Port Allen Lock (Bayou Black) is located adjacent to the eastern property boundary. This feature is under the jurisdiction of the USACE by authority of Section 10 of the Rivers and Harbors Act.
2. Do wetlands and/or other waterways exist on or near the site?
    - There are 15.2 acres of Section 404 Wetlands present on the site. These features are under the jurisdiction of the USACE under the authority of Section 404 of the Clean Water Act.
    - There are 5.2 acres of Section 404 Other Waters of the US present on the site. These features are under the jurisdiction of the USACE by authority of Section 404 of the Clean Water Act.
3. If wetlands are present has a Section 404 permit application been submitted to USACE? If yes, provide a copy.
    - No previous permit applications were associated with the project area per the USACE New Orleans District.
4. If wetlands are present, has the Section 404 permit been received from the USACE?
    - See above.
5. If wetlands are present, have all wetlands on site been mitigated?
    - To the best of CK's knowledge, no mitigation has been conducted for wetlands on site.

5.0 CONCLUSIONS

Based on the aforementioned data and field observations, the 355 acre project area contains (Figure 2 and Figure 3):

- 5.2 acres of Section 404 Other Waters of the US
- 15.2 acres of Section 404 Wetlands

This acreage is influenced by the accuracy of the DGPS unit utilizing real-time corrections and ESRI® ArcMap Version 10.3 drafting software.

The USACE under the authority of the Clean Water Act, Section 404 and the Rivers and Harbor Act, Section 10 has the responsibility to make the final determination of the location and extent of jurisdictional wetlands, other waters of the US and navigable waters on this property, respectively. This report represents the opinion of the investigators and should be considered preliminary until final concurrence is obtained from the New Orleans District Army Corps of Engineers office.

6.0 LITERATURE CITED

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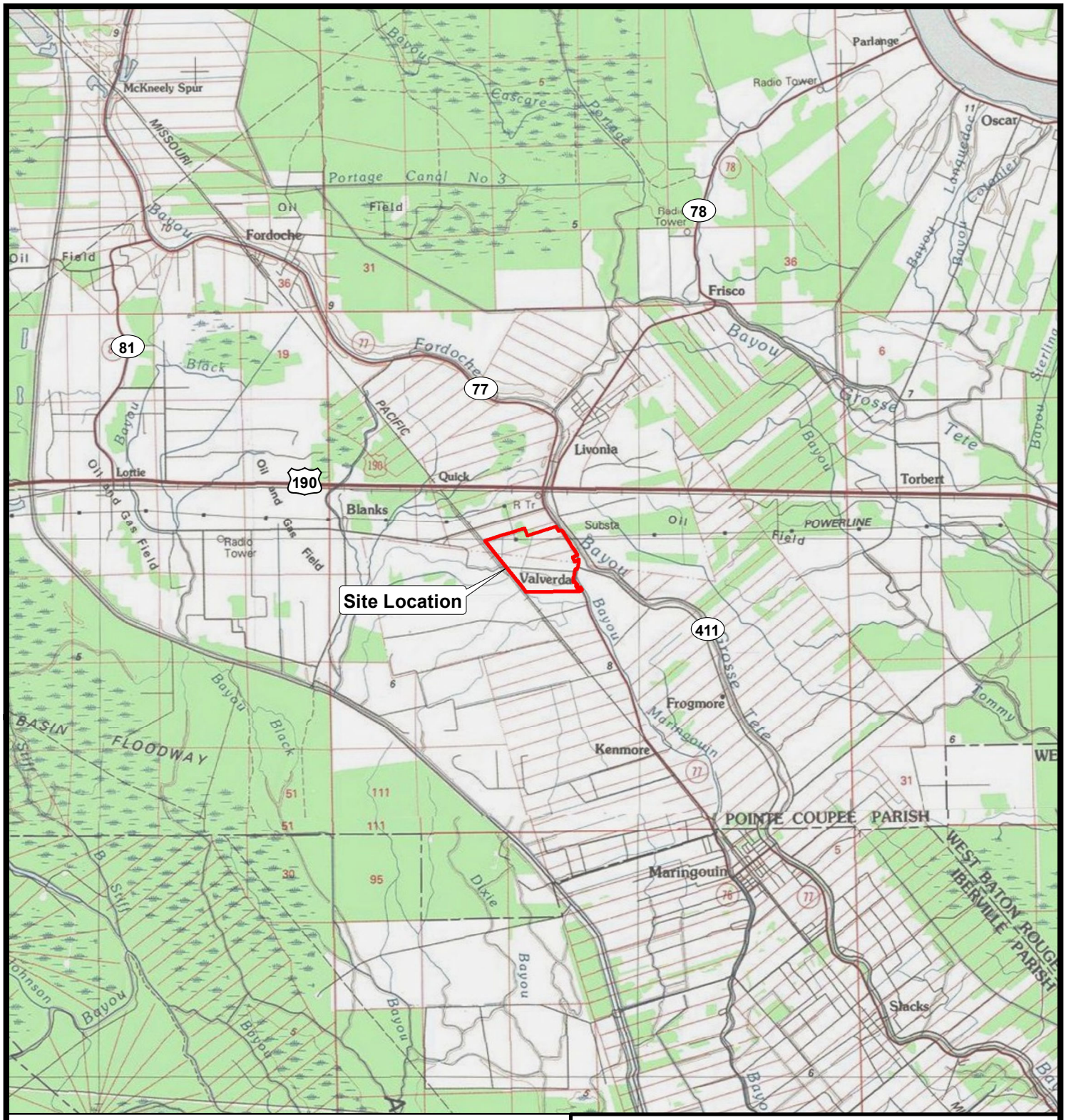
FIGURES



