

Exhibit EE. Kitchco Ryans Way Wetlands Delineation Report





Ms. Liz Pierre North Louisiana Economic Partnership 1814 North 18th Street, Suite 501 Monroe, LA 71208

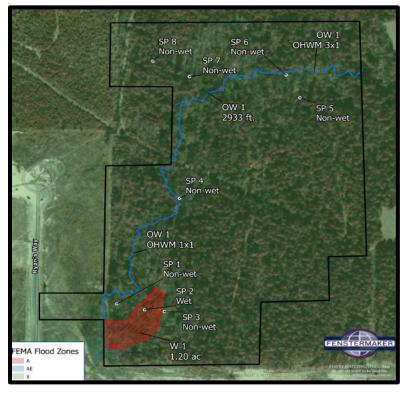
RE: Kitchco Ryans Way, Webster Parish Wetlands Delineation Report CSRS Project No 216269

Kitchco Ryans Way Wetlands Delineation Report

Dear Ms. Pierre,

As part of the Louisiana Economic Development's Certified Site Program, a routine wetlands delineation was conducted for the Kitcho Ryans Way in accordance with the 1987 U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual and the Regional Supplement. The purpose of the wetland delineation was to determine the presence/absence of wetlands using the three technical criteria: vegetation, hydrology, and soils.

The results of the wetlands delineation identified the following hydrologic features:



Approximately 1.20 acres of Palustrine Forest Wetlands and 2,933 linear feet of Other Waters of the US were identified during the wetland delineation report.

The majority of the subject property can be developed without impacts to any wetlands and waters features that could be subject to Section 404 of the Clean Water Act.

Should any proposed impacts to these features be warranted, it is suggested that a Jurisdictional Determination be made to confirm the jurisdictional status of these wetlands and waters. If any jurisdictional features be impacted further coordination with the USACE may be warranted.

Thank you for the opportunity to assist you in this project. Should you have any questions or require additional information, feel free to contact me.

Respectfully,

Taylor Gravois, PE, PLS CSRS, Inc.

WETLAND DELINEATION REPORT: KITCHCO RYANS WAY

LOCATED IN

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PREPARED FOR NORTH LOUISIANA ECONOMIC PARTNERSHIP

SEPTEMBER 2021



Engineers • Surveyors Environmental Consultants

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1.0 Introduction

C. H. Fenstermaker & Associates, L.L.C. (Fenstermaker) conducted a wetland delineation on September 7th and 8th, 2021 within the Kitchco Ryans Way site in Webster Parish, Louisiana. The delineation was limited to the proposed area of interest which consists of approximately 50.2 acres. For clarity throughout this report, the proposed Kitchco Ryans Way Project will be referred to as the "Site". Enclosed are topographic and aerial maps illustrating the approximate layout of the Site (**Figures 1-3**). The proposed Site is located approximately 2.4 miles southeast of Minden, Louisiana.

2.0 Methodology

Fenstermaker conducted the delineation in accordance with the 1987 U.S. Army Corps of Engineers (COE) Wetlands Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0, November 2010). The purpose of the wetland delineation was to determine the presence/absence of wetlands using the three technical criteria: vegetation, hydrology, and soils. It is necessary that all three criteria be present in order to be a jurisdictional wetland. The absence of any one of these criteria could exclude an area from being a wetland under the jurisdiction of the Corps of Engineers.

Fenstermaker established the wetland delineation baseline by utilizing the western site boundary which is generally parallel to the stream feature that runs north to south across the site. Three transects were established off the baseline. Eight data points (plots) were recorded along the three established transects. Plot locations were based on changes in vegetation and/or hydrology. All field data was collected with a Trimble R1 Integrated GNSS system.

2.1 Vegetation

In order for the vegetation to be considered hydrophytic (wet), the prevalent vegetation must consist of macrophytes that are typically adapted to areas having hydrologic and soil conditions unique to wetlands. By definition, hydrophytic species, due to morphological, physiological, and/or reproductive adaptation(s), have the ability to grow, effectively compete, reproduce, and/or persist in anaerobic soil conditions. Macrophytes are any plant material that can be seen without the aid of magnification.

As part of the vegetation criteria, species dominance was evaluated using the "50/20 rule" which ranks plant species that immediately exceed 50% of the total dominance measure for a vegetation stratum, plus any additional species comprising 20% or more of the total dominance measure for that stratum. If the recorded plant species did not exceed 50% of the total dominance, then the prevalence index was used. The prevalence index is a wetland indicator which takes into account all plant species and calculates a weighted average by assigning each indicator status category a numeric code (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5). Plant species are also weighted by their abundance. The prevalence index ranges from 1 to 5, and a prevalence index of 3.0 or less indicates that hydrophytic vegetation is present.

2.2 Hydrology

As defined by the 1987 COE Manual, the term "wetland hydrology" encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively. While they may not provide an abundance of information about long-term wetness conditions on a given site, wetland hydrology indicators provide evidence that the Site currently has a wetland hydrologic regime. This information, coupled with the presence of hydrophytic vegetation and hydric soils, provides evidence of long-term as well as short-term wetland conditions.

Table 2.2.1						
Primary in	Primary indicators					
Surface water (A1)	Surface water (A1) Water-stained leaves (B9)					
High water table (A2)	Aquatic fauna (B13)	Sparsely vegetated concave surface (B8)				
Saturation (A3)	Marl deposits (B15)	Drainage patterns (B10)				
Water marks (B1)	Hydrogen sulfide odor (C1)	Moss trim lines (B16)				
Sediment deposits (B2)	Oxidized rhizospheres along living roots (C3)	Dry season water table (C2)				
Drift deposits (B3)	Presence of reduced iron (C4)	Crayfish burrows (C8)				
Algal mat or crust (B4)	Recent iron reduction in tilled soils (C6)	Saturation visible on aerial imagery (C9)				
Iron deposits (B5)	Thin muck surface (C7)	Geomorphic position (D2)				
Inundation visible on aerial imagery (B7)		Shallow aquitard (D3)				
		Fac-neutral test (D5)				

In order to meet the hydrology criteria of a wetland, a sample location must meet one primary indicator or two secondary indicators.

2.3 Soils

Hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, July 13, 1994). Almost all hydric soils exhibit characteristic morphologies that are a result of repeated periods of saturation and/or inundation for more than a few days at a time. When combined with anaerobic microbial activity in the soil, saturation and inundation causes a depletion of oxygen in the soil. This anaerobiosis process results in characteristic morphologies such as the reduction, translocation, and/or the accumulation of iron, which persists in the soil

whether it is wet or dry. This process forms features in the soil that are called redoximorphic features. These characteristic morphologies are particularly useful for identifying hydric soils.

The soil investigation criterion requires the use of a soil probe or a pit excavated to a 20-inch depth in order to investigate for hydric indicators. These indicators typically include, but are not limited to:

- gleyed or low-chroma colors (redox depletions)
- redox concentrations
- listed on the local hydric soils list
- listed on the national hydric soils list

3.0 Results and Discussion

3.1 Site Description

The Site is located east of Ryans Way and north of Industrial Drive and consists of forested areas intersected with multiple trails and rights-of-way. The site can be accessed through an approximately 150-ft. section adjacent to Ryans Way. The rest of the site is bordered by similar forested areas and commercial/industrial areas.

Eight sample locations were taken along established transects within the proposed Site. Plot locations were selected based on visual observations of changes in vegetation, hydrology, and topography. Additionally, plots were positioned along pre-determined transect lines. Recorded data forms and photographs are presented in **Appendix A**. The photographs illustrate typical conditions that were observed at each Plot.

3.2 Vegetation

The Site is approximately 50.2 acres in size and encompasses slight habitat changes. It consists predominantly of mixed pine and hardwood forested areas (**Figures 2 & 3**).

Dominant plant species across the site consisted of water oak (*Quercus nigra*), American elm (*Ulmus americana*), loblolly pine (*Pinus taeda*), red maple (*Acer rubrum*), and sweetgum (*Liquidambar styraciflua*). One palustrine forested wetland (W 1) was identified near the southwest corner of the site. This wetland feature consisted predominately of bottomland hardwoods.

The recorded plots that were dominated by hydrophytes and met the hydrophytic vegetation criteria of a wetland are referenced in **Table 4.1 (Plot ID Summary**). A complete list of vegetation associated with each plot can be found in the corresponding data sheets located in **Appendix A**. The location of each plot, relative to the proposed Site, is illustrated in **Figures 2 & 3**.

3.3 Hydrology

The site has high topographic relief ranging from 294-ft. at the highest elevation to 252-ft. at the lowest elevation. The highest elevations are located along the southeastern and northwestern boundaries. The hydrologic gradient slopes from these higher elevations towards a stream feature identified as Other Waters #1 (OW 1) and then continues south off-site (**Figure 1**). OW 1 is located along the northern and eastern boundaries of the Site. This feature traverses in a westerly direction before turning south and dissipating into W 1. An ordinary high-water mark was identified within OW 1 which ranged from 3-ft. in width by 1-ft. in depth near the northern boundary of the Site.

Wetland hydrology indicators were identified at the southern portion of the site where the stream dissipates into a flat, low-lying area. Hydrology indicators within the palustrine forested wetlands (W 1) consisted of sediment deposits, drift deposits, water-stained leaves, drainage patterns, geomorphic position, and FAC-neutral test. The Site is not located within a FEMA flood zone (**Figure 2**). Wetlands identified within the Site appear to have indirect connectivity to Lake Bistineau.

Each sampling point containing wetland hydrology is noted on **Table 4.1**. Wetland hydrology indicators associated with each plot can be referenced in the corresponding data sheets of **Appendix A**.

3.4 Soils

According to the Webster Parish Soil Survey, the Site has six mapped soil units. The soil units located within the Site are By - Boykin loamy fine sand, 1 to 5 percent slopes, GY - Guyton-Ouachita silt loams, 0 to 1 percent slopes, frequently flooded, MN - Mahan fine sandy loam, 5 to 12 percent slopes, Mp - Malbis fine sandy loam, 1 to 3 percent slopes, Rs - Ruston fine sandy loam, 1 to 3 percent slopes, and SM - Smithdale fine sandy loam, 5 to 12 percent slopes. The Guyton-Ouachita soil series is listed as a hydric soil while the remaining mapped soil units are not listed as hydric in the NRCS hydric soils list for Webster parish. Plot locations relative to the mapped soil units listed above can be referenced on **Figure 3**.

The sample location recorded within wetlands met the hydric soils criteria by meeting the depleted matrix (F3) indicator. Please see **Table 4.1** for plots that met the hydric soil indicators of a wetland. Soil characteristics associated with each plot can be found in the corresponding data sheets located in **Appendix A**.

4.0 Findings & Conclusions

It is Fenstermaker's opinion that the Site contains 1.2 acres of palustrine forested (PFO) wetlands within the project boundary (**Table 4.2**). One Other Waters (OW-1) was also mapped and is listed on **Table 4.3**. Areas identified as wetlands met all three technical criteria which consists of hydrophytic vegetation, wetland hydrology and hydric soils. All wetlands appear to have indirect connectivity to Lake Bistineau.

A jurisdictional determination should be obtained from the U.S. Army Corp of Engineers prior to impacting any identified Waters of the U.S. within the Site. Based on recorded plots, it is Fenstermaker's opinion that water and wetland polygons/lines displayed in **Figures 2 & 3** best illustrates wetland and water locations and boundaries within the Site. All water and wetland boundaries were physically mapped during the field investigation. Additionally, a Department of the Army Permit should be acquired prior to any mechanized land clearing activities or the deposition of fill material in jurisdictional waters and/or wetlands. **Table 4.1** below depicts the presence/absence of each of the three wetland technical criteria at each plot. **Table 4.2** below provides a list of wetlands identified throughout the Site. **Table 4.3** below provides a list of Other Waters identified throughout the Site.

	Table 4.1 - Plot ID Summary											
Plot #	SAMPLE DATE	STATUS	HYDROPHYTIC VEGETATION	HYDRIC SOILS	WETLAND HYDROLOGY	WETLAND TYPE	LATITUDE	LONGITUDE				
1	09/07/21	Non-wet	х				32.585933	-93.25807				
2	09/07/21	Wet	х	Х	х	PFO1	32.585848	-93.257615				
3	09/07/21	Non-wet	х				32.585823	-93.257288				
4	09/07/21	Non-wet	х				32.587585	-93.257073				
5	09/08/21	Non-wet	х				32.589173	-93.25513				
6	09/08/21	Non-wet	Х				32.589524	-93.255362				
7	09/08/21	Non-wet	Х				32.589477	-93.256948				
8	09/08/21	Non-wet	х				32.589707	-93.257553				

Tables 4.2 below lists the wetlands identified throughout the Site in addition to the wetland ID, Cowardin classification, linear footage, acreage, and latitude & longitude.

