# **EXHIBIT 11- WETLANDS DELINEATION**

(Full Report)

# Pittman Environmental Services, LLC

P.O. Box 1926 • Purvis, MS 39475 • Phone: 601-297-2487

Preliminary Wetland Delineation England Site W2 Approximately 866.8 Acres Rapides Parish, Louisiana February 12, 2015

### INTRODUCTION

At the request of the Pan American Engineers, a preliminary wetland delineation has been conducted for approximately 866.8 acres located in Sections 39, 71, 72, & 73, Township 4 North, Range 2 West, Rapides Parish Louisiana. The site is bound by Big Bayou to the north and Bayou Rapides to the south. The site is bound by Jimmy Brown Road to the east. A recent Jurisdictional Determination (MVK-2013-00204-SC) has been made for property east of Jimmy Brown Road. The center coordinates of the site are 31.337731, -92.576416. The attached maps depict the exact location and extent of the approximately 866.8 acre site. This report will describe the results of a preliminary wetland delineation conducted for the said property to determine the presence and approximate extent of jurisdictional wetlands and "waters of the U.S." as defined in Section 404 of the Clean Water Act. The onsite wetland delineation was conducted by Mr. Bart Pittman on January 20, 2015.

# SITE DESCRIPTION

The ±866.8 acre site is comprised of one contiguous parcel. The ±866.8 acre parcel is bound by Big Bayou to the north and Bayou Rapides to the south. The entire ±866.8 acre site has been used as crop land for 50+ years. The majority of last year's row crop appears to have been cotton. The row crop fields are well drained by a series of swales, farm ditches, and roadside ditches. Jimmy Brown Road bounds the site to the east. Rapides Station Road transects the western limits of the site. The site is nearly level to slightly sloping. The NRCS Web Soil Survey indicates the primary soil units within the site as Moreland Clay (MnA) and Coushatta silt loam (Nw), both non-hydric soil types. Pictures (Attachment 2) depict the current site conditions.

### **METHODOLOGY & RESULTS**

Methods utilized for identifying and delineating wetlands follow procedures outlined in Part IV of the "Corps of Engineers Wetlands Delineation Manual" dated January 1987 and the Atlantic/Gulf Cost Plain Regional Supplement. Wetland Delineation Data Forms (Atlantic and Gulf Cost Plain Region) were completed for each vegetative community represented within the property. These attached data forms (**Attachment 3**) provide a listing of parameters/indicators to differentiate jurisdictional wetlands from non-wetlands. The completed forms confirm the

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presence or absence of the three required wetland criteria; hydrophytic vegetation, wetland hydrology, and hydric soils. The approximate location of each data point is shown on the attached preliminary wetland delineation map, (**Attachment 1**).

The ±866.8 acre site is comprised of row crop farm land that was most recently planted with cotton. This area has been used as row crop for at least 50+ years. The northern portions of the site are comprised of Moreland clay while the southern limits of the site exhibited a silty loam texture. A series of ditches and swales have been constructed to remove storm-water from the crop land. The drainage ditches appear to be active for only brief periods following heavy rain events. No jurisdictional wetlands were delineated within the row crop. Any wetlands that may have been historically present have been converted by decades of row crop farming and drainage improvements.

Approximately 3,296 linear feet of Big Bayou is located along the northern limits of the site. Big Bayou is mostly open channel with areas of vegetated shelves and fringe wetlands. The vegetated wetland areas are located below the ordinary high water mark and subject to frequent flooding. Big Bayou and its associated fringe wetlands comprise approximately 4.74 acres of the delineated area. No wetlands were delineated above the top-bank of Big Bayou. One intermittent stream transects the site for approximately 1,256 linear feet. This stream flows into Big Bayou at the northwest limits of the site. This stream has been historically disturbed by realignment. No riparian buffers exist to this stream within the site and one existing crossing was observed.

## **SUMMARY**

Based upon careful review of all available data and an onsite inspection, jurisdictional areas within the site include approximately 3,296 LF/4.74 acres of Big Bayou/fringe wetland, and approximately 1,256 LF of intermittent stream. No jurisdictional wetland was delineated above the top-bank of Big Bayou. The attached wetland delineation data forms (**Attachment 3**) confirm the conclusion of the preliminary study, indicating the presence or absence of sufficient wetland criteria at each data point. The location of delineated areas and of the data points are shown on the preliminary wetland delineation maps, **Attachment 1**.

This wetland delineation is preliminary and should not be interpreted as a final determination. The responsibility of a final wetland determination is that of the U.S. Army Corps of Engineers, New Orleans District.

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Please call (601)-297-2487 if you have any questions or need additional information regarding this study.