N

S

0 1 2

Miles

Reference

U.S.G.S. 100K SERIES QUAD MAP, NEW ROADS, LA.

esri Partner Network Silver

CK Associates Environmental Consultants

Baton Rouge Area Chamber

Baton Rouge, Louisiana

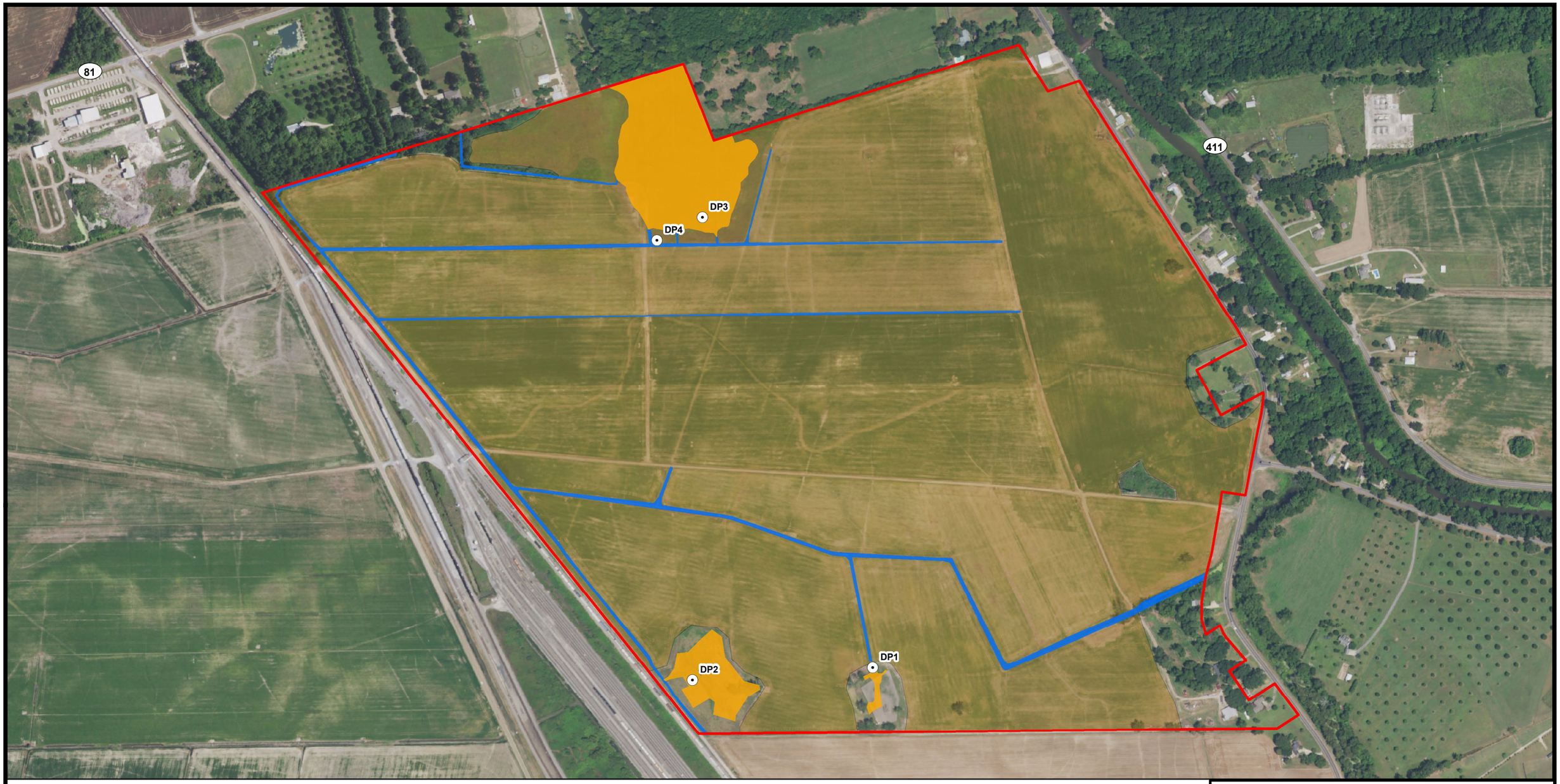
Woodley Plantation Site

Site Location Map

Pointe Coupee Parish

Drawn:	CPL/AM10.3
Checked:	CP
Approved:	TEW
Date:	01/29/2016
Dwg. No.:	A13343-01

Figure 1



Data Point

Site Boundary (355 acres)

Wetlands (15.2 acres)

