# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Eden, Rockingham	Sampling Date: 201	8-May-15				
Applicant/Owner: NextEra		State: North Carolina	Sampling Point: W-A1	8-18_PEM-1			
Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:							
Landform (hillslope, terrace, etc.): Terra	ace Local relief (	concave, convex, none):	Concave	Slope (%): 0 to 1			
Subregion (LRR or MLRA): MLRA 136 of	f LRR P Lat:	36.499619 Long	:-79.6744944	Datum: WGS84			
Soil Map Unit Name: Dan River loam, 0 to	o 2 percent slopes, frequently flooded		NWI classification	: None			
Are climatic/hydrologic conditions on the sit	te typical for this time of year?	Yes 🟒 No (If no	o, explain in Remarks.)				
Are Vegetation, Soil, or Hyde	rology significantly disturbed?	Are "Normal Circums	tances" present?	(es 🟒 No			
Are Vegetation, Soil, or Hyde	rology naturally problematic?	(If needed, explain ar	y answers in Remarks.)	1			

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 No Yes 🖌 No Yes 🖌 No	Is the Sampled Area within a Wetland?	Yes 🖌 No
Remarks:			
Covertype is PEM. Area is wetland, all three v	wetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	Secondary Indicators (minimum of two required)			
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro _✓ Oxidiz Prese Recen Thin M Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) red Rhizospheres on Living Roots (C3) nce of Reduced Iron (C4) It Iron Reduction in Tilled Soils (C6) Auck Surface (C7) (Explain in Remarks)	<ul> <li> Mods min Lines (010)</li> <li> Dry-Season Water Table (C2)</li> <li> Crayfish Burrows (C8)</li> <li> Saturation Visible on Aerial In</li> <li> Stunted or Stressed Plants (I</li> <li> Geomorphic Position (D2)</li> <li> Shallow Aquitard (D3)</li> <li> Microtopographic Relief (D4)</li> </ul>	magery (C9) D1)
Field Observations:			FAC-Neutral Test (D5)	
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?			- Watland Lludrology Drocont2	
	Yes No _	Depth (inches):	Wetland Hydrology Present? -	Yes 🟒 No
Saturation Present?	Yes No 🟒	Depth (inches):	_	
(includes capillary fringe)				
Describe Recorded Data (stream ga	uge, monitoring well, a	erial photos, previous inspections), if	available:	
Remarks:				
The criterion for wetland hydrology	'is met.			

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

# Sampling Point: W-A18-18\_PEM-1

Tree Stratum (Plot size:30')		Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species Tha	<sup>it</sup> 5	(A)
1		<u> </u>		Are OBL, FACW, or FAC: Total Number of Dominant Specie		
2		·		Across All Strata:	5	(B)
3		·		Percent of Dominant Species Tha	t 100	(A (D)
4. 5.		·		Are OBL, FACW, or FAC:	100	(A/B)
6.		·		Prevalence Index worksheet:		
7.		·		Total % Cover of:	Multiply I	-
···	0	= Total Cov	er	OBL species 30	x 1 =	30
50% of total cover: <u>0</u>		-	0	FACW species 35	x2=	70
Sapling/Shrub Stratum (Plot size:15')				FAC species 0	_ x3= _	0
1				FACU species 0	_ × 4 = _	0
2.				UPL species 0	_ x 5 = _	0
3.				Column Totals 65	(A)	100 (B)
4.				Prevalence Index = B/A		<u> </u>
5.				Hydrophytic Vegetation Indicator		
6.				1- Rapid Test for Hydrophyti	c Vegetation	
7.				2 - Dominance Test is >50%	1	
8				3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptatio		upporting
9				data in Remarks or on a separate		supporting
	0	= Total Cov	rer	Problematic Hydrophytic Ve		plain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	<sup>1</sup> Indicators of hydric soil and wetl	-	
Herb Stratum (Plot size: <u>5'</u> )				present, unless disturbed or prob	lematic	
1. Juncus effusus	25	Yes	FACW	Definitions of Four Vegetation Str	ata:	
2. Alisma subcordatum	10	Yes	OBL			
3. <u>Carex lurida</u>	10	Yes	OBL	Tree – Woody plants, excluding vi		
4. Juncus acuminatus	10	Yes	OBL	in diameter at breast height (DBH	), regardless	of height.
5. <u>Carex scoparia</u>	10	Yes	FACW			
6		·		Sapling/shrub – Woody plants, ex	-	
7		·		in. DBH and greater than or equa	1 to 5.26 it (1	III) tall.
8				Herb – All herbaceous (non-wood	v) nlants reg	ardless of
9		<u> </u>		size, and woody plants less than a		
10		·······				
11		Tabal Car		Woody vines – All woody vines gr	antor than 2	20 ft in
50% of total cover: <u>32.5</u>	65	_= Total Cov		height.		201111
Woody Vine Stratum (Plot size:)	_ 20% 01 tt	otal cover.	13			
1						
	·	·				
3.		<u> </u>		Hydrophytic Vegetation Present?	Yes 🖂 No 🗌	]
4.		·		, , , , , , , , , , , , , , , , , , ,		
5.						
	0	= Total Cov	rer			
50% of total cover: <u>0</u>	20% of to	_ otal cover:	0			
Remarks: (Include photo numbers here or on a separa				1		
Remarks. (include prioto numbers here of on a separa	te sneet.j					
A positive indication of hydrophytic vegetation was ob	served (>50	0% of domir	ant species	indexed as OBL, FACW, or FAC).		
-						

# SOIL

# Sampling Point: W-A18-18\_PEM-1

Depth (inches)	Matrix			x Features				
<u> </u>	Color (moist)		Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 5	2.5Y 4/1	80	7.5YR 4/6	20 C	M/PL	Sa	ndy Clay Loam	
5 - 14	10YR 4/3	40	2.5Y 4/1	10 D	М		Sandy Loam	Mn concretions
5 - 14	10YR 4/2	30	7.5YR 4/6	20 C	М			
14 - 20	2.5Y 5/2	70	7.5YR 4/6	30 C	М		Clay Loam	
				·				
				·				
				·				
				. <u> </u>				
<u> </u>		<u> </u>						_
								_
<sup>1</sup> Type: C =	Concentration, D =	Depletion,	RM = Reduced Matr	ix, MS = Masked	Sand Grai	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M =	= Matrix.
Hydric Soil	Indicators:						Indicators for Problem	natic Hydric Soils³:
Histosol				Surface (S7)			2 cm Muck (A10) <b>(</b>	MI RA 147)
	ipedon (A2)			alue Below Surfac				ox (A16) (MLRA 147, 148)
Black His	itic (A3) n Sulfide (A4)			Dark Surface (S9) y Gleyed Matrix (F	-	148)		ain Soils (F19) (MLRA 136,
_ , 0	Layers (A5)			ted Matrix (F3)	2)		147)	
	ck (A10) <b>(LRR N)</b>			k Dark Surface (F6	5)		Very Shallow Dark	Surface (TF12)
•	l Below Dark Surface	(A11)		eted Dark Surface			Other (Explain in F	Remarks)
	rk Surface (A12)		Redo	Contractions (F8)	) 		0	
-	ucky Mineral (S1) <b>(LR</b> eyed Matrix (S4)	R N, MLRA	147, 148) Iron-i Limbi	ric Surface (F13) <b>(I</b>	S (FIZ) (LR	r n, Mlra 13 122)	<b>6)<sub>3</sub>Indicators of hydrop</b>	hytic vegetation and
Sandy Re	•		_ •	nont Floodplain Se		,	wetland hydrology m	ust be present, unless
-	Matrix (S6)			arent Material (F2			disturbed or problem	iatic.
Restrictive	Layer (if observed):							
	Гуре:		None		Hydric S	oil Present?		Yes 🛛 No 🗆
[	Depth (inches):			-				
Remarks:	•	-						
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					

Photo of Sample Plot North



extension facing n

Photo of Sample Plot East



extension facing west near flag wb19-7



extension facing s

Photo of Sample Plot West



extension near flag w-b19-18-1

Photo of Sample Plot Sketch

SURVEYSS: LAG/JMR 5/15/2018 tract: NC-RO-011,000 tract: NC-RO-011,000 Resources: W-A18-18 (PEM/UP) Resources: W-A18-18 (PEM/UP) 201-205 Complex mapped exilie Points -> 20 start open Fount - 205 end open WW

Surveyors; LAG/SMR 5/15/2018 Des vet and plot (Pholos) Bestantopra W-AI8-18(PEMPFO) Tract: NET-ROGOD700 1=7stall ope/ 101=7 connect to 1 103=7 End open 1 J-A18-18 AAAA (PEMUPI) N 1/10/19 SCT, JMR Parcel NC- RO-011.000 Fedure: W-A18-18 extension called w-B19-18 Flags 1-13 - FENCE Previous urveyed

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Eden, Roc	kingham Sampling Da	te: 2018-May-17	
Applicant/Owner: NextEra		State: North C	arolina Sampling Point: M	V-A18-26_PEM-1
Investigator(s): Laura Giese, J	oe Roy, Doreen Donovan	Section, Township, Ra	nge:	
Landform (hillslope, terrace, etc	<b>):</b> Flat	Local relief (concave, convex,	none): Concave	Slope (%): 0 to 1
Subregion (LRR or MLRA):	MLRA 136 of LRR P	Lat: 36.5188368	Long: -79.6540585	Datum: WGS84
Soil Map Unit Name: Baniste	r loam, 0 to 4 percent slopes, rarely f	looded	NWI classifica	ation: None
Are climatic/hydrologic conditio	ns on the site typical for this time of	year? Yes 🟒 No _	(If no, explain in Remarl	ks.)
Are Vegetation, Soil,	or Hydrology significantly of	disturbed? Are "Normal C	Circumstances" present?	Yes 🟒 No
Are Vegetation, Soil,	or Hydrology naturally pro	blematic? (If needed, ex	plain any answers in Rema	rks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes 🟒 No Yes _🖌 No		
Wetland Hydrology Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PEM. Area is wetland, all three v	wetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	<u>e is required; che</u>	<u>eck all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>✓ Surface Water (A1)</li> <li>✓ High Water Table (A2)</li> <li>✓ Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>		Presence of Reduc	Odor (C1) eres on Living Roots (C3 red Iron (C4) tion in Tilled Soils (C6) (C7)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes 🟒 No _	Depth (i	nches): 1	
Water Table Present?	Yes No			– Wetland Hydrology Present? Yes _∠_ №
Saturation Present?	Yes 🖌 No			
(includes capillary fringe)				-
Describe Recorded Data (stream g	auge, monitoring	well, aerial photos,	previous inspections), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met. surface v	vater due to heavy	rains previous day .	

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

# Sampling Point: W-A18-26\_PEM-1

Tree Stratum (Plot size:30')		Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species Th	at 1	(A)
1				Are OBL, FACW, or FAC: Total Number of Dominant Spec		
2				Across All Strata:	les 2	(B)
3				Percent of Dominant Species Th	at	
4.		·		Are OBL, FACW, or FAC:	50	(A/B)
5		·		Prevalence Index worksheet:		
6		·		Total % Cover of:	<u>Multiply</u>	By:
7	<u> </u>			OBL species 0	x 1 =	0
	0	= Total Cov		FACW species 85	x 2 =	170
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species 5	x 3 =	15
Sapling/Shrub Stratum (Plot size:15')				FACU species 0	x 4 =	0
1 2.		·		UPL species 0	x 5 =	0
3.	·			Column Totals 90	(A)	185 (B)
· · · · · · · · · · · · · · · · · · ·	·	·		Prevalence Index = B/A	. =	
4 5.	·	·		Hydrophytic Vegetation Indicato	rs:	
6.	·			1- Rapid Test for Hydrophy		ı
7.	·			2 - Dominance Test is > 50%	ò	
0				$\checkmark$ 3 - Prevalence Index is ≤ 3.	01	
	·			4 - Morphological Adaptatio	ons¹ (Provide	supporting
9	0	= Total Cov		data in Remarks or on a separate		
50% of total cover: <u>0</u>		-		Problematic Hydrophytic V	-	-
Herb Stratum (Plot size:)	_ 20% 01 tt	Juli Cover.	0	<sup>1</sup> Indicators of hydric soil and wet		ogy must be
1. Ranunculus abortivus	65	Yes	FACW	present, unless disturbed or pro		
2. Poaceae	35	Yes	NI	Definitions of Four Vegetation St	rata:	
3. Juncus effusus	10	No	FACW		inen 2 in (7	(
4. Symphyotrichum lanceolatum	10	No	FACW	<b>Tree</b> – Woody plants, excluding v in diameter at breast height (DB		
5. Campsis radicans	5	No	FAC	in diameter at breast height (bb	ij, regarales	s of fielgric.
6.				Sapling/shrub – Woody plants, e	xcluding vine	s. less than 3
7.	·			in. DBH and greater than or equ	-	
8.	·	·				
9.	·	·		Herb – All herbaceous (non-woo	dy) plants, re	gardless of
10	·			size, and woody plants less than	3.28 ft tall.	
11.	·	·				
	125	= Total Cov	ver	Woody vines – All woody vines g	reater than 3	8.28 ft in
50% of total cover: <u>62.5</u>	20% of to	_ otal cover:	25	height.		
Woody Vine Stratum (Plot size: <u>30'</u> )	-					
1						
2.		. <u></u>				
3.				Hydrophytic Vegetation Present	? Yes ☑ No	
4.						
5.						
	0	= Total Cov	ver			
50% of total cover: <u>0</u>	_20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separa	te sheet.)					
	te oneed,					
A positive indication of hydrophytic vegetation was ob-	served (>50	0% of domir	nant species	indexed as OBL, FACW, or FAC).		

#### SOIL

# Sampling Point: W-A18-26\_PEM-1

	Matrix	•		x Features	indicator or confirm the absence of indicators.) res			
(inches)	Color (moist)	%	Color (moist)	% Ту	ype <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 6	10YR 4/2	90	10YR 4/6	10	С	М	Silt Loam	
6 - 17	2.5Y 5/3	70	7.5YR 4/6	15	С	М		
6 - 17			2.5Y 6/1	15	D	Μ		
17 - 21	2.5Y 6/3	90	7.5YR 5/8	10	С	M		
		<u> </u>						
								<u> </u>
								<u></u>
<u> </u>								
	Concentration. D =	Depletion.	RM = Reduced Mat	rix. MS = Mas	ked Sa	nd Grains. <sup>2</sup> Loca	ation: PL = Pore Lining, M =	Matrix.
	Indicators:	<u>p , -</u>		,			Indicators for Problem	
_ Histosol	(A1)		_ Dark	Surface (S7)			2 cm Muck (A10) <b>(</b>	AI DA 1/7)
	ipedon (A2)		,		-	S8) <b>(MLRA 147, 14</b>	a)	x (A16) (MLRA 147, 148)
_ Black His				Dark Surface				ain Soils (F19) <b>(MLRA 136</b>
_ , 0	n Sulfide (A4)			ny Gleyed Mat			Pleamont Plooapla	
	Layers (A5)		— •	eted Matrix (F	-		Very Shallow Dark	Surface (TE12)
	ck (A10) <b>(LRR N)</b> Below Dark Surface	(A11)		ox Dark Surfac eted Dark Sur		7)		
•	rk Surface (A12)	(ATT)	•	ox Depression:			Other (Explain in R	lemarks)
	ucky Mineral (S1) (LR	RN MIRA'	 [47 148) Iron-	Manganese M	s (FO) lasses (l	F12) (I RR N MI RA	136)	
_ ,	leyed Matrix (S4)		Umb	ric Surface (F1	13) (MI I	RA 136, 122)	136) <sub>3</sub> Indicators of hydroph	nytic vegetation and
_ Sandy Re	•					(F19) (MLRA 148)	wetland hydrology mu	ust be present, unless
-	Matrix (S6)					(MLRA 127, 147)	disturbed or problem	atic.
estrictive	Layer (if observed):							
-	Гуре:		None	_	ŀ	Hydric Soil Preser	it?	Yes 🗹 No 🗆
I	Depth (inches):			_				
Remarks:								