Sincerely,

Bart A. Pittman

**Environmental Specialist** 

Pittman Environmental Services, LLC

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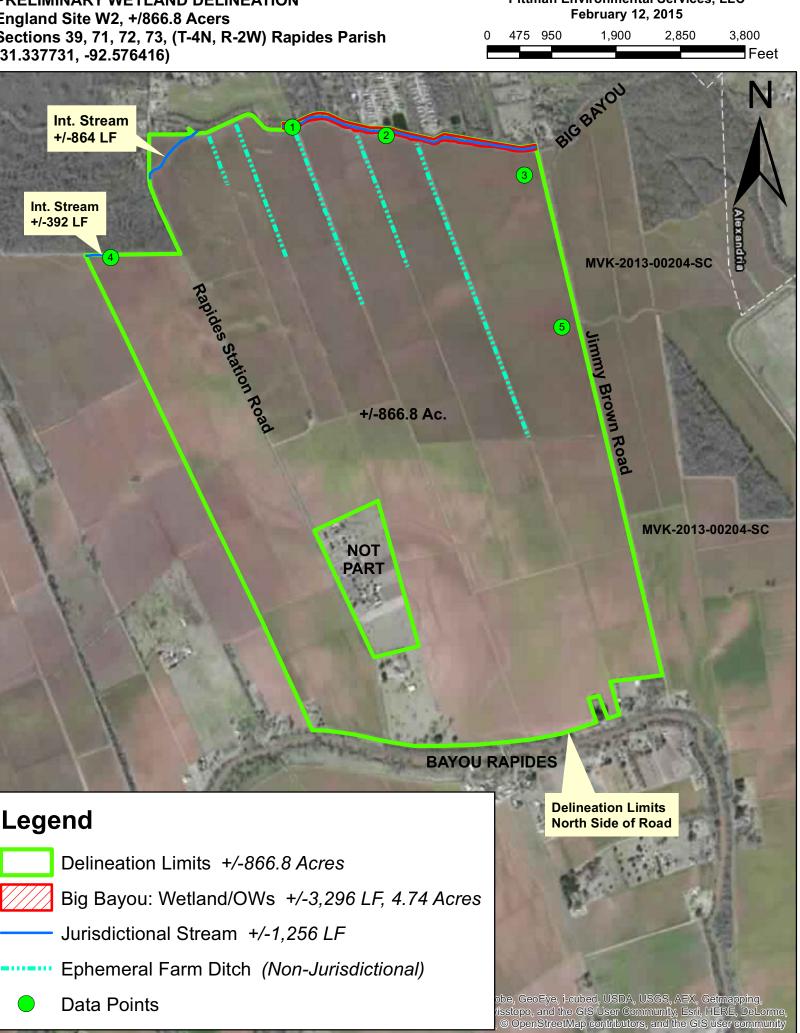
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# **ATTACHMENT 1 MAPS**



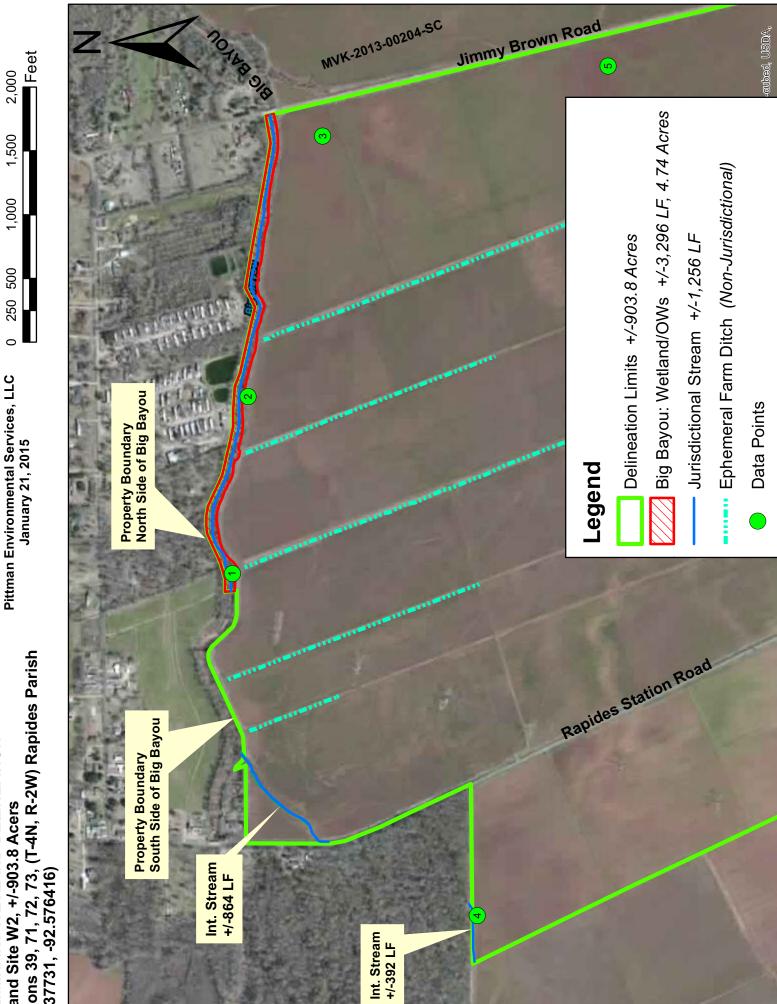
PRELIMINARY WETLAND DELINEATION England Site W2, +/866.8 Acers Sections 39, 71, 72, 73, (T-4N, R-2W) Rapides Parish (31.337731, -92.576416)

# Pittman Environmental Services, LLC February 12, 2015





# Sections 39, 71, 72, 73, (T-4N, R-2W) Rapides Parish (31.337731, -92.576416) PRELIMINARY WETLAND DELINEATION England Site W2, +/-903.8 Acers





Pittman Environmental Services, LLC PRELIMINARY WETLAND DELINEATION February 12, 2015 England Site W2, +/866.8 Acers Sections 39, 71, 72, 73, (T-4N, R-2W) Rapides Parish 1,900 475 950 2,850 3,800 Feet (31.337731, -92.576416) Int. Stream +/-864 LF Int. Stream +/-392 LF MVK-2013-00204-SC +/-866.8 Ac\_\_\_\_ MVK-2013-00204-SC NOT **PART** BAYOU RAPIDE **Delineation Limits** Legend North Side of Road Mobile Hor Delineation Limits +/-866.8 Acres Big Bayou: Wetland/OWs +/-3,296 LF, 4.74 Acres Jurisdictional Stream +/-1,256 LF

onal Geographic Society, i-cubed, Source: Esri, DigitalGlobe, DA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, imunity, Esri, HERE, DeLorme, TomTom, MapmyIndia, © butors, and the GIS user community

Ephemeral Farm Ditch (Non-Jurisdictional)

**Data Points** 





# MAP LEGEND

# Interstate Highways Aerial Photography Major Roads Local Roads US Routes Rails **Transportation** Background ŧ Not rated or not available Area of Interest (AOI) Hydric (66 to 99%) Hydric (33 to 65%) Hydric (1 to 32%) Not Hydric (0%) Hydric (100%) Soil Rating Polygons Area of Interest (AOI)

# MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

http://websoilsurvey.nrcs.usda.gov Source of Map: Natural Resources Conservation Service Coordinate System: Web Mercator (EPSG:3857) Web Soil Survey URL:

Albers equal-area conic projection, should be used if more accurate distance and area. A projection that preserves area, such as the Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Version 10, Sep 26, 2014 Rapides Parish, Louisiana Survey Area Data: Soil Survey Area:

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 12, 2011—Mar 15, 2011

imagery displayed on these maps. As a result, some minor shifting The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background of map unit boundaries may be evident.