Other Waters of the US (5.2 acres)

Nonwetlands- Active Agriculture Fields (Approx. 332 acres)

Nonwetlands- Nonagriculture & Existing Development (Approx. 2.6 acres)

N

S

0 550 1,100

Feet

Reference

Imagery: NAIP 2015, Point Coupee Parish, Louisiana Mosaic.

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Baton Rouge Area Chamber

Baton Rouge, Louisiana

Woodley Plantation Site

Wetlands Map

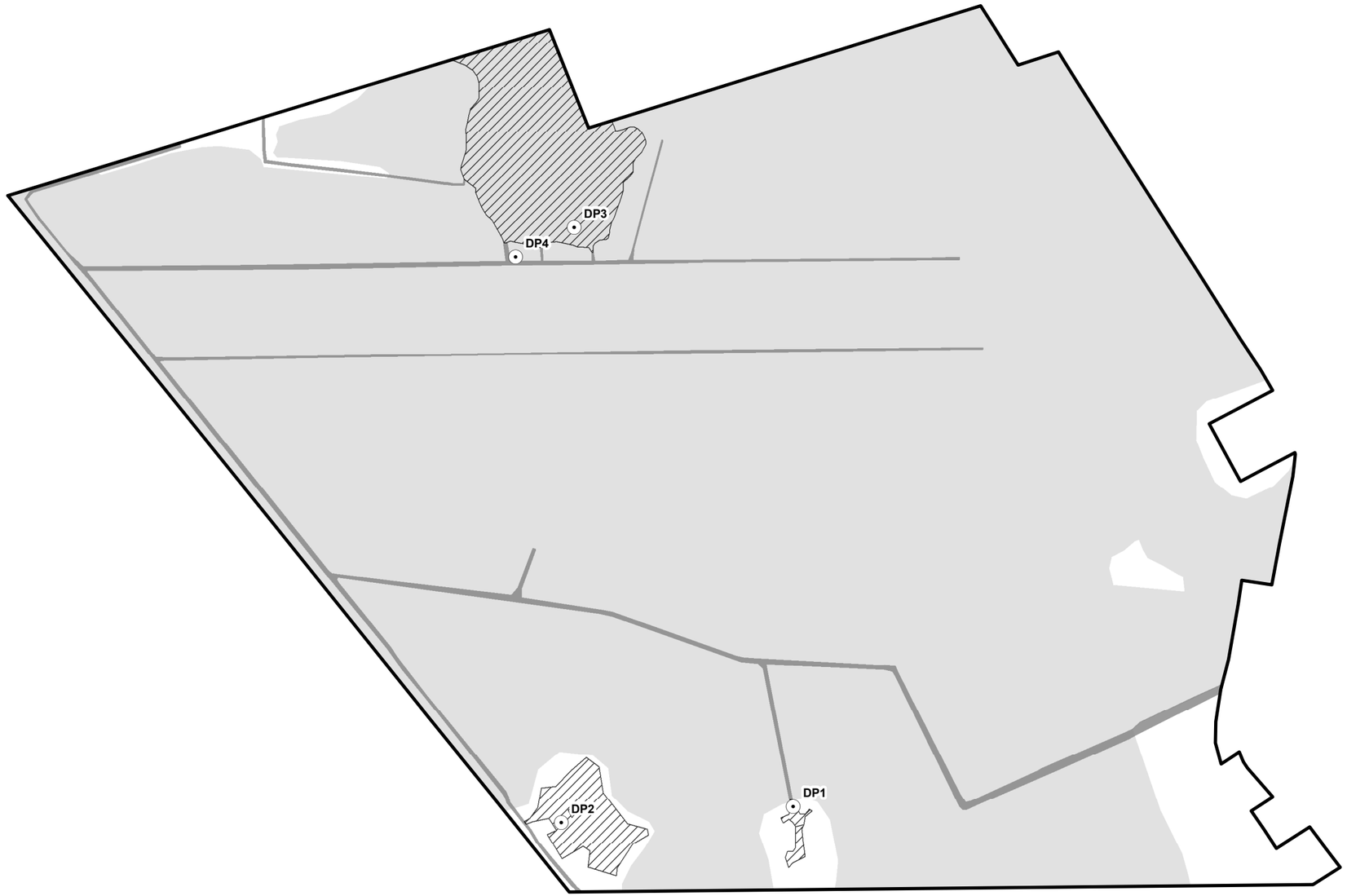
(Aeril Imagery Background)

