Exhibit DD. Parks Geismar Site Wetlands Delineation Report

WETLAND DELINEATION

Parks Property
Lot 7 of Section 18; Lots 40, 41, and 42
of Sections 19, 20, 21, and 22; and Lot 43 of Section 23;
Township 10 South, Range 2 East
Ascension Parish, Louisiana

Prepared by
Hunter B. Guidry
Coastal Environments, Inc.
1260 Main Street
Baton Rouge, LA 70802

Prepared for
Baton Rouge Chamber of Commerce
564 Laurel Street
Baton Rouge, LA 70801

January 13, 2015
(CEI No. 214108)

INTRODUCTION

Coastal Environments Inc. (CEI) was contracted by the Baton Rouge Chamber of Commerce and CSRS to conduct a wetland delineation survey on the property in Ascension Parish, Louisiana. Specifically, CEI was responsible for investigating the approximately 183.51 acre site encompassing areas within Lot 7 of Section 18, and portions of Lots 40, 41, and 42 located within Sections 19, 20, 21, and 22, and Lot 43 in Section 23; T-10-S, R-2-E.

A U.S. Army Corps of Engineers (USACOE) jurisdictional determination (MVN-2010-01947-SE) was issued by Mr. Brandon Gaspard of the USACOE on September 17, 2010 for these areas. Lot 43 of Section 23 is also part of the tract owned by Mr. Lew Parks, but this lot was delineated previously by Mr. Raymond Plauche of Plauche's Environmental, L.L.C. in December 2009, and the approved jurisdictional determination (MVN-2010-00159-SY) was issued by Mr. Brian Oberlies of the USACOE on March 11, 2010. A copy of both of the existing jurisdictional determinations are included in Appendix A. Both jurisdictional determinations will expire this year (2015). Since there has been no changes to the vegetation, hydrology, or soils on either of these jurisdictional determinations, this report serves as re-issuance for the original wetlands and waters of the U.S.

Because the layout of the original determination has changed and the wetland determination performed on Lot 43 by Mr. Plauche was included with this current determination, a complete wetland determination report was performed for the site. Appendix B has the location map for the subject property (Figure B.1). Figures B.2 and B.3 depict wetlands on the current project site during the field survey on January 7, 2015.

On January 7, 2015, two CEI biologist experienced conducting wetland delineations performed a field investigation of the project area to verify site conditions have not changed. This report summarizes the findings of the updated field investigations and wetland delineation of the project area.

METHODOLOGY

Prior to the pedestrian survey of the project area, the previous jurisdictional determination maps were reviewed. Current information was obtained from the Natural Resources Conservation Services (NRCS) Soil Survey of Ascension Parish, LA, the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI), the United States Geological Survey (USGS) Topographical Maps, Light Detection and Ranging (LIDAR) mapping (atlas.lsu.edu November 14, 2002), and Google Earth Imagery (March 17, 2014). These sources of information were used only to aid in the identification of any potential changes that may have occurred on the property to the wetlands and water bodies in the project area since the past jurisdictional determinations were issued.

The wetland investigation consisted of surveying across the project area and verifying potential wetlands according to the protocol outlined in the 1987 *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual* (U.S. Army Corps of Engineers [USACE] 2010).

The re-determination of wetlands is based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. These three criteria must be present if an area is to be considered jurisdictional by the USACE. Sites are considered to be non-jurisdictional by the USACE if under normal circumstances (area not altered in last 5 years) any of these three criteria are absent. For areas exhibiting signs of disturbed conditions, consideration must be given to what conditions would be present had the disturbance not occurred.

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

- **VEGETATION**

CEI verified that there were no changes to the original forested upland vegetative community since the issuance of the two jurisdictional determinations. The U.S. Department of Agriculture National Resources Conservation Service Plant Database (http://plants.usda.gov/) was consulted to determine the wetland indicator status for the Atlantic and Gulf Coastal Plain region.

The majority of the project is forested with a mature canopy which can be seen on the aerial photograph of the parcel (Figure B.2). The majority of the site is a well-drained, upland woodland area with thick canopy and medium emergent growth. All of the upland woodland areas are dominated by native hardwood trees such as sugar berry (*Celtis laevigata*), pecan trees (*Carya illienosis*), American elm (*Ulmus americana*), water oak (*Quercus nigra*) and scattered live oak (*Quercus virginiana*). A bald cypress (*Taxodium distictum*) bottom with open water habitat is located along the southwestern portion of the new site layout and bisects the tract to the south. Vegetated wetland habitat is present along the edges of this open water body and is mapped on Figures B.2 and B.3.

- **HYDROLOGY**

The hydrology of the subject property has not changed since the original wetland determination was performed. The majority of the site is well-drained. The northeastern portion of the site has a slight slope to the east, and drains by sheet flow into a small drainage ditch along the eastern boundary of the property. The eastern/northeastern portion of the property is also affected by several small drainage features from the past cattle pasture use. These drainage features are small depressions that run west to east and drain into the ditch along the eastern property line. The western and southern portion of the property slope and drain into the large open water body that is former part of the Mississippi River channel. The relict waterbody is mostly open water

habitat that falls under USACOE "Waters of the U.S" as previously determined on the jurisdictional determinations. Small areas of vegetated wetlands were found along the edge of the open water area.

- **SOILS**

The NRCS Web Soil Survey for Ascension Parish (http://websoilsurvey.nrcs.usda.gov/; Accessed January 2015) maps five soil types for the project area: Commerce silt loam, 0 to 1 percent slopes (Cm), Commerce silty clay loam (Co), Convent silt loam (Cs), Sharkey silty clay loam (Sa), and Sharkey clay, 0 to 1 percent slopes, rarely flooded, south (Sc) soils.

Commerce silt loam, 0 to 1 percent slopes, Commerce silty clay loam, and Convent silt loam are all almost identical in soil structure, chroma and texture. The amount of silt/clay and position of the soils adjacent to the natural levees in the alluvial plain characterize the difference in each of the soils. All of the soils are somewhat poorly drained, firm, mineral soils that are located next to natural levees along the Mississippi River and its distributaries. The slope is less than one percent, and the soils have high fertility. Water and air move through the soils at a moderately slow rate. Even though water runs off the surface at a slow rate, these soils do not flood or hold water for significant periods. The majority of the soils (62 percent) on the subject property were mapped as Commerce or Convent associations. These soils were verified at the southern, central, and northwestern portions of the property during the site inspection.

Sharkey silty clay loam and Sharkey clay were both very similar soils. The amount of silt/clay and position of the soils next to drainage features determine the difference in the two soils. Both soils are poorly drained, very slowly permeable, firm, mineral soil located on broad back swamp positions on the lower Mississippi River flood plain. Slopes range from 0 to 1 percent, and the soils have a high fertility. Water runs off the surface at a slow rate and stands in low places for short periods of time after heavy rains. Flooding can occur after heavy prolonged rains. Twenty-eight (28) percent of the soils mapped on the parcel were Sharkey associations. This soil type was mapped and identified at the western and northeastern portion of the subject property. There was no change to the soils on the subject property since the original jurisdictional determinations were issued on March 11 and September 17, 2010. All of the soils were currently well drained and found to be non-hydric.

During the field investigation, eight sampling plots were established to determine wetland or upland status and whether the previously determined status of the sites had changed since the original wetland determination was performed. Photographs of the current site conditions were taken and included in Appendix C. Present conditions of the site were recorded on wetland data forms and included in Appendix D.