			Table 4.	2 - Wetland II	D Summary	
Wetla	and ID	Cowardin Classification	Linear ft.	Acres	Latitude	Longitude
N	/-1	PFO1	415 X 140	1.20	32.5856116	-93.2577390

Tables 4.3 below lists the Other Waters identified throughout the Site in addition to the Water ID, Cowardin classification, linear footage, acreage and latitude & longitude.

		Table 4.3	– Other Wate	er ID Summary	
Water ID	Cowardin Classification	Linear ft.	Acres	Latitude	Longitude
OW-1	R4SBC	2,933	0.13	32.5896116°N	93.2540968°W

A jurisdictional wetland determination can only be made by the U. S. Army Corps of Engineers (USACE). Consultants such as Fenstermaker can perform field investigations (delineations), collect data in a prescribed manner, and submit it to the USACE along with recommendations;

however, it is the USACE that makes the final determination. The U.S. Army Corps of Engineers, Vicksburg District, has jurisdiction in the area of this project.

5.0 References

- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.
- Lewis M. Cowardin, Virginia Carter, Francis C. Golet, Edward T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service Report No. FWS/OBS/-79/31. Washington, D.C.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: <u>https://websoilsurvey.sc.egov.usda.gov/</u>. Accessed Sept/11/2019.
- U.S. Army Corps of Engineers. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region. November 2010. Version 2.0
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2018. *Field Indicators* of Hydric Soils in the United States, version 8.2. L.M. Vasilas, G.W. Hurt, and J. F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

FIGURE 1 – VICINITY MAP

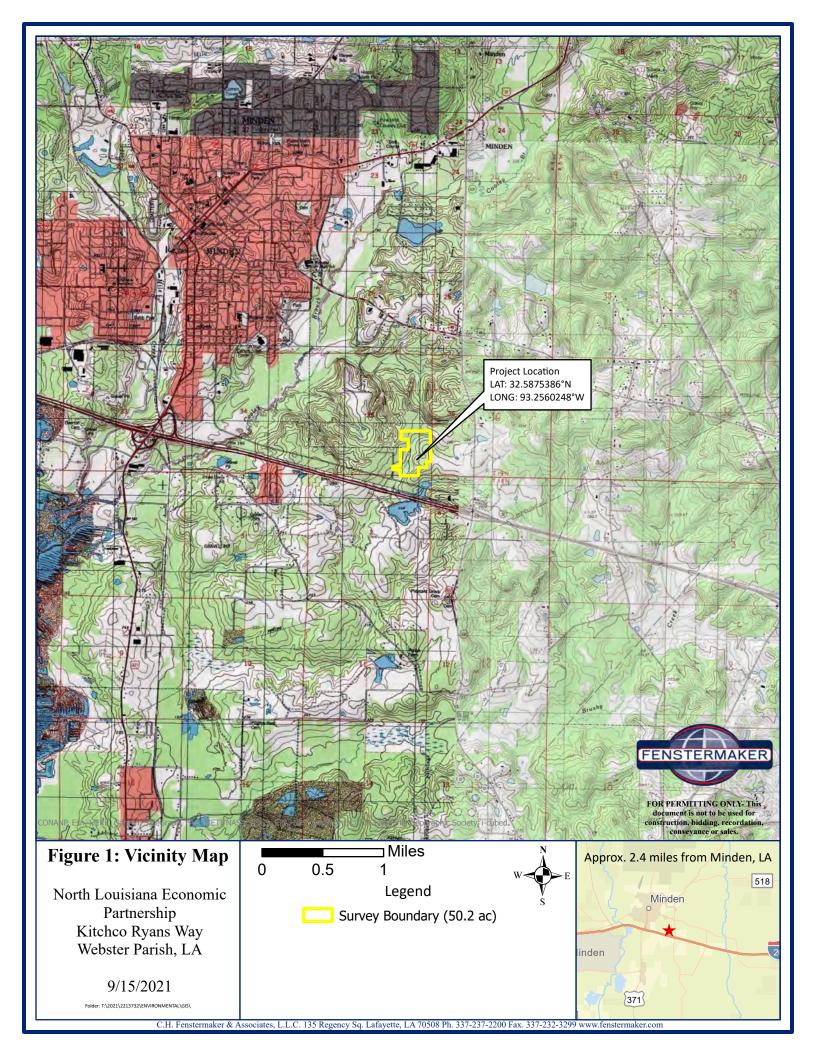


FIGURE 2 – INFRARED & FEMA FLOOD ZONE MAP

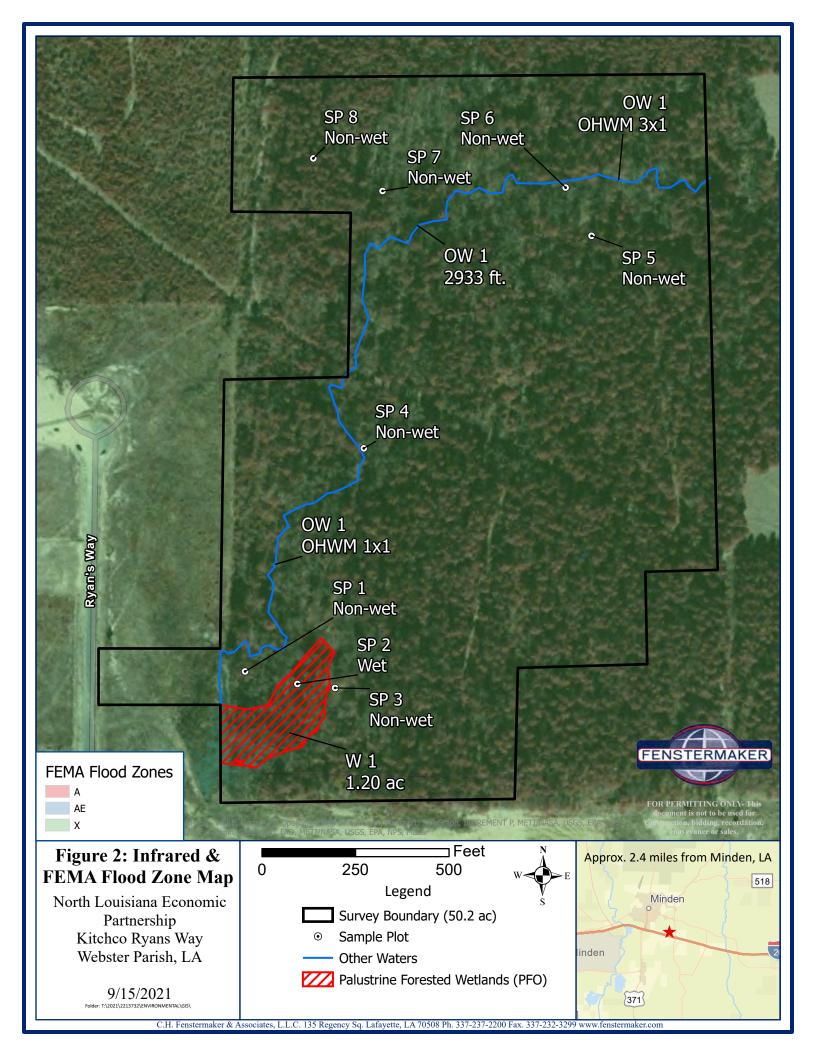
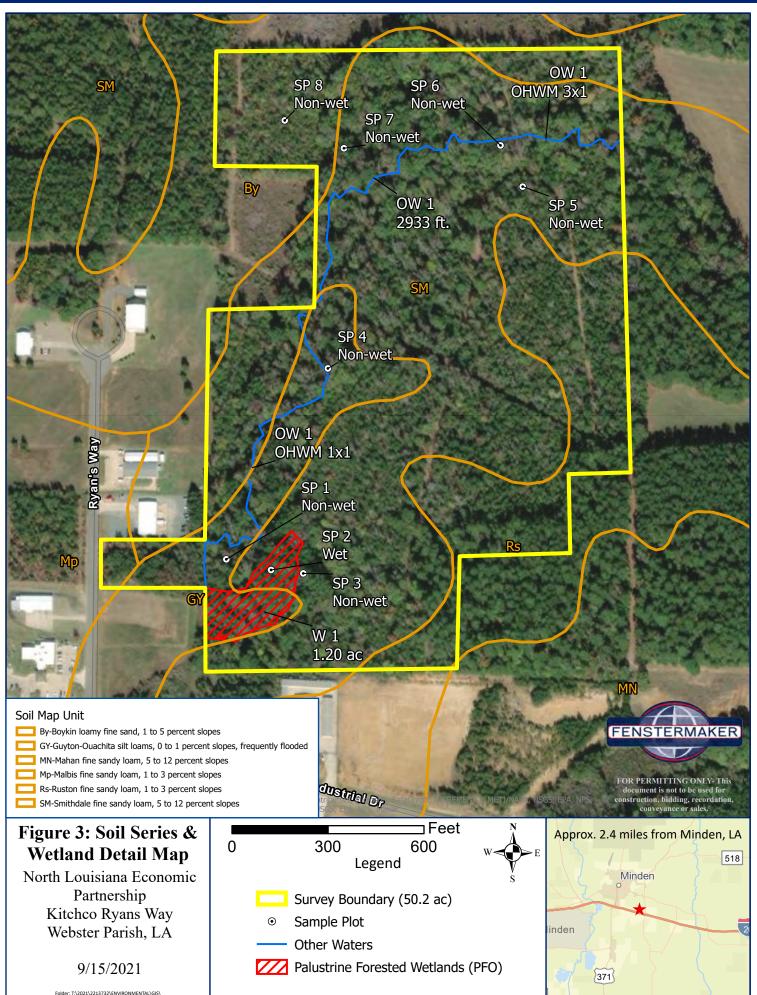


FIGURE 3 – SOIL SERIES & WETLAND DETAIL MAP



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APPENDIX A – DATA FORMS & PHOTOGRAPHS

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Kitchco Ryans Way	City/County: Webster Sampling Date: 07-Sep-21
Applicant/Owner: North Louisiana Economic Partnership	State: LA Sampling Point: 1
Investigator(s): Andrew Harrel, Payton Matherne	Section, Township, Range: S 35 T 19N R 09W
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none): none Slope: 0.0 % / 0.0 °
	: 32.585933 Long.: -93.25807 Datum: WGS84
coil Map Unit Name: GY - Guyton-Ouachita silt loams, 0 to 1 percent	
-	
are climatic/hydrologic conditions on the site typical for this time of ye	
Are Vegetation, Soil, or Hydrology naturally	y 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 $ullet$ No $igodot$	Is the Sampled Area
Hydric Soil Present? Yes 🔿 No 🖲	
Wetland Hydrology Present? Yes O No 💿	within a Wetland? Yes V NO S
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	() Surface Soil Cracks (B6)
Surface Water (A1)	(B13) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	B15) (LRR U) Drainage Patterns (B10)
Saturation (A3)	
	pheres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	
	duction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	ace (C7) Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in	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 O Depth (inches)):
Water Table Present? Yes O No O Depth (inches)	
Saturation Present? Yes No O Depth (inches)	Wetland Hydrology Present? Yes V No V
(includes capillary fringe) Tes of No of Deptit (incluse) Describe Recorded Data (stream gauge, monitoring well, aerial pho	
beschbe Recorded bata (stream gauge, monitoring weil, denar pro	
Remarks:	