Pointe Coupee Parish

CK Associates Environmental Consultants

Drawn:	CPL/AM10.3
Checked:	CP
Approved:	TEW
Date:	01/29/2016
Dwg. No.:	B13343-02

Figure 2



Data Point

Site Boundary (355 acres)

Wetlands (15.2 acres)

Other Waters of the US (5.2 acres)

Nonwetlands- Active Agriculture Fields (Approx. 332 acres)

Nonwetlands- Nonagriculture & Existing Development (Approx. 2.6 acres)

N

S

0 550 1,100

Feet

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Woodley Plantation Site

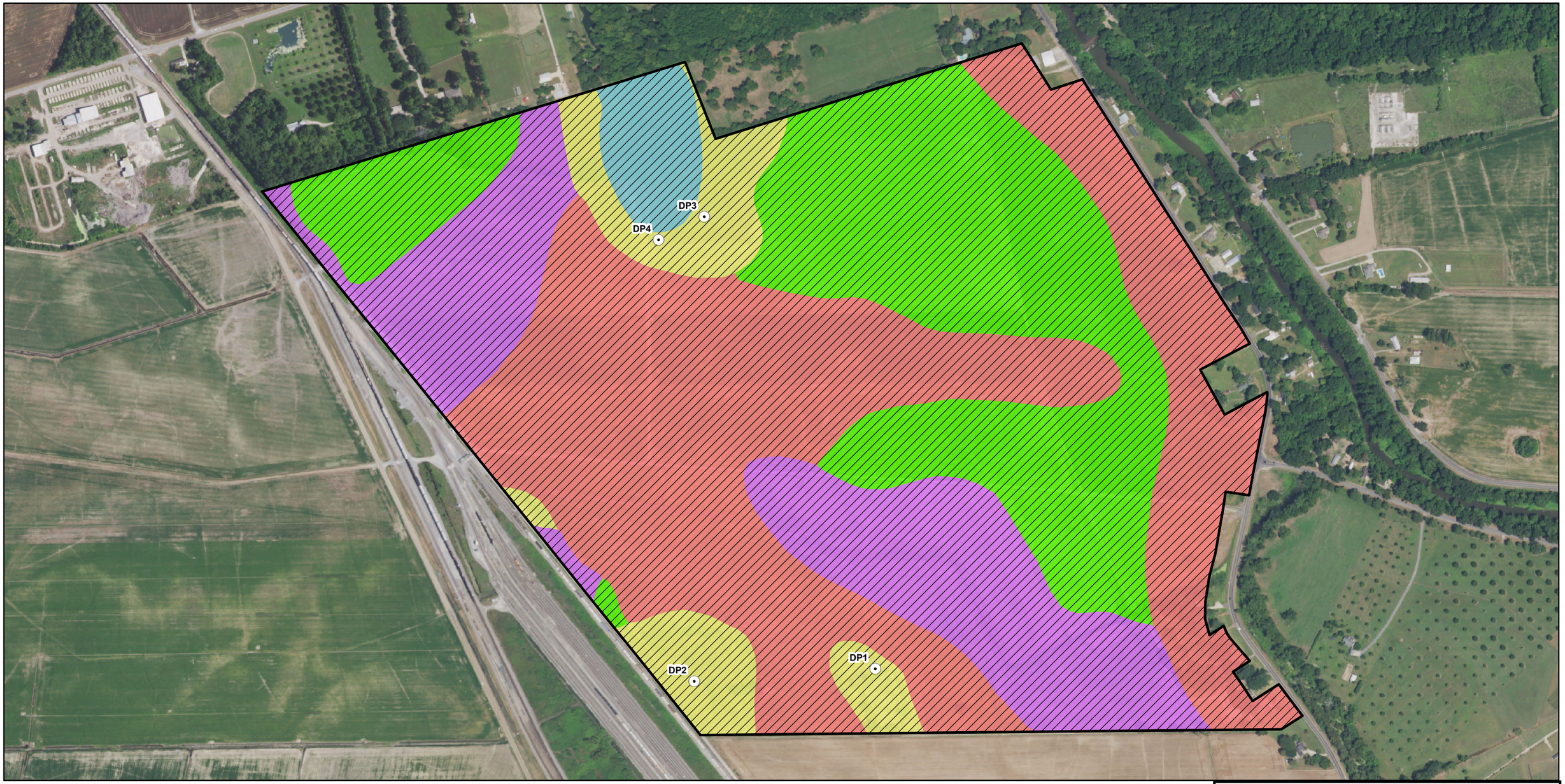
Wetlands Map

Pointe Coupee Parish

CK Associates Environmental Consultants

Drawn:	CPL/AM10.3
Checked:	CP
Approved:	TEW
Date:	01/29/2016
Dwg. No.:	B13343-03

Figure 3



Data Point

Site Boundary (355 acres)

Soil Data

- Ce- Commerce silt loam, 0 to 1 percent slopes
- Cm- Commerce silty clay loam
- Ct- Convent silt loam, 0 to 1 percent slopes
- Se- Sharkey silty clay loam
- Sf- Sharkey clay, 0 to 1 percent slopes, rarely flooded, south
- Soils Designated as Hydric

0 550 1,100

Feet

N

S

esri Partner Network Silver

Reference

1) IMAGERY: NAIP 2015, POINT COUPEE PARISH, LOUISIANA MOSAIC.
2) SOIL DATA FROM THE USDA NRCS SOIL SURVEY GEOGRAPHIC(SSURGO) DATABASE FOR POINT COUPEE PARISH.
3) HYDRIC SOIL DATA FROM THE USDA NRCS 2015 NATIONAL HYDRIC SOILS LIST.

Baton Rouge Area Chamber

Baton Rouge, Louisiana

Woodley Plantation Site

Published Soils Map

Pointe Coupee Parish

CK Associates Environmental Consultants

Drawn:	CPL/AM10.3
Checked:	CP
Approved:	TEW
Date:	01/29/2016
Dwg. No.:	B13343-04