CONCLUSION

Approximately 1.72 acres of wetlands and 2.75 acres of "Waters of the U.S." were delineated and mapped in the revised project area during the course of the January 7, 2014 field investigations. Because the two original jurisdictional determinations have not changed in the past five years, the locations and acreage of wetlands and "Waters of the U.S." remains the same. This report confirms that the location of the present wetlands and "Waters of the U.S." are consistent with the previously issued jurisdictional determinations (MVN-2010-01947-SE) and (MVN-2010-00159-SY) for the subject property. A portion of the wetlands and "Waters of the U.S." at the northwest corner of the subject property was removed from the MVN-2010-01947-SE jurisdictional determination. All of the area in MVN-2010-00159-SY jurisdictional determination is included in the current property layout on Figure B.2 (on aerial photo base) and on Figure B.3 (on USGS topo base map). The USACOE has final authority in the jurisdictional determination of wetlands within the project area.

REFERENCES CITED

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. La Roe. 1979.
Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of Interior, Fish and Wildlife Service Office of Biological Services, Washington, C.C. 34 pp. +append.

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

NRCS Web Soil Survey
U.S. Department of Agriculture, Natural Resource Conservation Service.
http://websoilsurvey.nrcs.usda.gov Accessed September 2014.

U.S. Army Corps of Engineers. 1991.
Questions and Answers on the 1987 Manual, October 7, 1991.

U.S. Army Corps of Engineers. 1992.
Clarification and Interpretation of the 1987 Manual, March 6, 1992.

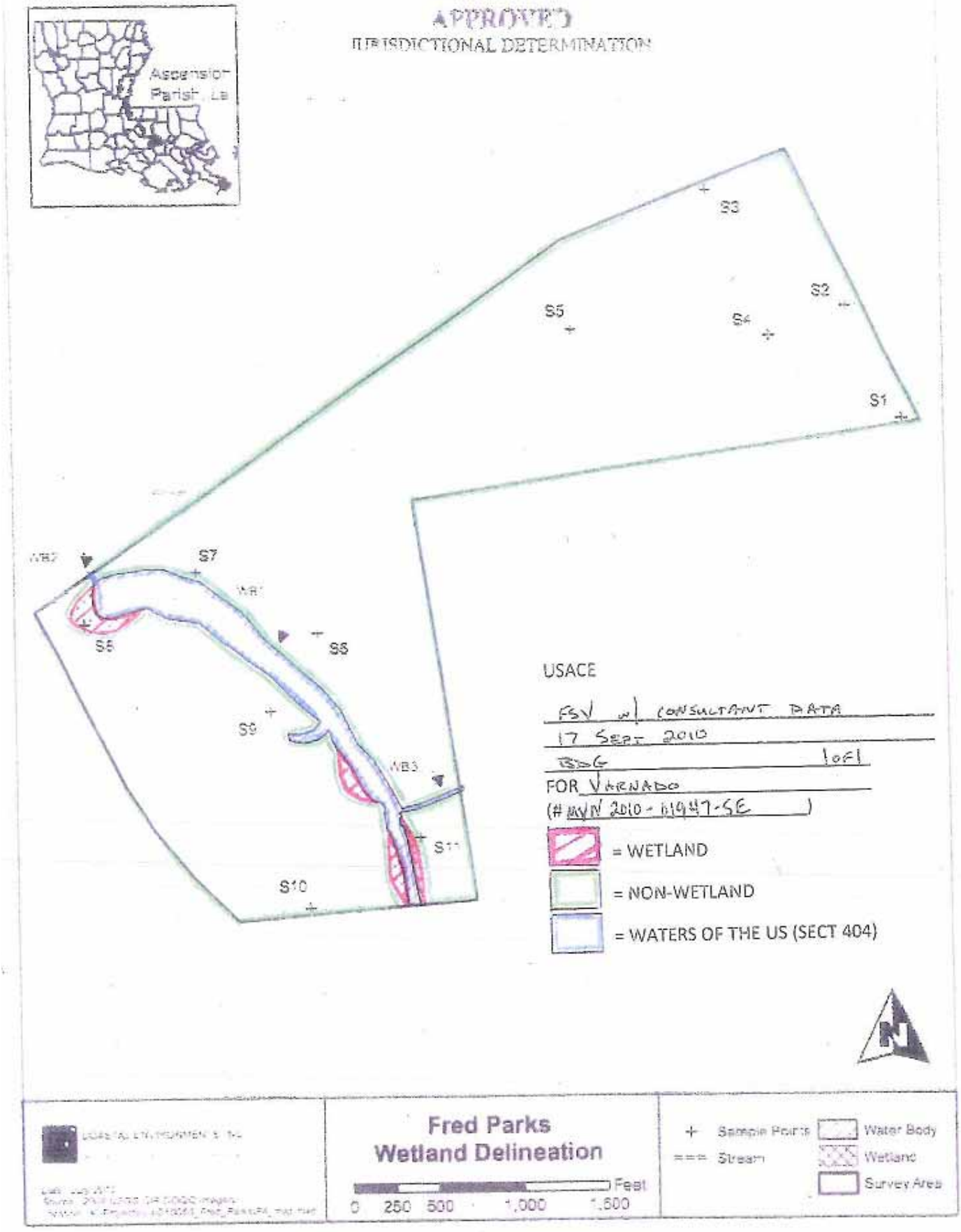
U.S. Army Corps of Engineers, 2010.