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

		Dominant		Sampling Point: 1
	Absolute	Species?	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u>)	% Cover	Cover	Status	Number of Dominant Species
1. Quercus nigra	30	✔ 37.5%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)
2. Liquidambar styraciflua	20	✓ 25.0%	FAC	
3. Acer rubrum	10	12.5%	FAC	Total Number of Dominant Species Across All Strata: 6 (B)
4. Triadica sebifera	10	12.5%	FAC	
5. Pinus taeda	10	12.5%	FAC	Percent of dominant Species
6.	0	0.0%		That Are OBL, FACW, or FAC: <u>83.3%</u> (A/B)
7	-	0.0%		Prevalence Index worksheet:
8.	0	0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 40 20% of Total Cover: 16	80 =	= Total Cover		$\begin{array}{c} \hline \textbf{OBL species} \\ 0 \hline Matter y Symmetry Symmetr$
Sapling or Sapling/Shrub Stratum (Plot size: 30				FACW species $5 \times 2 = 10$
4 Output at all as		✓ 100.0%	EACW	FAC species 137 x 3 = 411
··· ··· ·		0.0%	TACW	
•		0.0%		
		0.0%		UPL species $0 \times 5 = 0$
4	_	0.0%		Column Totals: <u>162</u> (A) <u>501</u> (B)
5				Prevalence Index = $B/A = 3.093$
6 7.		0.0%		Hydrophytic Vegetation Indicators:
		0.0%		
8	0	0.0%		1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 2.5 20% of Total Cover:	5 =	= Total Cover		✓ 2 - Dominance Test is > 50%
Shrub Stratum (Plot size: <u>30</u>)				□ 3 - Prevalence Index is \leq 3.0 ¹
1. Juniperus virginiana	10	✓ 52.6%	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Liquidambar styracifiua	5	26.3%	FAC	
3. Quercus nigra	2	10.5%	FAC	¹ Indicators of hydric soil and wetland hydrology must
4. Ilex vomitoria		10.5%	FAC	be present, unless disturbed or problematic.
5	-	0.0%		Definition of Vegetation Strata:
6.	0	0.0%		Tree - Woody plants, excluding woody vines,
50% of Total Cover: 9.5 20% of Total Cover: 3.8	19 =	= Total 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: <u>30</u>)				Sapling - Woody plants, excluding woody vines,
1. Chasmanthium sessiliflorum	40		FAC	approximately 20 ft (6 m) or more in height and less
2. Callicarpa americana	10	18.2%	FACU	than 3 in. (7.6 cm) DBH.
3. Dichanthelium acuminatum	5	9.1%	FAC	
4	0	0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
5	0	0.0%		
6		0.0%		Shrub - Woody plants, excluding woody vines,
7		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
8		0.0%		
9	0	0.0%		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
10	0	0.0%		plants, except woody vines, less than approximately
11	0			3 ft (1 m) in height.
12	0	0.0%		
50% of Total Cover: <u>27.5</u> 20% of Total Cover: <u>11</u>	55 =	= Total Cover		Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30)				
1. Smilax rotundifolia	3	100.0%	FAC	
2		0.0%		
3		0.0%		
4		0.0%		
-	0	0.0%		Hydrophytic
				Vegetation Present? Yes • No ·
50% of Total Cover: 1.5 20% of Total Cover: 0.6	=	= Total Cover		
Remarks: (If observed, list morphological adaptations below).				
*Indicator suffix = National status or professional decision assigned because Re	egional status	not defined by FW	S.	

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Re	dox Featur				
(inches)	Color (moist)	%	Color (moist)	%		Loc ²	Texture	Remarks
0-20	10YR 4/4	100					Silty Clay Loam	
								-
		· ·						
		· ·					-	
	ь в		······					
	,,			_				
1 Type: C=Cor	centration D=Depletion	n RM=Reduc	ed Matrix_CS=Cover	ed or Coater	Sand Grai	ns ²l ocati	ion: PL=Pore Lining. M=	Matrix
Hydric Soil		n nim=nouuc				Local	-	
			Polyvalue Bel	ow Surface	(S8) (I DD 9	: T II)		plematic Hydric Soils ³ :
	pedon (A2)		Thin Dark Su				1 cm Muck (A9)	
Black His	•		Loamy Mucky)	2 cm Muck (A10	
	n Sulfide (A4)							F18) (outside MLRA 150A,B)
	Layers (A5)		Depleted Mat)			lain Soils (F19) (LRR P, S, T)
	Bodies (A6) (LRR P, T, U	I)	Redox Dark S					t Loamy Soils (F20) (MLRA 153B)
	cky Mineral (A7) (LRR P		Depleted Dar	. ,	7)		Red Parent Mate	
_	sence (A8) (LRR U)	, 1, 0)	Redox Depres		/)			rk Surface (TF12)
	ck (A9) (LRR P, T)		Marl (F10) (Li				Other (Explain in	n Remarks)
	Below Dark Surface (A1	11)	Depleted Och		IDA 151)			
	k Surface (A12)	,						
	iirie Redox (A16) (MLRA	150A)				0, P, T)		
	uck Mineral (S1) (LRR O		Delta Ochric					
	eyed Matrix (S4)	, .,	Reduced Vert				³ Indicators	of hydrophytic vegetation and
Sandy Re			Piedmont Flor				wetland	hydrology must be present, s disturbed or problematic.
	Matrix (S6)						unies PA, 153C, 153D)	s disturbed of problematic.
	face (S7) (LRR P, S, T, I	I)		Ight Loaniy	30113 (1 20)	(IVILKA 147	A, 1550, 155D)	
		- /						
	ayer (if observed):							
Туре:							Hydric Soil Present?	Yes 🔿 No 🖲
Depth (inc	:hes):						Hydric Soli Fresent:	res C No C
Remarks:								



Photo 1: Plot #1, Soil Sample



Photo 2: Plot #1, Vegetation facing north



Photo 3: Plot #1, Vegetation facing east



Photo 4: Plot #1, Vegetation facing west

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Kitchco Ryans Way	City/County: Webster Sampling Date: 07-Sep-21
Applicant/Owner: North Louisiana Economic Partnership	State: LA Sampling Point: 2
Investigator(s): Andrew Harrel, Payton Matherne	Section, Township, Range: S 35 T 19N R 09W
Landform (hillslope, terrace, etc.): Bottomland	Local relief (concave, convex, none): CONCAVE Slope: 0.0 % / 0.0 °
Soil Map Unit Name: <u>SM</u> - Smithdale fine sandy loam, 5 to 12 percent s	
Are climatic/hydrologic conditions on the site typical for this time of yea	
Are Vegetation, Soil, or Hydrology significantl	ly disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igodot$
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing same	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes $ullet$ No $igodot$	Is the Sampled Area
Hydric Soil Present? Yes No	
Wetland Hydrology Present? Yes \odot No \bigcirc	within a Wetland? Tes \odot NO \bigcirc
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	3) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	5) (LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide C	Odor (C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizosphe	neres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	ced Iron (C4) Crayfish Burrows (C8)
✓ Drift Deposits (B3)	ction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	e (C7) Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in R	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 O Depth (inches):	
Water Table Present? Yes O No O Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe) Tes No beptil (includes). Describe Recorded Data (stream gauge, monitoring well, aerial photo	
Remarks:	

Tree Stratum ^{(Plot size: <u>30</u>) Ouercus nigra Nyssa sylvatica Liquidambar styraciflua}	Absolute % Cover	R	pecies? _ el.Strat. Cover	Indicator Status	Dominance Test worksheet:
Ouercus nigra Nyssa sylvatica Liquidambar styraciflua		_		otatus	
Nyssa sylvatica Liquidambar styracifiua		\checkmark	50.0%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 7 (A)
Liquidambar styraciflua	30		37.5%	FAC	
•		\square	12.5%	FAC	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: <u>100.0%</u> (A/B
			0.0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 40 20% of Total Cover: 16		= To	otal Cover		0BL species x 1 =
Sapling or Sapling/Shrub Stratum (Plot size: 30)				FACW species 20 x 2 = 40
Quercus nigra		\square	0.0%	FAC	FAC speciles X 3 =534
·			0.0%		FACU species $0 \times 4 = 0$
··			0.0%		
·			0.0%		
·			0.0%		Column Totals: <u>198</u> (A) <u>574</u> (B
·			0.0%		Prevalence Index = B/A = <u>2.899</u>
		\square	0.0%		Hydrophytic Vegetation Indicators:
	0		0.0%		
50% of Total Cover: 0 20% of Total Cover: 0		- та	otal Cover		1 - Rapid Test for Hydrophytic Vegetation
		- 10			✓ 2 - Dominance Test is > 50%
Shrub Stratum (Plot size: <u>30</u>)					✓ 3 - Prevalence Index is \leq 3.0 ¹
Acer rubrum	10		-	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
Triadica sebifera			33.3%	FAC	
i			0.0%		¹ Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.
•	-		0.0%		Definition of Veretation Studto
·			0.0%		Definition of Vegetation Strata:
i	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 7.5 20% of Total Cover: 3	15	= TC	otal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum ^(Plot size: <u>30</u>)					
1. Chasmanthium sessiliflorum	40	✓	40.0%	FAC	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2. Dichanthelium acuminatum	30	✓	30.0%	FAC	than 3 in. (7.6 cm) DBH.
3. Commelina virginica	20	✓	20.0%	FACW	
4. Carex complanata	10		10.0%	FAC	Sapling/Shrub - Woody plants, excluding vines, less
5	0		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
6			0.0%		Shrub - Woody plants, excluding woody vines,
7			0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
8	0		0.0%		
9	0		0.0%		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
0	0		0.0%		plants, except woody vines, less than approximately
1	0		0.0%		3 ft (1 m) in height.
2	0		0.0%		
50% of Total Cover: 20% of Total Cover: 20	100	= To	otal Cover		Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30)					
Smilax rotundifolia	3		100.0%	FAC	
			0.0%		
			0.0%		
·			0.0%		
·	0		0.0%		Hydrophytic
50% of Total Cover: 1.5 20% of Total Cover: 0.6					Vegetation Present? Yes I No
	3 :	- 10	otal Cover		

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOII	
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Profile Descr	ription: (De	scribe to	the depth	needed to d	locument	the indic	ator or co	nfirm the	absence of indicators.)	
Depth	-	Matrix			Re	dox Featu	ires		_		
(inches) Color (moist)		moist)	%	Color (i	moist)	%		Loc ²	Texture	Remarks	
0-3	10YR	8/2	85	5YR	5/8	15	С	М	Silty Clay		
3-20	10YR	6/2	75	5YR	5/8	25	С	М	Silty Clay		
· · · · · · · · · · · · · · · · · · ·											
1 Type: C=Con	centration. D		n. RM=Redu		 CS=Covere	ed or Coate	ed Sand Gra	iins ² Loca	tion: PL=Pore Lining. M	=Matrix	
Hydric Soil I	ndicators:								Indicators for Pro	blematic Hydric Soils ³ :	
Hydric Soil Indicators: 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 Muck Mineral (S1) (LRR O, S) Sandy Redox (S5) Stripped Matrix (S4) Dark Surface (S7) (LRR P, S, T, U)				 ☐ Thir ☐ Loa ☐ Loa ☐ Loa ☑ Dep ☐ Red ☐ Dep ☐ Red ☐ Mar ☐ Dep ☐ Iror ☐ Uml ☐ Delt ☐ Red ☐ Piece 	 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 1495) 				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. 9A, 153C, 153D)		
Restrictive L	ayer (if obs	erved):									
Type: Depth (inc	hes).								Hydric Soil Present	? Yes 🖲 No 🔾	
Remarks:											



Photo 5: Plot #2, Soil Sample



Photo 6: Plot #2, Vegetation facing east



Photo 7: Plot #2, Vegetation facing south



Photo 8: Plot #2, Vegetation facing west

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Kitchco Ryans Way	City/County: Webst	er	Sampling Date:	07-Sep-21		
Applicant/Owner: North Louisiana Economic Partnership	State:	LA Sampling F	Point: 3			
Investigator(s): Andrew Harrel, Payton Matherne	Section, Township, Range: S 35 T 19N R 09W					
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave	convex, none): none	Slope: 3.()%/ 1.7°		
Subregion (LRR or MLRA): LRR P Lat.:	32.585823	Long.: -93.257288	 Datur	n: WGS84		
Soil Map Unit Name: SM - Smithdale fine sandy loam, 5 to 12 percent		NWI classi				
Are climatic/hydrologic conditions on the site typical for this time of year				No O		
		e "Normal Circumstances"	P. 000			
Are Vegetation 🦲 , Soil 🔄 , or Hydrology 🗋 naturally p	problematic? (I	f needed, explain any answ	vers in Remarks.)			
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point loca	itions, transects, imp	ortant features, e	etc.		
Hydrophytic Vegetation Present? Yes $ullet$ No $igodot$	Is the Samp	ed Area				
Hydric Soil Present? Yes 🔿 No 🖲						
Wetland Hydrology Present? Yes O No 🔍	within a Wet	liand?				
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of 2 requi	ired)		
Primary Indicators (minimum of one required; check all that apply)		Surface Soil	Cracks (B6)			
Surface Water (A1)	13)	Sparsely Veg	jetated Concave Surface ((B8)		
High Water Table (A2) Marl Deposits (B1	5) (LRR U)	Drainage Pat	Drainage Patterns (B10)			
Saturation (A3)	Odor (C1) Moss Trim Lines (B16)					
	neres along Living Roots	(C3) Dry Season \	Dry Season Water Table (C2)			
Sediment Deposits (B2)	ced Iron (C4)	Crayfish Burr	Crayfish Burrows (C8)			
	ction in Tilled Soils (C6)	Saturation Vi	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	ə (C7)	Geomorphic	Geomorphic Position (D2)			
Iron Deposits (B5) Other (Explain in	Remarks)	Shallow Aqui	tard (D3)			
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral	FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)		Sphagnum m	noss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes O No O Depth (inches):						
Water Table Present? Yes O No O Depth (inches):						
Saturation Present? Yes No Depth (inches):	We	etland Hydrology Present?	Yes 🔾 No 🖲			
(includes capillary fringe) Tes V NO V Deptri (includes). Describe Recorded Data (stream gauge, monitoring well, aerial phot		ns) if available				
Describe Recorded Data (stream gauge, monitoring weil, achai phot						
Remarks:						