Figure 4

ATTACHMENT A

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Woodley Plantation | City/County: Valverda/Pointe Coupee | Sampling Date: 1/27/2016

Applicant/Owner: BRAC - Baton Rouge Area Chamber | State: Louisiana | Sampling Point: DP1

Investigator(s): Christina Perez, Kale Wetekamm | Section, Township, Range: Section , Township 6 S, Range 9 E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): concave | Slope (%): 0

Subregion (LRR or MLRA): LRR O | Lat: 30°32'17.98"N | Long: 91°33'33.35"W | Datum: NAD83

Soil Map Unit Name: Se: Sharkey silty clay loam | NWI Classification: none

Are climatic/hydrologic conditions of the site typical for this time of the year? **Yes** (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? **Yes**

Are vegetation ____, soil ____, or hydrology ____ 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 Hydric soil present? Yes Indicators of wetland hydrology present? Yes	**Is the Sampled Area within a Wetland?** **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- [X] Surface Water (A1)
- [ ] High Water Table (A2)
- [X] 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)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [X] Drainage Patterns (B10)
- [ ] Dry-Season Water Table (C2)
- [ ] Moss Trim Lines (B16)
- [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	X	No		Depth (inches):	0-6
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	X	No		Depth (inches):	0

Wetland Hydrology Present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test: 2:0

