EXHIBIT 22 - ENVIRONMENTAL ASSESSMENT OF WETLANDS AND ENDANGERED SPECIES

ENVIRONMENTAL ASSESSMENT OF WETLANDS AND THREATENED AND ENDANGERED SPECIES REPORT

FOR THE

OLLA INDUSTRIAL SITE

Prepared for:

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Attachments

Attachment 1: LDWF data base search letter (Pending)

Attachment 2: CE Routine Wetland Data Sheets

Attachment 3: Site Photos

1. INTRODUCTION

This report presents the findings of an Environmental Assessment (EA) conducted on behalf of Meyer, Meyer, LaCroix & Hixson (MMLH) for the Town of Olla, Louisiana. Biome Consulting Group, LLC. (Biome) has prepared this EA in conformance with US Army Corps of Engineers (CE), Federal Fish and Wildlife (FWS) and Louisiana Department of Wildlife and Fisheries (LDWF) standards, practices and procedures as outlined in the most current guidelines. The Town of Olla is seeking certification in the Louisiana Economic Development (LED) program for an approximately 50 acre tract of land.

It is anticipated that the site will be used for industrial purposes. The findings in this report satisfy the requisite LED certification guidelines as listed under section L of the LED application.

1.1 Objectives

The specific objectives of this EA are to:

- Conduct jurisdictional determinations in accordance with CE Section 404 guidelines;
- Field delineate jurisdictional waters and wetlands;
- GPS locate jurisdictional areas and prepare representative graphics;
- Conduct field review of the Site for the presence of listed species;
- List federal and state threatened and endangered (TE) plant and animal species with known records of occurrence in the project vicinity;
- Identify species habitat requirements and describe the distributions and habitat use of TE species presently occurring in the project vicinity.

1.2 Study Area

The study area, herein known as "the Site" consists of approximately 50 acres of land, owned by the Town of Olla, as displayed in the figures of this report. The Site lies in northwestern corner of La Salle Parish and within the town limits of Olla. It is positioned in Section 34, Township 11-North, Range 2-East with a central location near 92°15'32.48"W longitude and 31°53'33.72"N latitude (NAD 1983 UTM Zone 15N). The Site is bound to the north by State Route 124, to the east by undeveloped land and the Missouri Pacific Railroad, to the west by undeveloped land, and to the south by undeveloped land. It is irregularly shaped but the Site boundaries are visibly discernible in the field. Obvious land use changes clearly mark the Site's boundary. Access is gained via State Route 124 to the north. There are no fences or obstructions limiting access to the site.

The Site is characterized as maintained pasture with a wetland drain entering the center of the southern property boundary. The site was used for silviculture until sometime between 2007

and 2009 when it was converted to pasture. The current conditions of the site are depicted in the 2013 aerial photograph in figures 2 & 3. Storm water runoff generally sheds into swales that lead to a main shallow drain at the south central portion of the site. The elevation on the site ranges between 130 feet at the south central Site boundary and 162 feet at the northeast Site boundary, as depicted in figures 4 & 5. Erosion is controlled by seeded turf grasses such as Bahia grass and Bermuda grass. Routine mowing of this area has provided a competitive advantage for the turf and in turn has maintained erosional stability throughout the Site.

2. STUDY METHODS

Listed species and their habitats which are known to occur in La Salle Parish (Table 1.) and which are protected under Louisiana Title 56 and the United States Endangered Species Act (ESA) of 1973 (7 U.S.C. §1531 et seq.) were carefully investigated. Although species with a recorded occurrence in La Salle Parish were given special attention, all listed species were considered during the site reconnaissance. Threatened species represent plants and animals that are likely to become endangered within the foreseeable future throughout all or a significant portion of their range. Endangered species are considered those plants and animals that have become so rare that they are in danger of becoming extinct.

Jurisdictional wetlands and other waters determinations were conducted in accordance with the Regional Supplement to the *Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0). Jurisdictional areas were field delineated with glow pink survey flagging tape and pin flags. Each flagged point was alpha-numerically labeled and subsequently located using a handheld, sub-meter accurate Trimble GEO XT GPS unit. Data collected during the field survey were imported into an ArcMap GIS for the generation of report graphics. Routine CE wetland data sheets that establish an analytical basis for the upland and wetland determination were completed in the field and finalized in *Wetforms*® digital format. These are provided in Attachment 1. Representative site photographs which depict the visual conditions at the time of the site survey are displayed in Attachment 2.

2.1 Review of Existing Information

Species were investigated according to the study approaches recommended by state and federal agencies and the latest, most up to date literature. Tabular listings of TE species with known records of occurrence in the study area were reviewed in the following government databases:

- Louisiana Natural Heritage Program
- Louisiana Department of Wildlife and Fisheries
- Louisiana Department of Natural Resources SONRIS

- Nature Serve Explorer
- US Fish and Wildlife (FWS)
- Untied States Department of Agriculture (USDA) Natural Conservation Resources Conservation Service: Plants Database
- United States Geological (USGS) Survey: National Wetland Inventory
- USGS: Earth Resources Observation and Science (EROS) Center

Other key sources of information and data used in performing this study included but were not limited to the following:

- LSU Atlas: The Louisiana Statewide GIS database
- USDA historic aerials
- USDA Natural Resource Conservation Service Soil data
- USGS topographic quadrangles
- USDA National Elevation Data, 2 meter or better
- Digital Elevation Models
- Historic Aerials
- Noni Map View
- Bing Aerials
- Google Aerials

2.2 <u>Listed Species Field Reconnaissance Survey</u>

This report provides specific information within the project area, its natural communities, and its capacity to support listed species known to occur in La Salle Parish. Field reconnaissance review was conducted during the month of January 2015. Pedestrian transects at varying intervals according to species type and habitat makeup were utilized to adequately cover the entire Site. Data collected during the field reconnaissance phase of the study was documented using a handheld sub-meter accurate Trimble XT, 2008 series, GPS unit. These data were compiled and expressed in the report graphics.

Field notes were recorded and digital photographs of the general nature of the Site along with any observed species were captured. A series of color, black & white and infrared aerial photographs and raster data ranging from 1998 to 2014 were carefully studied prior to field survey. USGS topographic quadrangles were also utilized to identify representative elevation conditions and land use improvements in the general vicinity. Remote sensing techniques were employed to evaluate potential habitat or vegetative community types that would be indicative of adequate or sustaining habitat for listed species. Identifying occurrences of TE aquatic species also considered data base queries of previously recorded terrestrial and aquatic surveys by the FWS and other sources.

3. PROTECTED SPECIES

A request to LDWF staff regarding a query of the state database relative to know occurrences of listed species or species of special concern in La Salle Parish was sent on January 12, 2015. We are currently waiting for a response and will forward the information on as soon as we receive any correspondence from LDWF.

3.1 Plant Species

The issue of listed plants is treated slightly differently than animals with prime interest being afforded to federally listed species. Under this heading there is only one species listed by either the State or USFWS. This species is known as Earth-fruit (Geocarpon minimum) and is associated with bare soil where competition is very limited. The Earth-fruit is most often seen in the margin of bare soil "slicks" in saline prairies. Both the Earth-fruit and its' preferred habitat are absent on the project site; therefore, the development of the Site will "Not Effect" this species.

3.2 Aquatic Species

There are no species listed as threatened or endangered by the State or FWS under this category. Furthermore, none of the rare species in this category would be expected to reside on the Site.

3.3 Wildlife Species

3.3.1 Federally Protected Species

Red-cockaded woodpecker (*Picoides borealis*) – Listed as Endangered by both State and USFWS. This species is a relatively small woodpecker with prominent white bars. The crown, nape and back of the neck are black and there is a black line from the bill down to the side of the neck. The cheeks, side of the neck and throat are white and there is a white eyebrow line. The tail is black with white on the outer features and the underside is white with black streaks on the flanks. The males have an inconspicuous red mark on each side of the crown. This species is found in longleaf pine forests and in mixed pine-upland hardwood forest with little or no hardwood mid-story. Good habitat consists of pine stands with trees 22.9 cm and larger in diameter at breast height. Pine stands with or without out adequate management do not occur near the site. Therefore habitat is not present on the Site and development activities will "Not Effect" the Red-Cockaded woodpecker.

Louisiana Pine Snake (*Pituophis ruthveni***)** – A candidate for listing by the FWS and not listed by the State. This snake is a pale tan with a row of large black or brown blotches down the back and a smaller series on either side. The underside is whitish with obscure brown spotting. The

tip of the snout is point and the snake's scales are keeled and in 27 to 33 rows. This species is typical of sandy, well drained soils, often associated with open pine forests and xeric sandhills with a well-developed grassy understory. Although this species is not protected by either state or federal law at this time, suitable habitat does not exist on Site to support this species. Development activities on the site will "Not Effect" the Louisiana pine snake.

3.3.2 State Protected Species

Bald Eagle (Haliaeetus leucocephalus) – The Bald eagle (Haliaeetus leucocephalus) is protected only by the State since the FWS delisted this species from the Endangered Species Act in 2007. The Bald eagle is however, afforded protection under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act and the Lacey Act. Due to the location and types of activities of the proposed activity, the proposed action will "Not Effect" the Bald eagle. Conifer species old and tall enough to support an eagle nest do not occur on or nearby the Site. Additionally a review of the project area did not reveal any signs of active or inactive nesting sites.

4. JURISDICTIONAL WETLANDS AND OTHER WATERS

4.1 US Army Corps of Engineers

Technical guidelines outlined in the US Army Corps of Engineers Wetlands Delineation Manual (1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0) were applied in the field for determining the presence and location of jurisdictional wetlands and waters on and near the Site.

Section 404 of the Clean Water Act (33 USC 1344) requires authorization from the Secretary of the Army, acting through the Corps of Engineers, for the discharge of dredged or fill material into all waters of the United States, including wetlands. Discharges of fill material generally include, without limitation: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; dams and dikes; artificial islands; property protection or reclamation devices such as riprap, groins, seawalls, breakwaters, and revetments; beach nourishment; levees; fill for intake and outfall pipes and sub-aqueous utility lines; fill associated with the creation of ponds; and any other work involving the discharge of fill or dredged material. A Corps permit is required whether the work is permanent or temporary.

The basic premise of the dredge and fill program is to ensure that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment or (2) the nation's waters would be significantly degraded. What this

implies is a Section 404 permit application must reflect that to the extent practicable the following below sequential review has been met.

- 1. Reasonably avoided all wetland impacts
- 2. Minimized potential impacts on wetlands and
- 3. Provide compensation for any remaining unavoidable impacts.

Jurisdictional evaluation of the entire Site revealed a jurisdictional feature that makes up the headwaters of Waterhole Branch. The jurisdictional area consists of approximately 0.46 acres of disturbed, low quality wetlands that are vegetated with a dominance of ruderal species as depicted in Figure 3. Soils underlying this system maintain hydric soil conditions through a long hydro period that extends into the dry season. A dark matrix with a Munsell chroma of less than 2 and numerous concentrations of redox formations on living pore linings was clearly evident. Significant contemporary diffuse redox boundaries were present near the surface with and without living root channels.