Not rated or not available

Hydric (66 to 99%) Hydric (33 to 65%)

Hydric (100%)

Soil Rating Points

Hydric (1 to 32%)

Not Hydric (0%)

Hydric (66 to 99%) Hydric (33 to 65%)

Hydric (100%)

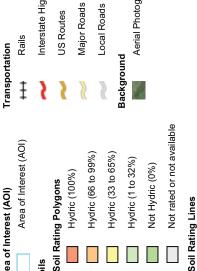
Hydric (1 to 32%)

Not Hydric (0%)

# Water Features

Not rated or not available

Streams and Canals



USDA

# **Hydric Rating by Map Unit**

Hydric Rating by Map Unit— Summary by Map Unit — Rapides Parish, Louisiana (LA079)					
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI	
Lc	Latanier clay, 0 to 1 percent slopes, rarely flooded	1	6.6	0.7%	
MnA	Moreland clay, 0 to 1 percent slopes, rarely flooded	1	505.0	54.3%	
Nd	Coushatta silt loam, 0 to 1 percent slopes	1	315.2	33.9%	
Nw	Coushatta silty clay loam, 0 to 1 percent slopes	1	103.6	11.1%	
Totals for Area of Inter	rest	'	930.4	100.0%	



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# **ATTACHMENT 2 SITE PHOTOGRAPHS**





Big Bayou, facing west from Jimmy Brown Road



Big Bayou facing north

Pittman Environmental	PROJECT:	
Services, LLC	Proposed W-2 Site, Rapides Parish Louisiana	
Scrvices, LLC	TITLE:	PHOTOS
	SITE PHOTOGRAPHS	1-2



Intermittent stream, facing northeast from Rapides Station Road



Intermittent stream/culvert at Rapides Station Road

Pittman Environmental	Proposed W-2 Site. Rapides Parish Louisiana	
Services, LLC	Proposed w-2 Site, Rapides Parish Louisiana	
Dervices, Elec	TITLE:	PHOTOS
	SITE PHOTOGRAPHS	3-4



Delineated wetland at DP-1, silted in portion of Big Bayou



Data Point #1 facing outfall/culvert from ditch

Pittman Environmental	PROJECT:	
Services, LLC	Proposed W-2 Site, Rapides Parish Louisiana	
Scrvices, LLC	TITLE:	PHOTOS
	SITE PHOTOGRAPHS	5-6



Delineated non-wetland adjacent to Big Bayou, DP-2



Soil matrix at DP-2 (Non-Hydric)

Pittman Environmental	PROJECT:		
Services, LLC	Proposed W-2 Site, Rapides Parish Louisiana		
Scrvices, LLC	TITLE:	PHOTOS	
	SITE PHOTOGRAPHS	7-8	



Eastern-most farm ditch facing south from outfall



Western-most farm ditch facing south from outfall

Pittman Environmental
Services, LLC

PROJECT:

Proposed	W-2 Site	Ranides	Parish	Lon

IIILE.	1110103
SITE PHOTOGRAPHS	9-10



Culvert at Farm Ditch/Big Bayou



Facing southwest from JimmyBrown Raod at Big Bayou

Pittman Environmental
Services, LLC

PROJECT:

Proposed W-2 Sit	e Ranides	Parish I	Onisiana

TITLE: PHOTOGRAPHS PHOTOS

SITE PHOTOGRAPHS 11-12



Facing south from DP-4



Facing north from Bayou Rapides Road

Pittman Environmental
Services, LLC

PROJECT:

Proposed	W-2 Site.	Rapides	Parish 1	Louisian

TITLE: PHOTOGRAPHS PHOTOS

13-14



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# **ATTACHMENT 3 DATA FORMS**



# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: +/-907 Acres W-2 Site	City/County: Alexan	dria/Rapides	Sampling Date: 01/20/2015			
Applicant/Owner: England Economic & Industrial De			Sampling Point: Data Point 1			
Investigator(s): B. Pittman	Range: Section 72 T-4N,					
Landform (hillslope, terrace, etc.): Fringe Wetland/Shelf						
Subregion (LRR or MLRA):	Lat: 31.347482					
Soil Map Unit Name: Moreland clay (MnA)		NWI classifi				
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes No	(If no, explain in F	Remarks.)			
Are Vegetation, Soil, or Hydrology	_ significantly disturbed? Are	e "Normal Circumstances"	present? Yes No			
Are Vegetation, Soil, or Hydrology	_ naturally problematic? (If	needed, explain any answe	ers in Remarks.)			
SUMMARY OF FINDINGS – Attach site ma						
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?  Remarks:  Data Point taken within banks of Big	No within a Wetl	and? Yes <u>√</u>	nent deposit. Data			
Point below outfall of farm ditch.	, ,	,	,			
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)			
Primary Indicators (minimum of one is required; check a	all that apply)	Surface Soil	Cracks (B6)			
Surface Water (A1) Aqua	tic Fauna (B13)	Sparsely Ve	Sparsely Vegetated Concave Surface (B8)			
	Deposits (B15) (LRR U)	Drainage Pa	atterns (B10)			
	ogen Sulfide Odor (C1)	Moss Trim L	, ,			
	zed Rhizospheres along Living Roo		Water Table (C2)			
	ence of Reduced Iron (C4)	Crayfish Bu	` '			
✓ Drift Deposits (B3) Rece	nt Iron Reduction in Tilled Soils (C6		Saturation Visible on Aerial Imagery (C9)			
	Muck Surface (C7)	✓ Geomorphic				
	r (Explain in Remarks)	Shallow Aqu	` '			
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutra				
Water-Stained Leaves (B9)		Sphagnum i	moss (D8) (LRR T, U)			
Field Observations:						
	Depth (inches):					
Water Table Present? Yes No I						
Saturation Present? Yes   ✓ No I (includes capillary fringe)	Depth (inches): surafce	Vetland Hydrology Prese	nt? Yes No			
Describe Recorded Data (stream gauge, monitoring we	II, aerial photos, previous inspection	ns), if available:				
Remarks:						
Vegetated shelf below the OHWM, fi	requently flooded.					