Photo of Sample Plot North



Photo of Sample Plot East

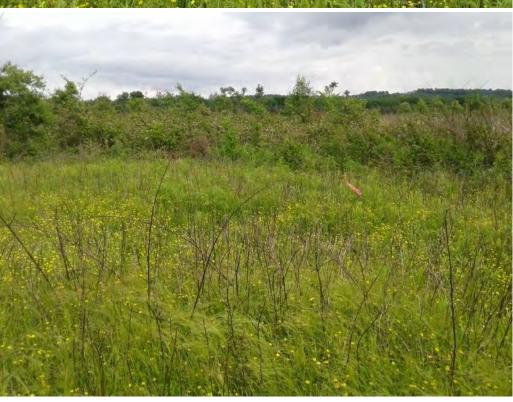


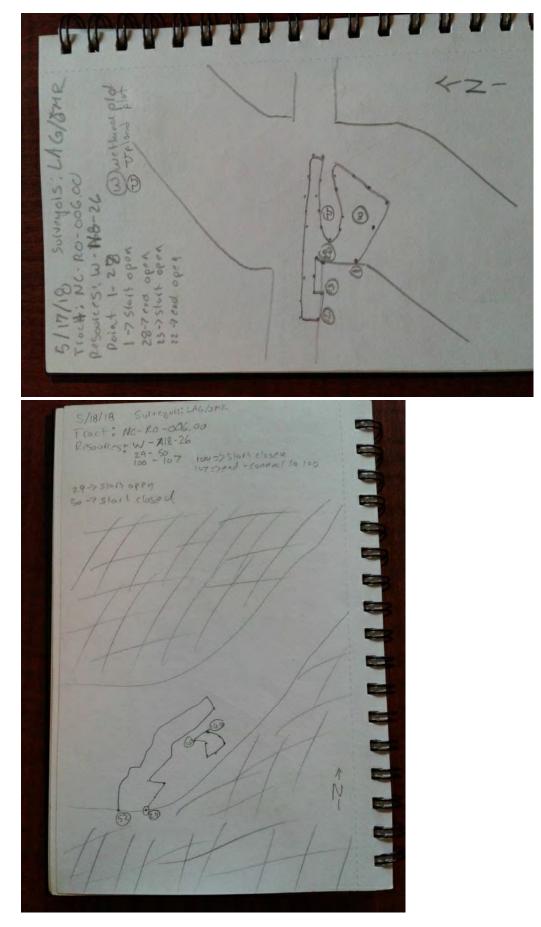
Photo of Sample Plot South

Photo of Sample Plot

West

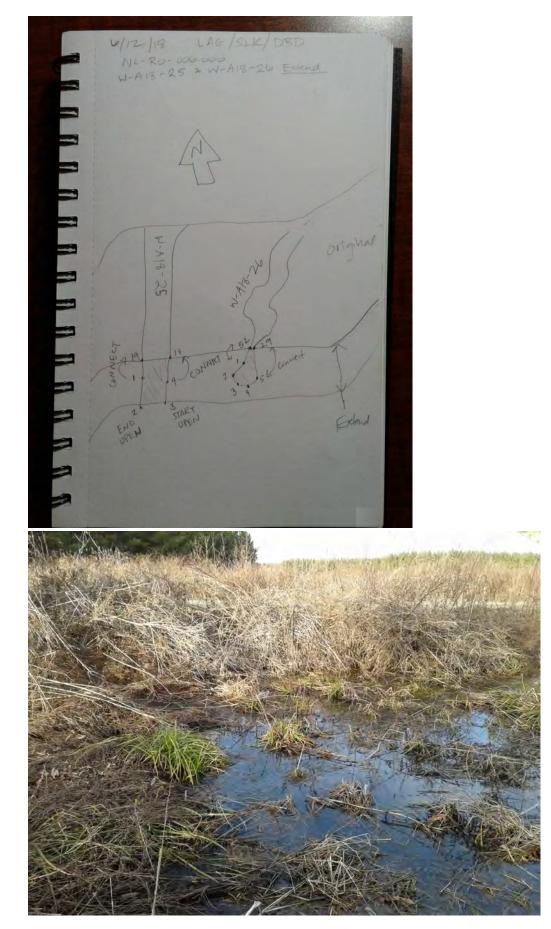


Photo of Sample Plot Sketch









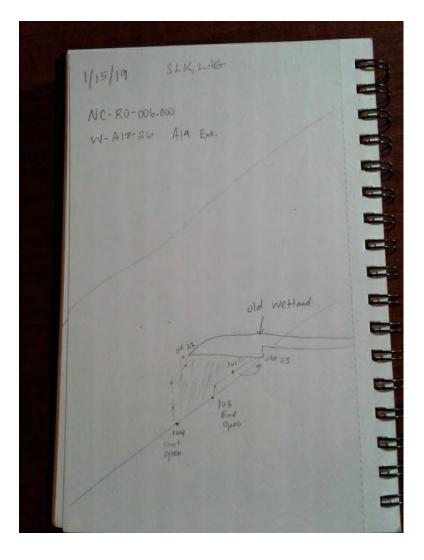
A19 ext, north



A19 ext, south



s-a19, ect, west



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County: Ed	en, Rockingham	Sampling Date:	2018-May-19	
Applicant/Owner: N	lextEra			State: North Caro	lina Sampling Point: W-A	18-39_PEM-1
Investigator(s): Laur	a Giese, Joe Roy,	Doreen Donovan	Sectio	on, Township, Range	2:	
Landform (hillslope, te	rrace, etc.):	Flat	Local relief (o	oncave, convex, no	ne): Concave	Slope (%): 0 to 1
Subregion (LRR or MLF	RA): MLRA 1	136 of LRR P	Lat:	36.5201666 L	<b>.ong:</b> -79.6527787	Datum: WGS84
Soil Map Unit Name:	Banister loam,	0 to 4 percent slopes, i	rarely flooded		NWI classificatio	n: None
Are climatic/hydrologic	conditions on t	he site typical for this ti	ime of year?	Yes 🟒 No (	(lf no, explain in Remarks.)	
Are Vegetation,	Soil, or	<sup>.</sup> Hydrology signifi	icantly disturbed?	Are "Normal Circi	umstances" present?	Yes 🟒 No
Are Vegetation,	Soil, or	Hydrology natura	ally problematic?	(If needed, explai	n any answers in Remarks	.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 No Yes 🖌 No Yes 🖌 No	Is the Sampled Area within a Wetland?	Yes 🖌 No
Remarks:			
Covertype is PEM. Area is wetland, all three	wetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:			
,	. ia waannina du alaashi al	l that any h d	Consular Indiantous (minimum of two your ind)
Primary Indicators (minimum of one	e is required; check al	<u>r that apply)</u>	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Ima</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hyd Oxic Pres Rece Thir Othe	e Aquatic Plants (B14) rogen Sulfide Odor (C1) dized Rhizospheres on Living Roots (C3) sence of Reduced Iron (C4) ent Iron Reduction in Tilled Soils (C6) Muck Surface (C7) er (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present?	Yes No 🟒	Depth (inches):	
(includes capillary fringe)			
Describe Recorded Data (stream ga	uge, monitoring well,	aerial photos, previous inspections), if	available:
<b>Remarks:</b> The criterion for wetland hydrology	is met. 4 inches of su	rface water after recent heavy rains.	

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

# Sampling Point: W-A18-39\_PEM-1

<u>Tree Stratum</u> (Plot size: <u>30)</u>	Absolute	e Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species Th	<sup>at</sup> 2	(A)
1				Are OBL, FACW, or FAC:		
2.				Total Number of Dominant Speci	es 2	(B)
3.				Across All Strata:		
4.				Percent of Dominant Species Tha	t 100	(A/B)
5.				Are OBL, FACW, or FAC: Prevalence Index worksheet:		
6.					Mandairah a	D
7.		·		Total % Cover of:       OBL species     20	<u>Multiply I</u>	-
	0	= Total Cov	er		x1=	20
50% of total cover: <u>0</u>	20% of to	tal cover:	0		x 2 =	<u> </u>
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				· · · · · · · · · · · · · · · · · · ·	x 3 =	
1					× 4 =	0
2.				UPL species 0	x 5 =	0
3.		·		Column Totals 35	(A)	50 (B)
4.				Prevalence Index = B/A		
5.				Hydrophytic Vegetation Indicator		
6.				1- Rapid Test for Hydrophyt	c Vegetation	
7.		·		2 - Dominance Test is >50%		
8.		·		$3$ - Prevalence Index is $\leq 3.0$		
9.		······································		4 - Morphological Adaptatio		supporting
	0	= Total Cov	er	data in Remarks or on a separate		
50% of total cover: <u>0</u>	20% of to	_ otal cover:	0	Problematic Hydrophytic Ve	-	-
Herb Stratum (Plot size: _5'_)				<sup>1</sup> Indicators of hydric soil and wet present, unless disturbed or prob		gy must be
1. Eleocharis obtusa	20	Yes	OBL	Definitions of Four Vegetation Str		
2. Ranunculus abortivus	10	Yes	FACW	Deminitions of Four Vegetation St	αια.	
3. <i>Diodia virginiana</i>	5	No	FACW	Tree – Woody plants, excluding vi	nes 3 in <i>(</i> 7 f	cm) or more
4.				in diameter at breast height (DBI		
5.						0
6.				Sapling/shrub – Woody plants, ex	cluding vines	s, less than 3
7.				in. DBH and greater than or equa	l to 3.28 ft (1	m) tall.
8.						
9.				Herb – All herbaceous (non-wood		gardless of
10.		·		size, and woody plants less than	3.28 ft tall.	
11.						
	35	= Total Cov	er	Woody vines – All woody vines gr	eater than 3.	28 ft in
50% of total cover: <u>17.5</u>		-	7	height.		
Woody Vine Stratum (Plot size: <u>30'</u> )						
1						
2.						
3.				Hydrophytic Vegetation Present	Yes 🗹 No [	]
4.						
5.						
	0	= Total Cov	er			
50% of total cover: <u>0</u>		_	0			
Remarks: (Include photo numbers here or on a separat	e sneet.)					
No positive indication of hydrophytic vegetation was ob	oserved (>	50% of dom	inant specie	es indexed as FAC– or drier)		
				es macked as the for unlerp		

# SOIL

# Sampling Point: W-A18-39\_PEM-1

(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 5	10YR 4/2	95	10YR 5/8	5	<u>турс</u> С	 M		Silt Loam	Kemano
5 - 11	2.5Y 5/3	80	10YR 5/8		<u> </u>			Sht Louin	
5 - 11	2.51 5/5		2.5Y 5/1	10	D	M			
11 - 16	2.5Y 5/3	65	7.5YR 5/8	30	C	M		Clay	
11 - 16	2.31 3/3		5YR 5/8	5	C	M		Clay	
11-10		- <u> </u>	516 316						
·		· ·							
	Concentration, D = I	Depletion,	RM = Reduced Ma	trix, MS =	Masked S	and Grai	ns. ²Locatio	on: PL = Pore Lining, M =	
-	l Indicators:							Indicators for Problem	atic Hydric Soils <sup>3</sup> :
_ Black His _ Hydroge _ Stratified _ 2 cm Mu _ Depleted _ Thick Da _ Sandy M _ Sandy G _ Sandy R	ipedon (A2) stic (A3) d Layers (A5) d Layers (A5) d Below Dark Surface rk Surface (A12) lucky Mineral (S1) <b>(LR</b> leyed Matrix (S4) edox (S5)	. ,	Poly Thir Loa Dep Red 147, 148) Iror Um Piec	n Dark Surf my Gleyed Ileted Matr ox Dark Su Ileted Dark ox Depress I-Manganes bric Surfac dmont Floo	w Surface ace (S9) <b>(I</b> Matrix (F2 ix (F3) urface (F6) Surface ( sions (F8) se Masses e (F13) <b>(M</b> dplain So	MLRA 147, 2) F7) (F12) (LR ILRA 136, ils (F19) (N	R N, MLRA 13 122) //LRA 148)		k (A16) <b>(MLRA 147, 148)</b> in Soils (F19) <b>(MLRA 136</b> , Surface (TF12) emarks) ytic vegetation and st be present, unless
_ Stripped	Matrix (S6)		Red	Parent Ma	iterial (F21	) (MLRA 1	27, 147)	distui bed or problema	itic.
	e <b>Layer (if observed):</b> Type: Depth (inches):		None			Hydric S	oil Present?		Yes 🗹 No 🗆
Remarks:									
4 positive	indication of hydric	soil was ol	oserved.						

#### Photo of Sample Plot North



Photo of Sample Plot East

Photo of Sample Plot South



Photo of Sample Plot West

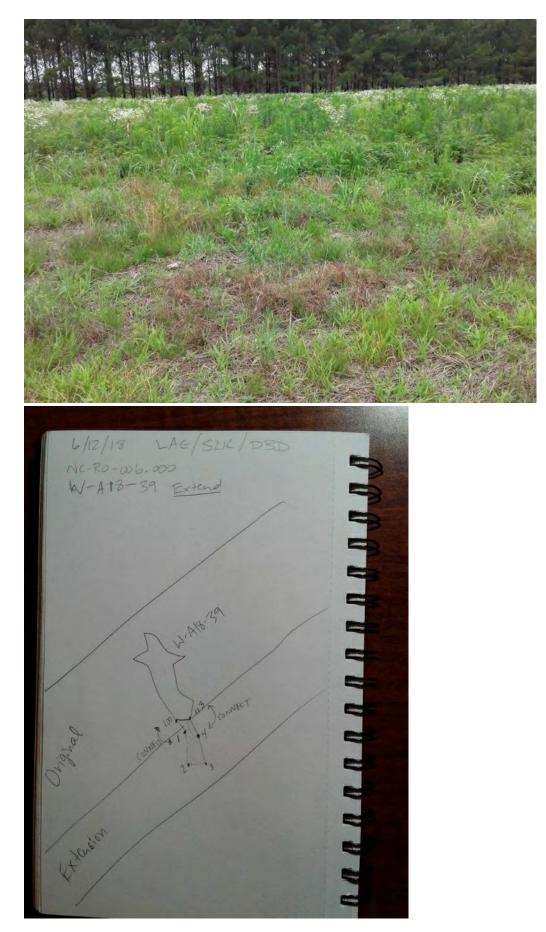


Photo of Sample Plot Sketch

5/19/18 LAG/JMR NG-RO-006.000 Resource W-A18 1-13 100-113 200 - 203 1-751014 13-701092 De wet plot PEM PEN 1 20. 8









A29 ext, east



A19 ext, south



A19 ext, west



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sout	thgate	City/County:	Eden, Rockingham	Sampling Date	e: 2018-May-22	
Applicant/Owner: N	extEra			State: North Car	rolina Sampling Point: W-A	18-44_PEM-1
Investigator(s): Laura	a Giese, Joe Roy	y, Simon King	Se	ection, Township, Ran	ge:	
Landform (hillslope, ter	rrace, etc.):	Back slope	Local reli	ef (concave, convex, r	none): Concave	Slope (%): 1 to 3
Subregion (LRR or MLR	A): MLRA	136 of LRR P	L	at: 36.528531	Long: -79.644317	Datum: WGS84
Soil Map Unit Name:	Banister loam	n, 0 to 4 percent slop	es, rarely flooded		NWI classificatio	n: None
Are climatic/hydrologic	conditions on	the site typical for th	is time of year?	Yes 🟒 No	_ (If no, explain in Remarks.)	)
Are Vegetation,	Soil, c	or Hydrology sig	gnificantly disturbed?	Are "Normal Cir	rcumstances" present?	Yes 🟒 No
Are Vegetation,	Soil, c	or Hydrology na	turally problematic?	(If needed, expl	ain any answers in Remarks	.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes _ 🖌 No	ls the Sampled Area within a Wetland?	Yes _ 🖌 No
Remarks:			
Covertype is PEM. Area is wetland, all three	wetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	<u>e is required; check</u>	<u>all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hy O> Pr Re Th Ot	ue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) xidized Rhizospheres on Living Roc esence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soils in Muck Surface (C7) ther (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>✓ Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>✓ FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	16	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	4	_
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring we	ll, aerial photos, previous inspectio	ons), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met. Soil is episal	turated. Water at 4" in borehole fr	om sur	face .

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

# Sampling Point: W-A18-44\_PEM-1

<u>Tree Stratum</u> (Plot size: <u>30)</u>		Dominant	Indicator	Dominance Test worksh			
	% Cover	Species?	Status	Number of Dominant Sp	pecies That	6	(A)
1				Are OBL, FACW, or FAC:			
2.	·	·		Total Number of Domin Across All Strata:	ant species	6	(B)
3.		·		Percent of Dominant Sp	ecies That	100	(A (D)
4 5.	·			Are OBL, FACW, or FAC:		100	(A/B)
6.	·	<u> </u>		Prevalence Index works	heet:		
7.				<u>Total % Cover c</u>	of:	Multiply I	<u>By:</u>
/	0	= Total Cov	or	OBL species	35	x 1 =	35
50% of total cover: <u>0</u>		-		FACW species	15	x 2 =	30
Solver total cover	_ 20% 01 10	lai cover.		FAC species	25	x 3 =	75
				FACU species	10	x 4 =	40
				UPL species	0	x 5 =	0
				Column Totals	85	(A)	180 (B)
4.	·			Prevalence Inc	dex = B/A =	2.1	
5.				Hydrophytic Vegetation	Indicators:		
6.	·			1- Rapid Test for H	ydrophytic \	/egetation	
_	·	·		_✔_ 2 - Dominance Tes	t is >50%		
		·		3 - Prevalence Inde	ex is $\leq 3.0^1$		
8 9.	·	<u> </u>		4 - Morphological /			supporting
<sup>2.</sup>	0	= Total Cov	or	data in Remarks or on a			
50% of total cover: 0		-		Problematic Hydro			
Herb Stratum (Plot size:)	_ 20% 01 10	lai cover.	0	<sup>1</sup> Indicators of hydric soil		, ,	gy must be
1 Juncus offusus	10	Yes	FACW	present, unless disturbe	· ·		
2. Galium palustre	10	Yes	OBL	Definitions of Four Vege	etation Strat	a:	
3. Hibiscus moscheutos	10	Yes	OBL			a: /7 /	
4. Dichanthelium dichotomum	10	Yes	FAC	Tree – Woody plants, ex	-		
5. Arthraxon hispidus	10	Yes	FAC	in diameter at breast he	igni (Don),	regardiess	of neight.
6. Carex lurida	10	Yes	OBL	Sapling/shrub - Woody	nlants evclu	iding vines	s loss than 3
7. Pycnanthemum virginianum	5	No	FAC	in. DBH and greater tha		-	
8. Fraxinus pennsylvanica	5	No	FACW				,
9. Potentilla simplex	5	No	FACU	Herb – All herbaceous (r	non-woody)	plants, reg	gardless of
10. Apocynum cannabinum	5	No	FACU	size, and woody plants l	ess than 3.2	8 ft tall.	
	5	No	OBL				
11. <u>Scirpus atrovirens</u>	85	= Total Cov	-	Woody vines – All wood	v vines grea	tor than 3	28 ft in
		-		height.	y villes grea	ter than 5.	201111
50% of total cover: <u>42.5</u>	_ 20% 01 to	ital cover:	17				
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> ) 1.							
2.							
				Hydrophytic Vegetatior	Drocont2		-
3.	·				i Flesent?		
4	·						
5		- Tatal Cau					
	0	= Total Cov					
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0				
Remarks: (Include photo numbers here or on a separa A positive indication of hydrophytic vegetation was obs		)% of domin	ant species	indexed as OBL, FACW, or	FAC).		