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

	DominantSpecies?			Sampling Point: 3		
	Absolute			Indicator	Dominance Test worksheet:	
(Plot size: _30)	% Cover		over	Status	Number of Dominant Species	
1. Ulmus americana	50	✓	71.4%	FAC	That are OBL, FACW, or FAC:(A)	
2	20		28.6%			
3	0		0.0%		Total Number of Dominant Species Across All Strata: 5 (B)	
4.	-		0.0%			
5			0.0%		Percent of dominant Species	
6			0.0%		That Are OBL, FACW, or FAC: <u>60.0%</u> (A/B)	
7		\square	0.0%		Prevalence Index worksheet:	
8.			0.0%			
					Total % Cover of: Multiply by:	
50% of Total Cover: 35 20% of Total Cover: 14		= 10t	al Cover		OBL species <u>0</u> x 1 = <u>0</u>	
Sapling or Sapling/Shrub Stratum (Plot size: 30	_)				FACW species $0 \times 2 = 0$	
1. Acer rubrum	30	⊻_	100.0%	FAC	FAC speciles x 3 = 279	
2	0	Ш_	0.0%		FACU species $5 - x 4 = 20$	
3	0	\square_{-}	0.0%		UPL species x 5 =	
4	0		0.0%		Column Totals:(A)(B)	
5	0		0.0%			
6	0		0.0%		Prevalence Index = B/A = <u>3.051</u>	
7			0.0%		Hydrophytic Vegetation Indicators:	
8.	0		0.0%			
50% of Total Cover: 15 20% of Total Cover: 6					1 - Rapid Test for Hydrophytic Vegetation	
		= 101	al Cover		✓ 2 - Dominance Test is > 50%	
Shrub Stratum (Plot size: <u>30</u>)		_			\square 3 - Prevalence Index is ≤3.0 ¹	
1. Acer rubrum	10	∠_	100.0%	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)	
2	0	\Box_{-}	0.0%			
3	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must	
4	0		0.0%		be present, unless disturbed or problematic.	
5		\square	0.0%		Definition of Vegetation Strata:	
6.	0	\square	0.0%		Tree - Woody plants, excluding woody vines,	
50% of Total Cover: 5 20% of Total Cover: 2			al Cover		approximately 20 ft (6 m) or more in height and 3 in.	
		- 100			(7.6 cm) or larger in diameter at breast height (DBH).	
<u>Herb Stratum</u> (Plot size: <u>30</u>)						
1. Callicarpa americana	5	✓	100.0%	FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less	
2	0		0.0%		than 3 in. (7.6 cm) DBH.	
3	0		0.0%			
4	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less	
5	0		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.	
6	0		0.0%			
7.		Π-	0.0%		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
8.			0.0%			
ο			0.0%		Herb - All herbaceous (non-woody) plants, including	
10			0.0%		herbaceous vines, regardless of size, and woody	
10					plants, except woody vines, less than approximately 3 ft (1 m) in height.	
11		<u> </u>	0.0%			
12	0	\Box_{-}	0.0%		Woody ving All woody vinge regardless of beight	
50% of Total Cover: <u>2.5</u> 20% of Total Cover: <u>1</u>		= Tot	al Cover		Woody vine - All woody vines, regardless of height.	
Woody Vine Stratum (Plot size: 30)						
1 Smilax rotundifolia	3	\square	100.0%	FAC		
2			0.0%			
	-		0.0%			
			0.0%			
4					Hydrophytic	
5	0	\square_{-}	0.0%		Vegetation	
50% of Total Cover: <u>1.5</u> 20% of Total Cover: <u>0.6</u>	=	= Tot	al Cover		Present? Yes • No O	
Remarks: (If observed, list morphological adaptations below).					1	
nomana, in observed, not morphological adaptations below).						
*Indicator suffix = National status or professional decision assigned because Re	egional status	not de	fined by FW	/S.		

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth Matrix	Redox Features	_						
(inches) Color (moist) % 0-20 10YR 5/4 100	Color (moist)%Tvpe_ ¹ Loc ²	Texture Silt Loam	Remarks					
¹ Type: C=Concentration, D=Depletion, RM=Re	duced Matrix, CS=Covered or Coated Sand Grains ² Loca	ation: PL=Pore Lining, M	=Matrix					
Hydric Soil Indicators:		-	blematic Hydric Soils ³ :					
 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 Muck Mineral (S1) (LRR O, S) 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 1494)) (LRR O) O) (LRR S) (F18) (outside MLRA 150A,B) Iplain Soils (F19) (LRR P, S, T) ght Loamy Soils (F20) (MLRA 153B) terial (TF2) ark Surface (TF12)					
Restrictive Layer (if observed): Type:		Hydric Soil Present	? Yes O No 🖲					
Depth (inches):		riyunc son Present						
Remarks:								



Photo 9: Plot #3, Soil Sample



Photo 10: Plot #3, Vegetation facing north



Photo 11: Plot #3, Vegetation facing east



Photo 12: Plot #3, Vegetation facing west

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Kitchco Ryans Way	City/County: Webste	er	Sampling Date:	07-Sep-21		
Applicant/Owner: North Louisiana Economic Partnership	State:	LA Sampling	Point: 4			
Investigator(s): Andrew Harrel, Payton Matherne	Section, Township, Range: S 35 T 19N R 09W					
Landform (hillslope, terrace, etc.): Streamside	Local relief (concave,	convex, none): none	Slope: 0.	.0%/ 0.0°		
Subregion (LRR or MLRA): LRR P Lat.:	32.587585	Long.: -93.257073	 Datu	m: WGS84		
Soil Map Unit Name: GY - Guyton-Ouachita silt loams, 0 to 1 percent s						
Are climatic/hydrologic conditions on the site typical for this time of ye	0					
				No O		
		e "Normal Circumstances"	processi			
Are Vegetation, Soil, or Hydrology naturally	problematic? (If	f needed, explain any ans	vers in Remarks.)			
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point loca	tions, transects, imp	portant features,	etc.		
Hydrophytic Vegetation Present? Yes $ullet$ No $igodot$	Is the Sampl	ed Area				
Hydric Soil Present? Yes O No 🖲			1			
Wetland Hydrology Present? Yes O No O	within a Wet	land?				
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of 2 requ	uired)		
Primary Indicators (minimum of one required; check all that apply)	1	Surface Soil	Cracks (B6)			
Surface Water (A1)	313)	Sparsely Ve	getated Concave Surface	(B8)		
High Water Table (A2)	15) (LRR U)	Drainage Pa	Drainage Patterns (B10)			
Saturation (A3)						
		eres along Living Roots (C3)				
Sediment Deposits (B2)		Crayfish Bur	Crayfish Burrows (C8)			
	uction in Tilled Soils (C6)		Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	ce (C7)		Position (D2)			
Iron Deposits (B5) Other (Explain in	Remarks)	Shallow Aqu	itard (D3)			
L Inundation Visible on Aerial Imagery (B7)		FAC-Neutral	FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)		Sphagnum r	moss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No O Depth (inches):	:					
Water Table Present? Yes O No O Depth (inches):			Yes 🔿 No 🖲)		
Saturation Present? (includes capillary fringe) Yes O No O Depth (inches):	: We	tland Hydrology Present?	Yes Units No S	,		
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspection	ns), if available:				
	, բ	,,				
Remarks:						

VEGETATION (Five/Four Strata) -	Use scientific names of pla	ants.
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-			ominant		Sampling Point: 4		
_Tree Stratum (Plot size: _30)	Absolute % Cover	R	pecies? el.Strat. Cover	Indicator Status			
1. Quercus nigra	40	✓	57.1%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 8 (A)		
2. Ilex opaca		\checkmark	28.6%	FAC			
3. Pinus taeda			14.3%	FAC	Total Number of Dominant Species Across All Strata: 9 (B)		
L.	0		0.0%				
5.	-		0.0%		Percent of dominant Species		
3			0.0%		That Are OBL, FACW, or FAC: <u>88.9%</u> (A/B)		
7	0		0.0%		Prevalence Index worksheet:		
3	0		0.0%		Total % Cover of: Multiply by:		
50% of Total Cover: 35 20% of Total Cover: 14	70	= To	otal Cove	r	OBL species x 1 =		
Sapling or Sapling/Shrub Stratum (Plot size: <u>30</u>)				FACW species $0 \times 2 = 0$		
Liquidambar styraciflua	~~	✓	100.0%	FAC	FAC species 138 x 3 = 414		
· · · · · · · · · · · · · · · · · · ·			0.0%		FACU species 7 x 4 = 28		
3.			0.0%		UPL species $0 \times 5 = 0$		
k			0.0%				
5			0.0%		Column Totals: <u>145</u> (A) <u>442</u> (B)		
)			0.0%		Prevalence Index = B/A = <u>3.048</u>		
· ·			0.0%		Hydrophytic Vegetation Indicators:		
3	0		0.0%				
50% of Total Cover: 10 20% of Total Cover: 4		= To	otal Cove		1 - Rapid Test for Hydrophytic Vegetation		
	20	- 10			✓ 2 - Dominance Test is > 50%		
Shrub Stratum (Plot size: <u>30</u>)					\square 3 - Prevalence Index is ≤3.0 ¹		
Liquidambar styraciflua			28.6%	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)		
Diospyros virginiana			28.6%	FAC			
Julmus americana			14.3%	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
			14.3%	FAC			
5. Ilex vomitoria			14.3%	FAC	Definition of Vegetation Strata:		
ð	0				Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
50% of Total Cover: <u>17.5</u> 20% of Total Cover: <u>7</u>	35	= To	otal Cove	r	(7.6 cm) or larger in diameter at breast height (DBH).		
Herb Stratum (Plot size: <u>30</u>)							
1 . Callicarpa americana	5	✓	41.7%	FACU	Sapling - Woody plants, excluding woody vines,		
2. Chasmanthium sessiliflorum		\checkmark	41.7%	FAC	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
3. Polystichum acrostichoides	2		16.7%	FACU			
4	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less		
5	0		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
6	0		0.0%		Shrub - Woody plants, excluding woody vines,		
7			0.0%		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%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately		
1	0		0.0%		3 ft (1 m) in height.		
2	0		0.0%				
50% of Total Cover: 6 20% of Total Cover: 2.4	12	= To	otal Cove	r	Woody vine - All woody vines, regardless of height.		
Woody Vine Stratum (Plot size: <u>30</u>)	F		(0.50)	EAC.			
Smilax rotundifolia			62.5%	FAC			
Vitis rotundifolia			37.5%	FAC			
3	-		0.0%				
l			0.0%		Hydrophytic		
5			0.0%		Vegetation		
50% of Total Cover: 4 20% of Total Cover: 1.6		8 = Total Cover			Present? Yes Vo U		
Remarks: (If observed, list morphological adaptations below). *Indicator suffix = National status or professional decision assigned because	Regional status	. pot	defined by F	WS			
*Indicator suffix = National status or professional decision assigned because IS Army Corps of Engineers	Regional status	5 1101 (uennea by F	vvS.	Atlantic and Gulf Coastal Plain Region - Version 2.0		
S Anny Culps of Englineers					Allantic and Guil Coastal Plain Region - Version 2.0		