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

30

25

yes

yes

FAC

<u>Tree Stratum</u> (Plot size: \_\_\_\_\_)

1. Celtis laevigata

2. Nyssa sylvatica

DP-1 Sampling Point: Absolute Dominant Indicator Dominance Test worksheet: % Cover Species? Status Number of Dominant Species FACW That Are OBL, FACW, or FAC: \_ (A) Total Number of Dominant Species Across All Strata: (B) Percent of Dominant Species 100 That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by:

	55	_ = Total C	Cover	-	x 1 =	
50% of total cover:				FACW species	x 2 =	
Sapling/Shrub Stratum (Plot size:)		0. 1012. 00		FAC species	x 3 =	
1 Sapium sebiferum	10	yes	FAC	FACU species	x 4 =	
2.		_		UPL species	x 5 =	
3				Column Totals: 0	(A) (B)	
5 4		_		-		
		_	_		= B/A =	
5				- Hydrophytic Vegetation		
6				-   <u>✓</u> 1 - Rapid Test for Hy		
7				-   <u>✓</u> 2 - Dominance Test		
8	10			-   📙 3 - Prevalence Index		
E00/ -54-4-1		= Total C		Problematic Hydroph	rytic Vegetation¹ (Explain)	
50% of total cover:	20%	of total cov	/er:	-		
Herb Stratum (Plot size:)	15	VOC	FAC	<sup>1</sup> Indicators of hydric soil a	and wetland hydrology must	
1. Carex spp. 2. Smilax bona-nox	$-\frac{13}{3}$	yes	FAC	be present, unless distur		
		yes		_ Definitions of Four Veg	etation Strata:	
3					cluding vines, 3 in. (7.6 cm) or	
4					st height (DBH), regardless of	
5				height. -		
6					plants, excluding vines, less	
7				than 3 in. DBH and great	er than 3.28 ft (1 m) tall.	
8					on-woody) plants, regardless	
9				of size, and woody plants less than 3.28 ft tall.		
10				-   Woody vine - All woody	vines greater than 3.28 ft in	
11	_	_	_	height.	•	
12				_		
	18	= Total C	Cover			
50% of total cover:	20%	of total cov	/er:	_		
Woody Vine Stratum (Plot size:)						
1				_		
2				_		
3				_		
4.						
5				-   -   Hydrophytic		
J.	0	= Total C	 Cover	Vegetation		
<u> </u>				Present? Yes		
5.0% of total cover:		of total cov	/er·	Fleseit! Tes	No L	

DP-1

Sampling Point: \_

SOIL

Profile Desc	ription: (Describe	to the dept	h needed to docu	ment the	indicator	or confirm	n the absence o	of indicators.)
Depth	Matrix		Rede	ox Feature	es			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-18	5 YR 4/3	90%	5 YR 4/2	7%	U	IVI	clay	
				_				
				_				_
								_
<sup>1</sup> Type: C=Co	oncentration, D=Dep	oletion. RM=	Reduced Matrix. M	S=Maske	d Sand Gr	ains.	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.
	ndicators: (Applic							or Problematic Hydric Soils <sup>3</sup> :
Histosol			Polyvalue B			DD C T I		uck (A9) (LRR O)
	ipedon (A2)		Thin Dark S		. , .		· —	uck (A10) (LRR S)
				•				, , , ,
Black Hi	. ,		Loamy Mucl			( U)		d Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gley		(FZ)			nt Floodplain Soils (F19) (LRR P, S, T)
	l Layers (A5)	. T	Depleted Ma	` '	FC)			ous Bright Loamy Soils (F20)
	Bodies (A6) (LRR F		Redox Dark		,		,	A 153B)
	cky Mineral (A7) (L		Depleted Da					rent Material (TF2)
	esence (A8) (LRR L	J)	Redox Depr	*	∙გ)			allow Dark Surface (TF12)
	ck (A9) (LRR P, T)		Marl (F10) (				Other (E	Explain in Remarks)
	l Below Dark Surfac	ce (A11)	Depleted Oc		-		2	
	rk Surface (A12)		Iron-Mangar				•	tors of hydrophytic vegetation and
	airie Redox (A16) (		· <b>—</b>			r, U)		and hydrology must be present,
	lucky Mineral (S1) (	LRR O, S)	Delta Ochrid		-			ss disturbed or problematic.
	leyed Matrix (S4)		Reduced Ve					
	edox (S5)		Piedmont FI					
	Matrix (S6)		Anomalous	Bright Loa	my Soils (	(F20) <b>(MLF</b>	RA 149A, 153C, <i>1</i>	153D)
	face (S7) (LRR P,							
Restrictive I	.ayer (if observed)	:						
Туре:								
Depth (inc	ches):						Hydric Soil P	Present? Yes 🛂 No 🔲 📗
Remarks:								
Remarks.								