# SOIL

# Sampling Point: W-A18-44\_PEM-1

inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 4	10YR 4/2	90	2.5YR 4/6	10	<u>турс</u> С	 M		Silt Loam	Kemarks
4 - 16	2.5Y 5/3	85	7.5YR 5/8	10	C			Sandy Loam	
4 - 16	2.51 5/5		2.5Y 5/1	5	 D				
16 - 20	10YR 6/4	70	5YR 5/8	20	 C			Clay	
16 - 20	1011(0)-	70	2.5Y 5/1	10	 D			City	
10-20			2.51 5/1						
				·					
[vne: ( = (	Concentration, D = 1	Depletion.	RM = Reduced Matr	ix. MS = N	Masked S	and Grains	<sup>2</sup> l ocatio	n: PL = Pore Lining, M = N	<i>N</i> atrix
	Indicators:	Depiction,		IX, WIJ – I	viaskeu s		Locatio	Indicators for Problema	
_ Black His _ Hydroger _ Stratified _ 2 cm Muc _ Depleted _ Thick Dar _ Sandy Mu _ Sandy Gle _ Sandy Re	pedon (A2) tic (A3) n Sulfide (A4) Layers (A5) ck (A10) <b>(LRR N)</b> Below Dark Surface rk Surface (A12) ucky Mineral (S1) <b>(LR</b> eyed Matrix (S4)	. ,	Polyva Thin I Loam Deple Redox Deple Redox 147, 148) Iron-M Umbr Piedm	Dark Surfa y Gleyed I ted Matri: < Dark Sur ted Dark < Depress Manganes ric Surface nont Flood	w Surface ace (S9) <b>(N</b> Matrix (F2 x (F3) rface (F6) Surface (F ions (F8) e Masses e (F13) <b>(M</b> dplain Soi	F7)	) MLRA 13( \ 148)	<ul> <li>2 cm Muck (A10) (MI</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplair</li> <li>147)</li> <li>Very Shallow Dark Si</li> <li>Other (Explain in Ref</li> <li><sup>3</sup>Indicators of hydrophy wetland hydrology mus disturbed or problemat</li> </ul>	(A16) <b>(MLRA 147, 148)</b> n Soils (F19) <b>(MLRA 136,</b> urface (TF12) marks) tic vegetation and t be present, unless
	Layer (if observed):						,		
	ype:		None			Hydric Soil P	Present?		Yes 🛙 No 🗆
	Depth (inches):			-					
emarks:									
. positive i	ndication of hydric	soil was ob	oserved.						



A19 ext



Photo of Sample Plot South



Photo of Sample Plot West

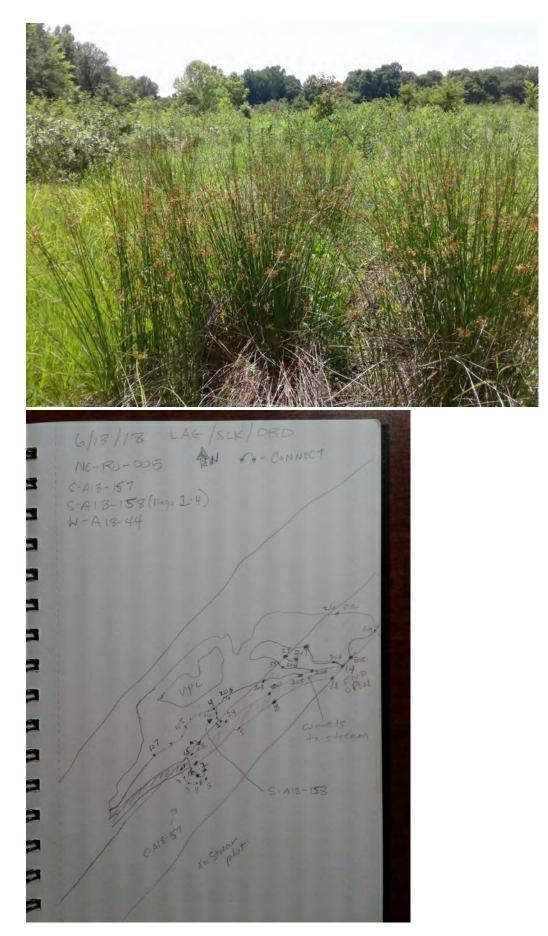


A19 ext

Photo of Sample Plot Sketch

5/22/18 LAC-NCRO-005,000 A JAIR SLK 00 = culvert @= WET\_Plot A18-W-44 101-150 201-217 301-306 401-409 A A A A A A A A A A 14.1





1/14/19 SLK, LAG NC-R0-005.000 W- 418-44 A19 EXT A A A A A A A A A A A 10 END TN 115 E.0 A19 Ext 44 W-A18start open Tr) 0 101 1017 END \* Dele 209 PS5 301 v 210 from A18 16x-25x PSS

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Eden, Rockingham	Sampling Date:	2018-May-21					
Applicant/Owner: NextEra		State: North Caro	lina Sampling Point: W-A1	8-44_PFO-1				
Investigator(s): Laura Giese, Joe Ro	by, Simon King	Section, Township, Range	2:					
Landform (hillslope, terrace, etc.):	Toe Local	relief (concave, convex, no	ne): Concave	Slope (%): 0 to 1				
Subregion (LRR or MLRA): MLRA	A 136 of LRR P	Lat: 36.527938	ong: -79.6450237	Datum: WGS84				
Soil Map Unit Name: Dan River loa	am, 0 to 2 percent slopes, frequently floo	ded	NWI classification	n: None				
Are climatic/hydrologic conditions or	Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)							
Are Vegetation, Soil,	or Hydrology significantly disturbed	d? Are "Normal Circ	umstances" present?	Yes 🟒 No				
Are Vegetation, Soil,	or Hydrology naturally problematic	? (If needed, explai	n any answers in Remarks.	)				

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes _ 🗸 No	Is the Sampled Area within a Wetland?	Yes _ 🖌 No
Remarks:			
Covertype is PFO. Area is wetland, all three w	etland parameters are pr	esent. Recent heavy rains .	

#### HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of or	<u>e is required; check</u>	all that apply)	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— Hy Ox Pro Re Th Ot	ue Aquatic Plants (B14) /drogen Sulfide Odor (C1) kidized Rhizospheres on Living Roots (C3 esence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soils (C6) in Muck Surface (C7) ther (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches): 18	_
(includes capillary fringe)			
Describe Recorded Data (stream g	auge, monitoring we	ll, aerial photos, previous inspections), if	available:
Remarks:			
The criterion for wetland hydrolog	y is met. Water in boi	rehole within 2" likely from surface.	

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

# Sampling Point: W-A18-44\_PFO-1

· · ·				-		
<u>Tree Stratum</u> (Plot size: <u>30)</u>		Dominant		Dominance Test worksheet:		
		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	6	(A)
Platanus occidentalis     Acer negundo	20	Yes Yes	FACW FAC	Total Number of Dominant Species		
3.		163	FAC	Across All Strata:	6	(B)
4.	·			Percent of Dominant Species That	100	(A/B)
5.	·			Are OBL, FACW, or FAC:		(,,,,,,)
6.	·			Prevalence Index worksheet:		
7.				Total % Cover of:	Multiply E	-
	40	= Total Cov	er	OBL species 0 FACW species 55	x 1 =	0
50% of total cover: <u>20</u>	20% of to	tal cover:	8		x 2 = x 3 =	<u>110</u> 90
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				FAC species 30 FACU species 0	x 4 =	0
1. <i>Fraxinus pennsylvanica</i>	5	Yes	FACW	UPL species 0		0
2				Column Totals 85	x 5 = (A)	200 (B)
3				Prevalence Index = B/A =	· · · —	200 (B)
4						
5				Hydrophytic Vegetation Indicators:		
6				1- Rapid Test for Hydrophytic	vegetation	
7				$\checkmark$ 2 - Dominance Test is >50% $\checkmark$ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>		
8				4 - Morphological Adaptations	1 (Drovido c	upporting
9				data in Remarks or on a separate sl		upporting
	5	= Total Cov	er	Problematic Hydrophytic Vege		olain)
50% of total cover: <u>2.5</u>	_20% of to	tal cover:	1	<sup>1</sup> Indicators of hydric soil and wetlar		
Herb Stratum (Plot size: <u>5'</u> )				present, unless disturbed or proble		5
1. <i>Carex tribuloides</i>	20	Yes	FACW	Definitions of Four Vegetation Strat	a:	
2. <i>Boehmeria cylindrica</i>	10	Yes	FACW			
3. <u>Ulmus rubra</u>	10	Yes	FAC	Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more
4	. <u> </u>			in diameter at breast height (DBH),	regardless	of height.
5						
6				Sapling/shrub – Woody plants, exclu	-	
7	·			in. DBH and greater than or equal t	o 3.28 ft (1	m) tall.
8				Herb – All herbaceous (non-woody)	plants rag	ardlace of
9	·			size, and woody plants less than 3.2		ardiess of
10				size, and woody plants less than 5.2	.0 10 001.	
11	·					
		= Total Cov		Woody vines – All woody vines grea	ter than 3.2	28 ft in
50% of total cover: <u>20</u>	_20% of to	tal cover:	8	height.		
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )						
1	·					
2.	·			Linder also the Manufaction Decouver 2		
3.	·			Hydrophytic Vegetation Present?	Yes ⊠ No L	]
4.	·					
5		Tatal Car				
	0	= Total Cov				
50% of total cover: <u>0</u>		tal cover:	0			
Remarks: (Include photo numbers here or on a separa	e sheet.)					
		0/ <b>af</b> classes				
A positive indication of hydrophytic vegetation was obs	erved (>50	17% OT domin	ant species	INDEXED AS UBL, FACW, OF FAC).		

#### SOIL

# Sampling Point: W-A18-44\_PFO-1

Depth	Matrix			ox Features					
(inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 4	10YR 3/2	95	7.5YR 4/6	5	С	M		Silt Loam	
4 - 18	10YR 4/2	50	5YR 4/6	10	С	M	Si	ilty Clay Loam	Mn soft masses
4 - 18	10YR 4/3	40							
18 - 22	2.5Y 5/2	85	7.5YR 4/6	15	С	<u>M</u>		Silt Loam	
				·					
<sup>1</sup> Type: C = 0	Concentration, D = I	Depletion,	RM = Reduced Mat	rix, MS = M	asked S	and Grain	s. <sup>2</sup> Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric Soil								Indicators for Problem	atic Hydric Soils <sup>3</sup> :
Black Hist Hydroger Stratified 2 cm Muc Depleted Thick Dar Sandy Mu Sandy Gle Sandy Re	bedon (A2) ic (A3) Sulfide (A4) Layers (A5) k (A10) <b>(LRR N)</b> Below Dark Surface k Surface (A12) icky Mineral (S1) <b>(LR</b> byed Matrix (S4)		Poly Thin Loar Dep Redu Dep Redu 147, 148) Iron Umt Pied	<ul> <li>Surface (S7 value Below</li> <li>Dark Surfac</li> <li>my Gleyed M</li> <li>leted Matrix</li> <li>box Dark Surf</li> <li>leted Dark S</li> <li>box Depressic</li> <li>Manganese</li> <li>port Flood</li> <li>Parent Mate</li> </ul>	Surface (S9) <b>(N</b> latrix (F2 (F3) ace (F6) urface (F ons (F8) Masses (F13) <b>(M</b> olain Soi	/ILRA 147, 2) (F12) (LRR IRA 136, 1 Is (F19) (M	148) N, MLRA 13 22) LRA 148)		(A16) <b>(MLRA 147, 148)</b> in Soils (F19) <b>(MLRA 136,</b> Surface (TF12) emarks) ytic vegetation and st be present, unless
	Layer (if observed):								
	ype: epth (inches):		None	_		Hydric So	oil Present?		Yes 🛛 No 🗆
A positive i	ndication of hydric	soil was ob	oserved.						

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South

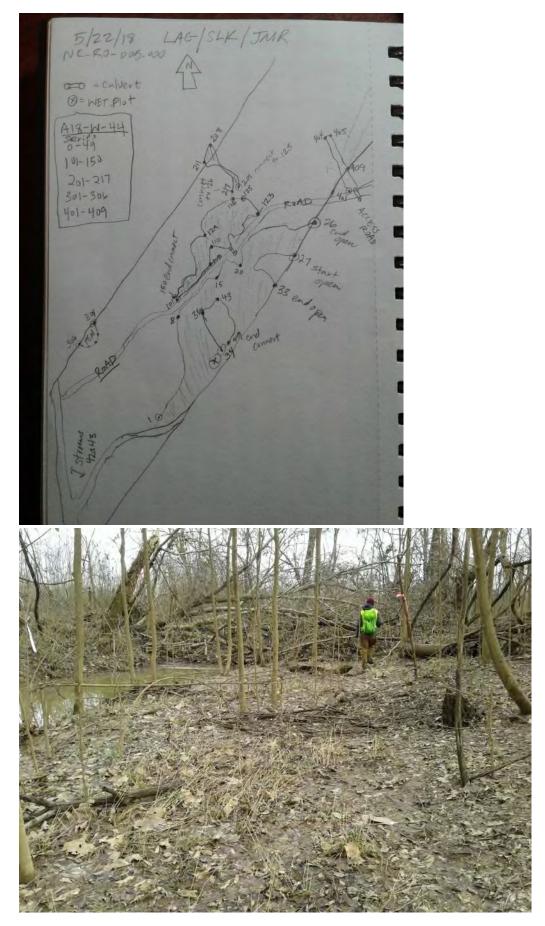


Photo of Sample Plot West

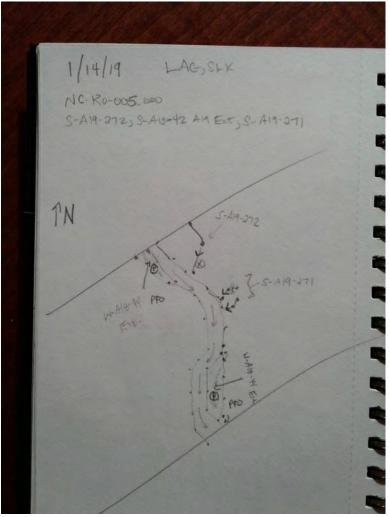


A19 ext

Photo of Sample Plot Sketch



A19 ext 100 series, SE



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Leaksvi	lle, Rockingha Sampling Da	ate: 2019-Jan-14				
Applicant/Owner: NextEra		State: North (	Carolina Sampling Point: \	N-A18-44_PSS-1			
Investigator(s): Laura Giese, Simon King, Simon King Section, Township, Range:							
Landform (hillslope, terrace, etc.)	: Flood Plain	Local relief (concave, convex	<b>, none):</b> Flat	Slope (%): 0 to 1			
Subregion (LRR or MLRA):	/LRA 136 of LRR P	Lat: 36.5287974	Long: -79.6460534	Datum: WGS84			
Soil Map Unit Name: Dan Rive	r loam, 0 to 2 percent slopes, freq	juently flooded	NWI classific	ation:			
Are climatic/hydrologic condition	Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)						
Are Vegetation, Soil,	or Hydrology significantl	ly disturbed? Are "Normal	Circumstances" present?	Yes 🟒 No			
Are Vegetation, Soil,	or Hydrology naturally p	vroblematic? (If needed, ex	kplain any answers in Rema	arks.)			

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _	Is the Sampled Area within a Wetland?	Yes No
Remarks:			
Covertype is PSS. Area is wetland, all three v	vetland parameters are pr	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; check	all that apply)		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— H O Pr Re T	ue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) xidized Rhizospheres on Living R resence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soi hin Muck Surface (C7) ther (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	1	
Water Table Present?	Yes 🟒 No	Depth (inches):	0	- Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	-
(includes capillary fringe)		-		
Describe Recorded Data (stream g	auge, monitoring we	ll, aerial photos, previous inspec	tions), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met.			