Jurisdictional analysis of the maintained pasture site was completed using historic aerials, two foot LIDAR data (Figure 4), Digital Elevation Models (Figure 5) and the NRCS La Salle Parish Soil Survey (Figure 6). After reviewing the information, prior to the Site visit, Bosso-Imhof determined the low lying contours and somewhat poorly drained soils needed further investigation. Our field reconnaissance located several wetland indicators in the bottoms of the swales encroaching on the Site from the south central property boundary. However, the wetland indicators are lost as the soil transitions from the somewhat poorly drained Frizzle series to the moderately well drained Shatta Series. In figure 3, the 2013 aerial photograph with the overlain jurisdiction boundary depicts the size and shape of the federally regulated wetlands. The remaining, non-jurisdictional portion of the site is dominated by upland pasture grasses and well drained soils.

5. SUMMARY AND CONCLUSIONS

Extensive review and survey reconnaissance of the Site revealed that it is unsuitable for any State or Federal listed plant or animal species. The disturbed nature and habitat makeup of the Site is not conducive for listed species nesting or foraging habitat. Development of the approximately 50 acre Site will "Not Affect" any species currently listed or species potentially listed in the near future as threatened or endangered. The overall disturbed nature of the project area through maintenance mowing and historic silvicultural activities and the dominance of silvicultural activities on the adjacent lands are not conducive to supporting listed plant and animal species. Of the state and federally listed animal species, no occurrences were documented, nor expected on the project site. Although their absence from the site cannot be guaranteed, the likelihood of occurrence is exceedingly low.

A jurisdictional feature meeting Section 404 wetland criteria was identified and delineated on the Site. It occupies approximately 0.46 acres of the Site. Dredge and/or fill activities

waterward of the jurisdictional limits will require	CE permitting review pr	ior to conducting such
activities.		

Based on the information gathered during the performance of the this Environmental Assessment, it is our best profession opinion that development of the the approximately 50 acre Olla Industrial Site will neither effect state or federally listed species nor provide negative consequences to the environment.

Prepared by:	
	<u>February 8, 2015</u>
Patrick Imhof	Date
Environmental Scientist	

6. REFERENCES

Field Guide to the Rare Plants of Florida

by Linda G. Chafin, Botanist with Jean C. Putnam Hancock, Botanical Illustrator and Gil Nelson, Ph.D., Graphic Designer and Chief Photographer

FWS Integrated Wildlife Habitat Ranking System 2009

FWS Critical Habitat Mapper, Louisiana Data layer

Godfrey Robert K. Aquatic and wetland plants of southeastern United States: Dicotyledons University of Georgia Press, Athens, GA 30602 1981

Godfrey Robert K. Aquatic and wetland plants of southeastern United States: Monocotyledons University of Georgia Press, Athens, GA 30602 1979

Louisiana Department of Wildlife and Fisheries, Natural Heritage Program

Nature Serve Website

U.S. Department of Agriculture aerial photographs

U.S. Department of Agriculture, Natural Resource Conservation Services: Soil Survey of La Salle Parish, 1991

U.S. Geological Survey, Alexandria Topographical Quadrangle. Revised 1983.

TABLE 1.

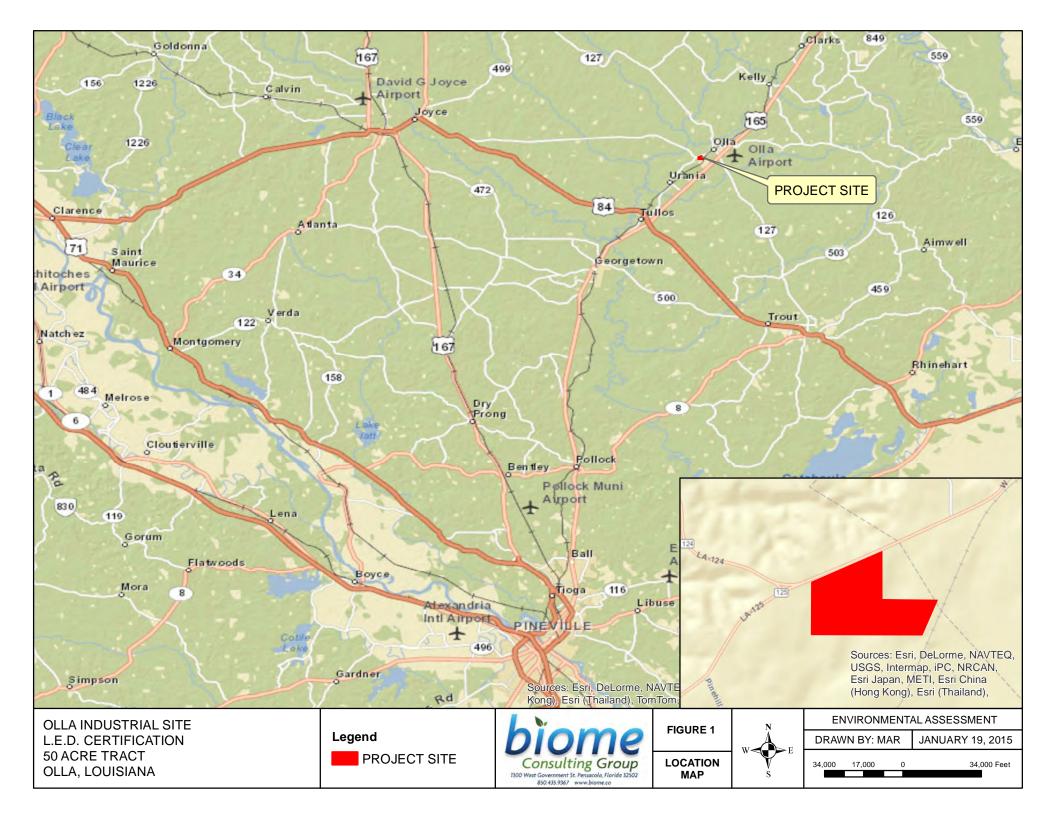
LDWF

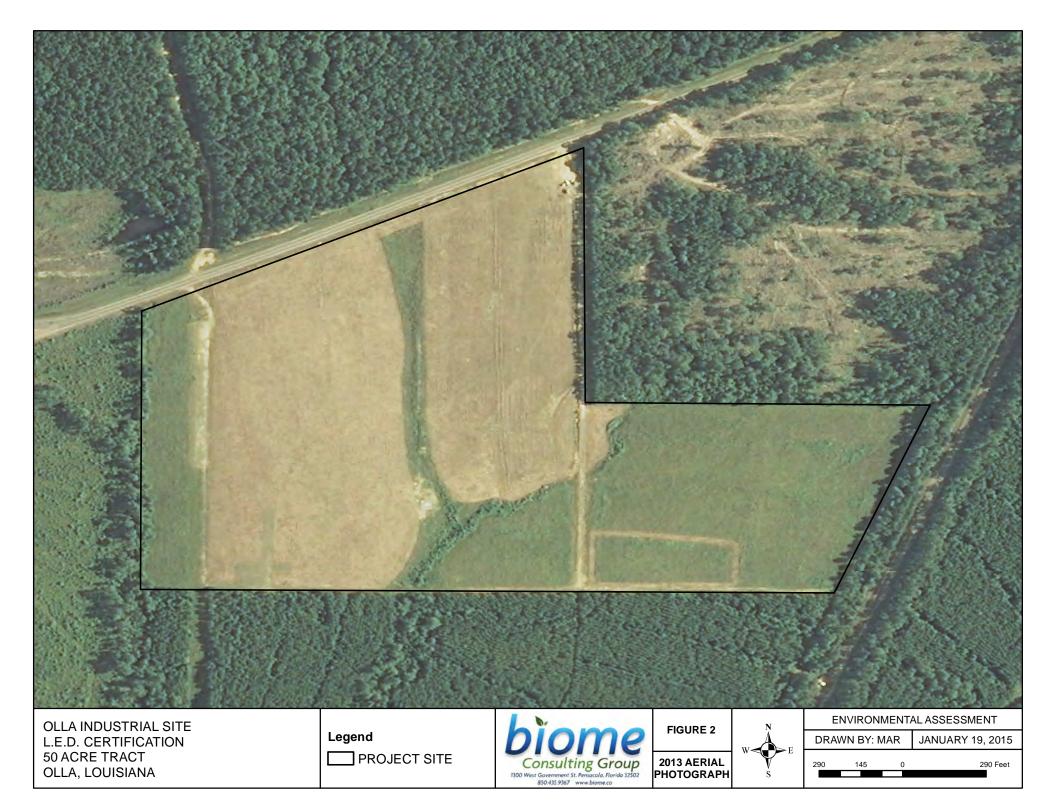
LIST OF SPECIES

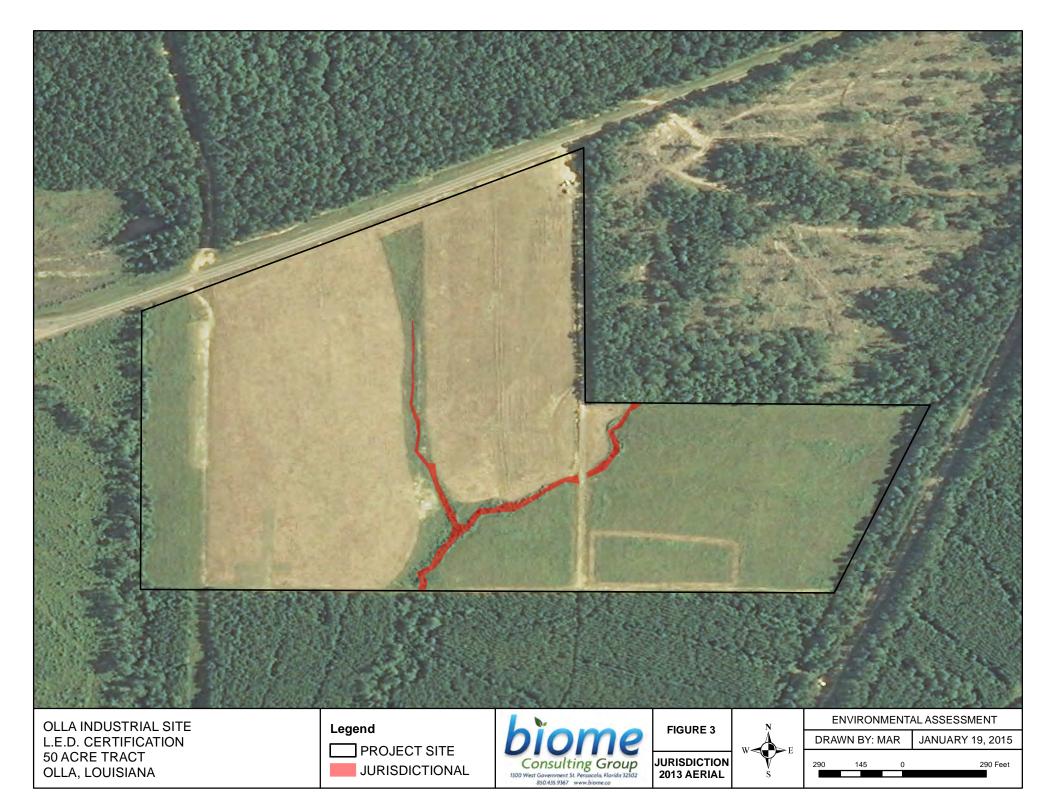
Table 1: Louisiana Department of Wildlife and Fisheries Rare, Threathened and Endangered Species Occurring in LaSalle Parish January 2015