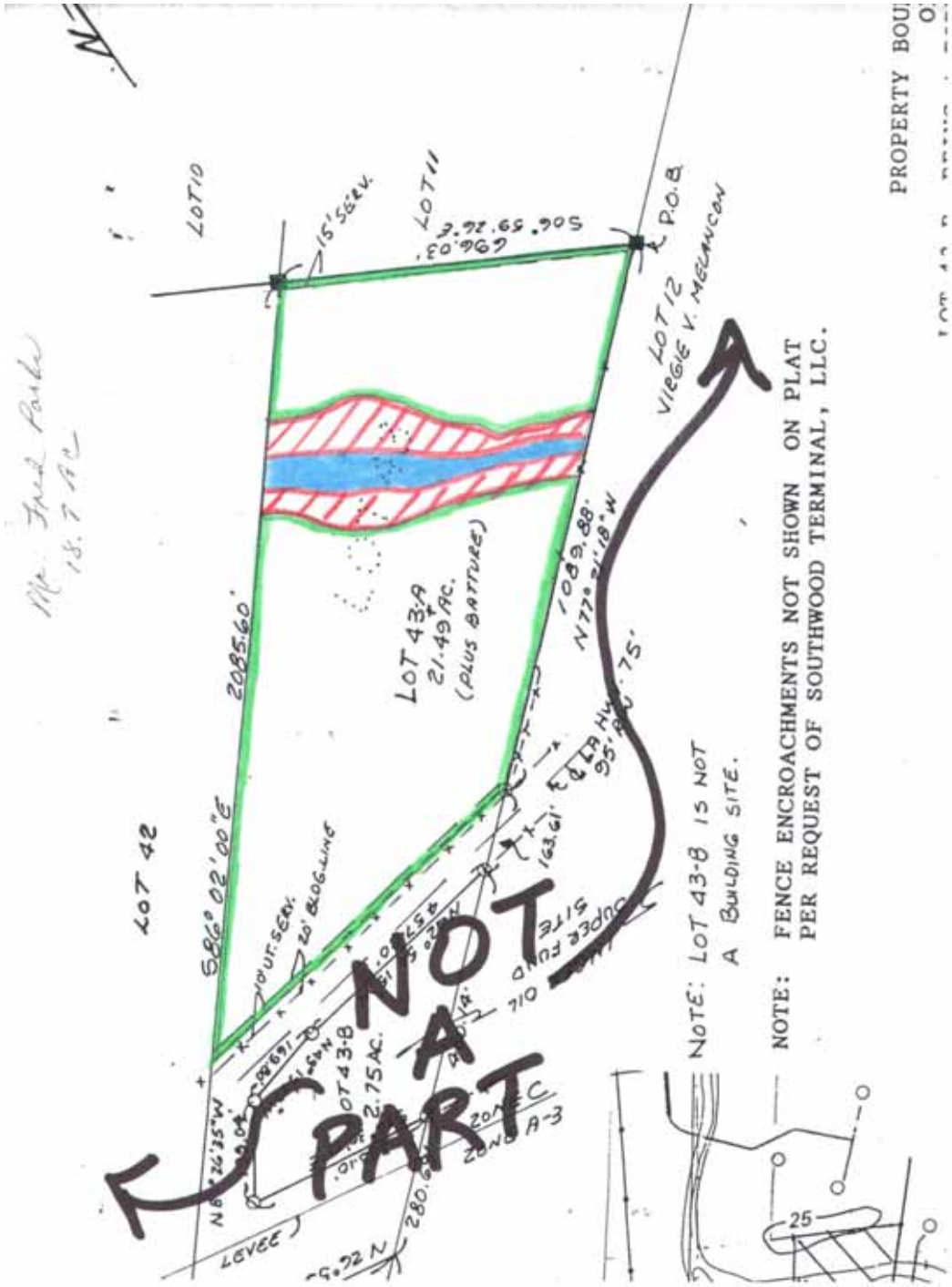
Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0). U.S. Army Corps of Engineers, Vicksburg District, Wetlands Regulatory Assistance Program, ERDC/El TR-10-20, Nov. 2010. Prepared for U.S. Army Corps of Engineers, Washington, DC. 180 pp.

U.S. Fish and Wildlife Service (USFWS)
1992. 1:24,000 National Wetlands Inventory Map, interpreted from CIR NASA (Nov. 1988) photography. Atlanta, GA. Digital source:
http://107.20.228.18/Wetlands/WetlandsMapper.html

Appendix A

Copy of USACOE Approved Jurisdictional Determinations #MVN-2010-01947-SE and #MVN-2010-00159-SY


APPROVED
JURISDICTIONAL DETERMINATION
Ascension Parish, La
S3
S2
S5
S4
S1
S7
S6
S8
S9
S10
S11
USACE
FSV w/ CONSULTANT DATA
17 SEPT 2010
BDG
1 of 1
FOR VICKSBURG
(# MVN 2010-1947-SE)
= WETLAND
= NON-WETLAND
= WATERS OF THE US (SECT 404)
Fred Parks
Wetland Delineation
Feet
0 250 500 1,000 1,500
+ Sample Points
=== Stream
Water Body
Wetland
Survey Area



APPROVED
JURISDICTIONAL DETERMINATION

USACE
3-11-2010
FOR PLAUCHE
(#2010-00159-SM)
= WETLAND
= NON-WETLAND
= WATERS OF THE US / 404

Appendix B

Maps of Project Location and Wetlands Depicted on Photobase Maps and USGS Topographic Maps

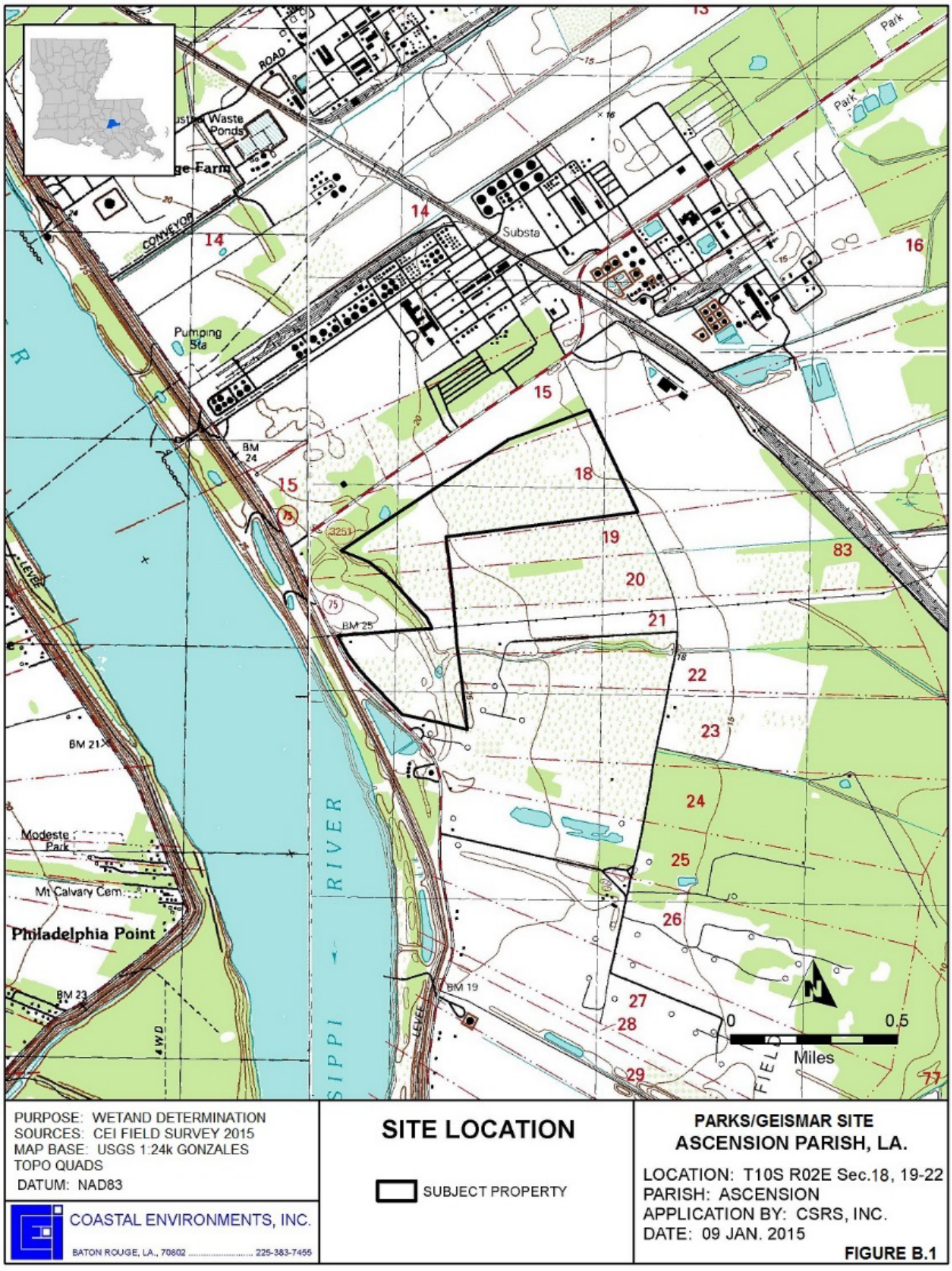

PURPOSE: WETAND DETERMINATION
SOURCES: CEI FIELD SURVEY 2015
MAP BASE: USGS 1:24k GONZALES TOPO QUADS
DATUM: NAD83
COASTAL ENVIRONMENTS, INC.
BATON ROUGE, LA., 70802 225-383-7455
SITE LOCATION
SUBJECT PROPERTY
PARKS/GEISMAR SITE
ASCENSION PARISH, LA.
LOCATION: T10S R02E Sec.18, 19-22
PARISH: ASCENSION
APPLICATION BY: CSRS, INC.
DATE: 09 JAN. 2015
FIGURE B.1
Philadelphia Point
Modeste Park
Mt Calvary Cem
Pumping Sta
Waste Ponds
Substa
BM 21
BM 23
BM 24
BM 25
BM 19
LEVEE
I.W.D
0
0.5
Miles