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: +/-907 Acres W-2 Site	City/County: Alexa	andria/Rapides	Sampling Date: 01/20/2015			
Applicant/Owner: England Economic & Industrial De			Sampling Point: Data Point 2			
	Section, Township					
Landform (hillslope, terrace, etc.): terrace						
Subregion (LRR or MLRA):						
Soil Map Unit Name: Moreland clay (MnA)		Long NWI classifi				
Are climatic / hydrologic conditions on the site typical for t						
Are Vegetation, Soil, or Hydrology			present? Yes No			
Are Vegetation, Soil, or Hydrology	_ naturally problematic? (	If needed, explain any answ	ers in Remarks.)			
SUMMARY OF FINDINGS - Attach site map	p showing sampling poi	nt locations, transect	s, important features, etc.			
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Remarks:  Yes  Yes	No within a We		No <u> </u>			
Data Point taken near the top bank o	f Big Bayou					
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)			
Primary Indicators (minimum of one is required; check a	II that apply)	Surface Soi	l Cracks (B6)			
Surface Water (A1) Aquat	ic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)				
	Deposits (B15) (LRR U)	Drainage Patterns (B10)				
I .	gen Sulfide Odor (C1)	Moss Trim Lines (B16)				
	zed Rhizospheres along Living R	Roots (C3) Dry-Season Water Table (C2)				
	nce of Reduced Iron (C4)	Crayfish Burrows (C8)				
	nt Iron Reduction in Tilled Soils (	(C6) Saturation Visible on Aerial Imagery (C9)				
<u> </u>	Muck Surface (C7)		Position (D2)			
	(Explain in Remarks)	Shallow Aq				
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	, ,			
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)			
Field Observations:						
	Depth (inches):					
	Depth (inches):		,			
Saturation Present? Yes No _ V C (includes capillary fringe)	Depth (inches):	Wetland Hydrology Prese	nt? Yes No _✓			
Describe Recorded Data (stream gauge, monitoring wel	I, aerial photos, previous inspect	ions), if available:				
Remarks:						
Area well drained.						
I .						

DP-2	
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<b>/EGETATION (Four Strata)</b> – Use scientific r	names of p	lants.		DP-2 Sampling Point:
		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Celtis laevigata	35	yes	FACW	That Are OBL, FACW, or FAC: 6 (A)
Quercus nigra	<u>15</u>	yes	<u>FAC</u>	Total Number of Dominant
3				Species Across All Strata: 6 (B)
4				Dereant of Deminent Species
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B
6				, ,
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
·		= Total Cov	·or	OBL species x 1 =
EOO/ of total action				FACW species x 2 =
50% of total cover:	20% 0	total cover		FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)	40		FAC	FACU species x 4 =
1. Cornus drummondii	10	yes	FAC	UPL species x 5 =
2				Column Totals: $0$ (A) $0$ (B)
3				Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6.				1 - Rapid Test for Hydrophytic Vegetation
7				
				2 - Dominance Test is >50%
8	40			3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cov		Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% of	total cover	:	
Herb Stratum (Plot size:)	_		<b>540</b>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Trifolium repens	_ 7	yes	FAC	be present, unless disturbed or problematic.
2. Solidago spp.	10	yes	FAC	Definitions of Four Vegetation Strata:
3. Rubus spp.	5	yes	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o
4				more in diameter at breast height (DBH), regardless of
5.				height.
6.				Sapling/Shrub – Woody plants, excluding vines, less
7		-		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
	22	= Total Cov	/er	
50% of total cover:	20% of	f total cover	:	
Woody Vine Stratum (Plot size:)				
2				
3				
4				
5				Hydrophytic
	0	= Total Cov	/er	Vegetation Vegetation
50% of total cover:	20% of	ftotal cover	:	Present? Yes No
Remarks: (If observed, list morphological adaptations be	elow).			
	,			
Edge of cotton field				

Sampling Point: \_\_\_\_

SOIL

Profile Desc	ription: (Describe	to the depth	needed to docur	nent the i	ndicator	or confirn	n the absence	of indicators.)
Depth	Matrix		Redo	x Features	5			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-18	5 YR 4/4	95%					clay	
							<u> </u>	
				. ——				
								_
<sup>1</sup> Type: C=Co	oncentration, D=Dep	oletion, RM=F	Reduced Matrix, M	S=Masked	Sand Gra	ains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
	ndicators: (Applic						Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol			Polyvalue Be			RRSTI		luck (A9) (LRR O)
	ipedon (A2)		Thin Dark Su				· —	luck (A10) (LRR S)
Black Hi			Loamy Muck	, ,			<del></del>	ed Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)					. 0,		ont Floodplain Soils (F19) (LRR P, S, T)
	` '		Loamy Gleye		1 4)			
	Layers (A5)	T 10	Depleted Ma	` '	·e)			lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR F		Redox Dark	•	*		•	RA 153B)
	cky Mineral (A7) (L		Depleted Date				_	arent Material (TF2)
	esence (A8) (LRR U	וי	Redox Depre	•	5)			hallow Dark Surface (TF12)
	ck (A9) (LRR P, T)	- (644)	Marl (F10) (L		(BALES :	F4.)	Other (	Explain in Remarks)
	Below Dark Surfac	e (A11)	Depleted Oc		-	-		
	rk Surface (A12)		Iron-Mangan				•	ators of hydrophytic vegetation and
	airie Redox (A16) (	•	_			, U)		and hydrology must be present,
	lucky Mineral (S1) (	LRR O, S)	Delta Ochric		-			ess disturbed or problematic.
	leyed Matrix (S4)		Reduced Ver					
	edox (S5)		Piedmont Flo					
	Matrix (S6)		Anomalous E	Bright Loar	ny Soils (	F20) (MLF	RA 149A, 153C,	153D)
	face (S7) (LRR P,							
Restrictive I	.ayer (if observed)	:						
Туре:			_					
Depth (inc	ches):						Hydric Soil	Present? Yes No V
Remarks:								
rtornarito.								