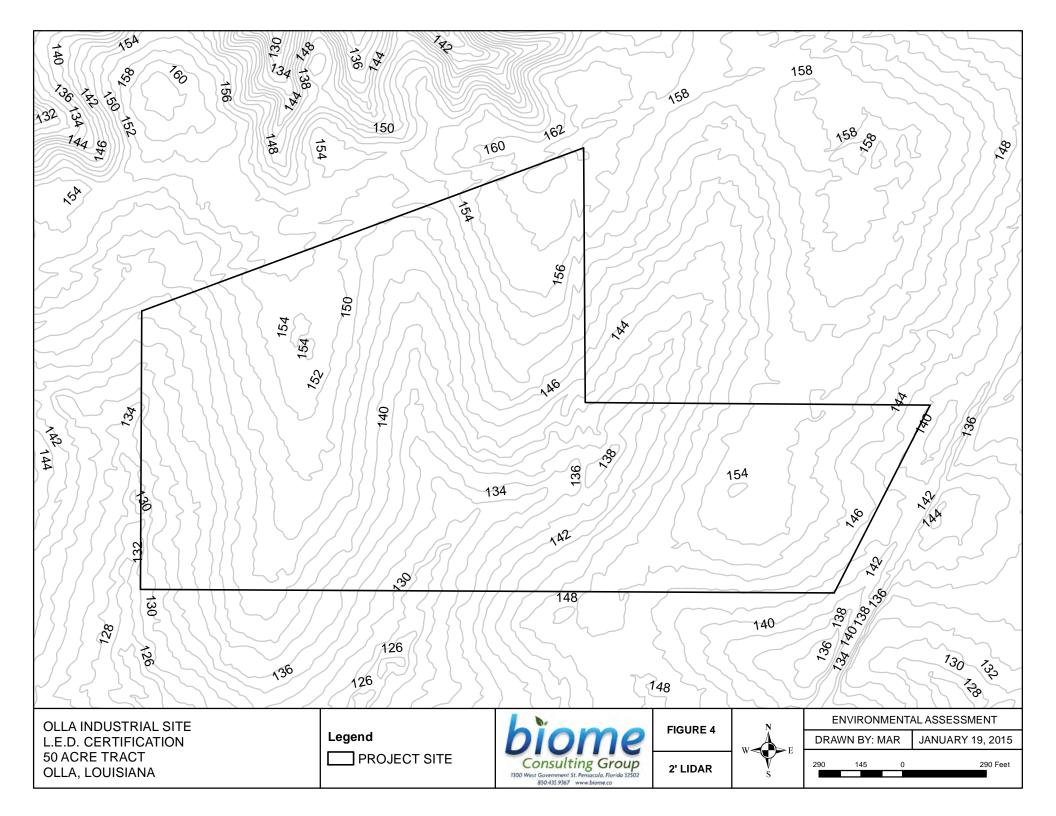
Scientific Name	Common Name	State Status	Federal Status
Agalinis skinneriana	Skinner's purple false foxglove		
Asio flammeus	Short-eared Owl		
Burmannia biflora	Northern Burmannia		
Canis rufus	Red Wolf		
Carex microdonta	Little Tooth Sedge		
Cypripedium kentuckiense	Southern Lady's-slipper		
Dichanthelium strigosum var. glabrescens	Roughhair Witchgrass		
Echinaceae purpurea	Purple Coneflower		
Fallicambarus dissitus	Pine Hills Crawfish		
Faxonella creaseri	Ouachita Fencing Crawfish		
Geocarpon minimum	Earth-fruit		Т
Haliaeetus leucocephalus	Bald Eagle	E	Delisted
Houstonia purpurea var. calycosa	Purple Bluet		
Lobelia flaccidifolia	Coastal Plain Lobelia		
Picoides borealis	Red-cockaded Woodpecker	E	Е
Pituophis ruthveni	Louisiana Pine Snake		С
Plethodon kisatchie	Louisiana Slimy Salamander		
Polyodon spathula	Paddlefish		
Pteronotropis hubbsi	Bluehead Shiner		
Seiurus motacilla	Louisiana Waterthrush		
Stellaria alsine	Chickweed		

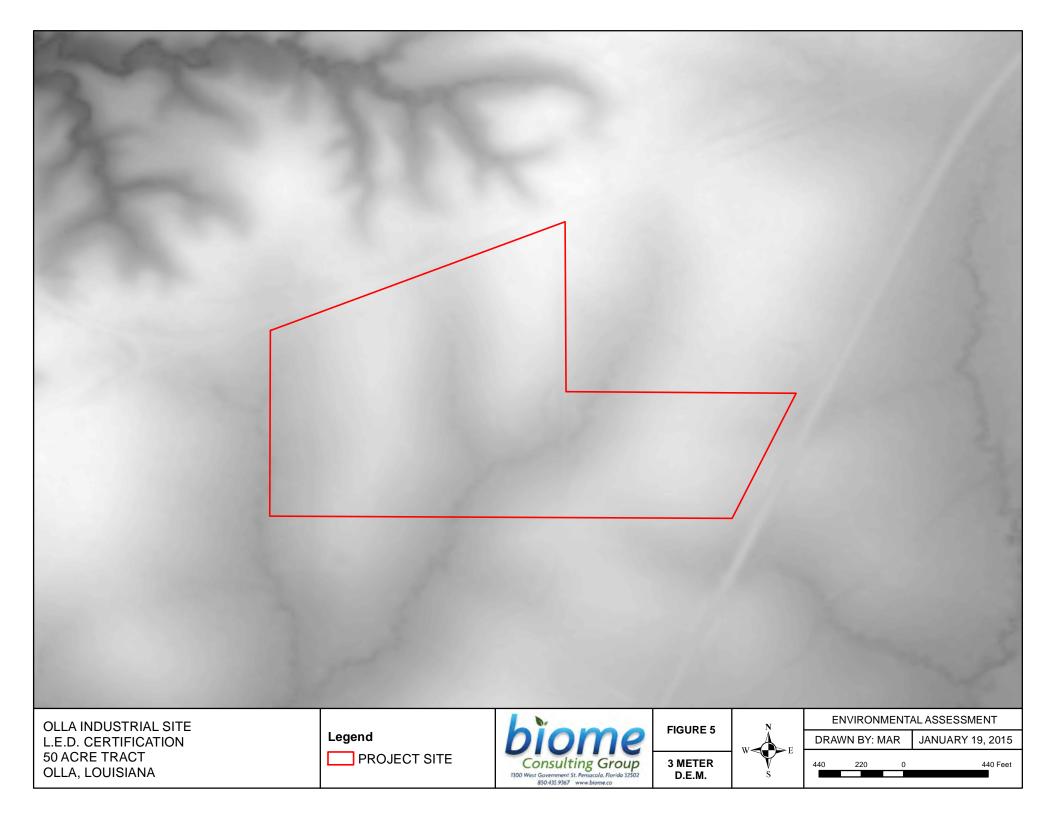
C = Candidate, T = Listed Threatened, E = Listed Endangered

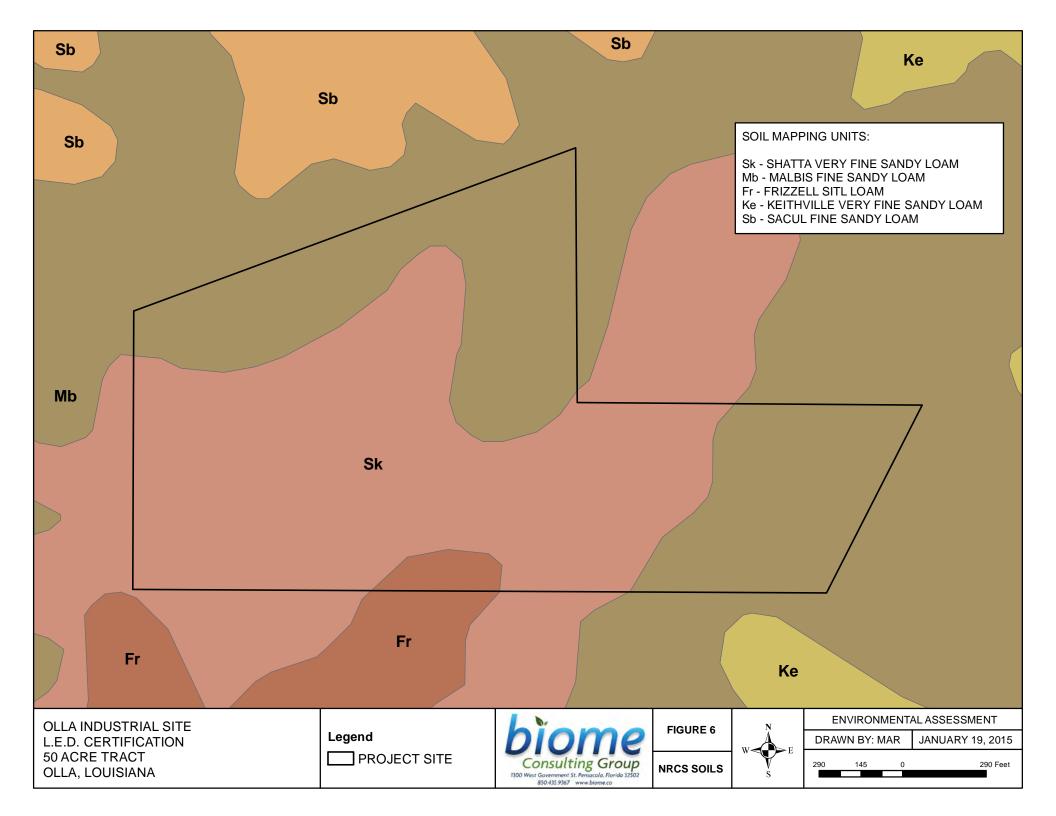












ATTACHMENTS 1:

LDWF Data Base Search Report

ATTACHMENT 2:

CE Routine Wetland Data Sheets

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Olla LED	City/County: La Salle Sampling Date: 14-Jan-15
Applicant/Owner: Town of Olla	State: LA Sampling Point: 1
Investigator(s): Pat Imhof	Section, Township, Range: S 34 T 11N R 2E
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none):convex Slope: % / °
Subregion (LRR or MLRA): LRR P Lat.:	31°53'35.805"N
Soil Map Unit Name: Dothan, Fine Sandy Loam	NWI classification: UPL
Are climatic/hydrologic conditions on the site typical for this time of ye	
Are Vegetation , Soil , or Hydrology significan	ntly disturbed? Are "Normal Circumstances" present? Yes • No •
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ○ No •	
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area Western a Western a Yes ○ No ●
Wetland Hydrology Present? Yes ○ No ●	within a Wetland? Yes VNO V
Remarks: Data point located on a mowed and maintained upland pasture. HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	
Surface Water (A1) Aquatic Fauna (B	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B)	
☐ Saturation (A3) ☐ Hydrogen Sulfide	
	pheres along Living Roots (C3)
Sediment Deposits (B2) Presence of Redu Deposits (B2)	= '', '', '', '', '', '', '', '', '', ''
	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Comments Resitting (C9)
☐ Algal Mat or Crust (B4) ☐ Thin Muck Surfact ☐ Iron Deposits (B5) ☐ Other (Explain in	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	op.neg.am moss (50) (2.11t 1, 5)
Surface Water Present? Yes No Depth (inches):	:
Water Table Present? Yes No Depth (inches):	
0.1 - 1' - D 10	Wetland Hydrology Present? Yes ○ No ●
(includes capillary in inge)	
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspections), if available:
Remarks:	
No hydrologic indicators present. Water sheds downslope quickly to	o offsite drainage feature.