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth		Matrix		-						
		%	Color (moist)	<u>%</u> Tvpe ¹		Loc ²	Texture	Remarks		
0-2	10YR	4/3	100					Silt Loam		
2-20	10YR	4/6	100					Silt Loam		
-	-									
¹ Type: C=Cond	centration. D	=Depletio	n. RM=Red	uced Matrix, CS=Covere	d or Coate	d Sand Gra	ins ² Loca	tion: PL=Pore Lining. M=	=Matrix	
Hydric Soil I	ndicators:							Indicators for Pro	blematic Hydric Soils ³ :	
Histosol (A	A1)			Polyvalue Belo	w Surface	(S8) (LRR	S, T, U)	1 cm Muck (A9)		
Histic Epip	pedon (A2)			Thin Dark Sur	ace (S9) (LRR S, T, U)	2 cm Muck (A10		
Black Hist	ic (A3)			Loamy Mucky	Mineral (F	1) (LRR O)			(F18) (outside MLRA 150A,B)	
Hydrogen	Sulfide (A4)			Loamy Gleyed	Matrix (F2	2)			plain Soils (F19) (LRR P, S, T)	
Stratified	Layers (A5)			Depleted Matr					ht Loamy Soils (F20) (MLRA 153B)	
Organic B	odies (A6) (l	_RR P, T, L	J)	Redox Dark Su		1		Red Parent Mat	• • • • • • • • • • • • • • • • • • • •	
	ky Mineral (A			Depleted Dark					ark Surface (TF12)	
	sence (A8) (L			Redox Depres		,				
	k (A9) (LRR			Marl (F10) (LR				Other (Explain i	n Remarks)	
	Below Dark S		11)	Depleted Ochr		/I DA 151)				
	k Surface (A		,							
	irie Redox (A	•	1504)				0, P, 1)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,		
	ick Mineral (S			Umbric Surfac						
	eyed Matrix (, 3)	Delta Ochric (I			1500)			
Sandy Ge		34)		Reduced Verti						
				Piedmont Floo					ss disturbed or problematic.	
	Matrix (S6)			Anomalous Br	ight Loamy	/ Soils (F20)) (MLRA 149	9A, 153C, 153D)		
	ace (S7) (LR	к Р, S, I, I	U)							
							1			
Restrictive La	ayer (if obs	erved):								
Туре:					_					
Depth (incl	hes):							Hydric Soil Present?	? Yes 🔾 No 🖲	
Remarks:										



Photo 13: Plot #4, Soil Sample



Photo 14: Plot #4, Vegetation facing north



Photo 15: Plot #4, Vegetation facing east



Photo 16: Plot #4, Vegetation facing south

Project/Site: Kitchco Ryans Way Ci	ty/County: Webster Sampling Date: 08-Sep-21				
Applicant/Owner: North Louisiana Economic Partnership	State: LA Sampling Point: 5				
Investigator(s): Andrew Harrel, Payton Matherne	Section, Township, Range: S 35 T 19N R 09W				
Landform (hillslope, terrace, etc.): Flat Lo	cal relief (concave, convex, none): none Slope: 0.0 % / 0.0 °				
Subregion (LRR or MLRA): LRR P Lat.: 32					
Soil Map Unit Name: SM - Smithdale fine sandy loam, 5 to 12 percent slop					
Are climatic/hydrologic conditions on the site typical for this time of year?					
Are Vegetation , Soil , or Hydrology significantly of					
	···· ······ ······ ······ ·····				
Are Vegetation, Soil, or Hydrology naturally prol SUMMARY OF FINDINGS - Attach site map showing sam					
Hydrophytic Vegetation Present? Yes No					
	Is the Sampled Area				
Hydric Soil Present? Yes ○ No ● Wetland Hydrology Present? Yes ○ No ●	within a Wetland? Yes \bigcirc No \textcircled{ullet}				
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)				
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)				
Surface Water (A1)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)					
Saturation (A3)					
	es along Living Roots (C3) Dry Season Water Table (C2)				
Sediment Deposits (B2) Presence of Reduced Drift Deposits (B3) Recent Iron Reduction					
Algal Mat or Crust (B4) Thin Muck Surface (C					
Iron Deposits (B5) Other (Explain in Ren 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 O Depth (inches):					
	Wetland Hydrology Present? Yes O No 🖲				
Saturation Present? Yes O No O Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:				
Remarks:					

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

		Domina Species		Sampling Point: 5		
Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Rel.Stra	at. Indicator			
Pinus taeda	30	60.0		Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)		
Quercus nigra		20.0				
Juniperus virginiana		20.0		Total Number of Dominant Species Across All Strata: 9 (B)		
· · _ · _ · _ · _ · _ · _ · _ · _ ·		0.0		Species Across All Strata: (B)		
		0.0		Percent of dominant Species		
	_	0.0		That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)		
		0.0	%	Prevalence Index worksheet:		
	0	0.0	 %	Total % Cover of: Multiply by:		
50% of Total Cover: 25 20% of Total Cover: 10		= Total Co		$0BL \text{ species} \qquad 0 \qquad \text{x 1} = 0$		
Sapling or Sapling/Shrub Stratum (Plot size: <u>30</u>		. otar o		FACW species $0 \times 2 = 0$		
Lieudember et meelflue		66.7	'% FAC	FAC species $91 \times 3 = 273$		
A state of the table of						
				FACU species 30 x 4 = 120		
				UPL species $0 \times 5 = 0$		
·				Column Totals: <u>121</u> (A) <u>393</u> (B)		
				Prevalence Index = $B/A = 3.248$		
				Hydrophytic Vegetation Indicators:		
·						
	0	0.0	%	1 - Rapid Test for Hydrophytic Vegetation		
50% of Total Cover:6	30	= Total Co	over	✓ 2 - Dominance Test is > 50%		
Shrub Stratum (Plot size: <u>30</u>)				□ 3 - Prevalence Index is \leq 3.0 ¹		
llex vomitoria	20	80.0	9% FAC	Problematic Hydrophytic Vegetation ¹ (Explain)		
Liquidambar styraciflua		20.0	9% FAC			
		0.0	 %	¹ Indicators of hydric soil and wetland hydrology mus		
	-	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: 12.5 20% of Total Cover: 5		= Total Co		approximately 20 ft (6 m) or more in height and 3 in		
		- 101010	5761	(7.6 cm) or larger in diameter at breast height (DBH).		
Herb Stratum (Plot size: <u>30</u>)				Sapling Weady planta evaluding weady vince		
1 . Callicarpa americana	10	✓ 76.9	9% FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
2. Chasmanthium sessiliflorum	3	23.1	% FAC	than 3 in. (7.6 cm) DBH.		
3	0	0.0	%			
4	0	0.0	%	Sapling/Shrub - Woody plants, excluding vines, less		
5	0	0.0	%	than 3 in. DBH and greater than 3.28 ft (1m) tall.		
6	0	0.0	%	Shrub - Woody plants, excluding woody vines,		
7	0	0.0	%	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	%	herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately		
1	0	0.0	%	3 ft (1 m) in height.		
2	0	0.0	%			
50% of Total Cover: 6.5 20% of Total Cover: 2.6	13 =	= Total Co	over	Woody vine - All woody vines, regardless of height.		
Woody Vine Stratum (Plot size: <u>30</u>)	0					
Smilax rotundifolia			0% FAC			
·			-			
·	-	0.0				
		0.0		Hydrophytic		
•	-	0.0	%	Vegetation		
50% of Total Cover: <u>1.5</u> 20% of Total Cover: <u>0.6</u>	3 =	= Total C	over	Present? Yes No		
Remarks: (If observed, list morphological adaptations below).						
*Indicator suffix = National status or professional decision assigned because S Army Corps of Engineers	Regional status	not defined	by FWS.	Atlantic and Gulf Coastal Plain Region - Version 2.0		

Profile Desci	ription: (Describe to	the depth n	eeded to documen	t the indica	tor or con	firm the a	absence of indicators	.)
Depth	Matrix		Re	dox Featu	es			
(inches)	Color (moist)	_%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks
0-20	10YR 7/8	100					Silt Loam	
		·			. <u> </u>			
				-		-		
1 Turney C. Com	approximation D Doplation	DM Dadua	d Matrix CS Cavar	ad an Casta	Cond Crok	20. 21.000	tion, DL Dara Lining M	1 Moteiv
Hydric Soil		n. RIVI=Reduc	ed Matrix, CS=Cover	ed or Coated	a Sand Grai	ns ² Local	tion: PL=Pore Lining. N	
				6 ((60) (100 6	T 10		oblematic Hydric Soils ³ :
			Polyvalue Bel				1 cm Muck (A9	
Black Hist	pedon (A2)		Thin Dark Su				2 cm Muck (A1	
_	n Sulfide (A4)		Loamy Mucky					c (F18) (outside MLRA 150A,B)
	Layers (A5)		Loamy Gleye)		_	dplain Soils (F19) (LRR P, S, T)
	Bodies (A6) (LRR P, T, L	N	Depleted Mat					ght Loamy Soils (F20) (MLRA 153B)
			Redox Dark S				Red Parent Ma	
	ky Mineral (A7) (LRR P sence (A8) (LRR U)	, I, U)	Depleted Dar		7)		Very Shallow D	Dark Surface (TF12)
	k (A9) (LRR P, T)		Redox Depre				Other (Explain	in Remarks)
	Below Dark Surface (A	11)	Marl (F10) (L					
	k Surface (A12)	11)	Depleted Och					
		1504)	Iron-Mangan			O, P, T)		
	irie Redox (A16) (MLRA							
	ick Mineral (S1) (LRR O	1, 3)	Delta Ochric			>	³ Indicato	ors of hydrophytic vegetation and
	eyed Matrix (S4)		Reduced Vert				wetlar	nd hydrology must be present,
Sandy Re	uox (SS) Matrix (S6)		Piedmont Flo	•				ess disturbed or problematic.
		I.D.	Anomalous B	right Loamy	Soils (F20)	(MLRA 149	9A, 153C, 153D)	
	ace (S7) (LRR P, S, T, I	0)						
Restrictive L	ayer (if observed):							
Туре:								
Depth (inc	hes):						Hydric Soil Present	t? Yes 🔾 No 🖲
Remarks:						*		



Photo 17: Plot #5, Soil Sample



Photo 18: Plot #5, Vegetation facing north



Photo 19: Plot #5, Vegetation facing east



Photo 20: Plot #5, Vegetation facing west

Project/Site: Kitchco Ryans Way	City/County:	Webster	Sampling Date: 08-Sep-21
Applicant/Owner: North Louisiana Economic Partnership		State: LA	Sampling Point: 6
Investigator(s): Andrew Harrel, Payton Matherne	Section, Tow	nship, Range: S	35 T 19N R 09W
Landform (hillslope, terrace, etc.): Stream bank	Local relief (co	ncave, convex, no	one): none Slope: 0.0 % / 0.0°
Subregion (LRR or MLRA): LRR P Lat.:	32.589524	Lona.	: -93.255362 Datum: WGS84
Soil Map Unit Name: SM - Smithdale fine sandy loam, 5 to 12 percent s		3	NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of yea		• No O	(If no, explain in Remarks.)
	lly disturbed?		Circumstances" present? Yes \odot No \bigcirc
	problematic?		xplain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa			
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks:		Sampled Area a Wetland?	Yes \bigcirc No $oldsymbol{ ilde{\Theta}}$
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Aquatic Fauna (B1 High Water Table (A2) Marl Deposits (B1) Saturation (A3) Hydrogen Sulfide Water Marks (B1) Oxidized Rhizosph Sediment Deposits (B2) Presence of Reduct Drift Deposits (B3) Recent Iron Reduct Iron Deposits (B5) Other (Explain in F Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	5) (LRR U) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils e (C7)		Secondary Indicators (minimum of 2 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 Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photo Depth (inches):			ology Present? Yes O No 💿 able:
Remarks:			