Figure B.1

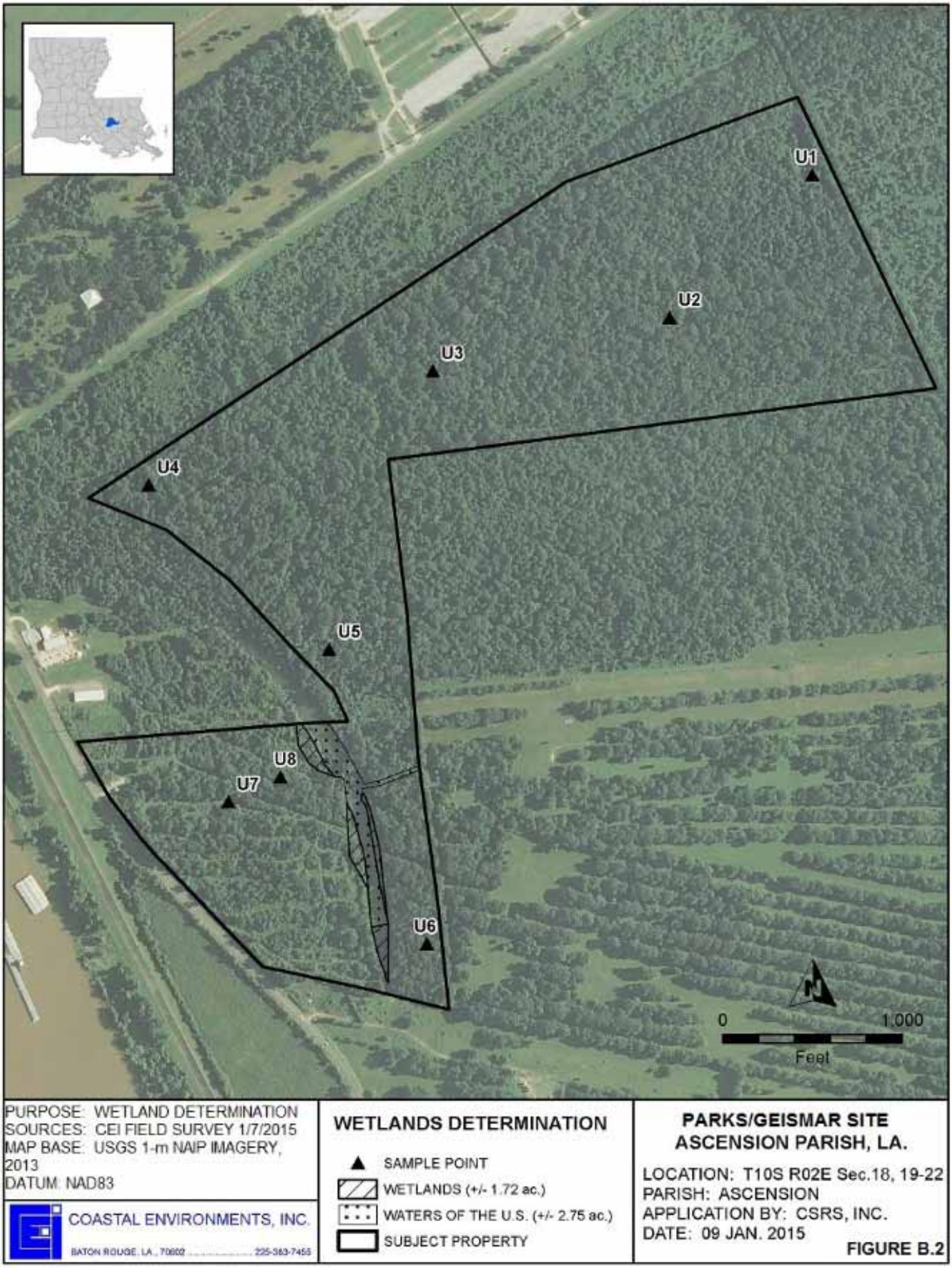

U1
U2
U3
U4
U5
U6
U7
U8
N
0
1,000
Feet
PURPOSE: WETLAND DETERMINATION
SOURCES: CEI FIELD SURVEY 1/7/2015
MAP BASE: USGS 1-m NAIP IMAGERY, 2013
DATUM: NAD83
COASTAL ENVIRONMENTS, INC.
BATON ROUGE, LA., 70802 225-383-7455
WETLANDS DETERMINATION
SAMPLE POINT
WETLANDS (+/- 1.72 ac.)
WATERS OF THE U.S. (+/- 2.75 ac.)
SUBJECT PROPERTY
PARKS/GEISMAR SITE
ASCENSION PARISH, LA.
LOCATION: T10S R02E Sec.18, 19-22
PARISH: ASCENSION
APPLICATION BY: CSRS, INC.
DATE: 09 JAN. 2015
FIGURE B.2