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: +/-907 Acres W-2 Site	City/County: Alexa	andria/Rapides	Sampling Date: 01/20/2015		
Applicant/Owner: England Economic & Industrial De			Sampling Point: Data Point 3		
Investigator(s): B. Pittman	Section, Township	, Range: Section 73, T-4N,	, R-2W		
, , , ,	Local relief (concar				
Subregion (LRR or MLRA):	Lat: 31.345921	Long:92.571848	Datum: NAD 83		
Soil Map Unit Name: Moreland clay (MnA)		NWI classific	cation: NA		
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes N	No (If no, explain in R	demarks.)		
Are Vegetation, Soil, or Hydrology	_ significantly disturbed?	Are "Normal Circumstances" p	present? Yes No		
Are Vegetation, Soil, or Hydrology	_ naturally problematic?	(If needed, explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS – Attach site ma	p showing sampling poi	nt locations, transects	, important features, etc.		
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes Remarks:	No	•	No <u></u>		
Data Point taken within northern limit	ts of cotton field.				
HYDROLOGY					
Wetland Hydrology Indicators:			ators (minimum of two required)		
Primary Indicators (minimum of one is required; check a		Surface Soil			
	tic Fauna (B13)		getated Concave Surface (B8)		
	Deposits (B15) (LRR U)	Drainage Pa			
	ogen Sulfide Odor (C1) zed Rhizospheres along Living R	Moss Trim Li			
	ence of Reduced Iron (C4)		Season Water Table (C2) ish Burrows (C8)		
	nt Iron Reduction in Tilled Soils (		isible on Aerial Imagery (C9)		
	Muck Surface (C7)		Position (D2)		
	r (Explain in Remarks)	Shallow Aqu	` '		
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral			
Water-Stained Leaves (B9)		Sphagnum n	noss (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):	Wetland Hydrology Preser	nt? Yes No		
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring we	ll, aerial photos, previous inspect	tions), if available:			
Pomorko:					
Remarks:  Area well drained by farm ditch.					

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

Sampling Point: \_\_\_\_\_

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species	
1				That Are OBL, FACW, or FAC: $\frac{0}{}$ (A)	
2				Total Niveshan of Dansin and	
3.				Total Number of Dominant Species Across All Strata:  (B)	
4.				(b)	
				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC:	3)
6				Prevalence Index worksheet:	_
7				Total % Cover of: Multiply by:	
8					
	0	= Total Co	er er	OBL species x 1 =	
50% of total cover:	20% c	of total cover	:	FACW species x 2 =	
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =	
				FACU species x 4 =	
1				UPL species x 5 =	
2				Column Totals: 0 (A) 0 (B	3)
3				(-)	′
4				Prevalence Index = B/A =	
5				Hydrophytic Vegetation Indicators:	_
6	_			1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8.				1 <b>=</b> .	
	•	= Total Cov		3 - Prevalence Index is ≤3.0¹	
EOO/ of total account		_		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
50% of total cover:	20% 0	or roral cover	·		
Herb Stratum (Plot size:)	40		LIDI	<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
1. Lamium amplexicaule	10	yes	UPL	be present, unless disturbed or problematic.	
2. Cotton field/bare ground				Definitions of Four Vegetation Strata:	
3	_			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of	or
4				more in diameter at breast height (DBH), regardless of	
5.				height.	
6.				On the color of th	
				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.	ì
7				diano in Berrana greater than e.25 it (1 m) tan	
8				Herb - All herbaceous (non-woody) plants, regardles	S
9				of size, and woody plants less than 3.28 ft tall.	
10				Woody vine – All woody vines greater than 3.28 ft in	
11	_			height.	
12					
	10	= Total Cov	er		
50% of total cover:	20% c	- of total cover			
Woody Vine Stratum (Plot size:)					
1					
2					
3	_				
4					
5				Hydrophytic	
	0	= Total Cov	⁄er	Vegetation	
50% of total cover:	20% (	- of total cover		Present? Yes No V	
Remarks: (If observed, list morphological adaptations bel			·		
Remarks: (II observed, list morphological adaptations bei	OW).				
Cotton Field					

SOIL

Sampling Point: DP-3

	n needed to document the	o inidicator or commi	n the absence o	i iliulcators.)
Depth Matrix	Redox Featur	res		
(inches) Color (moist) %	Color (moist) %	Type <sup>1</sup> Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-18 5 YR 4/4 90%			clay	
1			2	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=				PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all L				or Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Polyvalue Below Sur	face (S8) <b>(LRR S, T, l</b>		ıck (A9) (LRR O)
Histic Epipedon (A2)	Thin Dark Surface (S	89) (LRR S, T, U)	2 cm Mu	ick (A10) (LRR S)
Black Histic (A3)	Loamy Mucky Minera	al (F1) <b>(LRR O)</b>		d Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix	(F2)	Piedmoi	nt Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F3)			ous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface	' '	,	A 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted Dark Surface			rent Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depressions	(F8)	Very Sh	allow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	Marl (F10) (LRR U)		Other (E	xplain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (F1	1) <b>(MLRA 151)</b>		
Thick Dark Surface (A12)	Iron-Manganese Mas	sses (F12) (LRR O, P,	, <b>T</b> ) <sup>3</sup> Indica	tors of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A)	Umbric Surface (F13	) (LRR P, T, U)	wetla	nd hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17) (N	/ILRA 151)	unles	ss disturbed or problematic.
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18	) (MLRA 150A, 150B)	)	
Sandy Redox (S5)	Piedmont Floodplain	Soils (F19) (MLRA 14	19A)	
Stripped Matrix (S6)	Anomalous Bright Lo	amy Soils (F20) <b>(MLR</b>	RA 149A, 153C,	153D)
Dark Surface (S7) (LRR P, S, T, U)				
Restrictive Layer (if observed):				
Type:				
L Depth (inches):			Hydric Soil F	Present? Yes No 🗸
Depth (inches):			Hydric Soil F	Present? Yes No V
Depth (inches):Remarks:	<u> </u>		Hydric Soil F	Present? Yes No V
	<del>-</del>		Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V
			Hydric Soil F	Present? Yes No V