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

	Dominant				Sampling Point: 6		
	Absolute		pecies? _ el.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: <u>30</u>)	% Cover	r	Cover	Status	Number of Dominant Species		
1. Ulmus americana	30	✓	40.0%	FAC	That are OBL, FACW, or FAC:5(A)		
2. Quercus nigra	20	✓	26.7%	FAC			
3. Acer rubrum	10		13.3%	FAC	Total Number of Dominant Species Across All Strata: 6 (B)		
4. Liquidambar styraciflua	10		13.3%	FAC			
5. Quercus alba	5		6.7%	FACU	Percent of dominant Species		
6	0		0.0%		That Are OBL, FACW, or FAC: <u>83.3%</u> (A/B)		
7	0		0.0%		Prevalence Index worksheet:		
8	0		0.0%		Total % Cover of: Multiply by:		
50% of Total Cover: 37.5 20% of Total Cover: 15	75	= To	otal Cove	-	0BL species 0 x 1 = 0		
Sapling or Sapling/Shrub Stratum_ (Plot size:	-				FACW species $0 \times 2 = 0$		
1	0		0.0%		FAC species 150 x 3 =450		
2.			0.0%		FACU species $30 \times 4 = 120$		
3.		\square	0.0%		UPL species $0 \times 5 = 0$		
4.			0.0%		(-)		
5.			0.0%				
6.			0.0%		Prevalence Index = $B/A = 3.167$		
7.			0.0%		Hydrophytic Vegetation Indicators:		
8.	0		0.0%				
50% of Total Cover: 0 20% of Total Cover: 0			otal Cove		1 - Rapid Test for Hydrophytic Vegetation		
		- 10	otal COVE		✓ 2 - Dominance Test is > 50%		
Shrub Stratum (Plot size: <u>30</u>)		_			3 - Prevalence Index is $\leq 3.0^{1}$		
1. Ulmus americana			-	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)		
2. Hamamelis virginiana			36.4%	FACU			
3. Ilex vomitoria			18.2%	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
4. Ilex opaca	5		9.1%	FAC			
5	-		0.0%		Definition of Vegetation Strata:		
6	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
50% of Total Cover: 27.5 20% of Total Cover:1	55	= To	otal Cove		(7.6 cm) or larger in diameter at breast height (DBH).		
Herb Stratum_ (Plot size: <u>30</u>)							
1. Chasmanthium sessilifiorum	40	✓	88.9%	FAC	Sapling - Woody plants, excluding woody vines,		
2. Callicarpa americana			11.1%	FACU	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
3.	0		0.0%				
4.	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less		
5	0		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
6			0.0%		Shrub - Woody plants, excluding woody vines,		
7			0.0%		approximately 3 to 20 ft (1 to 6 m) in height.		
8			0.0%				
9			0.0%		Herb - All herbaceous (non-woody) plants, including		
10			0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately		
11	0		0.0%		3 ft (1 m) in height.		
12.	0		0.0%				
50% of Total Cover: 22.5 20% of Total Cover: 9		= Te	otal Cove		Woody vine - All woody vines, regardless of height.		
<u>Woody Vine Stratum</u> (^{Plot size: <u>30</u>) 1. Vitis rotundifolia}	F		100 004	FAC			
				FAU			
2			0.0%				
3			0.0%				
4			0.0%	·	Hydrophytic		
5			0.0%		Vegetation		
50% of Total Cover: 20% of Total Cover:	5	= To	otal Cover		Present? Yes VNO		
Remarks: (If observed, list morphological adaptations below).							
*Indicator suffix = National status or professional decision assigned because R	egional status	s not	defined by F	WS.			

Profile Descr	ription: (Describe to	the depth n	eeded to document	the indic	ator or cor	firm the a	absence of indicators.)
Depth	Matrix	,	Re	dox Featu				
(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks
0-20	10YR 5/6	100					Silt Loam	
					- <u></u> .			
	·		······					
	centration. D=Depletio	n. RM=Reduc	ed Matrix, CS=Covere	ed or Coate	d Sand Graii	ns ² Locat	tion: PL=Pore Lining. M	=Matrix
Hydric Soil I							Indicators for Pro	blematic Hydric Soils ³ :
Histosol (A1)		Polyvalue Belo	ow Surface	(S8) (LRR S	, T, U)	1 cm Muck (A9)) (LRR O)
	pedon (A2)		Thin Dark Sur	face (S9) (LRR S, T, U)		2 cm Muck (A1	
Black Hist	ic (A3)		Loamy Mucky	Mineral (F	1) (LRR O)			(F18) (outside MLRA 150A,B)
Hydrogen	Sulfide (A4)		Loamy Gleyed	Matrix (F2)		_	plain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)		Depleted Mat	rix (F3)				ht Loamy Soils (F20) (MLRA 153B)
Organic B	odies (A6) (LRR P, T, l	J)	Redox Dark S	urface (F6)			Red Parent Mat	
5 cm Muc	ky Mineral (A7) (LRR P	P, T, U)	Depleted Darl	Surface (I	7)		_	ark Surface (TF12)
Muck Pres	sence (A8) (LRR U)		Redox Depres				Other (Explain i	
1 cm Muc	k (A9) (LRR P, T)		 Marl (F10) (LF					iii Reillaiks)
Depleted	Below Dark Surface (A	11)	Depleted Och		ILRA 151)			
	k Surface (A12)					0 р т)		
	irie Redox (A16) (MLRA	A 150A)	Umbric Surfac			0,1,1)		
	ick Mineral (S1) (LRR O		Delta Ochric (
	eyed Matrix (S4)	., _,	Reduced Vert			EOD)	³ Indicator	rs of hydrophytic vegetation and
Sandy Re								d hydrology must be present,
	Matrix (S6)		Piedmont Floo					ss disturbed or problematic.
	ace (S7) (LRR P, S, T, I	11)		ight Loamy	Solis (F20)	(MLRA 149	9A, 153C, 153D)	
	ace (37) (LKK F, 3, 1, 1	0)						
Restrictive L	ayer (if observed):							
Туре:								
Depth (inc	hes):						Hydric Soil Present	? Yes 🔾 No 🖲
Remarks:								



Photo 21: Plot #6, Soil Sample



Photo 22: Plot #6, Vegetation facing north



Photo 23: Plot #6, Vegetation facing east



Photo 24: Plot #6, Vegetation facing west

Project/Site: Kitchco Ryans Way	City/County:	Webster		Sampling Date:	08-Sep-21
Applicant/Owner: North Louisiana Economic Partnership	S	tate: LA	Sampling F	Point: 7	
Investigator(s): _Andrew Harrel, Payton Matherne	Section, Town	ship, Range: S	35 T	19N R 09	9W
Landform (hillslope, terrace, etc.): Hillslope	Local relief (con	cave, convex, n	one): none	Slope: 3	3.0 % / 1.7°
Subregion (LRR or MLRA): LRR P Lat.:	32.589477	Lona	.: -93.256948	Datr	um: WGS84
Soil Map Unit Name: SM - Smithdale fine sandy loam, 5 to 12 percent			NWI classi		
Are climatic/hydrologic conditions on the site typical for this time of year	.,	• No O	(If no, explain i		
	tly disturbed?				No O
	-		Circumstances"	P. 000.111	
Are Vegetation , Soil , or Hydrology naturally p SUMMARY OF FINDINGS - Attach site map showing sa	problematic?			vers in Remarks.)	etc
					, etc.
Hydrophytic Vegetation Present? Yes No	Is the S	Sampled Area			
Hydric Soil Present? Yes O No O	within	a Wetland?	$_{\rm Yes} \odot _{\rm No} \odot$		
Wetland Hydrology Present? Yes O No 💿					
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of 2 rec	quired)
Primary Indicators (minimum of one required; check all that apply)			Surface Soil (
Surface Water (A1)				getated Concave Surface	e (B8)
High Water Table (A2)			Drainage Pat		
Saturation (A3)			Moss Trim Li		
	heres along Living F	(C3)		Water Table (C2)	
Sediment Deposits (B2) Presence of Redu Drift Deposits (B3) Recent Iron Redu	uction in Tilled Soils	(CA)	Crayfish Burr		(00)
Algal Mat or Crust (B4)		(00)		isible on Aerial Imagery Position (D2)	(((4))
	• •		Shallow Aqui		
Iron Deposits (B5) Other (Explain in Inundation Visible on Aerial Imagery (B7)	Remarks)		FAC-Neutral		
Water-Stained Leaves (B9)				noss (D8) (LRR T, U)	
Field Observations:					
Surface Water Present? Yes O No O Depth (inches):					
Water Table Present? Yes O No O Depth (inches):					
		Wetland Hydr	ology Present?	Yes 🔿 No 🤆	
(includes capillary fringe) Yes Vio Vo Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous insp	ections), if avail	able:		
Remarks:					

VEGETATION (Five/Four Strata) - Use scientific		Dominant		Sampling Point: 7			
Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover		Indicator Status				
Ulmus americana	40	50.0%	FAC	Number of Dominant Species That are OBL, FACW, or FAC:	7(A)		
Acer rubrum	20	25.0%	FAC				
Quercus alba	20	25.0%	FACU	Total Number of Dominant Species Across All Strata: 1	0 (B)		
•	0	0.0%					
	0	0.0%		Percent of dominant Species	0% (A/B)		
	0	0.0%		That Are OBL, FACW, or FAC: 70.0%			
	0	0.0%		Prevalence Index worksheet:			
•	0	0.0%		Total % Cover of: Multiply by	':		
50% of Total Cover: 40 20% of Total Cover: 16	80	= Total Cove	r	OBL species x 1 =	0		
Sapling or Sapling/Shrub Stratum (Plot size: 30)			FACW species x 2 =	0		
Ulmus americana	10	✓ 33.3%	FAC	FAC species x 3 =	273		
Acer rubrum	10	✓ 33.3%	FAC	FACU species	140		
Quercus alba	10	33.3%	FACU	UPL species -0 x 5 = $-$	0		
	0	0.0%		Column Totals: 126 (A)	413 (B)		
	0	0.0%					
	0	0.0%		Prevalence Index = B/A =3.2	.78		
	0	0.0%		Hydrophytic Vegetation Indicators:			
B	0	0.0%		1 - Rapid Test for Hydrophytic Vegeta	ation		
50% of Total Cover: 20% of Total Cover:6	30	= Total Cove	r	\checkmark 2 - Dominance Test is > 50%			
Shrub Stratum (Plot size: <u>30</u>)				\square 3 - Prevalence Index is ≤3.0 ¹			
Quercus alba	5	50.0%	FACU	Problematic Hydrophytic Vegetation	¹ (Explain)		
	-		-				

3. Quercus alba	10		33.3%	FACU	UPL species x 5 =			
4	0		0.0%		Column Totals: 126 (A) 413 (B)			
5	0		0.0%					
6	0		0.0%		Prevalence Index = B/A = <u>3.278</u>			
7	0		0.0%		Hydrophytic Vegetation Indicators:			
8	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation			
50% of Total Cover: 15 20% of Total Cover: 6	30	= To	otal Cover		\checkmark 2 - Dominance Test is > 50%			
Shrub Stratum (Plot size: <u>30</u>)		_			\square 3 - Prevalence Index is ≤3.0 ¹			
1 Quercus alba	5	\checkmark	50.0%	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)			
2. Ilex vomitoria	5		50.0%	FAC				
3	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must			
4.			0.0%		be present, unless disturbed or problematic.			
5.	-		0.0%		Definition of Vegetation Strata:			
6.	0		0.0%		Tree - Woody plants, excluding woody vines,			
50% of Total Cover: 5 20% of Total Cover: 2	10	= To	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: <u>30</u>)		-						
4 • • • • • • • • • • •	1		100.0%	EAC	Sapling - Woody plants, excluding woody vines,			
1. Chasmanthium sessilifiorum 2.			0.0%	FAC	approximately 20 ft (6 m) or more in height and less			
3			0.0%		than 3 in. (7.6 cm) DBH.			
4			0.0%		Sapling/Shrub - Woody plants, excluding vines, less			
5			0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.			
6			0.0%					
7	0		0.0%		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.			
8			0.0%					
9			0.0%		Herb - All herbaceous (non-woody) plants, including			
10			0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately			
11	0		0.0%		3 ft (1 m) in height.			
12.	0		0.0%					
50% of Total Cover: 0.5 20% of Total Cover: 0.2	1	= To	otal Cover		Woody vine - All woody vines, regardless of height.			
Woody Vine Stratum (Plot size: 30)		-						
1. Vitis rotundifolia	3		60.0%	FAC				
2. Toxicodendron radicans	2		40.0%	FAC				
3.	-		0.0%					
4			0.0%					
5		П	0.0%		Hydrophytic			
50% of Total Cover: 2.5 20% of Total Cover:		= To			Vegetation Present? Yes No			
Remarks: (If observed, list morphological adaptations below).								