Figure B.2

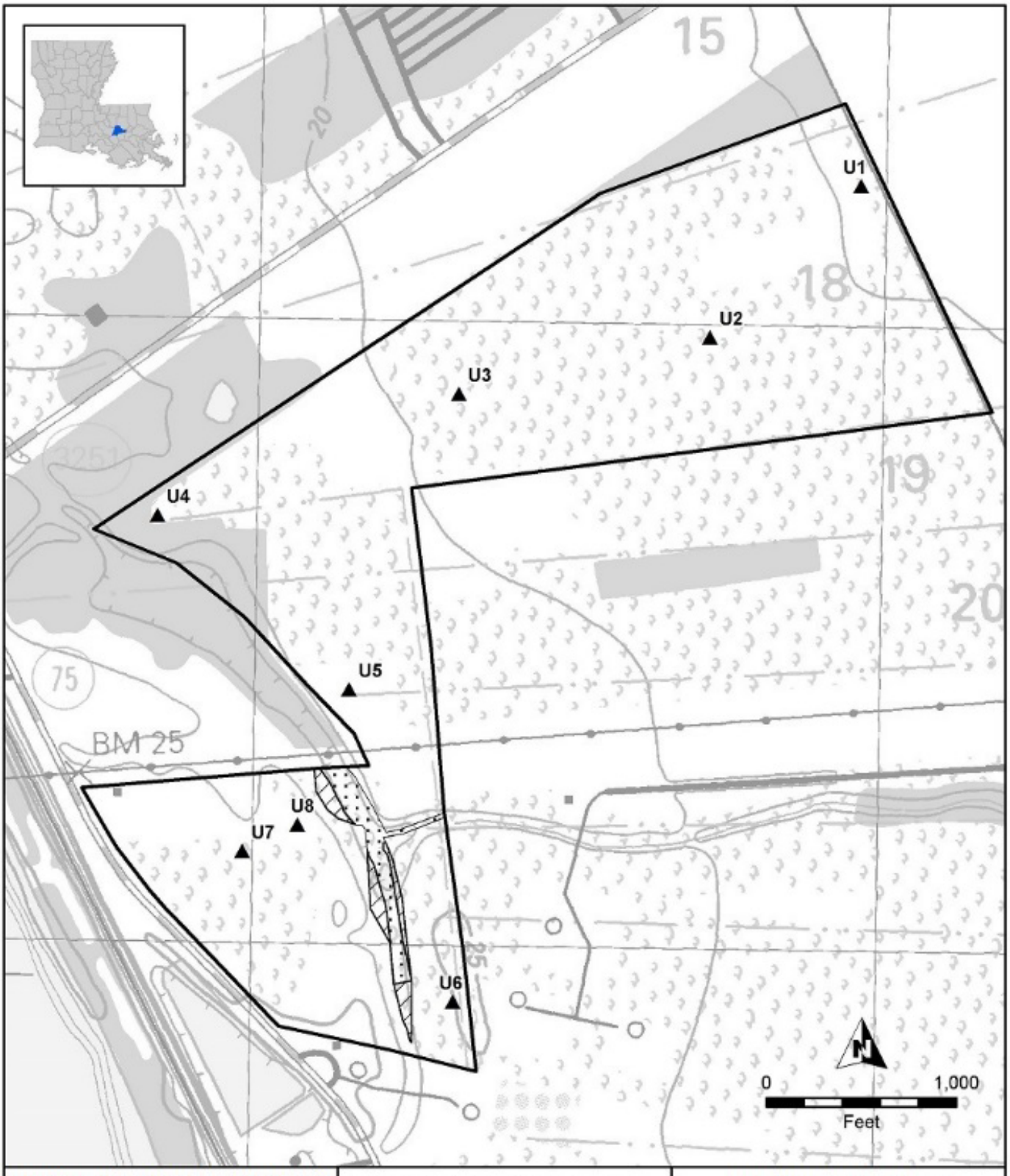

15
20
18
19
20
U1
U2
U3
U4
U5
U6
U7
U8
BM 25
75
N
0
1,000
Feet
PURPOSE: WETLAND DETERMINATION
SOURCES: CEI FIELD SURVEY 1/7/2015
MAP BASE: USGS 1:24k GONZALES TOPO QUADS
DATUM: NAD83
COASTAL ENVIRONMENTS, INC.
BATON ROUGE, LA. 70802 225-383-7455
WETLANDS DETERMINATION
SAMPLE POINT
WETLANDS (+/- 1.72 ac.)
WATERS OF THE U.S. (+/- 2.75 ac.)
SUBJECT PROPERTY
PARKS/GEISMAR SITE
ASCENSION PARISH, LA.
LOCATION: T10S R02E Sec.18, 19-22
PARISH: ASCENSION
APPLICATION BY: CSRS, INC.
DATE: 09 JAN. 2015
FIGURE B.3

Figure B.3

Appendix C

Photographs of Typical Vegetative Communities and Soil Profiles

Figure A.1 A photograph of soil sample from Site U1 (CEI 1-7-15).

Figure A.2 A photograph of typical vegetation found at Site U1 (CEI 1-7-15).

Figure A.3 A photograph of soil sample from Site U2 (CEI 1-7-15)

Figure A.4 A photograph of typical vegetation found at Site U2 (CEI 1-7-15).

Figure A.5 A photograph of soil sample from Site U3 (CEI 1-7-15).

Figure A.6 A photograph of typical vegetation found at Site U3 (CEI 1-7-15).

Figure A.7 A photograph of soil sample from Site U4 (CEI 1-7-15).

Figure A.8 A photograph of typical vegetation found at Site U4 (CEI 1-7-15).

Figure A.9 A photograph of soil sample from Site U5 (CEI 1-7-15).

Figure A.10 A photograph of typical vegetation found at Site U5 (CEI 1-7-15).

Figure A.11 A photograph of soil sample from Site U6 (CEI 1-7-15).

Figure A.12 A photograph of typical vegetation found at Site U6 (CEI 1-7-15).

Figure A.13 A photograph of soil sample from Site U7 (CEI 1-7-15).

Figure A.14 A photograph of typical vegetation found at Site U7 (CEI 1-7-15).

Figure A.15 A photograph of soil sample from Site U8 (CEI 1-7-15).

Figure A.16 A photograph of typical vegetation found at Site U8 (CEI 1-7-15).

Figure A.17 View to the south of large water body along southern portion of property (CEI 1-7-15).

Figure A.18 View to the north of large water body/cypress bottom along southern portion of property (CEI 1-7-15).

Figure A.19 A typical view of wetland vegetation located along edge of waterbody along the southern portion of property (CEI 1-7-15).

Figure A.20 View to the east of small ditch with waters of the US at the southeastern portion of property (CEI 1-7-15).

Appendix D

Field Inspection Data Forms

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Parks Property- Lots 7, 40 through 43 City/County: Geismar- Ascension Parish Sampling Date: 1-7-15

Applicant/Owner: Lew Parks State: LA Sampling Point: Site U1

Investigator(s): Hunter Guidry, Dustin Johnson Section, Township, Range: Section 22, T-10-S, R-2-E

Landform (hillslope, terrace, etc.): Upland Forest Local relief (concave, convex, none): Convex Slope (%): 0-1%

Subregion (LRR or MLRA): LRR O Lat: 30.17803138790 Long: 90.98558688480 Datum: NAD83

Soil Map Unit Name: Sharkey clay, 0 to 1 percent slopes, rarely flooded, south NWI classification: *NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

*Area not mapped on the NWI. High area at northeast property corner. Property was former cattle pasture that has become overgrown over past 30 to 50 years.

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 along 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): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Area well drained by small drainage features spread out throughout property flowing north into large drainage ditch along northern property line.

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

Sampling Point: Site U1

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana (Am. elm)	5	N	FAC
2. Celtis laevigata (Sugarberry)	25	Y	FACW
3. Liquidambar styraciflua (Sweet gum)	10	N	FAC
4. Quercus virginiana (Live oak)	10	N	FACU
5. Quercus nigra (Water oak)	20	N	FAC
6. Carya illinoensis (S. Pecan)	30	Y	FACU
7.			
8.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. Liquidambar styraciflua (Sweet gum)	10	N	FAC
2. Carya illinoensis (S. Pecan)	20	Y	FACU
3. Acer negunda (Box-elder)	20	Y	FAC
4. Celtis laevigata (Sugarberry)	20	Y	FACW
5. Ilex vomitoria (Yaupon)	10	N	FAC
6. Malus angustifolia (S. Crabapple)	15	N	NI
7.			
8.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		

Herb Stratum (Plot size: 30 ft)			
1. Pluchea camphorata (Camphorweed)	15	N	FACW
2. Persicaria virginiana (Jumpseed)	5	N	FAC
3. Rubus spp.	25	Y	FAC
4. Galium aparine (Bedstraw)	25	Y	FACU
5. Solidago altissima (Tall goldenrod)	10	N	FACU
6. Geranium maculatum (Wild geranium)	15	N	FACU
7. Toxicodendron radicans (Poison ivy)	15	N	
8.			
9.			
10.			
11.			
12.			
	110 = Total Cover		
50% of total cover: 55	20% of total cover: 22		

Woody Vine Stratum (Plot size:)			
1. Toxicodendron radicans (Poison ivy)	20	Y	FAC
2. Vitis rotundifolia (Muscadine vine)	15	Y	FAC
3.			
4.			
5.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		

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: 6/9= 67% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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 Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

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

FAC Neutral test = 4:5 (negative)
Former overgrown cattle pasture.