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

# Sampling Point: W-A18-44\_PSS-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species Tha	<sup>at</sup> 2 (A)
1.				Are OBL, FACW, or FAC:	
2.				Total Number of Dominant Specie Across All Strata:	es <b>3</b> (B)
3 4.	. <u> </u>			Percent of Dominant Species Tha	t 66.7 (A/B)
5.	. <u> </u>			Are OBL, FACW, or FAC:	<u> </u>
6.				Prevalence Index worksheet:	Maria la Dra
7.				Total % Cover of:	Multiply By:
	0	= Total Cov	er	OBL species 0	x 1 = 0
50% of total cover: <u>0</u>	20% of to	tal cover:	0	FACW species 20	x 2 = 40
Sapling/Shrub Stratum (Plot size:15')				FAC species 55	x 3 = 165
1. Acer negundo	45	Yes	FAC	FACU species 10	x 4 = 40
2. Liquidambar styraciflua	10	No	FAC	UPL species 0	x 5 = 0
3. Platanus occidentalis	10	No	FACW	Column Totals 85	(A) 245 (B)
4.				Prevalence Index = B/A	=
5.	- <u> </u>			Hydrophytic Vegetation Indicator	
6.				1- Rapid Test for Hydrophyti	c Vegetation
7				∠ 2 - Dominance Test is >50%	
0				$4 \le 3$ - Prevalence Index is $\le 3.0$	1
o 9.				4 - Morphological Adaptatio	
·	65	= Total Cov	or	data in Remarks or on a separate	
50% of total cover: <u>32.5</u>		_		Problematic Hydrophytic Ve	-
Herb Stratum (Plot size: _5'_)	_ 20% 01 tt	Juli Cover.	13	<sup>1</sup> Indicators of hydric soil and wetl	
1. Allium vineale	10	Yes	FACU	present, unless disturbed or prob	
-	10			Definitions of Four Vegetation Str	ata:
2. <i>Poa palustris</i>	10	Yes	FACW		
3				Tree – Woody plants, excluding vi	
4				in diameter at breast height (DBH	l), regardless of height.
5				Carling (chards - Missilants - an	
6				Sapling/shrub – Woody plants, ex in. DBH and greater than or equa	-
7					1 to 5.26 ft (1 fil) tall.
8				Herb – All herbaceous (non-wood	w plants regardless of
9				size, and woody plants less than 3	
10					
11					
	20	= Total Cov	er	Woody vines – All woody vines gr	eater than 3.28 ft in
50% of total cover: <u>10</u>	_ 20% of to	otal cover:	4	height.	
Woody Vine Stratum (Plot size: <u>30'</u> )					
1					
2					
3				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆
4					
5					
	0	= Total Cov	er		
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0		
Remarks: (Include photo numbers here or on a separa	te sheet.)			1	
	-				
A positive indication of hydrophytic vegetation was ob	served (>50	0% of domin	ant species	indexed as OBL, FACW, or FAC).	

#### SOIL

# Sampling Point: W-A18-44\_PSS-1

(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 4	10YR 4/3	100			турс			Silt Loam	Kemanos
4 - 8	10YR 4/3	70	10YR 5/1	20	D	M		Silt Loam	
4 - 8	1011(4/5		7.5YR 4/4	10	<u> </u>			Silt Loam	
8 - 14	2.5Y 4/2	90	7.5YR 4/4	10				Silt Loam	
14 - 20	2.5Y 6/4	60	2.5Y 5/2		 		C:	Ity Clay Loam	manganaga concretions
14-20	2.31 0/4		2.31 372	40			51		manganese concretions
1Type: C =	Concentration D = C		PM = Peduced Matrix		Masked S	and Grain		on: PL = Pore Lining, M =	Matrix
	il Indicators:	epietion,	RIVI – Reduced Matin	, 1015 -	Maskeu 3		sLucatic	Indicators for Problem	
Black Hi Hydroge Stratifie 2 cm Mu Deplete Thick Da Sandy M Sandy R Sandy R	en Sulfide (A4) d Layers (A5) uck (A10) <b>(LRR N)</b> d Below Dark Surface ( ark Surface (A12) Mucky Mineral (S1) <b>(LRF</b> ileyed Matrix (S4) edox (S5)	-	Thin D Loamy Deplet Redox Deplet Redox 147, 148) Iron-M Umbri Piedm	ark Surf Gleyed ed Matr Dark Su ed Dark Depress angane Surfac ont Floo	ace (S9) <b>(f</b> Matrix (F2 ix (F3) Irface (F6) Surface (f sions (F8) se Masses e (F13) <b>(M</b> Idplain Soi	F7) ; (F12) <b>(LRR</b> I <b>LRA 136, 1</b> 2 ils (F19) <b>(M</b> I	48) N, MLRA 13 22) .RA 148)		emarks) lytic vegetation and lst be present, unless
	Matrix (S6)		Red Pa	rent Ma	iterial (F21	) (MLRA 12	27, 147)		
	e Layer (if observed): Type:		None			Line of the Co	:  Duo o o o t2		
	Depth (inches):		None			Hydric So	il Present?		Yes 🛛 No 🗆
Remarks:	Deptil (inches).								
A positive	indication of hydric s	oil was o	bserved. The criterior	for hyd	dric soil is	met.			

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West Photo of Sample Plot Sketch

SLK, LAG 1/14/19 NC-R0-005.000 - 418-44 AIG EXT W 1 10 END TN 5.0 115 E.0 A19 Ext W-A18start open 160 0 /01 t ROLLY END Dele 209 PSS 301 25 210 from A18 16x-25x PSS

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County:	Elon, Alamance	Sampling Date:	2018-June-05			
Applicant/Owner: N	extEra			State: North Caro	lina Sampling Point: W-A	18-119_PFO-1		
Investigator(s): Laur	Investigator(s): Laura Giese, Jeff Vandeveer, Nate Renaudin Section, Township, Range:							
Landform (hillslope, te	rrace, etc.):	Foot slope	Local relief (	oncave, convex, no	ne): Concave	Slope (%): 1 to 3		
Subregion (LRR or MLF	RA): MLRA	136 of LRR P	Lat:	36.1999034 L	<b>.ong:</b> -79.5008216	Datum: WGS84		
Soil Map Unit Name:	Chewacla loa	m, 0 to 2 percent slop	pes, frequently flooded		NWI classificatio	n: None		
Are climatic/hydrologic	Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)							
Are Vegetation,	Soil, o	or Hydrology sig	nificantly disturbed?	Are "Normal Circ	umstances" present?	Yes 🟒 No		
Are Vegetation,	Soil, o	or Hydrology na	turally problematic?	(If needed, explai	n any answers in Remarks	.)		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _∠_ No Yes _∠_ No Yes _∠_ No	Is the Sampled Area within a Wetland?	Yes 🏒 No
Remarks:			
Covertype is PFO. Area is wetland, all three v	vetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	e is required; chec	<u>k all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>		rue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	7	- Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes 🟒 No	Depth (inches):	7	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring w	ell, aerial photos, previous inspo	ections), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met.			

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

# Sampling Point: W-A18-119\_PFO-1

	-				
Tree Stratum (Plot size: <u>30</u> )		Dominant		Dominance Test worksheet:	
	% Cover	Species?	Status	Number of Dominant Species That	5 (A)
1. Acer rubrum	65	Yes	FAC	Are OBL, FACW, or FAC:	
2				Total Number of Dominant Species Across All Strata:	5 (B)
3				Percent of Dominant Species That	
4				- Are OBL, FACW, or FAC:	100 (A/B)
5				Prevalence Index worksheet:	
6				- Total % Cover of:	Multiply By:
7	. <u> </u>			- OBL species 0	x1= 0
	65	= Total Cov	er	FACW species 30	x 2 = 60
50% of total cover: <u>32.5</u>	_ 20% of to	otal cover:	13	FAC species 120	x 3 = 360
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species 0	x 4 = 0
1. Liquidambar styraciflua	5	Yes	FAC	- UPL species 0	
2. Nyssa sylvatica	5	Yes	FAC	· · · · · · · · · · · · · · · · · · ·	
3.				- Column Totals 150	(A) <u>420 (B)</u>
4.				Prevalence Index = B/A =	2.8
5.				Hydrophytic Vegetation Indicators:	
6.				1- Rapid Test for Hydrophytic	/egetation
				2 - Dominance Test is >50%	
				$\sim$ 3 - Prevalence Index is $\leq 3.0^{1}$	
8 9.				4 - Morphological Adaptations	
<sup>9.</sup>	10	= Total Cov		- data in Remarks or on a separate sl	
		-		Problematic Hydrophytic Vege	
50% of total cover: <u>5</u>	_ 20% 01 to	otal cover:	2	<sup>1</sup> Indicators of hydric soil and wetlar	
<u>Herb Stratum</u> (Plot size: <u>5</u> )	45		54.6	present, unless disturbed or proble	
1. Microstegium vimineum	45	Yes	FAC	Definitions of Four Vegetation Strat	a:
2. <u>Ilex verticillata</u>	15	Yes	FACW	-	
3. <u>Carex tribuloides</u>	10	No	FACW	<b>Tree</b> – Woody plants, excluding vine	
4. Arisaema triphyllum	5	No	FACW	in diameter at breast height (DBH),	regardless of height.
5				_	
6				Sapling/shrub – Woody plants, exclu	-
7	. <u> </u>			in. DBH and greater than or equal t	o 3.28 ft (1 m) tall.
8				_	
9				Herb – All herbaceous (non-woody)	
10.				size, and woody plants less than 3.2	.8 ft tall.
11.				-	
	75	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 ft in
50% of total cover: <u>37.5</u>	20% of to	_ tal cover:	15	height.	
Woody Vine Stratum (Plot size: <u>30</u> )					
1					
				-	
2				- Hydrophytic Vegetation Present?	Yes 🛛 No 🗆
1					
4. 5.				-	
S		Tabal Car		-	
	0	= Total Cov			
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0		
Remarks: (Include photo numbers here or on a separa	te sheet.)				
A positive indication of hydrophytic vegetation was ob	served (>50	0% of domin	ant species	; indexed as OBL, FACW, or FAC).	

# SOIL

# Sampling Point: W-A18-119\_PFO-1

Depth	Color (moist)	0/		K Feature		1.0.62		Texture	Domorka
(inches) 0 - 7	Color (moist) 10YR 4/2	<u>%</u> 95	Color (moist) 10YR 5/8	<u>%</u> 5	Type <sup>1</sup> C	Loc <sup>2</sup>		Silt Loam	Remarks
7 - 13	10YR 5/2	70	10YR 5/8	10	C	M		Silt Loam	
	TUTK 5/2	70							
7 - 13	10VD C /1		2.5Y 6/1	20	D	<u>M</u>		Candul cam	
13 - 20	10YR 6/1	90	7.5YR 5/8	10	<u>с</u>	M		Sandy Loam	
·		· ·							
·		· ·		<u></u>	·				
Type: C =	Concentration, D = [	Depletion,	RM = Reduced Matr	x, MS =	Masked S	and Grai	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M = N	/latrix.
-Iydric Soi	Indicators:							Indicators for Problema	tic Hydric Soils³:
Black His Hydroge Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G Sandy Ro	ipedon (A2) stic (A3) n Sulfide (A4) d Layers (A5) ck (A10) <b>(LRR N)</b> d Below Dark Surface rk Surface (A12) ucky Mineral (S1) <b>(LR</b> leyed Matrix (S4)		Polyv, Thin I Loam Deple Redo: Deple Redo: Redo: Redo: Iron-N Umbr Piedn	Dark Surf. y Gleyed ted Matr Dark Su ted Dark Depress Aanganes ic Surfact	w Surface ace (S9) <b>(N</b> Matrix (F2 ix (F3) rface (F6) Surface (F sions (F8) se Masses e (F13) <b>(M</b>	MLRA 147 2) 57) (F12) (LR ILRA 136, ils (F19) (I	R N, MLRA 13 122) /ILRA 148)	<ul> <li>2 cm Muck (A10) (MI</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplain</li> <li>147)</li> <li>Very Shallow Dark S</li> <li>Other (Explain in Re</li> <li><sup>6)</sup><sub>3</sub>Indicators of hydrophy wetland hydrology mus disturbed or problemat</li> </ul>	(A16) <b>(MLRA 147, 148)</b> n Soils (F19) <b>(MLRA 136,</b> urface (TF12) marks) tic vegetation and t be present, unless
Restrictive	Layer (if observed):								
	Гуре:		None			Hydric S	Soil Present?		Yes 🛛 No 🗆
	Depth (inches):								
A positive	indication of hydric :	soil was ob	oserved.						

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South

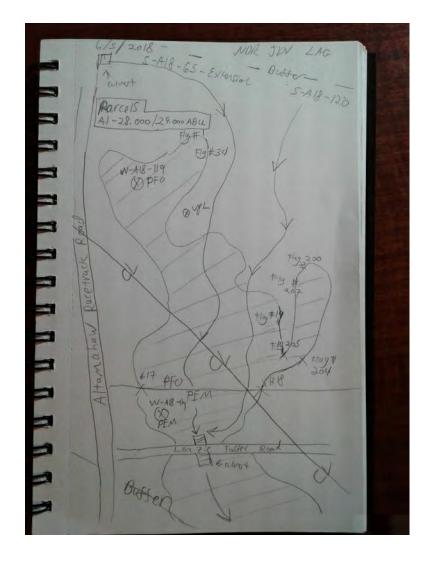


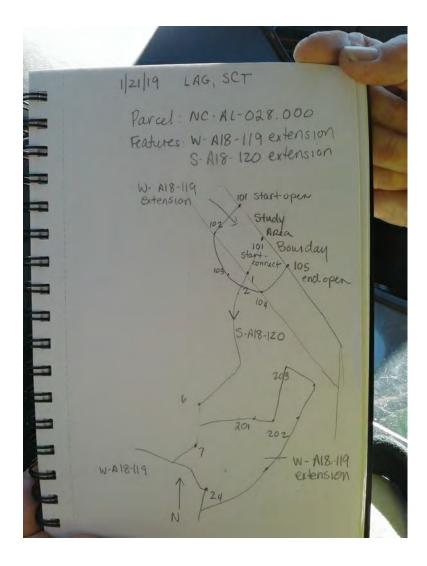
Photo of Sample Plot West



A19 ext

Photo of Sample Plot Sketch





# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County:	Reidsville, Rockingha	am Sam	pling Date: 201	8-June-23	
Applicant/Owner: N	lextEra			State:	North Carolina	Sampling Point: W-A	18-184_PEM-1
Investigator(s): Laur	a Giese, Jake E	Brillo, Susan Thebert	S	ection, Town	ship, Range:		
Landform (hillslope, te	rrace, etc.):	Back slope	Local rel	lief (concave,	convex, none):	Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.2759	36 Long	:-79.5590737	Datum: WGS84
Soil Map Unit Name:	Helena sand	y loam, 2 to 8 percent	t slopes			NWI classificatio	on: None
Are climatic/hydrologic	c conditions or	the site typical for th	is time of year?	Yes 🟒	_ No (If no	o, explain in Remarks.	)
Are Vegetation,	Soil,	or Hydrology sig	gnificantly disturbed?	Are "N	Iormal Circums	tances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology na	turally problematic?	(If nee	ded, explain ar	y answers in Remarks	5.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _	Is the Sampled Area within a Wetland?	Yes _ 🖌 No
Remarks:			
Covertype is PEM. Area is wetland, all three	wetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:			
, .,		ll de se sur le à	Conservation to discover (as in income of the second second
Primary Indicators (minimum of or	<u>ie is required; check a</u>	<u>li that apply)</u>	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hyd _✓ Oxia Pres Rec Thir Oth	e Aquatic Plants (B14) Irogen Sulfide Odor (C1) dized Rhizospheres on Living Roots (C3) sence of Reduced Iron (C4) ent Iron Reduction in Tilled Soils (C6) า Muck Surface (C7) ier (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches): 0	
(includes capillary fringe)			
Describe Recorded Data (stream g	auge, monitoring well,	, aerial photos, previous inspections), if	available:
Remarks:			
The criterion for wetland hydrolog	y is met. Soil is episatu	urated. Saturated from 0-3".	