VEGETATION -- Use scientific names of plants. Sampling Point: DP1

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Sapling/Shrub Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1 *Diodia virginiana*	60	Y	FACW
2 *Cyperus difformis*	40	Y	OBL
3 *Rubus trivialis*	20	N	FACU
4 *Panicum hemitomon*	5	N	OBL
5 *Alternanthera philoxeroides*	5	N	OBL
6 *Verbena incompta*	2	N	FACW
7 *Iris fulva*	2	N	OBL
8			
	132 = Total Cover		
50% of total cover: 66	20% of total cover: 26.4		

Herb stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Woody vine stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column totals		(A)	0 (B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] Rapid test for hydrophytic vegetation
- [X] Dominance test is >50%
- [ ] Prevalence index is ≤3.0*
- [ ] Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

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

Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.26 ft (1m) tall

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**

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

SOIL Sampling Point: DP1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-8	10YR 4/1	95	10YR 5/8	5	C	M	silty clay	
8-16	7.5YR 4/1	70	7.5YR 4/4	30	C	M	silty clay	

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

Hydric Soil Indicators:

- ___ Histisol (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)
- ___ 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)**
- ___ Anomolous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils:

- ___ 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)**
- ___ Anomolous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

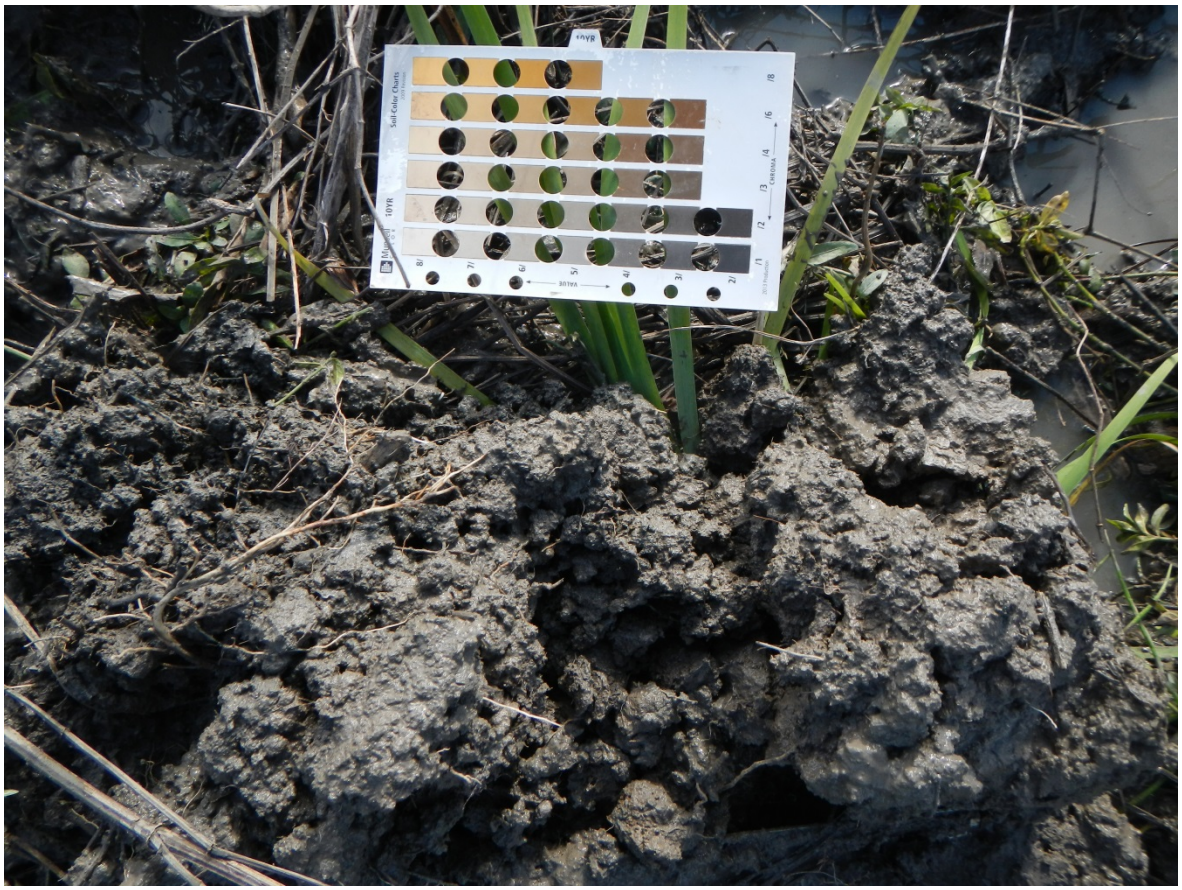
Remarks:

Vegetation at DP1 facing north taken 1/27/16

Vegetation at DP1 facing east taken 1/27/16

Vegetation at DP1 facing south taken 1/27/16

Vegetation at DP1 facing west taken 1/27/16



Soil profile at DP1 taken 1/27/16

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Woodley Plantation | City/County: Valverda/Pointe Coupee | Sampling Date: 1/27/2016

Applicant/Owner: BRAC - Baton Rouge Area Chamber | State: Louisiana | Sampling Point: DP2

Investigator(s): Christina Perez, Kale Wetekamm | Section, Township, Range: Section 121, Township 6 S, Range 9 E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): | Slope (%): 0

Subregion (LRR or MLRA): LRR O | Lat: 30°32'17.43"N | Long: 91°33'45.15"W | Datum: NAD83

Soil Map Unit Name: Se: Sharkey silty clay loam | NWI Classification: none

Are climatic/hydrologic conditions of the site typical for this time of the year? **Yes** (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? **Yes**

Are vegetation ____, soil ____, or hydrology ____ 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 Hydric soil present? Yes Indicators of wetland hydrology present? Yes	**Is the Sampled Area within a Wetland?** **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- [X] Surface Water (A1)
- [ ] High Water Table (A2)
- [X] 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)
- [ ] Dry-Season Water Table (C2)
- [ ] Moss Trim Lines (B16)
- [ ] Crayfish Burrows (C8)
- [X] 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	X	No		Depth (inches):	0-4
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	X	No		Depth (inches):	0

Wetland Hydrology Present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test: 1:0

VEGETATION -- Use scientific names of plants. Sampling Point: DP2

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Sapling/Shrub Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1 *Symphyotrichum dumosum*	20	Y	FAC
2			
3			
4			
5			
6			
7			
8			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		

Herb stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1 *Cyperus difformis*	10	Y	OBL
2 *Rumex crispus*	10	Y	FAC
3 *Trifolium repens*	5	N	FACU
4 *Iris fulva*	2	N	OBL
5			
6			
7			
8			
9			
10			
11			
12			
	27 = Total Cover		
50% of total cover: 13.5	20% of total cover: 5.4		

Woody vine stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

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: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column totals		(A)	0 (B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

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

Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.26 ft (1m) tall

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**

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

SOIL Sampling Point: DP2

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-5	7.5YR 4/1	90	7.5YR 4/6	10	C	PL	silty clay	
5-16	7.5YR 4/1	70	7.5YR 4/6	10	C	M	clay	
	7.5YR 3/1	20						

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

Hydric Soil Indicators:

- ___ Histisol (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)
- ___ 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)**
- ___ Anomolous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils:

- ___ 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)**
- ___ Anomolous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

Vegetation at DP2 facing north taken 1/27/16

Vegetation at DP2 facing east taken 1/27/16

Vegetation at DP2 facing south taken 1/27/16

Vegetation at DP2 facing west taken 1/27/16

Soil profile at DP2 taken 1/27/16

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Woodley Plantation | City/County: Valverda/Pointe Coupee | Sampling Date: 1/27/2016

Applicant/Owner: BRAC - Baton Rouge Area Chamber | State: Louisiana | Sampling Point: DP3

Investigator(s): Christina Perez, Kale Wetekamm | Section, Township, Range: Section 79, Township 6 S, Range 9 E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): concave | Slope (%): 0

Subregion (LRR or MLRA): LRR O | Lat: 30°32'43.66"N | Long: 91°33'44.14"W | Datum: NAD83

Soil Map Unit Name: Se: Sharkey silty clay loam | NWI Classification: PFO1A

Are climatic/hydrologic conditions of the site typical for this time of the year? **Yes** (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? **Yes**

Are vegetation ____, soil ____, or hydrology ____ 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 Hydric soil present? Yes Indicators of wetland hydrology present? Yes	**Is the Sampled Area within a Wetland?** **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- [X] Surface Water (A1)
- [ ] High Water Table (A2)
- [X] 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)
- [ ] Dry-Season Water Table (C2)
- [ ] Moss Trim Lines (B16)
- [ ] 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	X	No		Depth (inches):	1-2
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	X	No		Depth (inches):	0