Profile Desci	ription: (Des	cribe to	the depth	needed to document	the indica	ator or cor	nfirm the a	absence of indicators)			
Depth		Matrix		Re	dox Featu			-				
(inches)	Color (n	noist)	%	Color (moist)	_%	Tvpe ¹	Loc ²	Texture	Remarks			
0-2	10YR	4/2	100					Silt Loam				
2-20	10YR	5/3	100					Silt Loam				
		0,0										
						-						
	p		u	·					· •			
				·								
¹ Type: C=Con	centration. D=	Depletior	n. RM=Red	uced Matrix, CS=Covere	d or Coate	d Sand Grai	ns ² Loca	tion: PL=Pore Lining. M	=Matrix			
Hydric Soil I								-	oblematic Hydric Soils ³ :			
Histosol (Polyvalue Bel	w Surface	(S8) (I RR S	ст II)					
	pedon (A2)			Thin Dark Sur				1 cm Muck (A9				
Black Hist)	2 cm Muck (A1				
	ns (AS) Sulfide (A4)			Loamy Mucky					(F18) (outside MLRA 150A,B)			
	Layers (A5)			Loamy Gleyed)		_	lplain Soils (F19) (LRR P, S, T)			
				Depleted Mat				Anomalous Brig	ght Loamy Soils (F20) (MLRA 153B)			
	Bodies (A6) (LF			Redox Dark S	. ,			Red Parent Ma	terial (TF2)			
	ky Mineral (A7		T, U)	Depleted Dark	Surface (F)	7)		Very Shallow D	ark Surface (TF12)			
	sence (A8) (LF			Redox Depres	sions (F8)			Other (Explain	in Remarks)			
1 cm Muc	:k (A9) (LRR P	, T)		Marl (F10) (Li	rr U)							
Depleted	Below Dark Su	urface (A1	1)	Depleted Och	ric (F11) (N	ILRA 151)						
Thick Dar	k Surface (A12	2)		Iron-Mangane	ese Masses	(F12) (LRR	O, P, T)					
🗌 Coast Pra	irie Redox (A1	6) (MLRA	150A)	Umbric Surfac	e (F13) (LF	R P, T, U)						
Sandy Mu	ick Mineral (S1) (LRR O	, S)	Delta Ochric (0				
Sandy Gle	eyed Matrix (S	4)		Reduced Vert			150B)	³ Indicato	rs of hydrophytic vegetation and			
Sandy Re				Piedmont Floo				wetland hydrology must be present, unless disturbed or problematic.				
	Matrix (S6)				•			9A, 153C, 153D)	ss disturbed of problematic.			
	ace (S7) (LRR	PSTI	n		ight Loaniy	30li3 (i 20)		A, 1330, 1330)				
		1,0,1,0	,									
Restrictive L	ayer (if obse	rved):										
Туре:												
Depth (inc	hes):							Hydric Soil Present	? Yes 🔾 No 🖲			
Remarks:												



Photo 25: Plot #7, Soil Sample



Photo 26: Plot #7, Vegetation facing north



Photo 27: Plot #7, Vegetation facing south



Photo 28: Plot #7, Vegetation facing west

Project/Site: Kitchco Ryans Way	City/County: Webster Sampling Date: 08-Sep-21								
Applicant/Owner: North Louisiana Economic Partnership	State: LA Sampling Point: 8								
Investigator(s): Andrew Harrel, Payton Matherne	Section, Township, Range: S 35 T 19N R 09W								
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave, convex, none): none Slope: 2.0 % / 1.1 °								
	: <u>32.589707</u> Long.: <u>-93.257553</u> Datum: WGS84								
oil Map Unit Name: By - Boykin loamy fine sand, 1 to 5 percent slop	pes NWI classification: None								
re climatic/hydrologic conditions on the site typical for this time of y									
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Are "Normal Circumstances" present? Yes 🔍 No 🔾								
Are Vegetation, Soil, or Hydrology naturally	y 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 \odot No \bigcirc	La the Compled Area								
Hydric Soil Present? Yes O No •	Is the Sampled Area								
Wetland Hydrology Present? Yes O No O	within a Wetland? Yes VIO S								
Remarks:									
HYDROLOGY									
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)								
Primary Indicators (minimum of one required; check all that apply									
Surface Water (A1)									
High Water Table (A2)									
Saturation (A3)									
	spheres along Living Roots (C3) Dry Season Water Table (C2)								
Sediment Deposits (B2)	duced Iron (C4) Crayfish Burrows (C8)								
Drift Deposits (B3)	eduction in Tilled Soils (C6)								
Algal Mat or Crust (B4)	face (C7) Geomorphic Position (D2)								
Iron Deposits (B5) Other (Explain i	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 \bigcirc No $oldsymbol{O}$ Depth (inches	s):								
Water Table Present? Yes \bigcirc No $oldsymbol{igodol}$ Depth (inches	s):								
Saturation Present? (includes capillary fringe) Yes No No Depth (inches	S): Wetland Hydrology Present? Yes O No ()								
Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspections), if available:								
Demonto									
Remarks:									