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

# Sampling Point: W-A18-184\_PEM-1

Tree Stratum (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:			
	% Cover	Species?	Status	Number of Dominant Species	s That	3	(A)
1				Are OBL, FACW, or FAC:	. —		
2				Total Number of Dominant S Across All Strata:	pecies	3	(B)
4				Percent of Dominant Species Are OBL, FACW, or FAC:	That	100	(A/B)
5	<u> </u>			Prevalence Index worksheet:			
6	<u> </u>			Total % Cover of:		ultiply E	۹.
7	<u> </u>			OBL species 60		1 =	60
	0	= Total Cov	/er	FACW species 25		2 =	50
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species 0		2 <u> </u>	0
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species 0		4 =	0
1				UPL species 0		4 5 =	0
2.				Column Totals			
3					· · ·	A)	110 (B)
4.				Prevalence Index =		1.3	
5.				Hydrophytic Vegetation Indic			
6.				1- Rapid Test for Hydrop		etation	
7.	- <u> </u>			2 - Dominance Test is >			
8.				3 - Prevalence Index is :			
o 9.		<u> </u>		4 - Morphological Adapt			upporting
·	0	= Total Cov	/er	data in Remarks or on a sepa			
50% of total cover: <u>0</u>		-		Problematic Hydrophyt	-		
Herb Stratum (Plot size:)	_ 20% 01 10	cover.		<sup>1</sup> Indicators of hydric soil and			y must be
1. Symphyotrichum puniceum	20	Yes	OBL	present, unless disturbed or	-	tic	
2. Juncus effusus	15	Yes	FACW	Definitions of Four Vegetation	n Strata:		
3. Carex crinita	15	Yes	OBL	Tree – Woody plants, excludin	-		
4. Impatiens capensis	10	No	FACW	in diameter at breast height (	DBH), rega	ardless	of height.
5. Alnus serrulata	10	No	OBL	Carling (should be also should be			less these 2
6. Persicaria sagittata	10	No	OBL	Sapling/shrub – Woody plant		-	
7. Sagittaria latifolia	5	No	OBL	in. DBH and greater than or e	:qual to 5	2011(1	iii) tall.
8				Herb – All herbaceous (non-v		nto roa	ardlass of
9	·			size, and woody plants less th		-	al uless of
10	<u> </u>			size, and woody plants less th	1011 5.20 10	. can.	
11							
	85	= Total Cov	/er	Woody vines – All woody vine	es greater	than 3.2	28 ft in
50% of total cover: <u>42.5</u>	_20% of to	otal cover:	17	height.			
Woody Vine Stratum (Plot size: <u>30</u> )							
1							
2							
3				Hydrophytic Vegetation Pres	ent? Yes	🛛 No 🗆	]
4							
5							
	0	= Total Cov	/er				
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0				
Remarks: (Include photo numbers here or on a separa	to shoot )						
Remarks, (include photo numbers here of on a separa	te sheet.j						
A positive indication of hydrophytic vegetation was obs	served (>50	0% of domir	nant species	indexed as OBL, FACW, or FAC)			

# SOIL

# Sampling Point: W-A18-184\_PEM-1

Color (moist)         %         Color (moist)         %         Type         Loc <sup>2</sup> Texture         Remarks           0 - 3         10YR 3/2         93         10YR 4/6         2         C         M         Silt Loam		Matrix			x Featur				<b>-</b> .	
0 - 3 3 - 11       2.5Y 5/1       90       7.5YR 5/8       10       C       M/PL       Silt Loam         11 - 20       N 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam         11 - 20       N 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam         11 - 20       N 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam         11 - 20       N 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam		Color (moist)	<u>    %      </u>	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
3 - 11       2.5Y 5/1       90       7.5YR 5/8       10       C       M/PL       Silt Loam         11 - 20       N 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam         11 - 20       N 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam         11 - 20       N 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam         11 - 20       N 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam         11 - 20       N 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam         11 - 20       M 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam         11 - 20       M 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam       Matrix         11 - 20       M 5/       - 2 cm Muck (Al0 (MR 147, 148)       - Dark Surface (S7)       - 2 cm Muck (Al0 (MR 147, 148)       - Coast Prairie Redox (Al16) (MLRA 147, 148)       - Coast Prairie Redox (Al16) (MLRA 147, 148)       - Coast Prairie Redox (Al16) (MLRA 147, 148)       - Other (Explain in Remarks)         2 cm Muck (Al0 (MR N)       Redox Dark Surface (F1) <td< td=""><td></td><td>10YR 3/2</td><td>93</td><td></td><td></td><td></td><td>-</td><td></td><td>Silt Loam</td><td></td></td<>		10YR 3/2	93				-		Silt Loam	
11 - 20       N 5/       90       7.5YR 5/8       10       C       M       Sandy Clay Loam         Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains.       *Location: PL = Pore Lining, M = Matrix.         Histosol(A1)					-	• • • • • • • • • • • • • • • • • • • •	-		eu	
IType: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. 2Location: PL = Pore Lining, M = Matrix.         IHydric Soil Indicators:       Indicators for Problematic Hydric Soils?:         Histosol (A1)       Dark Surface (S7)         Histosol (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils?:         Liback Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Strattified Layers (A5)       Z cm Muck (A10) (MLRA 147, 148)         Strattified Layers (A5)       Z Depleted Matrix (F2)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)         Strattified Layers (A5)       Z Depleted Dark Surface (F7)         Strattified Layers (A5)       Pelefeed Dark Surface (F7)         Strattified Layers (A5)       Pelefeed Dark Surface (F7)         Strattified Layers (A5)       Pelefeed Dark Surface (F12)         Sandy Gleyed Matrix (S4)       Hort-Manganese Masses (F12) (LRR N, MLRA 136)         Strattified Layers (S5)       Peleform Thoodplant Soils (F19) (MLRA 147, 148)         Strattified Layers (G5)       Red Parent Material (F21) (MLRA 147, 147)         Strattified Layers (S6)       Red Parent Material (F21) (MLRA 147, 147)         Strattified Layers (G6)       Red Parent Material (F21) (MLRA 147, 147)         Strattified Matrix (S6) <td< td=""><td></td><td></td><td></td><td></td><td>-</td><td>·</td><td>-</td><td>·</td><td></td><td></td></td<>					-	·	-	·		
Hydric Soil Indicators: 	11 - 20	N 5/	90	7.5YR 5/8	10	<u> </u>	M	Sa	ndy Clay Loam	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils?         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 com Surface (A12)         Black Histic (A3)       Thin Dark Surface (F5)       Piedmont Floodplain Soils (F19) (MLR 147, 148)         Stratified Layers (A5)       Z Depleted Matrix (F2)       147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (T12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Sandy Mcdox (S5)       Piedmont Floodplain Soils (F12) (MLRA 136, 122)       wetland hydrology must be present, unlogitation and Umbric Surface (F13) (MLRA 136, 122)         Sandy Mcdox (S5)       Piedmont Floodplain Soils (F12) (MLRA 147, 147)       wetland hydrology must be present, unlogitation and Umbric Surface (F13) (MLRA 136, 122)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       disturbed or problematic.         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       disturbed or problematic.         Type:       None       Hydric Soil Present?       Yes ⊠ No □         Depth (inches):       None       Hydric Soil Present?       Yes ⊠ No □         Netmarks:       None       None       Non										
iydric Soil Indicators:       Indicators for Problematic Hydric Soils?         Histics (A1)       — Dark Surface (S7)       — 2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       — Polyvalue Below Surface (S8) (MLRA 147, 148)       — Coast Prairie Redox (A16) (MLRA 147, 147)         Black Histic (A3)       — Thin Dark Surface (S9) (MLRA 147, 148)       — Piedmont Floodplain Soils (F19) (MLR 147, 148)         Ydrogen Sulfide (A4)       — Loamy Gleyed Matrix (F2)       — Piedmont Floodplain Soils (F19) (MLR 147, 148)         2 cm Muck (A10) (LRR N)       — Redox Dark Surface (F6)       — Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       — Depleted Dark Surface (F7)       — Other (Explain in Remarks)         Sandy McKy Mineral (S1) (LRR N, MLRA 147, 148)       — Iron-Manganese Masses (F12) (LRR N, MLRA 136)         Sandy McKy Mineral (S1)       — Piedmont Floodplain Soils (F19) (MLRA 136, 122)         Sandy McKy S5)       — Piedmont Floodplain Soils (F19) (MLRA 136, 122)         Sandy Redox (S5)       — Piedmont Floodplain Soils (F19) (MLRA 147)         Stripped Matrix (S6)       — Red Parent Material (F21) (MLRA 147, 147)         Lestrictive Layer (If observed):						·				
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils?         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 com Surface (A12)         Black Histic (A3)       Thin Dark Surface (F5)       Piedmont Floodplain Soils (F19) (MLR 147, 148)         Stratified Layers (A5)       Z Depleted Matrix (F2)       147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (T12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Sandy Mcdox (S5)       Piedmont Floodplain Soils (F12) (MLRA 136, 122)       wetland hydrology must be present, unlogitation and Umbric Surface (F13) (MLRA 136, 122)         Sandy Mcdox (S5)       Piedmont Floodplain Soils (F12) (MLRA 147, 147)       wetland hydrology must be present, unlogitation and Umbric Surface (F13) (MLRA 136, 122)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       disturbed or problematic.         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       disturbed or problematic.         Type:       None       Hydric Soil Present?       Yes ⊠ No □         Depth (inches):       None       Hydric Soil Present?       Yes ⊠ No □         Netmarks:       None       None       Non	=									
Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)			Depletion,	RM = Reduced Mat	rix, MS =	Masked S	Sand Gra	ains. <sup>2</sup> Locatio	· · · · · ·	
	-								Indicators for Problema	atic Hydric Soils <sup>3</sup> :
								DA 147 440	2 cm Muck (A10) <b>(M</b>	LRA 147)
		•							Coast Prairie Redox	(A16) <b>(MLRA 147, 148)</b>
_ Stratified Layers (A5) Depleted Matrix (F3) 147) _ 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) _ Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) _ Thick Dark Surface (A12) Redox Depressions (F8) _ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) (LRR N, MLRA 136) _ Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) wetland hydrology must be present, unle _ Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unle _ Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Restrictive Layer (if observed): Type: None Hydric Soil Present? Yes ☑ No Remarks:								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Piedmont Floodplai	n Soils (F19) <b>(MLRA 136</b>
	_ Stratified	l Layers (A5)			5 5	-			147)	
									•	
_ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) _ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) _ Type:None Depth (inches): Remarks:			(A11)				F7)		Other (Explain in Re	emarks)
				Kedo	X Depres	SIONS (F8) SA Massas	(E12) <b>(</b> ]		6)	
	-	-	K N, WILKA	147, 140) 11011- Umh	ric Surfac	e (F13) <b>(M</b>	II RA 136	122)	<sup>9</sup> Indicators of hydrophy	tic vegetation and
Stripped Matrix (S6)Red Parent Material (F21) (MLRA 127, 147) disturbed or problematic. Restrictive Layer (if observed): Type: None Hydric Soil Present? Yes 🛛 No 🗆 Depth (inches): Semarks:				_ 01115	ine bainae	c ( ) (		,,	wetland hydrology mu	st be present, unless
Type:     None       Depth (inches):	-								disturbed or problema	tic.
Type:     None       Depth (inches):	Restrictive	Laver (if observed):								
Depth (inches):		-		None			Hydric	Soil Present?		Yes 🛛 No 🗆
Remarks:					-		ingane	Son Present.		
		septir (interies).			_					
s positive indication of hydric soil was observed.										
	۹ positive	indication of hydric	soil was ob	oserved.						

Photo of Sample Plot North



extension B19 01/18/219



Photo of Sample Plot East

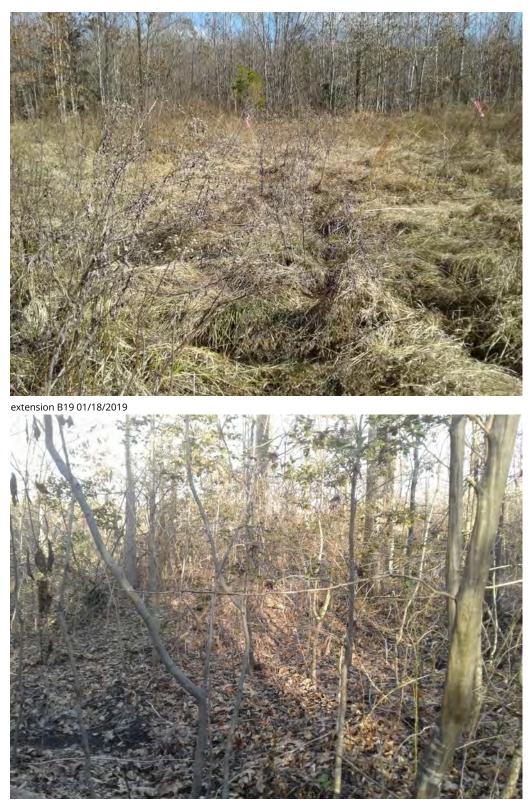


Photo of Sample Plot South



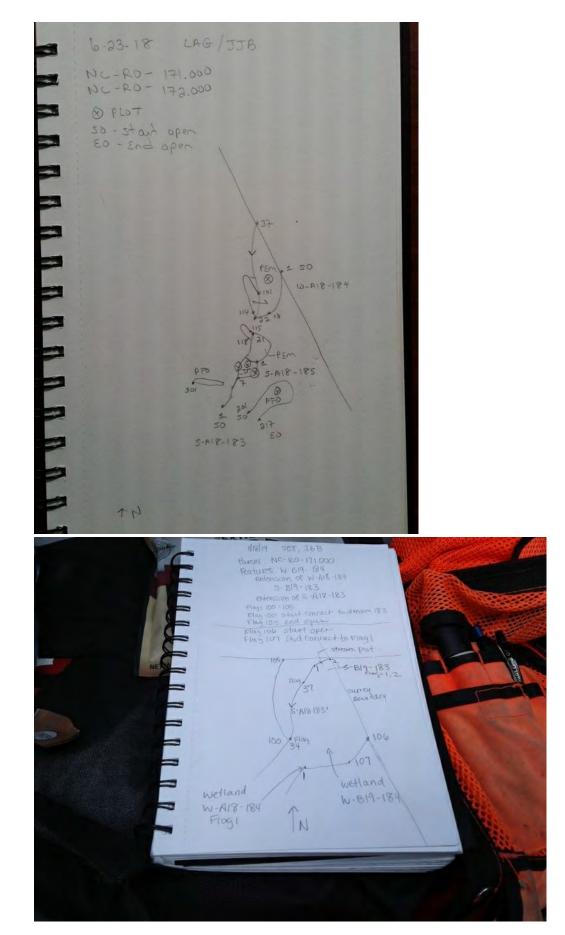
extension B19 01/18/2019



Photo of Sample Plot West



Photo of Sample Plot Sketch



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sout	thgate	City/County	r: Reidsville, Rockin	gham	Sampling Da	ate: 2018	8-June-23	
Applicant/Owner: N	extEra			S	t <b>ate:</b> North C	arolina	Sampling Point: W-	A18-184_PFO-1
Investigator(s): Laur	a Giese, Jake B	rillo, Susan Thebert		Section,	Township, Ra	inge:		
Landform (hillslope, te	rrace, etc.):	Back slope	Local	relief (cor	ncave, convex	, none):	Concave	Slope (%): 2 to 5
Subregion (LRR or MLR	RA): MLRA	A 136 of LRR P		Lat: 3	5.2748826	Long:	-79.558959	Datum: WGS84
Soil Map Unit Name:	Helena sandy	y loam, 2 to 8 perce	nt slopes				NWI classificati	on: None
Are climatic/hydrologic	conditions on	the site typical for	this time of year?	Y	es 🟒 No _	(lf no	, explain in Remarks	.)
Are Vegetation,	Soil,	or Hydrology s	significantly disturbe	ed?	Are "Normal (	Circumst	ances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology r	naturally problemati	c?	(If needed, ex	plain any	y answers in Remark	(S.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 No Yes 🖌 No Yes 🖌 No	Is the Sampled Area within a Wetland?	Yes 🖌 No
Remarks:			
Covertype is PFO. Area is wetland, all three v	vetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	e is required; check	all that apply)		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— Hy Ox Pre Re Th Ot	ue Aquatic Plants (B14) drogen Sulfide Odor (C1) idized Rhizospheres on Living esence of Reduced Iron (C4) cent Iron Reduction in Tilled So in Muck Surface (C7) her (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring wel	l, aerial photos, previous inspe	ections), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

# Sampling Point: W-A18-184\_PFO-1

Tree Stratum (Plot size: <u>30)</u>		Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	10	(A)
1. <u>Acer rubrum</u>	30	Yes	FAC	Are OBL, FACW, or FAC:		
2. <i>Fraxinus caroliniana</i>	20	Yes	OBL	Total Number of Dominant Species Across All Strata:	10	(B)
3	<u> </u>			Percent of Dominant Species That		
4	<u> </u>			Are OBL, FACW, or FAC:	100	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply E	Byr.
7				OBL species 65	x 1 =	<u>99.</u> 65
	50	= Total Cov	er	FACW species 70	x 2 =	140
50% of total cover: <u>25</u>	20% of to	tal cover:	10	· · · · · · · · · · · · · · · · · · ·		
Sapling/Shrub Stratum (Plot size:15)					x 3 =	90
1. <i>Ilex verticillata</i>	35	Yes	FACW	FACU species 0	× 4 =	0
2. Fraxinus caroliniana	10	Yes	OBL	UPL species 0	x 5 =	0
3.				Column Totals 165	(A)	295 (B)
4.	·			Prevalence Index = B/A =	1.8	
5.				Hydrophytic Vegetation Indicators:		
6.	·	· ·		1- Rapid Test for Hydrophytic	Vegetation	
7		<u> </u>		2 - Dominance Test is >50%		
				$▲$ 3 - Prevalence Index is $≤ 3.0^{1}$		
8 9.	·	<u> </u>		4 - Morphological Adaptations	<sup>1</sup> (Provide s	supporting
<sup>9.</sup>	45	- Total Cau		data in Remarks or on a separate s	neet)	
		= Total Cov		Problematic Hydrophytic Vege	etation <sup>1</sup> (Ex	plain)
50% of total cover: <u>22.5</u>	_ 20% of to	tal cover:	9	<sup>1</sup> Indicators of hydric soil and wetlar		gy must be
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed or proble	matic	
1. <u>Carex crinita</u>	10	Yes	OBL	Definitions of Four Vegetation Strat	a:	
2. Juncus effusus	10	Yes	FACW			
3. <i>Impatiens capensis</i>	10	Yes	FACW	<b>Tree</b> – Woody plants, excluding vine		
4. <i>Glyceria striata</i>	10	Yes	OBL	in diameter at breast height (DBH),	regardless	of height.
5. Arisaema triphyllum	10	Yes	FACW			
6. <i>Osmunda spectabilis</i>	10	Yes	OBL	Sapling/shrub – Woody plants, excl	-	
7. <i>Eupatorium perfoliatum</i>	5	No	FACW	in. DBH and greater than or equal t	o 3.28 ft (1	m) tall.
8. <i>Symphyotrichum puniceum</i>	5	No	OBL			
9				Herb – All herbaceous (non-woody)	1 0	ardless of
10				size, and woody plants less than 3.2	28 ft tall.	
11.						
	70	= Total Cov	er	Woody vines – All woody vines grea	iter than 3.	28 ft in
50% of total cover: <u>35</u>	20% of to	tal cover:	14	height.		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )	-					
1.						
2.	·					
3.	·	·		Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	T
4 5.	·	·				
·····	0	= Total Cov	or			
50% of total cover: 0		-				
	_ 20% 01 10	tal cover.	0			
Remarks: (Include photo numbers here or on a separa A positive indication of hydrophytic vegetation was obs		% of domin	ant species	indexed as OBL, FACW, or FAC).		