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

= T	0.0% 0.0%	Status	Number of Dominant Species That are OBL, FACW, or FAC:
	0.0% 0.0%		That are OBL, FACW, or FAC:
	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		Total Number of Dominant Species Across All Strata:
	0.0% 0.0%		Species Across All Strata:
	0.0% 0.0%		Percent of dominant Species 0.0% (A/B) Prevalence Index worksheet:
	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B) Prevalence Index worksheet:
	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		Prevalence Index worksheet:
	0.0% 0.0%		Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 13 x 3 = 39 FACU species 83 x 4 = 332 UPL species 1 x 5 = 5 Column Total s: 97 (A) 376 (B) Prevalence Index = B/A = 3.876 Hydrophytic Vegetation Indicators: □ 1 - Rapid Test for Hydrophytic Vegetation □ 2 - Dominance Test is > 50%
	0.0% 0.0%		OBL speciles 0 x 1 = 0 FACW speciles 0 x 2 = 0 FAC speciles 13 x 3 = 39 FACU speciles 83 x 4 = 332 UPL speciles 1 x 5 = 5 Collumn Total s: 97 (A) 376 (B) Prevalence Index = B/A = 3.876 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50%
	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 13 x 3 = 39 FACU species 83 x 4 = 332 UPL species 1 x 5 = 5 Column Totals: 97 (A) 376 (B) Prevalence Index = B/A = 3.876 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50%
= T	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		FAC speciles
= T	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		FACU speciles
=1	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Cotal Cover		UPL specifies 1 x 5 = 5 Col umn Total s: 97 (A) 376 (B) Prevalence Index = B/A = 3.876 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50%
= T	0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		UPL specifies 1 x 5 = 5 Col umn Total s: 97 (A) 376 (B) Prevalence Index = B/A = 3.876 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50%
= 1	0.0% 0.0% 0.0% 0.0%		Col umn Total s:97 (A)376 (B) Prevalence Index = B/A =3.876_ Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50%
= 1	0.0% 0.0% 0.0%		Prevalence Index = B/A = 3.876 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50%
= T	0.0% 0.0% Total Cover		Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50%
= 1	0.0%		1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50%
= 1	otal Cover		2 - Dominance Test is > 50%
= 1	1		2 - Dominance Test is > 50%
	٦		
	1		
	0.0%		3 - Prevalence Index is ≤3.0 ¹
- 1			☐ Problematic Hydrophytic Vegetation ¹ (Explain)
F			¹ Indicators of hydric soil and wetland hydrology must
F			be present, unless disturbed or problematic.
			Definition of Vegetation Strata:
F			Tree - Woody plants, excluding woody vines,
= T			approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
✓	61.9%	FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
✓	20.6%	FACU	than 3 in. (7.6 cm) DBH.
	10.3%	FAC	
	3.1%	FACU	Sapling/Shrub - Woody plants, excluding vines, less
	1.0%	FAC	than 3 in. DBH and greater than 3.28 ft (1m) tall.
	1.0%	UPL	Shrub - Woody plants, excluding woody vines,
	1.0%	FAC	approximately 3 to 20 ft (1 to 6 m) in height.
	1.0%	FAC	
	0.0%		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
	0.0%		plants, except woody vines, less than approximately
	0.0%		3 ft (1 m) in height.
	0.0%		
= T	otal Cover		Woody vine - All woody vines, regardless of height.
_] 6.001		
			Hydrophytic
L			Vegetation
= T	otal Cover		Present? Yes V NO V
	∀	✓ 61.9% ✓ 20.6% 10.3% 3.1% 1.0% 1.0% 1.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	0.0%

Dominant

SOIL Sampling Point: 1

Profile Descri	iption: (Des	scribe to	the depth	needed to document	the indica	tor or co	nfirm the a	absence of indicators	s.)
Depth		Matrix		•	ox Featur	es			
(inches)	Color (ı		%	Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks Brown
0-5	10YR	4/3	100					Silt Loam	
5-7	10YR	5/3	90	10YR 4/6				Loam	Dark Brown
7-14	10YR	7/2	50	10YR 4/6				Clay Loam	Light gray
				. ——					
					-		-	-	
				·				-	
¹ Type: C=Conc	entration. D:	=Depletior	n. RM=Red	luced Matrix, CS=Covered	d or Coated	I Sand Gra	ains ² Locat	tion: PL=Pore Lining. N	M=Matrix
Hydric Soil I	ndicators:							Indicators for Pr	oblematic Hydric Soils ³ :
☐ Histosol (A	41)			Polyvalue Belov	w Surface ((S8) (LRR	S, T, U)	1 cm Muck (A	•
☐ Histic Epip	edon (A2)			Thin Dark Surfa				2 cm Muck (A	
Black Histi	c (A3)			Loamy Mucky N	Mineral (F1) (LRR 0)			c (F18) (outside MLRA 150A,B)
Hydrogen	Sulfide (A4)			Loamy Gleyed					dplain Soils (F19) (LRR P, S, T)
Stratified L	Layers (A5)			Depleted Matrix					ight Loamy Soils (F20) (MLRA 153B)
Organic Bo	odies (A6) (LI	RR P, T, U	J)	Redox Dark Su				Red Parent Ma	
5 cm Muck	ky Mineral (A	7) (LRR P	, T, U)	Depleted Dark	Surface (F	7)			Dark Surface (TF12)
Muck Pres	ence (A8) (LI	.RR U)		Redox Depress		,		Other (Explain	
1 cm Muck	k (A9) (LRR F	P, T)		Marl (F10) (LRI				Other (Explain	ili Remarks)
Depleted E	Below Dark S	Surface (A1	11)	Depleted Ochri		LRA 151)			
	Surface (A1			☐ Iron-Manganes			₹ O, P, T)		
Coast Prair	rie Redox (A	16) (MLRA	\ 150A)	Umbric Surface					
	ck Mineral (S			Delta Ochric (F					
	yed Matrix (S			Reduced Vertic			150B)		ors of hydrophytic vegetation and
Sandy Red		•		Piedmont Floor					nd hydrology must be present, ess disturbed or problematic.
Stripped M								9A, 153C, 153D)	ess distanced of problematic.
	ace (S7) (LRR	₹ P, S, T, I	U)		JIN 200,	JOIIS () (1412.0	M, 1000, 1002,	
	, , ,	•	-,						
Destriction I.e.	(if also								
Restrictive La	iyer (if obse	erved):							
Type: Depth (inch	nes).				_			Hydric Soil Presen	t? Yes O No 💿
Remarks:									
No hydric soil	indicators	nrocent							
NO HYURIC SOII	mulcators	present.							

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Olla LED	City/County: La Salle	Sampling Date: 14-Jan-15		
Applicant/Owner: Town of Olla	State: _LA	Sampling Point: 2		
Investigator(s): Pat Imhof	Section, Township, Range: S 3	4 T 11N R 2E		
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none	e): _convex		
Subregion (LRR or MLRA): LRR P Lat.:	31°53'28.40"N Long.:	92°15'33.87"W Datum: NAD 83 UT		
Soil Map Unit Name: Shatt very fine sandy loam		NWI classification: UPL		
Are climatic/hydrologic conditions on the site typical for this time of yea	Yes • No O (If	no, explain in Remarks.)		
Are Vegetation , Soil , or Hydrology significantl	/ disturbed? Are "Normal Cir	cumstances" present? Yes No		
Are Vegetation , Soil , or Hydrology naturally p		lain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map showing sai	(
Hydrophytic Vegetation Present? Yes ○ No •				
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area	O (A)		
Wetland Hydrology Present? Yes ○ No ●	within a Wetland?	s ○ No •		
Remarks:				
Well drained pasture on hill slope.				
HYDROLOGY				
Wetland Hydrology Indicators:	Se	econdary Indicators (minimum of 2 required)		
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)		
Surface Water (A1) Aquatic Fauna (B1:	(1)	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2) Marl Deposits (B15	(LRR U)	☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16)		
Saturation (A3) Hydrogen Sulfide (dor (C1)			
Water Marks (B1) Oxidized Rhizosphe	res along Living Roots (C3)	Dry Season Water Table (C2)		
Sediment Deposits (B2)	ed Iron (C4)	Crayfish Burrows (C8)		
	ion in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Thin Muck Surface	(C7)	Geomorphic Position (D2)		
☐ Iron Deposits (B5) ☐ Other (Explain in R	emarks)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)		
Field Observations:				
Surface Water Present? Yes No Depth (inches):	0			
Water Table Present? Yes No Depth (inches):	0	ogy Present? Yes ○ No •		
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	0 Wetland Hydrolo	ogy Present? Tes O NO O		
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available	e:		
Remarks:				
To have				