SOIL

Sampling Point: Site U1

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
0-2	10 YR 4/2	100						
2-10	10 YR 4/2	95	10 YR 5/6	5	C	M	Clay loam	
10-14	10 YR 4/2	90	7.5 YR 4/6	10	C	M	Clay loam	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric 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:

Soils are hydric from depleted matrix. Area is well drained, but clay soils located in sample area.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Parks Property- Lots 7, 40 through 43 City/County: Geismar- Ascension Parish Sampling Date: 1-7-15

Applicant/Owner: Lew Parks State: LA Sampling Point: Site U2

Investigator(s): Hunter Guidry, Dustin Johnson Section, Township, Range: Section 22, T-10-S, R-2-E

Landform (hillslope, terrace, etc.): Upland Forest Local relief (concave, convex, none): Convex Slope (%): 0-1%

Subregion (LRR or MLRA): LRR O Lat: 30.17585069620 Long: 90.98810674070 Datum: NAV83

Soil Map Unit Name: Sharkey silty clay loam NWI classification: *NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

*Area not mapped on the NWI. High area at center/northeast portion of property. Property was former cattle pasture that has become overgrown over past 30 to 50 years.

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 along 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): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Area well drained by small drainage features spread out throughout property flowing north into large drainage ditch along northern property line.

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

Sampling Point: Site U2

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana (Am. elm)	30	Y	FAC
2. Celtis laevigata (Sugarberry)	30	Y	FACW
3. Liquidambar styraciflua (Sweet gum)	20	N	FAC
4. Quercus virginiana (Live oak)	40	Y	FACU
5. Quercus nigra (Water oak)	25	N	FAC
6.			
7.			
8.			
	145 = Total Cover		
50% of total cover: 72.5	20% of total cover: 29		
Sapling/Shrub Stratum (Plot size: 30 ft)			
1. Liquidambar styraciflua (Sweet gum)	10	N	FAC
2. Quercus nigra (Water oak)	15	N	FACU
3. Acer negunda (Box-elder)	25	Y	FAC
4. Celtis laevigata (Sugarberry)	20	Y	FACW
5. Ulmus americana (Am. elm)	10	N	FAC
6. Malus angustifolia (S. Crabapple)	20	Y	NI
7.			
8.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Herb Stratum (Plot size: 30 ft)			
1. Pluchea camphorata (Camphorweed)	5	N	FACW
2. Persicaria virginiana (Jumpseed)	5	N	FAC
3. Rubus spp.	10	N	FAC
4. Galium aparine (Bedstraw)	15	N	FACU
5. Quercus nigra (Water oak)	10	N	FACU
6. Vicia sativa (Narrow-leaf vetch)	20	Y	FACU
7. Erigeron annuus (Daisy fleabane)	20	Y	FACU
8. Lonicera japonica (Japanese honeysuckle)	25	Y	FAC
9.			
10.			
11.			
12.			
	110 = Total Cover		
50% of total cover: 55	20% of total cover: 22		
Woody Vine Stratum (Plot size:)			
1. Toxicodendron radicans (Poison ivy)	20	Y	FAC
2. Vitis rotundifolia (Muscadine vine)	10	Y	FAC
3. Campsis radicans (Trumpet creeper)	40	Y	FAC
4.			
5.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 12 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 8/12= 67% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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 Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

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

FAC Neutral test = 2:4 (negative)
Former overgrown cattle pasture.

SOIL

Sampling Point: Site U2

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
0-3	10 YR 3/2	100					Clay loam	
3-14	10 YR 4/2	90	10 YR 5/8	10	C	M	Clay loam	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric 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:

Soils are hydric from depleted matrix. Area is well drained, but clay soils located in sample area.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Parks Property- Lots 7, 40 through 43 City/County: Geismar- Ascension Parish Sampling Date: 1-7-15

Applicant/Owner: Lew Parks State: LA Sampling Point: Site U3

Investigator(s): Hunter Guidry, Dustin Johnson Section, Township, Range: Section 22, T-10-S, R-2-E

Landform (hillslope, terrace, etc.): Upland Forest Local relief (concave, convex, none): Convex Slope (%): 0-1%

Subregion (LRR or MLRA): LRR O Lat: 30.17504800040 Long: 90.99228451920 Datum: NAD83

Soil Map Unit Name: Commerce silty clay loam NWI classification: *NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

*Area not mapped on the NWI. High area at center along the northern portion of property. Property was former cattle pasture that has become overgrown over past 30 to 50 years.

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 along 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): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

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

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

Remarks:

Area well drained by small drainage features spread out throughout property flowing north into large drainage ditch along northern property line.

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

Sampling Point: Site U3

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana (Am. elm)	15	N	FAC
2. Celtis laevigata (Sugarberry)	20	N	FACW
3. Quercus nigra (Water oak)	40	Y	FAC
4. Quercus virginiana (Live oak)	50	Y	FACU
5.			
6.			
7.			
8.			
	125 = Total Cover		
50% of total cover: 62.5	20% of total cover: 25		
Sapling/Shrub Stratum (Plot size: 30 ft)			
1. Liquidambar styraciflua (Sweet gum)	5	N	FAC
2. Quercus nigra (Water oak)	30	Y	FACU
3. Acer negunda (Box-elder)	15	N	FAC
4. Celtis laevigata (Sugarberry)	40	Y	FACW
5. Ulmus americana (Am. elm)	10	N	FAC
6. Malus angustifolia (S. Crabapple)	10	N	NI
7.			
8.			
	110 = Total Cover		
50% of total cover: 55	20% of total cover: 23		
Herb Stratum (Plot size: 30 ft)			
1. Pluchea camphorata (Camphorweed)	5	N	FACW
2. Persicaria virginiana (Jumpseed)	5	N	FAC
3. Rubus spp.	10	N	FAC
4. Galium aparine (Bedstraw)	15	Y	FACU
5. Quercus nigra (Water oak)	10	N	FAC
6. Vicia sativa (Narrow-leaf vetch)	20	Y	FACU
7. Sambucus canadensis (elderberry)	10	N	FACW
8. Lygonium japonicum (Climbing Japanese fern)	20	Y	FAC
9. Sabal minor (Palmetto)	5	N	FACW
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size:)			
1. Toxicodendron radicans (Poison ivy)	25	Y	FAC
2. Vitis rotundifolia (Muscadine vine)	20	Y	FAC
3. Campsis radicans (Trumpet creeper)	30	Y	FAC
4.			
5.			
	75 = Total Cover		
50% of total cover: 37.5	20% of total cover: 15		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 6/10= 60% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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 Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

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

FAC Neutral test = 1:4 (negative)
Former overgrown cattle pasture.