Wetland Hydrology Present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test: 3:0

VEGETATION -- Use scientific names of plants. Sampling Point: DP3

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0	= Total Cover	

50% of total cover: 0 20% of total cover: 0

Sapling/Shrub Stratum (Plot size: 30 feet)			
1 *Sesbania herbacea*	10	Y	FACW
2			
3			
4			
5			
6			
7			
8			
	10	= Total Cover	

50% of total cover: 5 20% of total cover: 2

Herb stratum (Plot size: 30 feet)			
1 *Cyperus iria*	70	Y	FACW
2 *Cyperus virens*	60	Y	FACW
3 *Symphyotrichum dumosum*	30	N	FAC
4 *Lythrum alatum*	5	N	OBL
5			
6			
7			
8			
9			
10			
11			
12			
	165	= Total Cover	

50% of total cover: 82.5 20% of total cover: 33

Woody vine stratum (Plot size: 30 feet)			
1			
2			
3			
4			
5			
	0	= Total Cover	

50% of total cover: 0 20% of total cover: 0

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: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column totals		(A)	0 (B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] Rapid test for hydrophytic vegetation
- [X] Dominance test is >50%
- [ ] Prevalence index is ≤3.0*
- [ ] Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

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

Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.26 ft (1m) tall

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**

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

SOIL Sampling Point: DP3

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-16	2.5Y 4/1	90	10YR 4/6	10	C	M	clay	

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

Hydric Soil Indicators:

- ___ Histisol (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)
- ___ 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)**
- ___ Anomolous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils:

- ___ 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)**
- ___ Anomolous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

Vegetation at DP3 facing north taken 1/27/16

Vegetation at DP3 facing east taken 1/27/16

Vegetation at DP3 facing south taken 1/27/16

Vegetation at DP3 facing west taken 1/27/16

Soil profile at DP3 taken 1/27/16

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Woodley Plantation | City/County: Valverda/Pointe Coupee | Sampling Date: 1/27/2016

Applicant/Owner: BRAC - Baton Rouge Area Chamber | State: Louisiana | Sampling Point: DP4

Investigator(s): Christina Perez, Kale Wetekamm | Section, Township, Range: Section 79, Township 6 S, Range 9 E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): | Slope (%): 0

Subregion (LRR or MLRA): LRR O | Lat: 30°32'42.38"N | Long: 91°33'47.10"W | Datum: NAD83

Soil Map Unit Name: Se: Sharkey silty clay loam | NWI Classification: PFO1A

Are climatic/hydrologic conditions of the site typical for this time of the year? **Yes** (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? **Yes**

Are vegetation ____, soil ____, or hydrology ____ 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? No Hydric soil present? Yes Indicators of wetland hydrology present? No	**Is the Sampled Area within a Wetland?** **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ 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)
- ___ Dry-Season Water Table (C2)
- ___ Moss Trim Lines (B16)
- ___ 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):
Water table present?	Yes	____	No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes	____	No	X	Depth (inches):

Wetland Hydrology Present? **No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants. Sampling Point: DP4

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Sapling/Shrub Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1 *Ambrosia trifida*	15	Y	FAC
2			
3			
4			
5			
6			
7			
8			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		

Herb stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1 *Rubus trivialis*	70	Y	FACU
2 *Solanum carolinense*	60	Y	FACU
3 *Ambrosia trifida*	30	N	FAC
4 *Sorghum halepense*	5	N	FACU
5			
6			
7			
8			
9			
10			
11			
12			
	165 = Total Cover		
50% of total cover: 82.5	20% of total cover: 33		

Woody vine stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

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: 33.33% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	135	x 4 =	540
UPL species	0	x 5 =	0
Column totals	180 (A)		675 (B)

Prevalence Index = B/A = 3.75

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ___ Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

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

Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.26 ft (1m) tall

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? **No**

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

SOIL Sampling Point: DP4

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-16	10YR 4/2	98	10YR 4/6	2	C	M	clay	

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

Hydric Soil Indicators:

- ___ Histisol (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)
- ___ 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)**
- ___ Anomolous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils:

- ___ 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)**
- ___ Anomolous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

Vegetation at DP4 facing north taken 1/27/16

Vegetation at DP4 facing east taken 1/27/16

Vegetation at DP4 facing south taken 1/27/16

Vegetation at DP4 facing west taken 1/27/16

Soil profile at DP4 taken 1/27/16