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

		Dominant Species?		Sampling Point: 2
Free Stratum (Plot size:)	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
Tec Structurii		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: (A)
		0.0%		That are obe, thow, or the.
		0.0%		Total Number of Dominant
		0.0%		Species Across All Strata: (B)
		0.0%		Percent of dominant Species
		0.0%		That Are OBL, FACW, or FAC: (A/B)
		0.0%		Prevalence Index worksheet:
	-	0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 0 20% of Total Cover: 0		= Total Cove	r	0BL speci es 0 x 1 = 0
ppling or Sapling/Shrub Stratum (Plot size:				FACW species 0 x 2 = 0
		0.0%		FAC speciles x 3 =45
		0.0%		FACU speciles 64 x 4 = 256
		0.0%		UPL species $0 \times 5 = 0$
		0.0%		· ·
		0.0%		Column Totals:
		0.0%		Prevalence Index = B/A = 3.810
		0.0%		Hydrophytic Vegetation Indicators:
		0.0%		
0% of Total Cover: 0 20% of Total Cover: 0		= Total Cove	- — — ·	1 - Rapid Test for Hydrophytic Vegetation
		- I Julia Covel		2 - Dominance Test is > 50%
nrub Stratum (Plot size:)				3 - Prevalence Index is ≤3.0 ¹
				Problematic Hydrophytic Vegetation ¹ (Explain)
				17.4.
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definition of Managerian Charles
				Definition of Vegetation Strata:
	0	0.0%		Tree - Woody plants, excluding woody vines,
				I approximately 20 ft (6 m) or more in height and 3 in.
		= Total Cove	r	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
		= Total Cove	r	(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 25')		= Total Cover	r <u>FACU</u>	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,
erb Stratum (Plot size: _25') Cynodon dactylon	60			(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: _25') . Cynodon dactylon	60	75.9%	FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
erb Stratum (Plot size: _25') . Cynodon dactylon . Andropogon virginicus . Cyperus rotundus	60	✓ 75.9% ☐ 12.7%	FACU FAC	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less
cynodon dactylon Andropogon virginicus Cyperus rotundus Sporobolus indicus	60 10 5 2	75.9% 12.7% 6.3%	FACU FAC	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Cynodon dactylon Andropogon virginicus Cyperus rotundus Sporobolus indicus Dichanthelium oligosanthes	60 10 5 2	75.9% 12.7% 6.3% 2.5%	FACU FAC FAC FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less
cynodon dactylon Cynodon dactylon Andropogon virginicus Cyperus rotundus Sporobolus indicus Dichanthelium oligosanthes Rubus trivialis	60 10 5 2 1 1 0	75.9% 12.7% 6.3% 2.5% 1.3%	FACU FAC FAC FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
cynodon dactylon Andropogon virginicus Cyperus rotundus Sporobolus indicus Dichanthelium oligosanthes Rubus trivialis	60 10 5 2 1 1 0	75.9% 12.7% 6.3% 2.5% 1.3% 1.3%	FACU FAC FAC FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
crb Stratum (Plot size: 25') Cynodon dactylon Andropogon virginicus Cyperus rotundus Sporobolus indicus Dichanthellum oligosanthes Rubus trivialis	60 10 5 2 1 1 0 0	75.9% 12.7% 6.3% 2.5% 1.3% 1.3% 0.0%	FACU FAC FAC FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including
cyperus rotundus Sporobolus indicus Dichanthelium oligosanthes Rubus trivialis	60 10 5 2 1 1 0 0	75.9% 12.7% 6.3% 2.5% 1.3% 1.3% 0.0%	FACU FAC FAC FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
erb Stratum (Plot size: _25') . Cynodon dactylon . Andropogon virginicus . Cyperus rotundus . Sporobolus indicus . Dichanthelium oligosanthes . Rubus trivialis	60 10 5 2 1 1 0 0	75.9% 12.7% 6.3% 2.5% 1.3% 1.3% 0.0% 0.0%	FACU FAC FAC FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
erb Stratum (Plot size: 25') . Cynodon dactylon . Andropogon virginicus . Cyperus rotundus . Sporobolus indicus . Dichanthelium oligosanthes . Rubus trivialis	60 10 5 2 1 1 0 0 0	75.9% 12.7% 6.3% 2.5% 1.3% 1.3% 0.0% 0.0% 0.0%	FACU FAC FAC FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
erb Stratum (Plot size: 25') . Cynodon dactylon . Andropogon virginicus . Cyperus rotundus . Sporobolus indicus . Dichanthelium oligosanthes . Rubus trivialis	60 10 5 2 1 1 0 0 0	75.9% 12.7% 6.3% 2.5% 1.3% 0.0% 0.0% 0.0% 0.0%	FACU FAC FACU FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
erb Stratum (Plot size: 25') . Cynodon dactylon . Andropogon virginicus . Cyperus rotundus . Sporobolus indicus . Dichanthelium oligosanthes . Rubus trivialis	60 10 5 2 1 1 0 0 0	75.9% 12.7% 6.3% 2.5% 1.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACU FAC FACU FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
cynodon dactylon Andropogon virginicus Cyperus rotundus Sporobolus indicus Dichanthelium oligosanthes Rubus trivialis	60 10 5 2 1 1 0 0 0 0 0 0	75.9% 12.7% 6.3% 2.5% 1.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACU FAC FACU FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
erb Stratum (Plot size: _25') . Cynodon dactylon . Andropogon virginicus . Cyperus rotundus . Sporobolus indicus . Dichanthelium oligosanthes . Rubus trivialis	60 10 5 2 1 1 0 0 0 0 0 0 79	75.9% 12.7% 6.3% 2.5% 1.3% 0.0% 0.0% 0.0% 0.0% 0.0% Total Cover	FACU FAC FACU FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
erb Stratum (Plot size: 25') . Cynodon dactylon . Andropogon virginicus . Cyperus rotundus . Sporobolus indicus . Dichanthellum oligosanthes . Rubus trivialis	60 10 5 2 1 1 0 0 0 0 0 0 79	75.9% 12.7% 6.3% 2.5% 1.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FAC FACU FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
erb Stratum (Plot size: 25') . Cynodon dactylon . Andropogon virginicus . Cyperus rotundus . Sporobolus indicus . Dichanthelium oligosanthes . Rubus trivialis	60 10 5 2 1 1 0 0 0 0 0 0 79	75.9% 12.7% 6.3% 2.5% 1.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FAC FACU FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
erb Stratum (Plot size: 25') . Cynodon dactylon 2. Andropogon virginicus 3. Cyperus rotundus 5. Sporobolus indicus 6. Rubus trivialis 7.	60 10 5 2 1 1 0 0 0 0 0 0 0 79	75.9% 12.7% 6.3% 2.5% 1.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FAC FACU FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.
2. Andropogon virginicus 3. Cyperus rotundus 4. Sporobolus indicus 5. Dichanthelium oligosanthes 6. Rubus trivialis 7	60 10 5 2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	75.9% 12.7% 6.3% 2.5% 1.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FAC FACU FACU FACU FACU	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.

SOIL Sampling Point: 2

Profile Descr	iption: (Des	cribe to t	he depth	needed to document	the indic	ator or co	onfirm the	absence of indicato	ers.)	
Depth		Matrix		Re	dox Featu	ıres				
(inches)	Color (n	noist)	%	Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks	
0-6	10YR	4/3	100					Silt Loam	Dark Brown	
6-13	10YR	3/2	100					Loam	Very dark grayish brown	1
						-0				
						-				
								-	9	
									•	
								-		
¹ Type: C=Cond	centration. D=	Depletion	. RM=Red	uced Matrix, CS=Covere	d or Coate	ed Sand Gra	ains ² Loca	tion: PL=Pore Lining.	M=Matrix	
Hydric Soil I	ndicators:							Indicators for F	Problematic Hydric Soils ³ :	
Histosol (A	A1)			Polyvalue Belo	ow Surface	(S8) (LRR	S, T, U)	1 cm Muck (
Histic Epip	edon (A2)			Thin Dark Sur					(A10) (LRR S)	
☐ Black Histi	ic (A3)			Loamy Mucky					rtic (F18) (outside MLRA 150A,B)	
Hydrogen	Sulfide (A4)			Loamy Gleyed					podplain Soils (F19) (LRR P, S, T)	
	Layers (A5)			Depleted Mati		-/				
	odies (A6) (LR	R P. T. U)		Redox Dark S		١			Bright Loamy Soils (F20) (MLRA 153B)	
	ky Mineral (A7			Depleted Dark	` '				Material (TF2)	
	sence (A8) (LR		., 0,	Redox Depres		1 /)			v Dark Surface (TF12)	
	k (A9) (LRR P							U Other (Expla	in in Remarks)	
	Below Dark Su	•	1)	☐ Marl (F10) (LF		ALDA 151)				
	k Surface (A12		')	Depleted Och			T)			
	•	•	1504)	☐ Iron-Mangane						
	rie Redox (A1			Umbric Surfac)			
	ck Mineral (S1		S)	Delta Ochric (³ Indica	ators of hydrophytic vegetation and	
	yed Matrix (S	4)		Reduced Vert				wetl	land hydrology must be present,	
Sandy Red				Piedmont Floo	dplain Soi	ls (F19) (M	LRA 149A)	u	nless disturbed or problematic.	
	Natrix (S6)			Anomalous Br	ight Loam	y Soils (F20) (MLRA 149	9A, 153C, 153D)		
☐ Dark Surfa	ace (S7) (LRR	P, S, T, U)							
Restrictive La	over (if obse	mrod):								
	ayer (ii obse	rvea):								
Type:					_			Hydric Soil Prese	ent? Yes O No 💿	
Depth (inch	nes):				_				103 0 110 0	
Remarks:										
Plowed soil th	nat displays i	mixing of	surface	horizons. No hydric	soils indi	cators pre	sent withir	n upper 12" of soil p	profile.	

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Olla LED	City/County: La S	Salle	Sampling Date	: 14-Jan-15	
Applicant/Owner: Town of Olla	Stat	e: LA	Sampling Point: 3		
Investigator(s): Pat Imhof	Section, Townshi	p, Range: S 34	T11N R	_2E	
Landform (hillslope, terrace, etc.): Hillside	Local relief (concar	ve, convex, none):	convex Slope:	5.0 % / 2.9 °	
Subregion (LRR or MLRA): LRR P	at.: 31°53'29.133"N	Long.: 92	2°15'40.612"W	Datum: NAD 83 UT	
Soil Map Unit Name: Shatt very fine sandy loam			NWI classification: UPL		
Are climatic/hydrologic conditions on the site typical for this time	of year? Yes •	No O (If no	o, explain in Remarks.)		
Are Vegetation . , Soil . , or Hydrology . signif	ficantly disturbed?	Are "Normal Circu	ımstances" present?	s • No O	
Are Vegetation . , Soil . , or Hydrology . natur	ally problematic?	(If needed, explai	in any answers in Remarks.))	
SUMMARY OF FINDINGS - Attach site map showing			•		
Hydrophytic Vegetation Present? Yes ○ No •	Is the San	unled Area			
Hydric Soil Present? Yes No •	Is the San	Voc	○ No ●		
Wetland Hydrology Present? Yes No	within a W	/etland?	O NO O		
Remarks: Data point located on a mowed and maintained upland pasture HYDROLOGY).				
Wetland Hydrology Indicators:			ondary Indicators (minimum of 2	2 required)	
Primary Indicators (minimum of one required; check all that as Surface Water (A1) Aquatic Faur			Surface Soil Cracks (B6)	-f (DO)	
	na (B13) ts (B15) (LRR U)		Sparsely Vegetated Concave Sul	ттасе (вв)	
	ulfide Odor (C1)		☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2)		
	izospheres along Living Roof				
	Reduced Iron (C4)		Crayfish Burrows (C8)		
	Reduction in Tilled Soils (C6		Saturation Visible on Aerial Imag	gery (C9)	
Algal Mat or Crust (B4) Thin Muck S	Surface (C7)		Geomorphic Position (D2)	97 (7	
☐ Iron Deposits (B5) ☐ Other (Expla	ain in Remarks)		Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		F	FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)			Sphagnum moss (D8) (LRR T, L	J)	
Field Observations:					
Surface Water Present? Yes No Depth (inc	:hes):				
Water Table Present? Yes O No O Depth (inc	:hes):				
Saturation Present? (includes capillary frings) Yes No Depth (includes capillary frings)	thes):	Wetland Hydrology	y Present? Yes \bigcirc N	o	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial		tions) if available:			
Describe Recorded Data (Stream gauge, monitoring well, aerial	priotos, previous irispect	lons), ii avaliable:			
Remarks:					
No hydrologic indicators present.					