SOIL

Sampling Point: Site U3

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
0-4	10 YR 2/2	100					Clay loam	
4-10	10 YR 3/2	100					Clay loam	
10-14	10 YR 4/3	100					Clay loam	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric 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:

Soils are hydric from depleted matrix. Area is well drained, but clay soils located in sample area.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Parks Property- Lots 7, 40 through 43 City/County: Geismar- Ascension Parish Sampling Date: 1-7-15

Applicant/Owner: Lew Parks State: LA Sampling Point: Site U4

Investigator(s): Hunter Guidry, Dustin Johnson Section, Township, Range: Section 22, T-10-S, R-2-E

Landform (hillslope, terrace, etc.): Upland Forest Local relief (concave, convex, none): Convex Slope (%): 0-1%

Subregion (LRR or MLRA): LRR O Lat: 30.17331376150 Long: 90.99730038690 Datum: NAD83

Soil Map Unit Name: Commerce silt loam, 0 to 1 percent slopes NWI classification: *NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

*Area not mapped on the NWI. High area at northwest corner of property. Property was former cattle pasture that has become overgrown over past 30 to 50 years.

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 along 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): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Area well drained by good slope to the west into large water body found along western property line.

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

Sampling Point: Site U4

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana (Am. elm)	20	N	FAC
2. Celtis laevigata (Sugarberry)	30	Y	FACW
3. Quercus nigra (Water oak)	20	N	FAC
4. Quercus virginiana (Live oak)	50	Y	FACU
5. Carya illenoiensis (Pecan hickory)	10	N	FACU
6.			
7.			
8.			
	130 = Total Cover		
50% of total cover: 65	20% of total cover: 26		

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. Ulmus americana (Am. elm)	10	N	FAC
2. Quercus nigra (Water oak)	30	Y	FACU
3. Acer negunda (Box-elder)	20	N	FAC
4. Celtis laevigata (Sugarberry)	40	Y	FACW
5.			
6.			
7.			
8.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

Herb Stratum (Plot size: 30 ft)			
1. Pluchea camphorata (Camphorweed)	10	N	FACW
2. Acer negunda (Box-elder)	5	N	FAC
3. Rubus spp.	5	N	FAC
4. Galium aparine (Bedstraw)	5	N	FACU
5. Allium canadense (Wild onion)	10	N	FACU
6. Vicia sativa (Narrow-leaf vetch)	10	N	FACU
7. Solidago altissima (Tall goldenrod)	10	N	FACU
8. Lonicera japonica (Japanese honeysuckle)	25	Y	FAC
9. Chasmanthium spp.	20	Y	FAC
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

Woody Vine Stratum (Plot size:)			
1. Toxicodendron radicans (Poison ivy)	20	Y	FAC
2. Vitis rotundifolia (Muscadine vine)	30	Y	FAC
3.			
4.			
5.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 6/8= 75% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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 Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

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

FAC Neutral test = 2:2 (negative)

SOIL

Sampling Point: Site U4

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
0-2	10 YR 3/2	100					Silty clay loam	
2-10	10 YR 4/2	100					Silty clay loam	
10-14	10 YR 4/3	100					Silty clay loam	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric 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:

Soils are hydric from depleted matrix. Area is well drained, but clay soils located in sample area.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Parks Property- Lots 7, 40 through 43 City/County: Geismar- Ascension Parish Sampling Date: 1-7-15

Applicant/Owner: Lew Parks State: LA Sampling Point: Site U5

Investigator(s): Hunter Guidry, Dustin Johnson Section, Township, Range: Section 22, T-10-S, R-2-E

Landform (hillslope, terrace, etc.): Upland Forest Local relief (concave, convex, none): Convex Slope (%): 0-1%

Subregion (LRR or MLRA): LRR O Lat: 30.17078407560 Long: 90.99412446960 Datum: NAD83

Soil Map Unit Name: Commerce silt loam, 0 to 1 percent slopes NWI classification: *NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

*Area not mapped on the NWI. High area at the center/south portion of property. Property was former cattle pasture that has become overgrown over past 30 to 50 years.

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 along 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): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

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

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

Remarks:

Area well drained by good slope to the west into large water body found along western property line.

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

Sampling Point: Site U5

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana (Am. elm)	20	N	FAC
2. Celtis laevigata (Sugarberry)	35	Y	FACW
3. Quercus nigra (Water oak)	40	Y	FAC
4. Acer negunda (Box-elder)	15	N	FACW
5. Carya illenoiensis (Pecan hickory)	10	N	FACU
6.			
7.			
8.			
	120	= Total Cover	

50% of total cover: 60 20% of total cover: 24

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. Ulmus americana (Am. elm)	10	N	FAC
2. Quercus nigra (Water oak)	20	Y	FACU
3. Acer negunda (Box-elder)	30	N	FAC
4. Celtis laevigata (Sugarberry)	40	Y	FACW
5.			
6.			
7.			
8.			
	100	= Total Cover	

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

Herb Stratum (Plot size: 30 ft)			
1. Pluchea camphorata (Camphorweed)	5	N	FACW
2. Acer negunda (Box-elder)	5	N	FAC
3. Ampelopsis aborea (Pepper vine)	10	N	FAC
4. Galium aparine (Bedstraw)	20	Y	FACU
5. Geranium maculatum (Wild geranium)	20	Y	FACU
6. Lygodium japonicum (Climbing Japanese fern)	20	Y	FAC
7. Persicaria virginiana (Jump seed)	10	N	FACU
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	

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

Woody Vine Stratum (Plot size:)			
1. Toxicodendron radicans (Poison ivy)	20	Y	FAC
2. Vitis rotundifolia (Muscadine vine)	30	Y	FAC
3.			
4.			
5.			
	50	= Total Cover	

50% of total cover: 25 20% of total cover: 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 6/9= 67% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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 Four Vegetation Strata:

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

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

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

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

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

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

FAC Neutral test = 2:3 (negative)

SOIL

Sampling Point: Site U5

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
0-3	10 YR 2/2	100					Silty loam	
3-10	10 YR 4/3	100					Silty loam	
10-14	10 YR 4/3	85	7.5 YR 4/6	15	C	M	Silty loam	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric 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:

Soils are hydric from depleted matrix. Area is well drained, but clay soils located in sample area.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Parks Property- Lots 7, 40 through 43 City/County: Geismar- Ascension Parish Sampling Date: 1-7-15

Applicant/Owner: Lew Parks State: LA Sampling Point: Site U6

Investigator(s): Hunter Guidry, Dustin Johnson Section, Township, Range: Section 22, T-10-S, R-2-E

Landform (hillslope, terrace, etc.): Upland Forest Local relief (concave, convex, none): Convex Slope (%): 0-1%

Subregion (LRR or MLRA): LRR O Lat: 30.16626439830 Long: 90.99242112050 Datum: NAD83

Soil Map Unit Name: Commerce silt loam, 0 to 1 percent slopes NWI classification: *NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

*Area not mapped on the NWI. High area at the southeastern portion of property. Property was former cattle pasture that has become overgrown over past 30 to 50 years.

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 along 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): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

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

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

Remarks:

Area well drained by good slope to the west into large water body found along central portion of area.