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: +/-907 Acres W-2 Site	City/County: Alex	andria/Rapides	_ Sampling Date: 01/20/2015		
Applicant/Owner: England Economic & Industrial D			Sampling Point: Data Point 4		
Investigator(s): B. Pittman	Section, Township				
	Local relief (conca				
Subregion (LRR or MLRA):					
Soil Map Unit Name: Moreland clay (MnA)		NWI classifi			
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes				
Are Vegetation, Soil, or Hydrology	-		present? Yes✓ No		
Are Vegetation, Soil, or Hydrology		(If needed, explain any answe			
SUMMARY OF FINDINGS - Attach site ma					
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes Remarks: Data Point taken within western limi	No within a W	/etland? Yes	No_ <u>√</u> e		
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)		
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil	l Cracks (B6)		
Surface Water (A1) Aqu	atic Fauna (B13)	Sparsely Ve	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2) Marl	Deposits (B15) (LRR U)	Drainage Pa	atterns (B10)		
Saturation (A3) Hyde	rogen Sulfide Odor (C1)	Moss Trim L	Moss Trim Lines (B16)		
Water Marks (B1) Oxid	lized Rhizospheres along Living I	Roots (C3) Dry-Season	Water Table (C2)		
Sediment Deposits (B2) Pres	sence of Reduced Iron (C4)	Crayfish Bu	rrows (C8)		
	ent Iron Reduction in Tilled Soils	(C6) Saturation V	Saturation Visible on Aerial Imagery (C9)		
	Muck Surface (C7)		Position (D2)		
	er (Explain in Remarks)	Shallow Aqu			
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	` '		
Water-Stained Leaves (B9)		Sphagnum r	moss (D8) (LRR T, U)		
Field Observations:					
	Depth (inches):				
Water Table Present? Yes No✓					
Saturation Present? Yes No No	Depth (inches):	Wetland Hydrology Prese	nt? Yes No		
Describe Recorded Data (stream gauge, monitoring w	ell, aerial photos, previous inspec	tions), if available:			
Remarks:					
Area well drained.					

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

DP-4 Sampling Point: Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: \_\_\_\_\_) % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: \_ (B) Percent of Dominant Species (A/B) That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species \_\_\_\_\_ x 1 = \_\_\_\_ 0 \_ = Total Cover FACW species \_\_\_\_\_ x 2 = \_\_\_\_ 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_ FAC species \_\_\_\_\_ x 3 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: \_\_\_\_\_) FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_ UPL species \_\_\_\_\_ x 5 = \_\_\_\_ Column Totals: 0 (A) 0 (B) Prevalence Index = B/A = \_\_\_\_ Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 0 = Total Cover Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_ Herb Stratum (Plot size: \_\_\_\_\_) <sup>1</sup>Indicators of hydric soil and wetland hydrology must yes FACU be present, unless disturbed or problematic. 25 yes Definitions of Four Vegetation Strata: Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in 65 = Total Cover 50% of total cover: \_\_\_\_ \_\_\_\_ 20% of total cover: \_\_\_\_ Woody Vine Stratum (Plot size: ) Hydrophytic 0 = Total Cover Vegetation Present? 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_

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

Edge of cotton field, adjacent to stream

1. Lamium amplexicaule

2. Unknown grass

_	$\overline{}$	ı	
	ιJ		

Sampling Point: DP-4

	cription: (Describe	to the dept				or confirm	n the absence	of indicate	ors.)	
Depth (inches)	Matrix Color (moist)	<del></del> -	Redo Color (moist)	<u>x Feature</u> %	s Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-18	5 YR 4/3	70%	5 YR 4/4	30%			clay		remanes	
							<u></u>			
				_						
	-									
	-									
	Concentration, D=Dep					ains.			ining, M=Matri	
Hydric Soil	Indicators: (Applic	able to all L	RRs, unless other	rwise not	ed.)		Indicators	for Proble	matic Hydric	Soils³:
Histoso			Polyvalue Be	low Surfa	ice (S8) <b>(L</b>	RR S, T, L	J) 1 cm M	luck (A9) <b>(</b> I	LRR O)	
Histic E	pipedon (A2)		Thin Dark Su	ırface (S9	) (LRR S,	T, U)	2 cm M	luck (A10)	(LRR S)	
	listic (A3)		Loamy Muck	-		O)		•	-18) (outside N	
	en Sulfide (A4)		Loamy Gleye		(F2)				ain Soils (F19)	
	ed Layers (A5)		Depleted Ma		:				Loamy Soils (	F20)
_	Bodies (A6) (LRR P		Redox Dark	,	*		•	RA 153B)	-1 (TEO)	
	ucky Mineral (A7) (LI		Depleted Date					arent Mater	. ,	2)
	resence (A8) (LRR U	<b>,</b> )	Redox Depre Marl (F10) (L		0)				k Surface (TF1	2)
	uck (A9) <b>(LRR P, T)</b> ed Below Dark Surfac	·e (Δ11)	Depleted Oc		(MIRA 14	54)	Other (	Explain in	Remarks)	
	ark Surface (A12)	<i>(</i> (	Iron-Mangan	, ,	•	•	T) <sup>3</sup> Indic	ators of hy	drophytic veget	tation and
	Prairie Redox (A16) (I	MLRA 150A					•	-	logy must be pi	
	Mucky Mineral (S1) (		Delta Ochric			,		-	ed or problema	
	Gleyed Matrix (S4)	, ,	Reduced Ver			0A, 150B)			·	
Sandy	Redox (S5)		Piedmont Flo	oodplain S	Soils (F19)	(MLRA 14	I9A)			
Strippe	d Matrix (S6)		Anomalous E	Bright Loa	my Soils (l	F20) <b>(MLR</b>	A 149A, 153C,	, 153D)		
	urface (S7) (LRR P, \$									
Restrictive	Layer (if observed)	:								
Туре:										
Depth (ir	nches):		<u>—</u>				Hydric Soil	Present?	Yes	No <u> </u>
Remarks:							•			