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

		Dominant Species?		Sampling Point: 3
Tree Stratum (Plot size:)	Absolute % Cover	Rel.Strat.	Indicator Status	
	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
	0	0.0%		
		0.0%		Total Number of Dominant Species Across All Strata: 1 (B)
		0.0%		openies railoss riii otituta.
	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
	0	0.0%		That Are OBL, FACW, or FAC:(A/B)
	0	0.0%		Prevalence Index worksheet:
		0.0%		Total % Cover of: Multiply by:
50% of Total Cover:0 20% of Total Cover:0	=	= Total Cove	r	0BL speci es x 1 = 0
Sapling or Sapling/Shrub Stratum (Plot size:	_)			FACW species x 2 = 0
		0.0%		FAC speci es5 x 3 =15
				FACU speci es63
		0.0%		UPL species $\frac{4}{}$ x 5 = $\frac{20}{}$
		0.0%		Column Totals: <u>72</u> (A) <u>287</u> (B)
				Prevalence Index = B/A = 3.986
				Hydrophytic Vegetation Indicators:
·		0.0%		1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover:0 20% of Total Cover:0	0 =	= Total Cove	r	2 - Dominance Test is > 50%
hrub Stratum (Plot size:)				\Box 3 - Prevalence Index is ≤3.0 1
	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
	0	0.0%		
	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	0	0.0%		be present, unless disturbed of problematic.
	0	0.0%		Definition of Vegetation Strata:
-	0	0.0%		Tree - Woody plants, excluding woody vines,
50% of Total Cover: 0 20% of Total Cover: 0		= Total Cove	r	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
lerb Stratum (Plot size: 25')				Sapling - Woody plants, excluding woody vines,
_ Cynodon dactylon	50	69.4%	FACU	approximately 20 ft (6 m) or more in height and less
2. Andropogon virginicus		6.9%	FAC	than 3 in. (7.6 cm) DBH.
Ambrosia artemisiifolia	10	13.9%	FACU	Capling/Chrush Wandy plants avaluding vince loss
1. Helianthus divaricatus	3	4.2%	UPL	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
5. Solidago altissima		2.8%	FACU	
Coopedium arboreum		1.4%	FACU	Shrub - Woody plants, excluding woody vines,
7 Gnaphalium obtusifolium		1.4%	UPL	approximately 3 to 20 ft (1 to 6 m) in height.
3		0.0%		Herb - All herbaceous (non-woody) plants, including
)		0.0%		herbaceous vines, regardless of size, and woody
)	0 0	0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.
l 2.				
5.0% of Total Cover: 36 20% of Total Cover: 14.4	- <u>0</u> 72 =			Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot size:)		- Total Cove	•	
voody vine Stratum (1 100 3126	0	0.0%		
		0.0%		
	-	0.0%		
		0.0%		
		0.0%		Hydrophytic
				Vegetation
50% of Total Cover:0 20% of Total Cover:0		= Total Cove	r	Present? Yes No •

SOIL Sampling Point: 3

Profile Descr	iption: (Des	scribe to t	he depth	needed to	locument	t the indic	cator or co	onfirm the	absence of indicato	ors.)		
Depth Matrix					dox Featu				•			
(inches)	Color (moist)	%	Color (moist)	%	Tvpe 1	Loc ²	Texture	Remarks		
0-8	10YR	4/3	100						Silt Loam	Brown	<u> </u>	
8-13	10YR	5/3	95	7.5YR	4/6	 5	C	M	Silt Loam	Brown		
										<u> </u>		
				. ——		- ——						
			-		-				-	·.		
				-	-			-				
¹ Type: C=Cond	centration. D	 =Depletion	. RM=Red	uced Matrix, (CS=Covere	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining	. M=Matrix		
Hydric Soil I	ndicators:								Indicators for	Problematic Hydric So	ile ³ .	
Histosol (A	A1)			Pol.	vvalue Beld	ow Surface	e (S8) (LRR	S. T. U)		-	115 .	
	pedon (A2)				•		(LRR S, T, I			(A9) (LRR O)		
Black Histi							F1) (LRR O)			(A10) (LRR S)		
	Sulfide (A4)					d Matrix (F.		1		ertic (F18) (outside MLRA	•	
	Layers (A5)						2)			loodplain Soils (F19) (LRR	•	
	•	DD D T 11'	,		oleted Matr					Bright Loamy Soils (F20)	(MLRA 153B)	
	odies (A6) (L					Surface (F6)	•		Red Parent	Material (TF2)		
	ky Mineral (A		I, U)			k Surface (Very Shallov	w Dark Surface (TF12)		
	sence (A8) (L					ssions (F8)	,		Other (Expla	ain in Remarks)		
	k (A9) (LRR F			Mar	rl (F10) (LF	RR U)						
Depleted I	Below Dark S	Surface (A1	1)	☐ Dep	oleted Och	ric (F11) (I	MLRA 151)					
Thick Dark	k Surface (A1	2)		☐ Iroi	n-Mangane	ese Masses	s (F12) (LR	R O, P, T)				
Coast Prai	irie Redox (A	16) (MLRA	150A)	Um	bric Surfac	ce (F13) (L	RR P, T, U)				
Sandy Mu	ck Mineral (S	1) (LRR O,	S)	☐ Del	ta Ochric ((F17) (MLR	≀A 151)					
Sandy Gle	yed Matrix (S	64)					л ЛLRA 150A,	150B)	³ Indicators of hydrophytic vegetation and			
Sandy Red	dox (S5)						ils (F19) (M			tland hydrology must be p unless disturbed or proble		
	Matrix (S6)								.9A, 153C, 153D)	ariiess disturbed or proble	matic.	
	ace (S7) (LRF	PPSTII	۸	□ And	illialous bi	igni Luani	y 30113 (1 20) (IVILKA 14	7A, 133C, 133D)			
Dark Surie	dec (37) (ERI	(1, 5, 1, 0	,									
									l			
Restrictive La	ayer (if obse	erved):										
Type:												
Depth (inch	hes):								Hydric Soil Prese	ent? Yes \bigcirc No	, •	
Remarks:												
Brown silty lo	am.											

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Olla LED	City/County: La Salle	Sampling Date:	14-Jan-15		
Applicant/Owner: Town of Olla	State: LA	Sampling Point: 4			
Investigator(s): Pat Imhof	Section, Township, Range	e: S 34 T 11N R 2	2E		
Landform (hillslope, terrace, etc.): Channel (active)	Local relief (concave, conve	ex, none): CONVEX Slope:	0.0 % / 0.0 °		
Subregion (LRR or MLRA): LRR P Lat.:	31°53'29.133"N		tum: NAD 83 UT		
Soil Map Unit Name: Frizzell Silt Loam	31 33 27.133 10	NWI classification: N/A			
Are climatic/hydrologic conditions on the site typical for this time of year	ar? Yes • No •				
		(If no, explain in Remarks.)	● No ○		
		mia circumstances present.	J 110 C		
Are Vegetation . , Soil . , or Hydrology . naturally p	problematic? (If need	ed, explain any answers in Remarks.)			
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point locations	s, transects, important feature	s, etc.		
Hydrophytic Vegetation Present? Yes No	Is the Sampled Are	ea.			
Hydric Soil Present? Yes No	-	Voc (No (
Wetland Hydrology Present? Yes No	within a Wetland?	163 0 116 0			
Remarks:	•				
Natural drainage swale that receives overland flow and seepage from	n upland hillsides. Hydrope	eriod adequate to support hydrophytes	and hydric soil		
indicators.					
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 re	equired)		
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)			
Surface Water (A1)	3)	Sparsely Vegetated Concave Surfa	ce (B8)		
High Water Table (A2) Marl Deposits (B1)	5) (LRR U)	Drainage Patterns (B10)	Drainage Patterns (B10)		
Saturation (A3) Hydrogen Sulfide	, ,	Moss Trim Lines (B16)			
✓ Water Marks (B1) ✓ Oxidized Rhizosph	eres along Living Roots (C3)	Dry Season Water Table (C2)			
Sediment Deposits (B2)	ced Iron (C4)	Crayfish Burrows (C8)			
	ction in Tilled Soils (C6)	Saturation Visible on Aerial Imager	y (C9)		
☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface	: (C7)	Geomorphic Position (D2)			
☐ Iron Deposits (B5) ☐ Other (Explain in I	Remarks)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutral Test (D5)			
☐ Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)			
Field Observations: Surface Water Present? Yes No Depth (inches):	_				
, ,	5				
Water Table Present? Yes No Depth (inches):		Hydrology Present? Yes No	\cap		
Saturation Present? (includes capillary fringe) Yes No Depth (inches):		Tryurology Fresent: 103 © No			
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if	available:			
Aerial photos, USGS Quadrangle					
Remarks:					
Wet weather, ephemeral flowing channel that supports littoral zone	of hydrophytes.				
3					

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

Plot size:	% Cover 0 0 0 0	R	pecies? _ el.Strat. Cover	Indicator Status	Dominance Test worksheet: Number of Dominant Species
	0				Number of Dominant Species
	0				That are OBL, FACW, or FAC: 3 (A)
·	0		0.0%		
			0.0%		Total Number of Dominant
	0		0.0%		Species Across All Strata: 3 (B)
•		\Box	0.0%		Percent of dominant Species
		П	0.0%		That Are OBL, FACW, or FAC:100.0% (A/B)
•		П	0.0%		Prevalence Index worksheet:
		\Box	0.0%		
•		 T =	otal Cover		Total % Cover of:
Sapling or Sapling/Shrub Stratum (Plot size:					FACW species x 2 =
			0.0%		FAC species5 x 3 =15
			0.0%		FACU species
		П	0.0%		
		П	0.0%		•
			0.0%		Column Totals: <u>61</u> (A) <u>97</u> (B)
			0.0%		Prevalence Index = B/A = 1.590
			0.0%		Hydrophytic Vegetation Indicators:
	0		0.0%		
		_			⊻ 1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover:0 20% of Total Cover:0	:	= T	otal Cover		✓ 2 - Dominance Test is > 50%
Shrub Stratum (Plot size: 25')					✓ 3 - Prevalence Index is ≤3.0 ¹
Salix caroliniana	5	✓	100.0%	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
	0		0.0%		
	0		0.0%		Indicators of hydric soil and wetland hydrology must
• ,			0.0%		be present, unless disturbed or problematic.
•			0.0%		Definition of Vegetation Strata:
	0		0.0%		Tree - Woody plants, excluding woody vines,
50% of Total Cover:2.5 20% of Total Cover:1	5 :	= T	otal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 25')					
1 . Ludwigia repens	25	V	44.6%	OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2. Juncus coriaceus		V	26.8%	FACW	than 3 in. (7.6 cm) DBH.
3. Cyperus rotundus	5		8.9%	FAC	,
4. Persicaria pensylvanica	5		8.9%	FACW	Sapling/Shrub - Woody plants, excluding vines, less
5. Rumex floridanus	2		3.6%	FACW	than 3 in. DBH and greater than 3.28 ft (1m) tall.
6. Smilax laurifolia			3.6%	FACW	Shrub - Woody plants, excluding woody vines,
7. Andropogon glomeratus			3.6%	FACW	approximately 3 to 20 ft (1 to 6 m) in height.
8			0.0%		, , , , , , , , , , , , , , , , , , , ,
9			0.0%		Herb - All herbaceous (non-woody) plants, including
0		\Box	0.0%		herbaceous vines, regardless of size, and woody
1.			0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.
2	0		0.0%		
50% of Total Cover: 28 20% of Total Cover: 11.2		 = Т	otal Cover		Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot size:)					
	0		0.0%		
			0.0%		
			0.0%		
			0.0%		
			0.0%		Hydrophytic
50% of Total Cover:020% of Total Cover:0		 	otal Cover		Vegetation Present? Yes • No •
20% of Total Cover. U 20% of Total Cover. U		_ '	cai cover		
emarks: (If observed, list morphological adaptations below). erbaceous littoral zone wetland along the banks of a shallow	/ channel				