Tree Stratum (Plot size: 30) Absolute Ra 1. Pinus taeda 30 ✓ 2. Juniperus virginiana 10 ✓ 3. 0 0 0 4. 0 0 0 5. 0 0 0 6. 0 0 0 7. 0 0 0 8. 0 0 0 50% of Total Cover: 20 20% of Total Cover: 8 40 = To Sapling or Sapling/Shrub Stratum (Plot size: 30) 1 I Acer rubrum 20 ✓ 2. Liquidambar styracifiua 10 ✓ 10 ✓ 3. Ulmus americana 10 ✓ 10 ✓ 4.	pecies? el.Strat. Cover 75.0% 25.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 20.0% 20.0% 20.0% 20.0% 20.0% 0.0%	FAC FAC FACU FACU	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: 7 (A) Total Number of Dominant Species Across All Strata: 9 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 77.8% (A/B) Prevalence Index worksheet:			
1. Pinus taeda 30 ✓ 2. Juniperus virginiana 10 ✓ 3. 0 0 0 4. 0 0 0 5. 0 0 0 6. 0 0 0 7. 0 0 0 8. 0 0 0 50% of Total Cover: 20 20% of Total Cover: 8 40 = Total Solution Stratum (Plot size: 30) 1. Acer rubrum 20 ✓ ✓ ✓ ✓ 2. Liquidambar styraciffua 10 ✓ ✓ ✓ 3. Ulmus americana 10 ✓ ✓ ✓ 4. Juniperus virginiana 10 ✓ ✓ ✓ 50% of Total Cover: 25 20% of Total Cover: 10 ✓ 5. 0 0 0 0 0 0 3. Liquidambar styraciffua 5 ✓ 0 0 0 0 0 0 0 </th <th>25.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%</th> <th>FACU </th> <th>That are OBL, FACW, or FAC:7(A)Total Number of Dominant Species Across All Strata:9(B)Percent of dominant Species That Are OBL, FACW, or FAC:77.8%(A/B)Prevalence Index worksheet:77.8%(A/B)Total % Cover of:Multiply by:0OBL species0x 1 =0FACW species0x 2 =0FAC species98x 3 =294FACU species20x 4 =80UPL species0x 5 =0Col umn Total s:118(A)374Mydrophytic Vegetation Indicators:1Rapid Test for Hydrophytic VegetationImage: Problematic Hydrophytic Vegetation 1 (Explain)1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).</th>	25.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACU	That are OBL, FACW, or FAC:7(A)Total Number of Dominant Species Across All Strata:9(B)Percent of dominant Species That Are OBL, FACW, or FAC:77.8%(A/B)Prevalence Index worksheet:77.8%(A/B)Total % Cover of:Multiply by:0OBL species0x 1 =0FACW species0x 2 =0FAC species98x 3 =294FACU species20x 4 =80UPL species0x 5 =0Col umn Total s:118(A)374Mydrophytic Vegetation Indicators:1Rapid Test for Hydrophytic VegetationImage: Problematic Hydrophytic Vegetation 1 (Explain)1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
3. 0 4. 0 5. 0 6. 0 7. 0 8. 0 50% of Total Cover: 20 20% of Total Cover: 8 40 = To Sapling or Sapling/Shrub Stratum (Plot size: 30) 1. Acer rubrum 20 2. Liquidambar styracifiua 10 3. Uimus americana 10 4. Juniperus virginiana 10 5. 0 0 6. 0 0 7. 0 0 8. 0 0 5. 0 0 6. 0 0 7. 0 0 8. 0 0 9. 0 0 9. 0 0 9. 0 0 10. 0 0 11. 10 10 12. 20% of Total Cover: 5 13. Liqu	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 20.0% 20.0% 20.0% 0.0%	FAC FAC	Total Number of Dominant Species Across All Strata:9(B)Percent of dominant Species That Are OBL, FACW, or FAC: 77.8% (A/B)Prevalence Index worksheet:Total % Cover of:Multiply by:OBL species0x 1 =0FACW species0FAC species98x 3 =294FACU species20x 4 =80UPL species0x 5 =0colspan="2">(B)Prevalence Index = B/A =3.169Hydrophytic Vegetation Indicators:1 - Rapid Test for Hydrophytic VegetationI - Rapid Test for Hydrophytic VegetationI 2 - Dominance Test is > 50%3 - Prevalence Index is $\leq 3.0^{-1}$ Problematic Hydrophytic Vegetation 1 (Explain)1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.Definition of Vegetation Strata:Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
3. 0 0 4. 0 0 5. 0 0 5. 0 0 5. 0 0 5. 0 0 5. 0 0 5. 0 0 5. 0 0 5. 0 0 5. 0 0 5. 20 20% of Total Cover: 8 40 = To Sapling or Sapling/Shrub Stratum (Plot size: 30) 1 10 1 2. Liquidambar styraciflua 10 10 1 1 3. 0 0 0 0 1 5. 0 0 0 0 0 5. 0 0 0 0 0 0 5. 0 0 0 0 0 0 5. 0 0 0 0 0 0 5. 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 20.0% 20.0% 20.0% 0.0%	FAC FAC FACU FACU	Species Across All Strata: 9 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 77.8% (A/B) Prevalence Index worksheet:			
Image: stratum (Plot size: 30) 0	0.0% 0.0% 0.0% 0.0% 0.0% 20.0% 20.0% 20.0% 0.0%	FAC FAC FACU FACU	Percent of dominant Species That Are OBL, FACW, or FAC:			
S. 0 S. 20 V. 20 S. 0 S. 0 S. 0 S.	0.0% 0.0% 0.0% 0tal Cover 40.0% 20.0% 20.0% 0.0% 0.0% 0.0% 0.0% 0.0	FAC FAC FACU FACU	That Are OBL, FACW, or FAC:			
. .	0.0% 0.0% 0.0% 0.0% 20.0% 20.0% 20.0% 0.0%	FAC FAC FACU FACU	Prevalence Index worksheet:Total % Cover of:Multiply by:OBL speciles0x 1 =Colspan="2">0FACW speciles0x 2 =0FACW speciles20x 4 =RACU speciles20x 4 =MUPL speciles0x 5 =Column Totals:118(A)Mydrophytic Vegetation Indicators:1- Rapid Test for Hydrophytic VegetationImage: 2 - Dominance Test is > 50%3 - Prevalence Index is $\leq 3.0^{-1}$ Problematic Hydrophytic Vegetation 1 (Explain)1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.Definition of Vegetation Strata:Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
3. 0 0 50% of Total Cover: 20 20% of Total Cover: 8 40 = To Sapling or Sapling/Shrub Stratum (Plot size: 30) . Acer rubrum 20 ✓ 2. Liquidambar styracifiua 10 ✓ 3. Ulmus americana 10 ✓ .	0.0% otal Cover 40.0% 20.0% 20.0% 0.0	FAC FAC FACU FACU	Total % Cover of:Multiply by:OBL speciles0x 1 =0FACW speciles0x 2 =0FAC speciles98x 3 =294FACU speciles20x 4 =80UPL speciles0x 5 =0Column Totals:118(A)374Prevalence Index = B/A =3.169Hydrophytic Vegetation Indicators:1- Rapid Test for Hydrophytic VegetationImage: 2 - Dominance Test is > 50%3 - Prevalence Index is $\leq 3.0^{-1}$ Problematic Hydrophytic Vegetation 1 (Explain)1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.Definition of Vegetation Strata:Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
50% of Total Cover: 20 20% of Total Cover: 8 40 = Total Cover: Sapling or Sapling/Shrub Stratum (Plot size: 30) . Acer rubrum 20 ✓ 2. Liquidambar styracifiua 10 ✓ 3. Ulmus americana 10 ✓ 4. Juniperus virginiana 0 0 5. 0 0 0 6. 0 0 0 7. 0 0 0 7. 0 0 0 7. 0 0 0 7. 0 0 0 7. 0 0 0 7. 0 0 0 7. 0 0 0 7. 0 0 0 0 7. 0 0 0 0 7. 0 0 0 0 0 8. 0 0 0 0 0 9. 0 0 <	40.0% 20.0% 20.0% 20.0% 0.0% 0.0% 0.0% 0.	FAC FAC FACU FACU	OBL species0x 1 =0FACW species0x 2 =0FAC species98x 3 =294FACU species20x 4 =80UPL species0x 5 =0Column Totals:118(A)374Hydrophytic Vegetation Indicators:I1 - Rapid Test for Hydrophytic VegetationI2 - Dominance Test is > 50%3 - Prevalence Index is $\leq 3.0^{1}$ Problematic Hydrophytic Vegetation 1 (Explain)1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
Sapling or Sapling /Shrub Stratum (Plot size: 30) . Acer rubrum 20 . 2 Liquidambar styracifiua 10 . 3 Ulmus americana 10 . 4 Juniperus virginiana 10 . 5 0 . 0 . 6 0 . 0 . 7 0 . 0 . 6 0 . 0 . 7 0 . 0 . 8 0 . 0 . 9 0 . 0 .	40.0% 20.0% 20.0% 0.0% 0.0% 0.0% 0.0% 0.0	FAC FAC FACU FACU	FACW species0x 2 =0FAC species98x 3 =294FACU species20x 4 =80UPL species0x 5 =0Column Totals:118(A)374Prevalence Index = B/A =3.169Hydrophytic Vegetation Indicators:1 - Rapid Test for Hydrophytic Vegetation			
Acer rubrum 20 ✓ 2. Liquidambar styraciflua 10 ✓ 3. Ulmus americana 10 ✓ 4. Juniperus virginiana 0 □ 5. 0 □ 0 □ 6. 0 □ 0 □ 7. 0 □ 0 □ 7. 0 □ 0 □ 7. 0 □ 0 □ 7. 0 □ 0 □ 7. 0 □ 0 □ 7. 0 □ 0 □ 7. 0 □ □ □ 7. 0 □ □ □ 7. 0 □ □ □ 7. 0 □ □ □ 9. 0 □ □ □ 9. 0 □ □ □ 9. 0 □ □ □	20.0% 20.0% 20.0% 0.0% 0.0% 0.0% 0.0% 0.	FAC FACU FACU FACU FAC FAC FAC FAC	FAC speciles 98 x 3 = 294 FACU speciles 20 x 4 = 80 UPL speciles 0 x 5 = 0 Column Totals: 118 (A) 374 (B)Prevalence Index = $B/A =$ 3.169 Hydrophytic Vegetation Indicators:11 - Rapid Test for Hydrophytic Vegetation			
Liquidambar styraciflua 10 ✓ Juniperus virginiana 10 ✓ Juniperus virginiana 10 ✓ Juniperus virginiana 0 0 Summericana 0 0 Summericana 10 ✓ Summericana 10 ✓ Acer rubrum 10 ✓ Liquidambar styraciflua 5 ✓ Liquidambar styraciflua 5 ✓ Liquidambar styraciflua 0 0 Juniperus (Plot size:) 0 0 Juniperus (Plot size:) 0 0 Juniperus (Plot size: 0 0 0 Juniperus (Plot size:	20.0% 20.0% 20.0% 0.0% 0.0% 0.0% 0.0% 0.	FAC FACU FACU FACU FAC FAC FAC FAC	 FACU species 20 x 4 = 80 UPL species 0 x 5 = 0 Column Totals: 118 (A) 374 (B) Prevalence Index = B/A = 3.169 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). 			
Ulmus americana 10 Image: second	20.0% 20.0% 0.0% 0.0% 0.0% 0.0% 0.0% 40.0% 20.0% 0.0% 0.0% 0.0% 0.0%	FAC FACU FAC FAC FAC FAC	UPL species 0 x 5 = 0 Col umn Total s: 118 (A) 374 (B) Prevalence Index = B/A = 3.169 Hydrophytic Vegetation Indicators: 1 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. Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
Juniperus virginiana 10 \checkmark . . 0 . . . 0 . . . 0 . . . 0 . . . 0 . . . 0 . . . 0 . . . 0 0 0 0 0 0 0 <td>20.0% 0.0% 0.0% 0.0% 0.0% 0.0% 40.0% 20.0% 0.0% 0.0% 0.0% 0.0% 0.0%</td> <td>FACU FAC FAC FAC FAC</td> <td>Col umn Total s: <u>118</u> (A) <u>374</u> (B) Prevalence Index = $B/A = 3.169$ Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is $\leq 3.0^{1}$ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).</td>	20.0% 0.0% 0.0% 0.0% 0.0% 0.0% 40.0% 20.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACU FAC FAC FAC FAC	Col umn Total s: <u>118</u> (A) <u>374</u> (B) Prevalence Index = $B/A = 3.169$ Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is $\leq 3.0^{1}$ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
. .	0.0% 0.0% 0.0% 0.0% 0.0% 40.0% 20.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC FAC FAC	Prevalence Index = B/A =			
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3. 0 0 50% of Total Cover: 25 20% of Total Cover: 10 50 = To Shrub Stratum (Plot size: 30) 10 \checkmark 2. Acer rubrum 10 \checkmark \checkmark 0 \bigcirc 3. Llquidambar styracifiua 5 \checkmark \bigcirc 0 \bigcirc 5. . 0 0 0 0 0 0 5. . . 0 <	0.0% otal Cover 40.0% 20.0% 0.0% 0.0% 0.0% otal Cover	FAC FAC FAC	 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. Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). 			
50% of Total Cover: 25 20% of Total Cover: 10 50 = To Shrub Stratum (Plot size: 30) 10 \checkmark . Ilex vomitoria 10 \checkmark 10 \checkmark . Acer rubrum 10 \checkmark 10 \checkmark . Liquidambar styracifilua 5 \checkmark . 0 0 . . 0 0 . . . 0 0 .<	40.0% 40.0% 20.0% 0.0% 0.0% 0.0% 0.0% otal Cover	FAC FAC FAC	 ✓ 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. Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). 			
Shrub Stratum (Plot size: 30) Ilex vomitoria 10 Acer rubrum 10 Liquidambar styracifilua 5 Liquidambar styracifilua 5 . 0 .	40.0% 40.0% 20.0% 0.0% 0.0% 0.0% otal Cover	FAC FAC FAC	 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. Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). 			
Ilex vomitoria 10 Image: Acer rubrum 10 Image: Acer rubrum 10 Image: Acer rubrum 10 Image: Acer rubrum 10 Image: Acer rubrum 10 Image: Acer rubrum 5 Image: Acer rubrum 0 Image: Acer rubrum 11 Image: Acer rubrum 0 Image: Acer rubrum 0 Image: Acer rubrum 5 Image: Acer rubrum 0 Image: Acer rubrum 0 Image: Acer rubrum 5 Image: Acer rubrum 0 Image: Acer rubrum 0 Image: Acer rubrum 5 Image: Acer rubrum 0 Image: Acer rubrum 0 Image: Acer rubrum 5 Image: Acer rubrum 0 Image: Acer rubrum 0 Image: Acer rubrum 6 Image: Acer rubrum 0 Image: Acer rubrum 0 Image: Acer rubrum 7 Image: Acer rubrum 0 Image: Acer rubrum 0 Image: Acer rubrum 9 Image: Acer rubrum 0 Image: Acer rubrum 0 Image: Acer rubrum	40.0% 20.0% 0.0% 0.0% 0.0% otal Cover	FAC FAC	 Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). 			
Acer rubrum 10 \checkmark Liquidambar styraciflua 5 \checkmark . 0 0 .	40.0% 20.0% 0.0% 0.0% 0.0% otal Cover	FAC FAC	 ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). 			
Iquidambar styraciflua 5 \checkmark	20.0% 0.0% 0.0% 0.0% otal Cover	FAC	be present, unless disturbed or problematic. Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
Image: statum of the stratum of th	0.0% 0.0% 0.0%		be present, unless disturbed or problematic. Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
0 0	0.0% 0.0% otal Cover		Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
0 0 50% of Total Cover: 12.5 20% of Total Cover: 5 25 = To Herb Stratum (Plot size:)) 1 0 2. 0 0 0 3. 0 0 0 4. 0 0 0 5. 0 0 0 6. 0 0 0 9. 0 0 0	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
50% of Total Cover: 12.5 20% of Total Cover: 5 25 = Total Cover: Herb Stratum (Plot size:)) 1 0] 1. 0 0] 0]] 2. 0] 0]] 3. 0]]]] 4. 0]]]] 5. 0]]]] 6. 0]]]] 8. 0]]]] 9. 0]]]]	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:) 1. 0 2. 0 3. 0 4. 0 5. 0 6. 0 7. 0 8. 0 9. 0			(7.6 cm) or larger in diameter at breast height (DBH).			
1. 0 0 2. 0 0 3. 0 0 4. 0 0 5. 0 0 6. 0 0 7. 0 0 8. 0 0 9. 0 0	0.0%		Copling Woody plants evaluating was the start			
2. 0 3. 0 4. 0 5. 0 6. 0 7. 0 8. 0 9. 0	0.0%		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.			
3. 0 4. 0 5. 0 6. 0 7. 0 8. 0 9. 0						
4. 0 5. 0 6. 0 7. 0 8. 0 9. 0	0.0%					
5. 0 0 6. 0 0 7. 0 0 8. 0 0 9. 0 0	0.0%					
6 0 □ 7 0 □ 8 0 □ 9 0 □	0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.			
7 0	0.0%					
8 <u>o</u> 9 <u>o</u>	0.0%		Shrub - Woody plants, excluding woody vines,			
90	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.			
	0.0%		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.			
0						
	0.0%					
1 <u>0</u> 20	0.0%					
	otal Cover		Woody vine - All woody vines, regardless of height.			
Woody Vine Stratum (Plot size: 30)						
Vitis rotundifolia 3	100.0%	FAC				
	0.0%					
	0.0%					
↓	0.0%					
5 0 🗌			Hydrophytic			
50% of Total Cover: <u>1.5</u> 20% of Total Cover: <u>0.6</u> <u>3</u> = To	0.0%		Vegetation Present? Yes • No O			

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth Matrix Redox Features										
(inches)	Color (moist)	%	Color (moist)	_%	_Tvpe ¹	Loc ²	Texture	Remarks	
0-2	10YR	6/3	100					Silt Loam		
2-20	10YR	6/4	100					Silt Loam		
				·						
	<u>.</u>	-							· · · · · · · · · · · · · · · · · · ·	
				·	_ ,					
		-			-					
				·						
1 T 0 0										
Hydric Soil I		=Depletior	n. RM=Red	uced Matrix, CS=Covere	d or Coate	d Sand Grai	ns ² Loca	tion: PL=Pore Lining. M		
						((_	oblematic Hydric Soils ³ :	
	•			Polyvalue Belo				1 cm Muck (A9) (LRR O)	
	bedon (A2)			Thin Dark Sur)	2 cm Muck (A1		
Black Hist				Loamy Mucky				Reduced Vertic	: (F18) (outside MLRA 150A,B)	
	Sulfide (A4)			Loamy Gleyed)		Piedmont Floor	dplain Soils (F19) (LRR P, S, T)	
	Layers (A5)			Depleted Mati				Anomalous Brig	ght Loamy Soils (F20) (MLRA 153B)	
	odies (A6) (L			Redox Dark S				Red Parent Ma	terial (TF2)	
	ky Mineral (A		, T, U)	Depleted Dark	Surface (F	7)		Very Shallow D	ark Surface (TF12)	
	sence (A8) (L			Redox Depres				Other (Explain	in Remarks)	
	k (A9) (LRR			🗌 Marl (F10) (LF	RR U)					
	Below Dark S		1)	Depleted Och	ric (F11) (N	ILRA 151)				
	k Surface (A1	•		Iron-Mangane	se Masses	(F12) (LRR	O, P, T)			
Coast Prairie Redox (A16) (MLRA 150A)										
Sandy Muck Mineral (S1) (LRR O, S)							3			
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)						I50B)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,			
Sandy Re	dox (S5)			Piedmont Floo	dplain Soils	s (F19) (ML	RA 149A)	unless disturbed or problematic.		
Stripped M	Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)									
Dark Surfa	ace (S7) (LRI	R Ρ, S, T, l	J)							
Restrictive L	aver (if obs	erved).								
Type:	5	-								
•••					_			Hydric Soil Present	? Yes 🔾 No 🖲	
Depth (incl	nes):							5		
Remarks:										



Photo 29: Plot #8, Soil Sample



Photo 30: Plot #8, Vegetation facing



Photo 31: Plot #8, Vegetation facing east



Photo 32: Plot #8, Vegetation facing west



Photo 33: OW-1