#### SOIL

# Sampling Point: W-A18-184\_PFO-1

Depth	Calan (	0/	Colorderstat	x Feature		1		Tautuma	Derreiter
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 4	10YR 3/2	95	10YR 5/6		<u> </u>	<u>M</u>		ucky Silt Loam	
4 - 18	5Y 3/1	98	2.5Y 5/1	2		M	M	ucky Silt Loam	
·					· <u> </u>				
·		- <u> </u>		·					
·									
		Depletion, F	M = Reduced Matr	x, MS = I	Masked S	and Grai	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M = N	
Histosol Histoc Ep Black His Stratified Common Stratified Common Common Stratified Common Common Hydroge Common History Common Common Common Common History Common	ipedon (A2) ttic (A3) n Sulfide (A4) l Layers (A5) ck (A10) <b>(LRR N)</b> l Below Dark Surface rk Surface (A12) ucky Mineral (S1) <b>(LR</b> eyed Matrix (S4)		Polyva Thin I Loam Deple _⁄ Redox Deple Redox 47, 148) Iron-M Umbr Piedm	Dark Surfa y Gleyed ted Matr Dark Su ted Dark Depress Aanganes ic Surface	w Surface ace (S9) <b>(N</b> Matrix (F2 ix (F3) rface (F6) Surface (F sions (F8) se Masses e (F13) <b>(M</b>	/ILRA 147 (F12) (LR IRA 136, Is (F19) (1 ) (MLRA	R N, MLRA 13 122) /ILRA 148)	Indicators for Problema 2 cm Muck (A10) (Mi Coast Prairie Redox Piedmont Floodplain 147) Very Shallow Dark S Other (Explain in Re 6) 3Indicators of hydrophy wetland hydrology mus disturbed or problemat	LRA 147) (A16) (MLRA 147, 148) n Soils (F19) (MLRA 136, urface (TF12) marks) tic vegetation and t be present, unless
۹ positive	indication of hydric :	soil was obs	served.						

Photo of Sample Plot



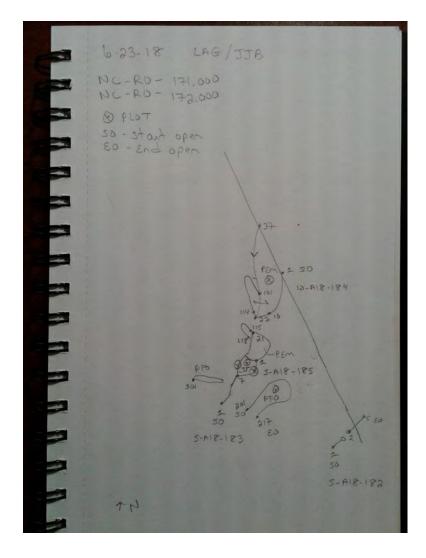
Photo of Sample Plot East Photo of Sample Plot South

Photo of Sample Plot

West



Photo of Sample Plot Sketch





# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County: Eden, Re	ockingham Co	Sampling Date	e: 2019-Jan-07	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-A	A19-257_PEM-1
Investigator(s): Laur	a Giese, Simo	n King	Sectio	n, Township, Ran	ge:	
Landform (hillslope, te	rrace, etc.):	Foot slope	Local relief (c	oncave, convex, r	none): Concave	Slope (%): 1 to 3
Subregion (LRR or MLF	RA):		Lat:	36.5136252	Long: -79.7215924	Datum: WGS84
Soil Map Unit Name:	Leaksville si	lt loam, 0 to 4 percent slopes			NWI classificati	on: None
Are climatic/hydrologic	c conditions o	n the site typical for this time o	of year?	Yes 🟒 No	_ (If no, explain in Remarks	.)
Are Vegetation,	Soil,	or Hydrology significantl	y disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology naturally p	roblematic?	(If needed, exp	lain any answers in Remark	s.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes _ 🖌 No Yes _ 🖌 No		
Wetland Hydrology Present?	Yes No	Is the Sampled Area within a Wetland?	Yes No
Remarks:			
Covertype is PEM. Area is wetland, all three	wetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> </ul>	Hydr Oxid Pres Rece Thin	Aquatic Plants (B14) ogen Sulfide Odor (C1) ized Rhizospheres on Living Roots (C ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) er (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> </ul>
Inundation Visible on Aerial Im	agery (B7)		Geomorphic Position (D2)
Water-Stained Leaves (B9)			Shallow Aquitard (D3)
Aquatic Fauna (B13)			Microtopographic Relief (D4)
			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	_
Water Table Present?	Yes 🟒 No	Depth (inches): 0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches): 0	_
(includes capillary fringe)			
Describe Recorded Data (stream ga	auge, monitoring well,	aerial photos, previous inspections), i	f available:
Remarks:			
The criterion for wetland hydrology	/ is met. pockets of sta	nding water.	
	·	-	

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

# Sampling Point: W-A19-257\_PEM-1

Tree Stratum (Plot size:30)		Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	2	(A)
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Species Across All Strata:	2	(B)
3				Percent of Dominant Species That		
4				Are OBL, FACW, or FAC:	100	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply By	<i>I</i> :
7				OBL species 50	x 1 =	- 50
	0	= Total Cov	er	FACW species 30	x 2 =	60
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species 0	x 3 =	0
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species	x 4 =	
1. Juniperus virginiana		No	FACU	UPL species 0	x 5 =	0
2				Column Totals	(A)	(B)
3				Prevalence Index = B/A =		( )
4				Hydrophytic Vegetation Indicators:		
5				1- Rapid Test for Hydrophytic V	Vegetation	
6				_ 2 - Dominance Test is >50%	vegetation	
7				$3$ - Prevalence Index is $\leq 3.0^{1}$		
8				4 - Morphological Adaptations	1 (Provide si	innorting
9				data in Remarks or on a separate sl		pporting
	0	= Total Cov	er	Problematic Hydrophytic Vege		lain)
50% of total cover: <u>0</u>	_20% of to	otal cover:	0	<sup>1</sup> Indicators of hydric soil and wetlar		
<u>Herb Stratum</u> (Plot size: <u>5' radius</u> )				present, unless disturbed or proble		
1. Scirpus atrovirens	40	Yes	OBL	Definitions of Four Vegetation Strat		
2. Juncus effusus	20	Yes	FACW			
3. <i>Poa palustris</i>	10	No	FACW	Tree – Woody plants, excluding vine	es, 3 in. (7.6 d	m) or more
4. Mimulus ringens	10	No	OBL	in diameter at breast height (DBH),		
5.					•	•
6.				Sapling/shrub - Woody plants, exclu	uding vines,	less than 3
7.				in. DBH and greater than or equal t	o 3.28 ft (1 n	n) tall.
8.	·					
9.	·			Herb – All herbaceous (non-woody)		rdless of
10.				size, and woody plants less than 3.2	28 ft tall.	
11.	·					
····-	80	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.2	8 ft in
50% of total cover: <u>40</u>		-	16	height.		
Woody Vine Stratum (Plot size:)	_2070 01 10	cover.				
1.						
2.						
3.	·			Hydrophytic Vegetation Present?		
	·		<u> </u>	nyarophyae vegetation resent.		
4 5.	·					
J	0	= Total Cov	<u></u>			
		-				
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separa A positive indication of hydrophytic vegetation was obs		0% of domin	ant species	indexed as OBL, FACW, or FAC).		

#### SOIL

# Sampling Point: W-A19-257\_PEM-1

Depth Matrix			x Features		in the absent	e of indicators.)	
inches) Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0-9 N 3/	98	10YR 4/6	2 C	М		Muck	
9 - 11 10Y 4/1	95	10YR 4/6	5 C	М	Gra	velly Clay Loam	
Type: C = Concentration, D	= Depletion, F	RM = Reduced Matr	ix, MS = Masked	Sand Gra	ns. <sup>2</sup> Locatio	n: PL = Pore Lining, M = N	 Matrix.
ydric Soil Indicators:						Indicators for Problema	
_Histosol (A1)			Surface (S7)			2 cm Muck (A10) <b>(M</b> I	I RA 147)
Histic Epipedon (A2)			alue Below Surfac			Coast Prairie Redox	
_ Black Histic (A3) _ Hydrogen Sulfide (A4)			Dark Surface (S9) y Gleyed Matrix (l	-	, 148)		n Soils (F19) (MLRA 136
_ Stratified Layers (A5)			ted Matrix (F3)	-2)		147)	
_ 2 cm Muck (A10) (LRR N)			k Dark Surface (F6	5)		Very Shallow Dark S	urface (TF12)
Depleted Below Dark Surfa	ce (A11)		ted Dark Surface			Other (Explain in Re	
_ Thick Dark Surface (A12)		Redox	Depressions (F8	)			
_ Sandy Mucky Mineral (S1) (	LRR N, MLRA 1	47, 148) Iron-N	/langanese Masse	es (F12) <b>(LF</b>	R N, MLRA 13	<b>6)</b> <sub>3</sub> Indicators of hydrophy	tic vegetation and
_ Sandy Gleyed Matrix (S4)		_ •…•	ie Ballace (i 15) (		,	wetland hydrology mus	the present unless
_ Sandy Redox (S5)			nont Floodplain S			disturbed or problemat	
_Stripped Matrix (S6)	<b>b</b>	Red P	arent Material (F2	21) (MLRA	127, 147)		
estrictive Layer (if observe	d):	Lit group					
Type:		Hit gravel	-	Hydric	Soil Present?		Yes 🗹 No 🗆
Depth (inches): emarks:		11	-				

Hydrology Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot South Photo of Sample Plot West



Photo of Sample Plot Sketch



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County:	Eden, Rockingham Co	Sampling Date	e: 2019-Jan-07	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-	-A19-257_UPL-1
Investigator(s): Laur	a Giese, Simo	n King	Sectio	n, Township, Ran	ge:	
Landform (hillslope, te	rrace, etc.):	Foot slope	Local relief (d	oncave, convex, r	none): Convex	Slope (%): 1 to 3
Subregion (LRR or MLF	RA):		Lat:	36.5136027	Long: -79.7215022	Datum: WGS84
Soil Map Unit Name:					NWI classificat	tion:
Are climatic/hydrologic	c conditions o	n the site typical for th	nis time of year?	Yes 🟒 No	_ (If no, explain in Remark	s.)
Are Vegetation,	Soil,	or Hydrology sig	gnificantly disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology na	aturally problematic?	(If needed, exp	ain any answers in Remar	ks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all thre	e wetland parameters are	e present.	

#### HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	<u>e is required; check a</u>	Secondary Indicators (minimum of two required)	
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hyc Oxi Pre: Rec Thir Oth	e Aquatic Plants (B14) drogen Sulfide Odor (C1) dized Rhizospheres on Living Roots ( sence of Reduced Iron (C4) tent Iron Reduction in Tilled Soils (C6 n Muck Surface (C7) her (Explain in Remarks)	Dry-Season Water Table (C2)
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No _	Depth (inches):	───   Wetland Hydrology Present? Yes No _∠
Saturation Present?	Yes No 🖌	Depth (inches):	
(includes capillary fringe)	···		
	uge, monitoring well	, aerial photos, previous inspections	), if available:
			-
Remarks:			
No positive indication of wetland hy	γdrology was observe	ed.	

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

# Sampling Point: W-A19-257\_UPL-1

	-					
<u>Tree Stratum</u> (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species T	nat 1	(A)
1				Are OBL, FACW, or FAC:		
2	·			Total Number of Dominant Spec Across All Strata:	cies 3	(B)
4.	·			Percent of Dominant Species Th Are OBL, FACW, or FAC:	at 33.3	(A/B)
5				Prevalence Index worksheet:		
6.				<u>Total % Cover of:</u>	Multiply	Dur
7.				OBL species 0	<u>Multiply</u> x 1 =	<u>ру.</u> О
	0	= Total Cove	er	FACW species 0		0
50% of total cover: <u>0</u>	20% of to	tal cover:	0		x 2 =	
Sapling/Shrub Stratum (Plot size: <u>15</u> )					x 3 =	75
1				FACU species 45	x 4 =	180
2.				UPL species 20	x 5 =	100
3.				Column Totals 90	(A)	355 (B)
4.				Prevalence Index = B/	4 = <u>3.9</u>	
5.	·			Hydrophytic Vegetation Indicate	irs:	
6.				1- Rapid Test for Hydrophy	tic Vegetation	1
	·			2 - Dominance Test is > 50	%	
				3 - Prevalence Index is $\leq 3$	.0 <sup>1</sup>	
	·			4 - Morphological Adaptati	ons¹ (Provide	supporting
9				data in Remarks or on a separa	e sheet)	
	0	= Total Cove		Problematic Hydrophytic \	'egetation¹ (Ex	(plain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	<sup>1</sup> Indicators of hydric soil and we	tland hydrolo	gy must be
Herb Stratum (Plot size: <u>5' radius</u> )				present, unless disturbed or pro	blematic	
1. <i>Festuca rubra</i>	40	Yes	FACU	Definitions of Four Vegetation S	trata:	
2. <u>Setaria pumila</u>	25	Yes	FAC			
3. <i>Plantago lanceolata</i>	20	Yes	UPL	Tree – Woody plants, excluding	vines, 3 in. (7.6	6 cm) or more
4. Andropogon virginicus	5	No	FACU	in diameter at breast height (DE	H), regardless	s of height.
5						
6	<u> </u>			Sapling/shrub – Woody plants, e	-	
7				in. DBH and greater than or equ	al to 3.28 ft (1	m) tall.
8						
9				Herb – All herbaceous (non-woo		gardless of
10.				size, and woody plants less than	3.28 ft tall.	
11.						
	90	= Total Cove	er	Woody vines – All woody vines g	reater than 3	.28 ft in
50% of total cover: 45	20% of to	tal cover:	18	height.		
Woody Vine Stratum (Plot size:)	-					
1.						
2.	·					
3.	·			Hydrophytic Vegetation Presen	t? Yes 🗆 No [	7
4.	·					
5.	·					
	0	= Total Cove	or			
50% of total cover:0		-	0			
Remarks: (Include photo numbers here or on a separa	te sheet.)					
Fallow field. No positive indication of hydrophytic vege	tation was	observed (≥	50% of don	ninant species indexed as FAC- o	drier).	

SOIL

# Sampling Point: W-A19-257\_UPL-1

Depth	Matrix		Redo	<pre>K Feature</pre>	s			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 2	10YR 3/2	100		<u> </u>			Silt Loam	
2 - 7	10YR 4/3	100				Gra	avelly Clay Loam	
				·				
				·				
				·				
				·				
		Depletion, R	M = Reduced Matr	x, MS = N	/lasked S	and Grains. <sup>2</sup> Locati	on: PL = Pore Lining, M =	
-	Indicators:						Indicators for Problema	atic Hydric Soils <sup>3</sup> :
_ Histosol				Surface (S			2 cm Muck (A10) <b>(M</b>	ILRA 147)
HISTIC EP Black His	ipedon (A2) tric (A3)					(S8) (MLRA 147, 148) MLRA 147, 148)	Coast Prairie Redox	: (A16) <b>(MLRA 147, 148)</b>
	n Sulfide (A4)			y Gleyed I			Piedmont Floodplai	n Soils (F19) <b>(MLRA 136</b> ,
	Layers (A5)			ted Matrix		-,	147)	
	ck (A10) (LRR N)			Dark Sur			Very Shallow Dark S	Surface (TF12)
_ Depleted	Below Dark Surface	(A11)	_ Deple	ted Dark S	Surface (F	F7)	Other (Explain in Re	
Thick Da	rk Surface (A12)		Redox	Depressi	ions (F8)		•	
Sandy M	ucky Mineral (S1) <b>(LRI</b>	R N, MLRA 14	47, 148) Iron-N	langanes	e Masses	(F12) (LRR N, MLRA 13	<b><sup>36)</sup></b> 3Indicators of hydrophy	tic vegetation and
	eyed Matrix (S4)		_ •	ie bailace	(	2.01100,122)	wetland hydrology mu	st he present unless
Sandy Re	edox (S5)					ils (F19) <b>(MLRA 148)</b>	disturbed or problema	
Stripped	Matrix (S6)		Red P	arent Mat	erial (F21	) (MLRA 127, 147)	disturbed of problema	uc.
	Layer (if observed):							
	Гуре:		Gravel	-		Hydric Soil Present?		Yes 🗆 No 🗹
	Depth (inches):		7	-				
No positiv	e indication of hydrid	c soils was c	observed. No field i	ndicators	s of hydri	ic soils found in top 7	inches .	

#### Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County: Ed	den, Rockingham Co	Sampling Dat	t <b>e:</b> 2019-Jan-07	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: V	V-A19-258_PEM-1
Investigator(s): Laur	a Giese, Simon	King	Se	ection, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Depression	Local reli	ef (concave, convex,	none): Concave	Slope (%): 1 to 3
Subregion (LRR or MLR	RA):		L	at: 36.5138708	Long: -79.7181801	Datum: WGS84
Soil Map Unit Name:	Leaksville silt	loam, 0 to 4 percent slo	opes		NWI classifica	ation:
Are climatic/hydrologic	conditions on	the site typical for this	time of year?	Yes 🟒 No 🔄	(If no, explain in Remar	ks.)
Are Vegetation,	Soil, 0	or Hydrology signi	ficantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology natu	rally problematic?	(If needed, exp	olain any answers in Rema	ırks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes 🖌 No Yes 🖌 No		
Wetland Hydrology Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PEM. Area is wetland, all three v	wetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check	<u>call that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— H O P R TI O	rue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) ixidized Rhizospheres on Living resence of Reduced Iron (C4) ecent Iron Reduction in Tilled So hin Muck Surface (C7) ither (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	4	
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring we	ell, aerial photos, previous inspe	ections), if	available:
Remarks:				
The criterion for wetland hydrology	/ is met.			

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

# Sampling Point: W-A19-258\_PEM-1

Tree Stratum (Plot size:30)		Dominant	Indicator	Dominance Test worksheet:			
	% Cover	Species?	Status	Number of Dominant Specie	es That	3	(A)
1		·		Are OBL, FACW, or FAC:	•		
2	·	·		Total Number of Dominant S Across All Strata:	pecies	3	(B)
4.		·		Percent of Dominant Species	s That	100	(A/B)
5.		·	<u> </u>	Are OBL, FACW, or FAC:	-		
6.	- <u> </u>			Prevalence Index worksheet:	•		_
7.	- <u> </u>			Total % Cover of:	•	Multiply I	•
	0	= Total Cov	er	OBL species 4		x 1 =	40
50% of total cover: <u>0</u>	20% of to	_ tal cover:	0	· · ·	5	x 2 =	50
Sapling/Shrub Stratum (Plot size:15)	_				5	x 3 =	15
1					)	x 4 =	0
2.		·		UPL species (		x 5 =	0
3					0	(A)	105 (B)
4.				Prevalence Index =	= B/A =	1.5	
5.	·			Hydrophytic Vegetation India	cators:		
6.	- <u> </u>	<u> </u>		1- Rapid Test for Hydro	phytic V	egetation	
				2 - Dominance Test is >	50%		
		•		3 - Prevalence Index is	≤ 3.0¹		
8 9.	·	·		4 - Morphological Adap	tations <sup>1</sup>	(Provide	supporting
<sup>2.</sup>	0	= Total Cov	or	data in Remarks or on a sepa			
		-		Problematic Hydrophyt	-		-
50% of total cover: <u>0</u>	_ 20% 01 to	otal cover:	0	<sup>1</sup> Indicators of hydric soil and			gy must be
Herb Stratum (Plot size: <u>5' radius</u> )	25			present, unless disturbed or	1		
1. Scirpus atrovirens	25	Yes	OBL	Definitions of Four Vegetatio	on Strata	:	
2. Juncus effusus	20	Yes	FACW				
3. <u>Mimulus ringens</u>	15	Yes	OBL	<b>Tree</b> – Woody plants, excludi	-		
4. <i>Solidago gigantea</i>	5	No	FACW	in diameter at breast height	(DBH), r	egardless	of height.
5. <u>Rumex crispus</u>	5	No	FAC				
6	·			Sapling/shrub – Woody plant		-	
7	·			in. DBH and greater than or	equal to	) 3.28 π (1	m) tall.
8	<u> </u>						
9	<u> </u>			Herb – All herbaceous (non-v size, and woody plants less t			gardiess of
10				size, and woody plants less t	11011 3.20	5 it tall.	
11							
	70	= Total Cov	er	Woody vines – All woody vine	es great	er than 3.	28 ft in
50% of total cover: <u>35</u>	_20% of to	otal cover:	14	height.			
Woody Vine Stratum (Plot size:)							
1							
2							
3				Hydrophytic Vegetation Pres	sent? Y	'es 🗹 No 🗆	
4							
5							
	0	= Total Cov	er				
50% of total cover: <u>0</u>	_20% of to	otal cover:	0				
Remarks: (Include photo numbers here or on a separa	te sheet.)						
A positive indication of hydrophytic vegetation was obs	served (>50	0% of domin	ant species	indexed as OBL, FACW, or FAC	).		

#### SOIL

# Sampling Point: W-A19-258\_PEM-1

rofile Description: Depth	(Describe to the Matrix	the depth needed to document the indicator or confirm Redox Features				n the absenc	e of indicators.)	
inches) Color	(moist) %	6 Color (mo	oist) %	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 5 5Y	4/1 95	5 7.5YR 4/	65	С	М		Silt Loam	
5 - 16 5Y							manganese concretions	
				- <u> </u>				
Гуре: C = Concentr	ation, D = Deplet	tion, RM = Reduce	d Matrix, MS =	Masked S	Sand Grai	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, I	M = Matrix.
_ Histosol (A1) _ Histic Epipedon (A _ Black Histic (A3) _ Hydrogen Sulfide ( _ Stratified Layers (A _ 2 cm Muck (A10) (I _ Depleted Below Da _ Thick Dark Surface _ Sandy Mucky Mine _ Sandy Gleyed Mat _ Sandy Redox (S5) _ Stripped Matrix (SI	A4) .5) . <b>RR N)</b> ark Surface (A11) (A12) ıral (S1) <b>(LRR N, M</b> rix (S4)	- - - - - - - - - - - - - - - - - - -	_ Dark Surface _ Polyvalue Bela _ Thin Dark Sur _ Loamy Gleyee ✓ Depleted Mat _ Redox Dark S _ Depleted Dar _ Redox Depres _ Iron-Mangane _ Umbric Surfac _ Piedmont Floo _ Red Parent M	ow Surface face (S9) <b>(I</b> d Matrix (F2 rix (F3) urface (F6) k Surface (F8) ese Masses ce (F13) <b>(M</b> odplain So	MLRA 147, 2) F7) 5 (F12) (LR ILRA 136, ils (F19) (N	, 148) R N, MLRA 134 122) //LRA 148)	Piedmont Flood 147) Very Shallow Da Other (Explain i 6) <sub>3</sub> Indicators of hydro	edox (A16) <b>(MLRA 147, 148)</b> dplain Soils (F19) <b>(MLRA 136,</b> ark Surface (TF12) in Remarks) ophytic vegetation and must be present, unless
estrictive Layer (if				ateriai (F2		127, 147)	· ·	
Type:	observeu).	Compacted cla			Ludric 9	Soil Present?		Yes 🛛 No 🗆
Depth (in	-hes):	16	)		ingune .	on mesent:		
he criterion for hy	dric soil is met.							



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West Photo of Sample Plot Sketch

1/7/19 LAG, SLK NC-RO-001.600. CY054 W-A19-258 3 -00 De wet plat De upland plat Flags 1-6 closed 10 Far eastern part of parcel 1 1

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County:	Eden, Rockingham Co	Sampling Dat	e: 2019-Jan-07	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: W	-A19-258_UPL-1
Investigator(s): Laur	a Giese, Simo	n King	Sectio	on, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Back slope	Local relief (	concave, convex,	none): Convex	Slope (%): 5 to 10
Subregion (LRR or MLF	RA):		Lat:	36.5138423	Long: -79.7180899	Datum: WGS84
Soil Map Unit Name:					NWI classifica	tion: None
Are climatic/hydrologic	conditions o	n the site typical for th	nis time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	(S.)
Are Vegetation,	Soil,	or Hydrology si	gnificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology na	aturally problematic?	(If needed, exp	olain any answers in Remar	'ks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No <b>⁄_</b> Yes No <b>⁄_</b>		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:	_		
Covertype is UPL. Area is upland, not all three	e wetland parameters are	e present.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	<u>ne is required; check all t</u>	Secondary Indicators (minimum	of two required)	
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidi: Prese Recer Thin M Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 nce of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) • (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Ir</li> <li>Stunted or Stressed Plants (IC)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	magery (C9) D1)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	— Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):	_	
(includes capillary fringe)			—	
Describe Recorded Data (stream g	auge, monitoring well, a	erial photos, previous inspections), i	f available:	
Remarks:				
The criterion for wetland hydrolog	y is not met.			

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

# Sampling Point: W-A19-258\_UPL-1

	-					
<u>Tree Stratum</u> (Plot size: <u>30)</u>		Dominant		Dominance Test worksheet:		
1		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	0	(A)
1. Juniperus virginiana         2. Prunus serotina	5 5	Yes Yes	FACU FACU	Total Number of Dominant Species Across All Strata:	3	(B)
3				Percent of Dominant Species That	0	(A/B)
5.				Are OBL, FACW, or FAC:		(, , , , , , , , , , , , , , , , , , ,
6.				Prevalence Index worksheet:		_
7.				Total % Cover of:	Multiply I	-
	10	= Total Cove	er	OBL species 0	x 1 =	0
50% of total cover: <u>5</u>	20% of to	- tal cover:	2	FACW species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size:15)	-			FAC species 5	x 3 =	15
1				FACU species 55	x 4 =	220
2.				UPL species 0	x 5 =	0
2				Column Totals 60	(A)	235 (B)
4.				Prevalence Index = B/A =	3.9	
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	Vegetation	
				2 - Dominance Test is > 50%		
				3 - Prevalence Index is $\leq 3.0^1$		
8 9.				4 - Morphological Adaptations		supporting
<i>.</i>	0	= Total Cove	or.	data in Remarks or on a separate s		
50% of total cover:0		-		Problematic Hydrophytic Vege		
Herb Stratum (Plot size: <u>5' radius</u> )	_ 20% 01 10	lai cover.	0	<sup>1</sup> Indicators of hydric soil and wetlar		gy must be
	35	Yes	FACU	present, unless disturbed or proble		
1. Lonicera japonica	5			Definitions of Four Vegetation Strat	a:	
2. Rubus allegheniensis	5	No	FACU			
3. Juniperus virginiana	5	No	FACU	Tree – Woody plants, excluding vine		
4. <u>Euthamia graminifolia</u>	5	No	FAC	in diameter at breast height (DBH),	regardless	of neight.
5				Sapling/shrub – Woody plants, excl	udingvinor	loca than 2
6				in. DBH and greater than or equal t	-	
7.					0 5.20 10 (1	inj tun.
8				Herb – All herbaceous (non-woody)	nlants reg	vardless of
9				size, and woody plants less than 3.2	1 0	
10						
11		<u> </u>				20.6.1
	50	= Total Cove		Woody vines – All woody vines grea	iter than 3.	28 ft in
50% of total cover: <u>25</u>	_20% of to	otal cover:	10	height.		
<u>Woody Vine Stratum</u> (Plot size:)						
1						
2						
3				Hydrophytic Vegetation Present?	Yes 🗆 No 🛓	4
4.						
5						
	0	= Total Cove	er			
50% of total cover: <u>0</u>	_20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separat		50% of dom	inant specie	es indexed as FAC– or drier).		

SOIL

# Sampling Point: W-A19-258\_UPL-1

Profile De Depth	escription: (Describe to Matrix	the dept	h needed to documer Redox			or confirm	n the absend	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	1.002		Texture	Remarks
				70	туре	Loc <sup>2</sup>			Refficience
0 - 2	10YR 4/3	100	4.0) (5.4/2		·	<u> </u>		Silt Loam	
2 - 6	10YR 4/3	98	10YR 4/2	2	D	M		Silt Loam	
						·			
<sup>1</sup> Type: C =	= Concentration, D = D	epletion,	RM = Reduced Matrix	, MS =	Masked S	and Grair	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M =	Matrix.
	il Indicators:	1						Indicators for Problem	
Histoso			Dark Su	urface (	S7)				
	pipedon (A2)					(S8) (MLR	A 147, 148)	2 cm Muck (A10) <b>(N</b>	
	istic (A3)				ace (S9) <b>(N</b>		148)		x (A16) (MLRA 147, 148)
	en Sulfide (A4)		,	-	Matrix (F2	<u>!</u> )			in Soils (F19) <b>(MLRA 136,</b>
	ed Layers (A5)		_ Deplete					147)	C ( (TE10)
	uck (A10) <b>(LRR N)</b> ed Below Dark Surface (/	A 1 1 \	Redox I			-7)		Very Shallow Dark	
	ark Surface (A12)	411)	Depiete		Surface (F8)	-/)		Other (Explain in R	emarks)
	Mucky Mineral (S1) (LRR	N. MI RA 1	147, 148) Iron-Ma	angane	se Masses	(F12) (I RE	R N. MI RA 13	<b>6)</b> ₃Indicators of hydroph	
	Gleyed Matrix (S4)		Umbric	Surfac	e (F13) <b>(M</b>	LRA 136, 1	22)	<sup>3</sup> Indicators of hydroph	ytic vegetation and
-	Redox (S5)		Piedmo					wetland hydrology mu	-
Strippe	d Matrix (S6)		Red Pai	rent Ma	terial (F21	) (MLRA 1	27, 147)	disturbed or problema	atic.
Restrictiv	e Layer (if observed):								
	Туре:	C	ompacted clay			Hydric S	oil Present?		Yes 🗆 No 🗹
	Depth (inches):		6						
The crite	rion for hydric soil is n	ot met. No	o field indicators of hy	vdric so	bils within	top 6".			

#### Photo of Sample Plot East



Photo of Sample Plot West

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County: Ede	n, Rockingham Co	Sampling Date	e: 2019-Jan-08			
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-/	A19-260_PEM-1		
Investigator(s): Laur	n King	Sect	Section, Township, Range:					
Landform (hillslope, te	rrace, etc.):	Back slope	Local relief	(concave, convex, i	none): Concave	Slope (%): 1 to 3		
Subregion (LRR or MLF	RA):		Lat	: 36.5120353	Long: -79.7167437	Datum: WGS84		
Soil Map Unit Name:	Leaksville sil	t loam, 0 to 4 percent slop	es		NWI classificati	on:		
Are climatic/hydrologic	c conditions or	the site typical for this tir	ne of year?	Yes 🟒 No _	_ (If no, explain in Remarks	.)		
Are Vegetation,	Soil,	or Hydrology signific	antly disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology natura	lly problematic?	(If needed, exp	lain any answers in Remark	(S.)		

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PEM.			

#### HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of or	ne is required; chec	<u>k all that a</u>	pply)	Secondary Indicators (minimum of	<u>f two required)</u>
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	F 6 F 7	Hydrogen S Dxidized Rh Presence o Recent Iron Fhin Muck S	ic Plants (B14) Sulfide Odor (C1) hizospheres on Living Roots (C3) f Reduced Iron (C4) Reduction in Tilled Soils (C6) Surface (C7) ain in Remarks)	<ul> <li> Dry-Season Water Table (C2)</li> <li> Crayfish Burrows (C8)</li> <li> Saturation Visible on Aerial Ima</li> <li> Stunted or Stressed Plants (D1)</li> <li> Geomorphic Position (D2)</li> <li> Shallow Aquitard (D3)</li> <li> Microtopographic Relief (D4)</li> </ul>	agery (C9)
Field Observations:				FAC-Neutral Test (D5)	
Surface Water Present?	Yes No	г	Depth (inches):		
Water Table Present?	Yes No		Depth (inches):	- Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No	. L	Depth (inches):	-	
(includes capillary fringe)					
Describe Recorded Data (stream g	auge, monitoring w	, aeriai ţ	notos, previous inspections), in		

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

# Sampling Point: W-A19-260\_PEM-1

	Absolute %	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	Cover	Species?	Status	Number of Dominant Species That	
1			Status	Are OBL, FACW, or FAC:	<b>0</b> (A)
1				<ul> <li>Total Number of Dominant Species</li> </ul>	
2.				Across All Strata:	<b>0</b> (B)
3	· · · · · · · · · · · · · · · · · · ·			Percent of Dominant Species That	
4				Are OBL, FACW, or FAC:	(A/B)
5				Prevalence Index worksheet:	
6				- <u>Total % Cover of:</u>	Multiply By:
7				— OBL species 0	x1= 0
		= Total Cover		FACW species 0	x 2 = 0
50% of total cover: <u>0</u>	_ 20% of total of	over:	0	FAC species 0	x 3 = 0
Sapling/Shrub Stratum (Plot size:)				FACU species 0	x 4 = 0
1				UPL species 0	x 5 = 0
2				- Column Totals 0	(A) 0 (B)
3				Prevalence Index = B/A =	· · · <u> </u>
4					
5	<u> </u>			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>	
9.				4 - Morphological Adaptations	
	0	= Total Cover		<ul> <li>data in Remarks or on a separate s</li> </ul>	
50% of total cover: <u>0</u>	20% of total of	over:	0	Problematic Hydrophytic Vege <sup>1</sup> Indicators of hydric soil and wetlar	
Herb Stratum (Plot size:)				present, unless disturbed or proble	
2				Definitions of Four Vegetation Strat	d.
				- Tree Weedy plants evoluting vind	a 2 in (7 6 cm) or more
				<ul> <li>Tree – Woody plants, excluding vine in diameter at breast height (DBH),</li> </ul>	
					regardless of height.
				– Sapling/shrub – Woody plants, excl	uding vines less than 3
				in. DBH and greater than or equal t	
7					0 5.20 10 (1 11) 001.
8				Herb – All herbaceous (non-woody)	plants regardless of
9				size, and woody plants less than 3.2	
10				_	
11		<u> </u>		_	
	0	= Total Cover		Woody vines – All woody vines grea	ter than 3.28 ft in
50% of total cover: <u>0</u>	_ 20% of total o	over:	0	height.	
Woody Vine Stratum (Plot size:)					
1		<u> </u>		_	
2				_	
3				Hydrophytic Vegetation Present?	Yes 🗆 No 🗹
4				_	
5				_	
	0	= Total Cover			
50% of total cover: <u>0</u>	_ 20% of total of	over:	0		
<b>Remarks: (Include photo numbers here o</b> Juncus effusus, Carex sp. Schoenoplectu	-		hispidus, Juncus	s tenuis, Festuca rubra , Setaria pumila.	