Dominant

SOIL Sampling Point: 4

Profile Description: (Describe to the dept	n needed to document	the indica	ator or c	onfirm the	absence of indicator	rs.)
Depth Matrix	Red	lox Featur	res		_	
(inches) Color (moist) %	Color (moist)	<u>%</u>	Tvpe 1	Loc2	<u>Texture</u>	Remarks Dark (Black)
0-5 10YR 4/2 95	10YR 5/4	5	C	PL	Clay Loam	` ,
5-11 10YR 5/2 95	10YR 5/4	5	С	M	Loam	Grayish brown
				-		
	- —— ——					
¹ Type: C=Concentration. D=Depletion. RM=Rec	duced Matrix, CS=Covere	d or Coated	d Sand Gr	ains ² Loca	ation: PL=Pore Lining.	M=Matrix
Hydric Soil Indicators:					Indicators for P	roblematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Belo	w Surface	(S8) (LRR	S, T, U)	1 cm Muck (A	A9) (LRR O)
Histic Epipedon (A2)	Thin Dark Surf	face (S9) (L	RR S, T,	U)	2 cm Muck (A	A10) (LRR S)
Black Histic (A3)	Loamy Mucky	Mineral (F1) (LRR 0))		tic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gleyed	Matrix (F2))		Piedmont Flo	odplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matri	ix (F3)				right Loamy Soils (F20) (MLRA 153B)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Su				Red Parent M	
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted Dark		7)			Dark Surface (TF12)
Muck Presence (A8) (LRR U)	Redox Depress		,			
1 cm Muck (A9) (LRR P, T)	Marl (F10) (LR				Uther (Explai	n in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochr		II RA 151)			
☐ Thick Dark Surface (A12)	Iron-Mangane					
Coast Prairie Redox (A16) (MLRA 150A)	✓ Umbric Surface					
Sandy Muck Mineral (S1) (LRR O, S))		
Sandy Gleyed Matrix (S4)	☐ Delta Ochric (F			1EOD)	³ Indica	tors of hydrophytic vegetation and
Sandy Redox (S5)	Reduced Vertic				wetla	and hydrology must be present,
	☐ Piedmont Floo					nless disturbed or problematic.
Stripped Matrix (S6)	☐ Anomalous Bri	ight Loamy	Soils (F20)) (MLRA 14	9A, 153C, 153D)	
☐ Dark Surface (S7) (LRR P, S, T, U)						
Restrictive Layer (if observed):						
Type:		_				
Depth (inches):					Hydric Soil Prese	nt? Yes • No 🔾
Remarks:						
F6 and F13 clearly met. Hydric soil.						
ro and F13 clearly met. Hydric soil.						

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Olla LED	City/Count	ty: La Salle	Sampling Date:	14-Jan-15			
Applicant/Owner: Town of Olla		State: _LA	Sampling Point: 5				
Investigator(s): Pat Imhof	Section,	Township, Range: S 3	4 T 11N R	_2E			
andform (hillslope, terrace, etc.): Hillside	Local relie	f (concave, convex, none	e): convex Slope:				
Subregion (LRR or MLRA): LRR P	Lat.: 31°53'40.9	9"N Long.:	92°15'28.74"W	Datum: NAD 83 UT			
Goil Map Unit Name: Malbis Fiine Sandy Loam			NWI classification: UPL				
Are climatic/hydrologic conditions on the site typical for t	his time of year?	Yes No (If	f no, explain in Remarks.)				
Are Vegetation , Soil , or Hydrology	significantly disturbed	d? Are "Normal Cir	cumstances" present? Yes	。 ● No ○			
Are Vegetation , Soil , or Hydrology	naturally problematic		lain any answers in Remarks.)	1			
SUMMARY OF FINDINGS - Attach site map s	• •	(,)	-				
Hydrophytic Vegetation Present? Yes No •		the Campled Area					
Hydric Soil Present? Yes No		the Sampled Area	s O No •				
Wetland Hydrology Present? Yes No •	w	ithin a Wetland?	·s · · 110 ·				
Remarks: Hillslope pasture that is maintained by mowing.							
HYDROLOGY							
Wetland Hydrology Indicators:		S	econdary Indicators (minimum of 2	required)			
Primary Indicators (minimum of one required; check a			Surface Soil Cracks (B6)				
	quatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)				
	arl Deposits (B15) (LRR U)	L	Drainage Patterns (B10)				
	ydrogen Sulfide Odor (C1)	is sing Doots (C2)	Moss Trim Lines (B16)				
	xidized Rhizospheres along L resence of Reduced Iron (C4)	_	Dry Season Water Table (C2)				
	ecent Iron Reduction in Tilled		☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag	aory (CO)			
	nin Muck Surface (C7)		Geomorphic Position (D2)	jery (C+)			
	ther (Explain in Remarks)		Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7)	(=		FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)			Sphagnum moss (D8) (LRR T, U)			
Field Observations:							
Surface Water Present? Yes O No •	Depth (inches): 0						
Water Table Present? Yes No •	Depth (inches): 0						
Saturation Procent?		Wetland Hydrolo	ogy Present? Yes \bigcirc No	o			
(includes capillally ininge)	Depth (inches): 0						
Describe Recorded Data (stream gauge, monitoring we	الا, aerial photos, previou	s inspections), if availab	le:				
Remarks:							
No hydrologic indicators present.							
no riyarologic indicators present.							

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

	% Cover	R	Species? tel.Strat. Cover	Indicator Status	Dominance Test worksheet: Number of Dominant Species
l 2	0			Status	Number of Dominant Species
2.		Ш	0.0%		
	()		2.00/		That are OBL, FACW, or FAC: (A)
			0.0%		Total Number of Dominant
			0.0%		Species Across All Strata: (B)
·	0		0.0%		Percent of dominant Species
··			0.0%		That Are OBL, FACW, or FAC:(A/B)
)			0.0%		- I - I - I - I - I - I - I - I - I - I
			0.0%		Prevalence Index worksheet:
50% of Total Cover: 0 20% of Total Cover: 0		 - T₁	0.0% otal Cover		
		= 10	otal Cover		OBL species 0 x 1 = 0 FACW species 0 x 2 = 0
Sapling or Sapling/Shrub Stratum (Plot size:			0.09/		
			0.0%		
·			0.0%		FACU species <u>85</u> x 4 = <u>340</u>
·					UPL species $\frac{12}{}$ x 5 = $\frac{60}{}$
			0.0%		Column Total s: <u>106</u> (A) <u>427</u> (B)
			0.0%		Prevalence Index = B/A = 4.028
į			0.0%		Hydrophytic Vegetation Indicators:
·	0		0.0%		
		_			1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover:0 20% of Total Cover:0		= Te	otal Cover		2 - Dominance Test is > 50%
Shrub Stratum (Plot size:)		_			3 - Prevalence Index is ≤3.0 ¹
			0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
2			0.0%		
i	0		0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
·			0.0%		
5	0		0.0%		Definition of Vegetation Strata:
5	0		0.0%		Tree - Woody plants, excluding woody vines,
50% of Total Cover:0 20% of Total Cover:0	=	= T	otal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 25')					
1Cynodon dactylon	75	V	70.8%	FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2. Sporobolus indicus			9.4%	FACU	than 3 in. (7.6 cm) DBH.
3. Andropogon virginicus	5		4.7%	FAC	
4. Geranium carolinianum	5		4.7%	UPL	Sapling/Shrub - Woody plants, excluding vines, less
5. Cyperus esculentus	4		3.8%	FAC	than 3 in. DBH and greater than 3.28 ft (1m) tall.
6. Dichondra argentea			3.8%	UPL	Shrub - Woody plants, excluding woody vines,
7. Oxalis articulata			2.8%	UPL	approximately 3 to 20 ft (1 to 6 m) in height.
8			0.0%		
9			0.0%		Herb - All herbaceous (non-woody) plants, including
0	0		0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
1			0.0%		3 ft (1 m) in height.
2	0		0.0%		
50% of Total Cover: 53 20% of Total Cover: 21.2		= T	otal Cover		Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot size:)					
woody vine stratum (1963)26.	0		0.0%		
2			0.0%		
	-		0.0%		
3.			0.0%		
j i			0.0%		Hydrophytic
					Vegetation Present? Yes No •
50% of Total Cover: 0 20% of Total Cover: 0	0 =	= Te	otal Cover		Present:

Dominant

SOIL Sampling Point: 5

Profile Descri	ption: (Des	cribe to t	the depth	needed to document	the indica	ator or co	onfirm the a	e absence of indicators.)	
Depth		Matrix		Red	ox Featu	res		_	
(inches)	Color (r	noist)	<u>%</u>	Color (moist)	<u>%</u>	Tvpe 1	Loc ²		_
0-8	10YR	4/3	100					Silt Loam Brown	
8-13	10YR	6/6	100					Fine Sandy Loam Yellow-brown	
			-					_ 	
1 Type: C=Conc	entration D	=Denletion	RM=Red	uced Matrix, CS=Covered	d or Coate	d Sand Gr	ains 2l ocat	cation: PL=Pore Lining. M=Matrix	—
Hydric Soil Ir		- Depiction	i. KWI–KCG	deed Matrix, 65–66vered	a or coate	a Sana Gr	ullis Local		
Histosol (A				Polyvalue Belo	w Curfoco	(CO) (LDD	C T II)	Indicators for Problematic Hydric Soils ³ :	
Histic Epipe	•			Thin Dark Surf				☐ 1 cm Muck (A9) (LRR O)	
Black Histic								2 cm Muck (A10) (LRR S)	
	Sulfide (A4)			Loamy Mucky)	Reduced Vertic (F18) (outside MLRA 150A,B)	
Stratified L				Loamy Gleyed)		Piedmont Floodplain Soils (F19) (LRR P, S, T)	
	ayers (AS) dies (A6) (LI	חם דוו'	`	Depleted Matri				Anomalous Bright Loamy Soils (F20) (MLRA 153B)	
_	y Mineral (A			Redox Dark Su				Red Parent Material (TF2)	
			1, 0)	Depleted Dark		7)		Very Shallow Dark Surface (TF12)	
	ence (A8) (LI : (A9) (LRR P			Redox Depress				Other (Explain in Remarks)	
			1)	Marl (F10) (LR					
	Selow Dark S		1)	Depleted Ochr					
	Surface (A1		4504)	☐ Iron-Manganes					
	ie Redox (A1			Umbric Surface)		
	k Mineral (S		, 5)	☐ Delta Ochric (F				³ Indicators of hydrophytic vegetation and	
	ed Matrix (S	-4)		Reduced Vertic				wetland hydrology must be present,	
Sandy Red				Piedmont Floo					
Stripped M				Anomalous Bri	ght Loamy	Soils (F20	D) (MLRA 149	49A, 153C, 153D)	
☐ Dark Surfa	ce (S7) (LRR	! P, S, T, U	J)						
Restrictive La	yer (if obse	erved):							
Type:					_				
Depth (inch	es):				_			Hydric Soil Present? Yes ○ No ●	
Remarks:	-								
Well drained s	oil with dea	en water	table						
Tron aramou o		op mato.	142.01						