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: +/-907 Acres W-2 Site	andria/Rapides	_ Sampling Date: 01/20/2015							
Applicant/Owner: England Economic & Industrial De			Sampling Point: Data Point 5						
Investigator(s): B. Pittman	Section, Township, Range: Section 73, T-4N, R-2W								
	Local relief (conca								
Subregion (LRR or MLRA):									
Soil Map Unit Name: Moreland clay (MnA)		NWI classif							
Are climatic / hydrologic conditions on the site typical for t									
Are Vegetation, Soil, or Hydrology significantly disturbed?									
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
	,		o, important routaros, etc.						
Hydrophytic Vegetation Present? Yes	No V Is the Sam	pled Area							
Hydric Soil Present? Yes  Wetland Hydrology Present? Yes	No v within a W	etland? Yes	No <u>√</u>						
Wetland Hydrology Present? Yes	NO								
Data Point taken across the road from	m drain								
HYDROLOGY									
Wetland Hydrology Indicators:		Secondary India	eators (minimum of two required)						
Primary Indicators (minimum of one is required; check a	all that annly)	Secondary Indicators (minimum of two required)							
	tic Fauna (B13)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)							
l .	Sparsely vegetated Concave Surface (Bo) Drainage Patterns (B10)								
	Deposits (B15) <b>(LRR U)</b> ogen Sulfide Odor (C1)								
l .	zed Rhizospheres along Living F		Moss Trim Lines (B16) (C3) Dry-Season Water Table (C2)						
	ence of Reduced Iron (C4)	Crayfish Burrows (C8)							
1	nt Iron Reduction in Tilled Soils (		Visible on Aerial Imagery (C9)						
l .	Muck Surface (C7)	Geomorphic Position (D2)							
	(Explain in Remarks)	Shallow Aguitard (D3)							
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)							
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)						
Field Observations:									
Surface Water Present? Yes No [	Depth (inches):								
Water Table Present? Yes No <u>✓</u> [	Depth (inches):								
	Depth (inches):								
(includes capillary fringe)	Ui-l-h-tii	tions) if available.							
Describe Recorded Data (stream gauge, monitoring well	ii, aeriai pnotos, previous inspec	tions), if available:							
Remarks:									
Area well drained by ditch.									

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

Sampling Point:

Dominance Test worksheet:

Number of Dominant Species
That Are OBL, FACW, or FAC:

0 (A)

<u>Tree Stratum</u> (Plot size:)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
1				
3.				Total Number of Dominant Species Across All Strata:  (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	0			OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)	20 70 01	10101 00101		FAC species x 3 =
1				FACU species x 4 =
2.				UPL species x 5 =
3				Column Totals: 0 (A) 0 (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8	^			3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Co		Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% of	total cover	·	
Herb Stratum (Plot size:)  1. Lamium amplexicaule	20	yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Lamium amplexicaule  2				Definitions of Four Vegetation Strata:
3.				
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5.				height.
6.				Sapling/Shrub - Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
		= Total Co		
50% of total cover:	20% of	total cover	:	
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
	0	= Total Co		Hydrophytic Vegetation
50% of total cover:				Present? Yes No V
Remarks: (If observed, list morphological adaptations bel			·	
, , , , , , , , , , , , , , , , , , , ,	, .			
Cotton field				

Absolute Dominant Indicator

Sampling Point: \_\_\_\_

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redo	x Features	5					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks		
0-18	5 YR 4/4	95%	<del></del> _				clay			
							<u> </u>			
				. ——						
								_		
<sup>1</sup> Type: C=Co	oncentration, D=Dep	oletion, RM=F	Reduced Matrix, M	S=Masked	Sand Gra	ains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.		
	ndicators: (Applic						Indicators	for Problematic Hydric Soils <sup>3</sup> :		
Histosol			Polyvalue Be			RRSTI		luck (A9) (LRR O)		
	ipedon (A2)		Thin Dark Su				· —	luck (A10) (LRR S)		
Black Hi			Loamy Muck	, ,				ed Vertic (F18) (outside MLRA 150A,B)		
	n Sulfide (A4)					. 0,		ont Floodplain Soils (F19) (LRR P, S, T)		
	` '		Loamy Gleye		1 4)					
	Layers (A5)	T 113	Depleted Ma	` '	·e)		Anomalous Bright Loamy Soils (F20) (MLRA 153B)			
	Bodies (A6) (LRR F		Redox Dark	•	*		•	•		
	cky Mineral (A7) (L		Depleted Date				_	arent Material (TF2)		
	esence (A8) (LRR U	וי	Redox Depre	•	5)			hallow Dark Surface (TF12)		
	ck (A9) (LRR P, T)	- (444)	Marl (F10) <b>(L</b>		(BAL 5	-41	Other (	Explain in Remarks)		
	Below Dark Surfac	e (A11)	Depleted Oct		-	-				
	rk Surface (A12)		Iron-Mangan				•	ators of hydrophytic vegetation and		
	airie Redox (A16) (					, U)		and hydrology must be present,		
	lucky Mineral (S1) (	LRR O, S)	Delta Ochric		-			ess disturbed or problematic.		
	leyed Matrix (S4)		Reduced Ver							
	edox (S5)		Piedmont Flo							
	Matrix (S6)		Anomalous E	Bright Loar	ny Soils (	F20) (MLF	RA 149A, 153C,	153D)		
	face (S7) (LRR P,									
Restrictive I	.ayer (if observed)	:								
Туре:										
Depth (inc	ches):						Hydric Soil	Present? Yes No		
Remarks:										
rtornarito.										