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

Sampling Point: Site U6

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana (Am. elm)	30	N	FAC
2. Celtis laevigata (Sugarberry)	40	Y	FACW
3. Quercus nigra (Water oak)	45	Y	FAC
4. Acer negunda (Box-elder)	5	N	FACW
5. Liquidamber styraciflua (Sweetgum)	5	N	FACU
6.			
7.			
8.			
	125 = Total Cover		
50% of total cover: 62.5	20% of total cover: 25		
Sapling/Shrub Stratum (Plot size: 30 ft)			
1. Sambucus canadensis (Elderberry)	10	N	FACW
2. Quercus nigra (Water oak)	20	N	FACU
3. Acer negunda (Box-elder)	30	Y	FAC
4. Celtis laevigata (Sugarberry)	30	Y	FACW
5. Gleditsia triacanthos (Honey locusts)	10	N	FAC
6.			
7.			
8.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Herb Stratum (Plot size: 30 ft)			
1. Pluchea camphorata (Camphorweed)	5	N	FACW
2. Acer negunda (Box-elder)	5	N	FAC
3. Rubus spp.	20	Y	FAC
4. Galium aparine (Bedstraw)	15	Y	FACU
5. Lonicera japonica (Jap. honeysuckle)	20	Y	FAC
6. Sambucus canadensis (Elderberry)	10	N	FACW
7. Thelypteris kunthii (Fern, Southern shield)	10	N	FACW
8.			
9.			
10.			
11.			
12.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Woody Vine Stratum (Plot size:)			
1. Toxicodendron radicans (Poison ivy)	25	Y	FAC
2. Vitis rotundifolia (Muscadine vine)	20	Y	FAC
3. Campsis radicans (Trumpet creeper)	15	N	FAC
4.			
5.			
	60 = Total Cover		
50% of total cover: 30	20% of total cover: 12		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 8/9= 89% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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 Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

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

FAC Neutral test = 2:1 (negative)

SOIL

Sampling Point: Site U6

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
0-3	10 YR 2/2	100					Silty loam	
3-9	10 YR 4/2	100					Silty loam	
9-14	10 YR 4/3	100					Silty clay loam	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric 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:

Soils are hydric from depleted matrix. Area is well drained, but clay soils located in sample area.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Parks Property- Lots 7, 40 through 43 City/County: Geismar- Ascension Parish Sampling Date: 1-7-15

Applicant/Owner: Lew Parks State: LA Sampling Point: Site U7

Investigator(s): Hunter Guidry, Dustin Johnson Section, Township, Range: Section 22, T-10-S, R-2-E

Landform (hillslope, terrace, etc.): Upland Forest Local relief (concave, convex, none): Convex Slope (%): 0-1%

Subregion (LRR or MLRA): LRR O Lat: 30.16845609790 Long: 90.99591017130 Datum: NAD83

Soil Map Unit Name: Commerce silt loam, 0 to 1 percent slopes NWI classification: *NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation Y, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

*Area not mapped on the NWI. High area that has been cut over and maintained by bush hogging at southwest corner of property. Property was former cattle pasture that has become overgrown over past 30 to 50 years.

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 along 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): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Area well drained by good slope to the east into water body at center of southern portion of property.

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

Sampling Point: Site U7

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 30 ft)			
1. Triadica sebifera (Chinese tallow)	15	Y	FAC
2. Sambucus canadensis (Elderberry)	10	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Herb Stratum (Plot size: 30 ft)			
1. Cyperus rotundus (Purple nut-sedge)	20	Y	FACW
2. Sorghum halepense (Johnson grass)	10	N	FACU
3. Rubus spp.	5	N	FAC
4. Sonchus asper (Spiny sow-thistle)	5	N	FACU
5. Geranium maculatum (Wild geranium)	20	Y	FAC
6. Vicia sativa (Narrow-leaf vetch)	30	Y	FACU
7. Ambrosia trifida (Giant ragweed)	10	N	FAC
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 4/5= 80% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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 Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

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

FAC Neutral test = 2:1 (negative)
Understory is fond along edge of cut-over areas.

SOIL

Sampling Point: Site U7

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
0-2	10 YR 3/1	100					Clay loam	
2-12	10 YR 3/2	100					Clay loam	
6-12	10 YR 4/3	100					Clay loam	
12-14	10 YR 4/3	80	10 YR 4/6	20			Clay loam	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric 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:

Soils are hydric from depleted matrix. Area is well drained, but clay soils located in sample area.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Parks Property- Lots 7, 40 through 43 City/County: Geismar- Ascension Parish Sampling Date: 1-7-15

Applicant/Owner: Lew Parks State: LA Sampling Point: Site U8

Investigator(s): Hunter Guidry, Dustin Johnson Section, Township, Range: Section 22, T-10-S, R-2-E

Landform (hillslope, terrace, etc.): Upland Forest Local relief (concave, convex, none): Convex Slope (%): 0-1%

Subregion (LRR or MLRA): LRR O Lat: 30.16883027390 Long: 90.99498960160 Datum: NAD83

Soil Map Unit Name: Commerce silty clay loam NWI classification: *NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

*Area not mapped on the NWI. High wooded area at the southwestern portion of property.

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 along 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): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

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

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

Remarks:

Area well drained by good slope to the east into large water body found along central portion of area.

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

Sampling Point: Site U8

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana (Am. elm)	20	N	FAC
2. Celtis laevigata (Sugarberry)	50	Y	FACW
3. Quercus nigra (Water oak)	40	Y	FAC
4. Acer negunda (Box-elder)	5	N	FACW
5. Triadica sebifera (Ch. Tallow)	30	N	FACU
6.			
7.			
8.			
	145 = Total Cover		
50% of total cover: 72.5	20% of total cover: 29		
Sapling/Shrub Stratum (Plot size: 30 ft)			
1. Triadica sebifera (Ch. Tallow)	40	Y	FAC
2. Quercus nigra (Water oak)	10	N	FAC
3. Acer negunda (Box-elder)	20	N	FAC
4. Celtis laevigata (Sugarberry)	30	Y	FACW
5.			
6.			
7.			
8.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Herb Stratum (Plot size: 30 ft)			
1. Pluchea camphorata (Camphorweed)	5	N	FACW
2. Acer negunda (Box-elder)	5	N	FAC
3. Rubus spp.	15	Y	FAC
4. Galium aparine (Bedstraw)	5	N	FACU
5. Lonicera japonica (Jap. honeysuckle)	15	Y	FAC
6. Quercus nigra (Water oak)	10	N	FAC
7. Thelypteris kunthii (Fern, Southern shield)	15	Y	FACW
8. Campsis radicans (Trumpet creeper)	10	N	FAC
9. Allium canadense (Wild onion)	20	Y	FACU
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size:)			
1. Toxicodendron radicans (Poison ivy)	20	Y	FAC
2. Vitis rotundifolia (Muscadine vine)	30	Y	FAC
3. Campsis radicans (Trumpet creeper)	10	N	FAC
4.			
5.			
	60 = Total Cover		
50% of total cover: 30	20% of total cover: 12		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 9/10= 90% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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 Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

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

FAC Neutral test = 3:1 (positive)

SOIL

Sampling Point: Site U8

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
0-3	10 YR 2/2	100					Clay loam	
3-9	10 YR 4/2	100					Clay loam	
9-14	10 YR 4/3	98	7.5 YR 4/2	>2	C	M	Clay loam	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric 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:

Soils are hydric from depleted matrix. Area is well drained, but clay soils located in sample area.