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Olla LED	City/County:	La Salle	Samplii	ng Date:	14-Jan-15	
Applicant/Owner: Town of Olla	:	State: LA	Sampling Point: 6			
Investigator(s): Pat Imhof	Section, Tow	nship, Range: S _3	T 11N	R 2E		
Landform (hillslope, terrace, etc.): Hillside	Local relief (co	ncave, convex, none	e): convex	Slope: 5.0	% / <u>2.9</u> °	
Subregion (LRR or MLRA): LRR P	Lat.: 31°53'28.61"N	Long.:	92°15'25.06"W	Datun	n: NAD 83 UT	
Soil Map Unit Name: Malbis Fiine Sandy Loam			NWI classification:	UPL		
Are climatic/hydrologic conditions on the site typical for this time	e of year? Yes	● No ○ (If	no, explain in Remark	s.)		
Are Vegetation , Soil , or Hydrology sign	nificantly disturbed?	Are "Normal Cir	cumstances" present?	Yes	No O	
Are Vegetation, Soil, or Hydrology natu	urally problematic?	(If needed, exp	lain any answers in Re	marks.)		
SUMMARY OF FINDINGS - Attach site map showing	ng sampling poin		•	,	etc.	
Hydrophytic Vegetation Present? Yes No No	Tables	Commission Arres				
Hydric Soil Present? Yes No •		Sampled Area	s ○ No ●			
Wetland Hydrology Present? Yes No •	within	a Wetland?	S 🔾 140 🕓			
Remarks: Hillslope pasture that is maintained by mowing.						
HYDROLOGY						
Wetland Hydrology Indicators:		Se	econdary Indicators (minir	num of 2 requi	ired)	
Primary Indicators (minimum of one required; check all that a			Surface Soil Cracks (B6)			
	auna (B13)		Sparsely Vegetated Cor		(B8)	
	osits (B15) (LRR U) Sulfide Odor (C1)		Drainage Patterns (B10))		
	Rhizospheres along Living	Poots (C3)				
	of Reduced Iron (C4)	Roots (C3)	Crayfish Burrows (C8)			
	on Reduction in Tilled Soils	s (C6)	Saturation Visible on Ae	rial Imagery ((~0)	
	Surface (C7)		Geomorphic Position (D		<i>37)</i>	
	plain in Remarks)		Shallow Aquitard (D3)	_,		
Inundation Visible on Aerial Imagery (B7)	,		FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)			Sphagnum moss (D8) (LRR T, U)		
Field Observations:						
Surface Water Present? Yes No Depth (in	nches): 0					
Water Table Present? Yes ○ No • Depth (in	nches): 0					
Saturation Present? (includes capillary frings) Yes No Depth (in	nches): 0	Wetland Hydrolo	gy Present? Yes	○ No •		
Describe Recorded Data (stream gauge, monitoring well, aeria		nections) if available	۵٠			
Describe Recorded Data (stream gauge, monitoring well, acres	ai priotos, previous iris	pections), ii availabi	С.			
Remarks:						
No hydrologic indicators present.						

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

		Domina Specie		Sampling Point: 6			
(Dlayer)		Rel.Str	at. Indicato	Dominance Test worksheet:			
ree Stratum (Plot size:)	% Cover			Number of Dominant Species			
	0_	0.0		That are OBL, FACW, or FAC: (A)			
		0.0		Total Number of Dominant			
		0.0		Species Across All Strata: (B)			
		0.0		Percent of dominant Species			
		0.0		That Are OBL, FACW, or FAC:			
		0.0					
		0.0		Prevalence Index worksheet:			
00/ -f.T-t-1 C 0 200/ -f.T-t-1 C 0		0.0		Total % Cover of: Multiply by:			
0% of Total Cover: 0 20% of Total Cover: 0		= Total C	over	0BL species			
apling or Sapling/Shrub Stratum (Plot size:				FACW species 0 x 2 = 0			
		0.0		FAC species $9 \times 3 = 27$			
		0.0		FACU species88 x 4 =352			
				UPL speci es $\frac{12}{}$ x 5 = $\frac{60}{}$			
		0.0		Column Total s: 109 (A) 439 (B)			
		0.0		Prevalence Index = B/A =4.028_			
		0.0		Hydrophytic Vegetation Indicators:			
		0.0		1 - Rapid Test for Hydrophytic Vegetation			
50% of Total Cover:0 20% of Total Cover:0		= Total C	over	☐ 2 - Dominance Test is > 50%			
hrub Stratum (Plot size:)				\Box 3 - Prevalence Index is ≤3.0 1			
	0	0.0	%	Problematic Hydrophytic Vegetation ¹ (Explain)			
		0.0	%				
	0	0.0	%	¹ Indicators of hydric soil and wetland hydrology must			
		0.0	%	be present, unless disturbed or problematic.			
	0	0.0	%	Definition of Vegetation Strata:			
	0	0.0	%	Tree - Woody plants, excluding woody vines,			
50% of Total Cover:0 20% of Total Cover:0	=	= Total C	over	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
lerb Stratum (Plot size: 25')							
_ Cynodon dactylon	75	68.8	8% FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less			
Sporobolus indicus		9.2	% FACU	than 3 in. (7.6 cm) DBH.			
Andropogon virginicus	5	4.6	% FAC				
Geranium carolinianum	5	4.6	% UPL	Sapling/Shrub - Woody plants, excluding vines, less			
Cyperus esculentus	4	3.7	% FAC	than 3 in. DBH and greater than 3.28 ft (1m) tall.			
Dichondra argentea	4	3.7	% UPL	Shrub - Woody plants, excluding woody vines,			
Oxalis articulata	3	2.8	% UPL	approximately 3 to 20 ft (1 to 6 m) in height.			
_ Dichanthelium oligosanthes	2	1.8	% FACU				
Quercus falcata	_ 1_	0.9	% FACU	Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody			
			%	plants, except woody vines, less than approximately			
	0	0.0	%	3 ft (1 m) in height.			
2	0	0.0	%				
50% of Total Cover:54.5 20% of Total Cover:21.8	109 =	= Total C	over	Woody vine - All woody vines, regardless of height.			
loody Vine Stratum (Plot size:)							
		0.0	%				
		0.0	%				
		0.0	%				
		0.0	%	Hydronbytic			
	0	0.0	%	Hydrophytic Vegetation			
50% of Total Cover: 0 20% of Total Cover: 0	0 =	= Total C	over	Present? Yes No •			
emarks: (If observed, list morphological adaptations below). pland pasture turf grasses and weeds.							

SOIL Sampling Point: 6

Profile Descri	ption: (Des	cribe to t	the depth	needed to document	the indica	ator or co	onfirm the a	absence of indicators.)
Depth		Matrix		Red	ox Featu	res		_
(inches)	Color (ı	moist)	%	Color (moist)	%	Tvpe 1	Loc ²	Texture Remarks
0-7	10YR	4/2	100					Fine Sandy Loam Dark grayi sh
7-14	10YR	5/6	100					Fine Sandy Loam Yellow-brown
								·
			-	· 				
				·				- <u> </u>
1 Type: C=Conc	entration D	=Depletion	RM=Red	uced Matrix, CS=Covere	d or Coate	d Sand Gr	ains 2l ocat	ation: PL=Pore Lining. M=Matrix
Hydric Soil Ir		- Depiction	i. mii–med	deed Matrix, 65–66veres	a or oodie	a ourid or	uiii	
Histosol (A				Polyvalue Belo	w Surface	(S8) (LBB	S T II)	Indicators for Problematic Hydric Soils ³ :
Histic Epipe	•			Thin Dark Surf				1 cm Muck (A9) (LRR O)
Black Histic				Loamy Mucky				2 cm Muck (A10) (LRR S)
	Sulfide (A4)			Loamy Gleyed			,	Reduced Vertic (F18) (outside MLRA 150A,B)
Stratified L				Depleted Matri		.)		☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
	odies (A6) (LI	DD D T II)	Redox Dark Su				☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)
	y Mineral (A					-7\		Red Parent Material (TF2)
	ence (A8) (Li		1, 0)	Depleted Dark		(1)		
	: (A9) (LRR F			Redox Depress				Other (Explain in Remarks)
	Selow Dark S		1)	Marl (F10) (LR		U DA 151\		
	Surface (A1		1)	Depleted Ochr				
	ie Redox (A		1504)	☐ Iron-Mangane				
	k Mineral (S			Umbric Surface)	
	ed Matrix (S		, 3)	☐ Delta Ochric (F			1505)	³ Indicators of hydrophytic vegetation and
Sandy Red		94)		Reduced Vertic				wetland hydrology must be present,
				☐ Piedmont Floo				
Stripped M		. D. C. T. II	1)	Anomalous Bri	ght Loamy	Soils (F20)) (MLRA 149	49A, 153C, 153D)
□ Dark Suria	ce (S7) (LRR	(P, S, 1, U))					
								1
Restrictive La	yer (if obse	erved):						
Type:					_			
Depth (inch	es):							Hydric Soil Present? Yes ○ No •
Remarks:								
Well drained s	oil with de	ep water	table.					

ATTACHMENT 3:

Site Photographs



Photograph No. 1 – View from the northwest corner of the subject site facing northeast.



Photograph No. 2 – View from the northwest corner of the subject site looking south along the western property boundary.



Photograph No. 3 – View from the southwest corner of the subject site looking north along the western property boundary.



Photograph No. 4 – View from the south side of the subject site facing north.



Photograph No. 5 – View from the south side of the subject site facing north along a dirt road.



Photograph No. 6 – View from the northwest corner of the subject site facing south along the eastern property boundary.



Photograph No. 7 – View from the interior of the subject site depicting uncleared vegetation, facing the western property boundary.



Photograph No. 8 – View from east side of the subject site facing the western property boundary.



Photograph No. 9 – View from the north side of the subject site facing the southern property boundary.



Photograph No. 10 – View of typical vegetation located on adjacent properties.