SOIL

# Sampling Point: W-A19-260\_PEM-1

Profile Description: (Describe to the depth needed t Depth Matrix			Redo	x Featur	es			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
-		·						
		·			·			
		·			·			
					· <u> </u>	·		
		·			·	·		
		·			·			
					· <u> </u>	·		
		·			·			
		·			·	·		
Type: C =	Concentration. D = D	Depletion, RN	/ = Reduced Matr	ix. MS =	Masked Sa	and Grains. <sup>2</sup> Locatio	on: PL = Pore Lining, M = I	Matrix.
	Indicators:			ix, 113	musice st		Indicators for Problema	
_ Histosol			Dark	Surface (S	57)			-
_ Histic Ep	ipedon (A2)		Polyv	alue Belo	w Surface	(S8) <b>(MLRA 147, 148)</b>	2 cm Muck (A10) <b>(M</b> Coast Prairie Redox	
_ Black Hi						ILRA 147, 148)	Piedmont Floodplai	
	n Sulfide (A4) d Layers (A5)			iy Gleyed eted Matr	Matrix (F2)	)	Pleamont Ploouplai	
	ick (A10) <b>(LRR N)</b>				rface (F6)		Very Shallow Dark S	urface (TF12)
	d Below Dark Surface (	A11)			Surface (F	7)	Other (Explain in Re	
_	rk Surface (A12)		Redo	x Depress	sions (F8)			
_ ,	ucky Mineral (S1) (LRR	R N, MLRA 147	7, 148) Iron-I	Manganes	se Masses	(F12) (LRR N, MLRA 13	<b>6)</b> <sub>3</sub> Indicators of hydrophy	tic vegetation and
_ Sandy G _ Sandy Ri	leyed Matrix (S4)			ie bailae	c (i i o) (iiii	L <b>RA 136, 122)</b> Is (F19) <b>(MLRA 148)</b>	wetland hydrology mus	st be present, unless
-	Matrix (S6)					) (MLRA 127, 147)	disturbed or problema	tic.
	Layer (if observed):							
	Type:		None			Hydric Soil Present?		Yes 🗆 No 🗹
	Depth (inches):							
emarks:				-				

Photo of Sample Plot North



Photo of Sample Plot East

Photo of Sample Plot South



Photo of Sample Plot West

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	r: Reidsville, Rockingha	am Sampli	ng Date: 2019	9-Jan-08	
Applicant/Owner: N	lextEra			State: No	orth Carolina	Sampling Point: W-	A19-262_PEM-1
Investigator(s): Laur	a Giese, Simor	n King	S	ection, Townsh	ip, Range:		
Landform (hillslope, te	rrace, etc.):	Depression	Local rel	lief (concave, co	onvex, none):	Concave	Slope (%): 0 to 1
Subregion (LRR or MLF	RA):			Lat: 36.335727	74 Long:	-79.6546839	Datum: WGS84
Soil Map Unit Name:	Clifford-Urba	in land complex, 2 to	o 10 percent slopes			NWI classificat	ion:
Are climatic/hydrologic	c conditions or	the site typical for	this time of year?	Yes 🟒	No (If no,	, explain in Remark	5.)
Are Vegetation,	Soil 🟒,	or Hydrology s	significantly disturbed?	Are "Noi	rmal Circumsta	ances" present?	Yes No 🟒
Are Vegetation,	Soil,	or Hydrology r	naturally problematic?	(If neede	ed, explain any	answers in Remar	ks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 No Yes 🖌 No Yes 🖌 No	Is the Sampled Area within a Wetland?	Yes 🖌 No
Remarks:			
Covertype is PEM. Area is wetland, all three w	etland parameters are pre	sent. Created stormwater feature.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	e is required; check all	<u>that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydr Oxid Preso Rece Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) ized Rhizospheres on Livin ence of Reduced Iron (C4) nt Iron Reduction in Tilled Muck Surface (C7) r (Explain in Remarks)	-	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	2	
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring well, a	aerial photos, previous ins	pections), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

# Sampling Point: W-A19-262\_PEM-1

<u>Tree Stratum</u> (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	3	(A)
1	. <u></u>			Are OBL, FACW, or FAC:		
2	. <u></u>			Total Number of Dominant Species Across All Strata:	4	(B)
3	·			Percent of Dominant Species That		
4	·			Are OBL, FACW, or FAC:	75	(A/B)
5	. <u></u>			Prevalence Index worksheet:		
6	·			Total % Cover of:	Multiply I	Bv:
7	·			OBL species 5	x 1 =	<b></b> 5
	0	= Total Cov	er	FACW species 40	x 2 =	80
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	FAC species 0	x 3 =	0
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species 0	x 4 =	0
1. <i>Salix nigra</i>	5	Yes	OBL	UPL species 15	x 5 =	75
2				Column Totals 60	(A)	160 (B)
3				Prevalence Index = B/A =		100 (B)
4						
5				Hydrophytic Vegetation Indicators:		
6				1- Rapid Test for Hydrophytic	vegetation	
7.				_ ∠ 2 - Dominance Test is >50%		
8.				$4$ - Prevalence Index is $\leq 3.0^{1}$	1 (5 )	
9.				4 - Morphological Adaptations data in Remarks or on a separate s		supporting
	5	= Total Cov	er	Problematic Hydrophytic Vege		(niclay
50% of total cover: <u>2.5</u>	20% of to	tal cover:	1	<sup>1</sup> Indicators of hydric soil and wetlar		
<u>Herb Stratum</u> (Plot size: <u>5' radius</u> )				present, unless disturbed or proble		gymustbe
1. Juncus effusus	25	Yes	FACW	Definitions of Four Vegetation Strat		
2. Scirpus cyperinus	15	Yes	FACW	Deminions of Four Vegetation Strat	<i>a</i> .	
3. Pueraria montana	15	Yes	UPL	<b>Tree</b> – Woody plants, excluding vine	as 3 in <i>(</i> 7 f	5 cm) or more
4.				in diameter at breast height (DBH),		
	·	· ·			- egui aless	0111018110
6.				Sapling/shrub – Woody plants, excl	uding vines	s. less than 3
7				in. DBH and greater than or equal t	-	
8.						
9.	·			Herb – All herbaceous (non-woody)	plants, reg	gardless of
10	·			size, and woody plants less than 3.2	28 ft tall.	-
11	·	<u> </u>				
	55	= Total Cov	or	Woody vines – All woody vines grea	tor than 3	28 ft in
50% of total cover: <u>27.5</u>		-		height.	iter than 5.	2010111
	_20% 01 to	lai cover.	11			
Woody Vine Stratum (Plot size:) 1.						
2.	·	<u> </u>				
	· <u></u>			Hydrophytic Vegetation Present?		7
3.	·			Hydrophyde Vegetation Present?		_
4.	·	·				
5						
	0	= Total Cov	·			
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0			
Remarks: (Include photo numbers here or on a separat						
A positive indication of hydrophytic vegetation was obs	erved (>50	0% of domin	ant species i	indexed as OBL, FACW, or FAC).		

SOIL

# Sampling Point: W-A19-262\_PEM-1

Profile Des Depth	cription: (Describe to Matrix	the depth r		ent the in Feature		or confirm	the absence	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 -					турс			Texture	Kenturks
					·				
<u> </u>				·					
<u> </u>		<u> </u>		·	· <u> </u>	<u> </u>			
<u> </u>				·		·			
<sup>1</sup> Type: C = 0	Concentration, D = De	epletion, RN	l = Reduced Matri	x, MS = I	Masked S	and Grair	ns. <sup>2</sup> Locatio	n: PL = Pore Lining, M =	Matrix.
Hydric Soil								Indicators for Problem	
Histosol (			Dark S	Surface (S	57)				2
	pedon (A2)			-	-	(S8) (MLR	A 147, 148)	2 cm Muck (A10) <b>(N</b>	
Black His	•					MLRA 147,			x (A16) <b>(MLRA 147, 148)</b>
Hydroger	n Sulfide (A4)		Loamy	/ Gleyed	Matrix (F2	2)			in Soils (F19) <b>(MLRA 136,</b>
Stratified	Layers (A5)			ted Matr				147)	
	ck (A10) <b>(LRR N)</b>				rface (F6)			Very Shallow Dark	Surface (TF12)
	Below Dark Surface (A	.11)			Surface (F	F7)		Other (Explain in	Remarks)
	k Surface (A12)		Redox	Depress	sions (F8)				
-	ucky Mineral (S1) (LRR	N, MLRA 147	', 148) Iron-M	langanes	se Masses	(F12) (LRR	R N, MLRA 136	5) <sub>3</sub> Indicators of hydroph	ytic vegetation and
	eyed Matrix (S4)			e banae	c ( ) (	2.0	/	wetland hydrology mu	ist be present, unless
Sandy Re					•	ils (F19) <b>(M</b>		disturbed or problema	
	Matrix (S6)		Red Pa	arent Ma	terial (F21	) (MLRA 1	27, 147)		
Restrictive	Layer (if observed):								
1	Гуре:		None			Hydric S	oil Present?		Yes 🛛 No 🗆
[	Depth (inches):								
Remarks:									
Soils were	assumed to be hydric	due to the	presence of inun	dation. F	ACW and	OBL veg	etation speci	es, and a definitive wetl	and boundary. Profile
	due to red-colored so		•			•			
aistaisea		no deposite	a nom apsiope a	ia masik	ing neid i	indicators	or riyane so		

Soil Photos



Photo of Sample Plot North



Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West

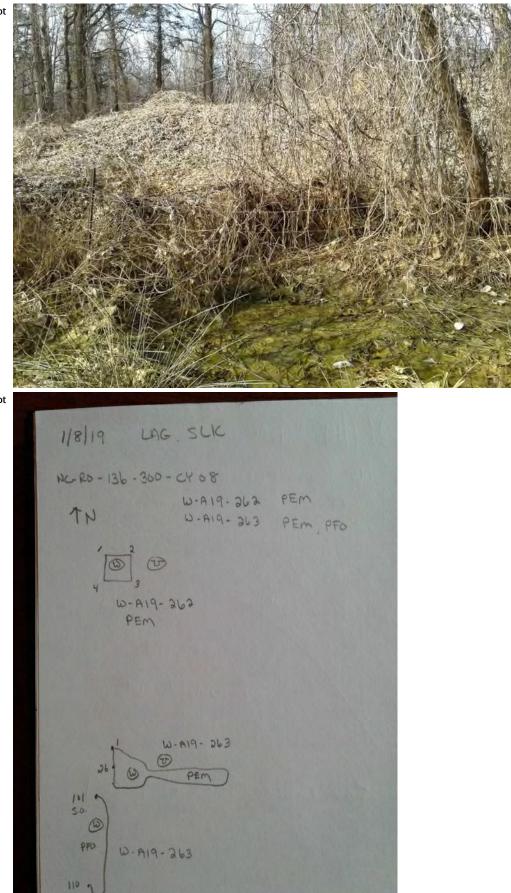


Photo of Sample Plot Sketch

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	ıthgate	City/County:	Reidsville, Rockingham	. Sampling Date	e: 2019-Jan-08	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-	A19-262_UPL-1
Investigator(s): Laur	ra Giese, Simo	n King	Secti	on, Township, Ran	ge:	
Landform (hillslope, te	errace, etc.):	Back slope	Local relief (	concave, convex, i	none): Concave	Slope (%): 2 to 5
Subregion (LRR or ML	RA):		Lat:	36.3357471	Long: -79.6543882	Datum: WGS84
Soil Map Unit Name:					NWI classificat	ion:
Are climatic/hydrologi	c conditions o	n the site typical for thi	s time of year?	Yes 🟒 No	_ (If no, explain in Remarks	5.)
Are Vegetation,	Soil,	or Hydrology sig	nificantly disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology nat	urally problematic?	(If needed, exp	lain any answers in Remark	<s.)< td=""></s.)<>

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all three	wetland parameters are	e present.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	<u>e is required; check all t</u>	hat apply)	Secondary Indicators (minimum	<u>of two required)</u>
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidiz Preset Recen Thin N Other	Aquatic Plants (B14) Igen Sulfide Odor (C1) red Rhizospheres on Living Roots (C3 nce of Reduced Iron (C4) It Iron Reduction in Tilled Soils (C6) Auck Surface (C7) (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Ir</li> <li>Stunted or Stressed Plants (D</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	nagery (C9) 01)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	— Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):	_	
(includes capillary fringe)			—	
Describe Recorded Data (stream ga	uge, monitoring well, a	erial photos, previous inspections), i	f available:	
Remarks:				
No positive indication of wetland hy	/drology was observed.			

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

# Sampling Point: W-A19-262\_UPL-1

	-					
Tree Stratum (Plot size:30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	0	(A)
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Species Across All Strata:	1	(B)
3				Percent of Dominant Species That		
4				Are OBL, FACW, or FAC:	0	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply	Bv:
7				OBL species 0	x 1 =	 0
	0	= Total Cov	er	FACW species 0	x 2 =	0
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species 0	x 3 =	0
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species 90	x 4 =	360
1				UPL species 0	x 5 =	0
2				Column Totals 90	(A)	360 (B)
3				Prevalence Index = B/A =		300 (8)
4						
5				Hydrophytic Vegetation Indicators: 1- Rapid Test for Hydrophytic		
6				2 - Dominance Test is > 50%	vegetation	I
7				$3 - Prevalence Index is \leq 3.0^{1}$		
8	. <u> </u>			4 - Morphological Adaptations	1 (Provide	supporting
9	. <u> </u>			data in Remarks or on a separate s		supporting
	0	= Total Cov	er	Problematic Hydrophytic Vege		(plain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	<sup>1</sup> Indicators of hydric soil and wetlar		
Herb Stratum (Plot size: <u>5' radius</u> )				present, unless disturbed or proble	-	05
1. <i>Festuca rubra</i>	55	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2. <i>Ambrosia artemisiifolia</i>	15	No	FACU			
3. <u>Allium vineale</u>	15	No	FACU	Tree – Woody plants, excluding vine	es, 3 in. (7.6	5 cm) or more
4. <i>Phytolacca americana</i>	5	No	FACU	in diameter at breast height (DBH),	regardless	s of height.
5						
6				Sapling/shrub – Woody plants, excl	-	
7				in. DBH and greater than or equal t	:0 3.28 ft (1	m) tall.
8						
9				Herb – All herbaceous (non-woody) size, and woody plants less than 3.2		gar diess of
10	<u> </u>			size, and woody plants less than s.	20 10 101.	
11						
	90	= Total Cov	er	Woody vines – All woody vines grea	iter than 3.	.28 ft in
50% of total cover: <u>45</u>	_ 20% of to	otal cover:	18	height.		
Woody Vine Stratum (Plot size:)						
1	<u> </u>	<u> </u>				
2	<u> </u>	·				_
3	<u> </u>	·		Hydrophytic Vegetation Present?	Yes 🗆 No 🗄	∠
4	<u> </u>	<u> </u>				
5						
	0	= Total Cov	er			
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separa	te sheet.)					
Fallow field. No positive indication of hydrophytic vege	tation was	observed (≥	50% of dom	ninant species indexed as FAC– or dr	ier).	

#### SOIL

# Sampling Point: W-A19-262\_UPL-1

· · · · · · · · · · · · · · · · · · ·	Matrix Redox Features						
inches) Color (moist)	<u>%</u> C	olor (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0 - 3 2.5YR 4/3	100				Silt Loam	micah	
3 - 16 5YR 4/3	70			·	Silt Loam		
3 - 16 2.5YR 4/6	30			· ·	Loam		
16 - 20 2.5YR 4/6	70				Loam		
16 - 20 2.5YR 4/3	30			·		micah	
	 			·	·		
Type: C = Concentration, D = [	Depletion, RM =	Reduced Matrix	, MS = Masked S	Sand Grains. <sup>2</sup> Locatio	on: PL = Pore Lining, M = N	latrix.	
lydric Soil Indicators:					Indicators for Problema	tic Hydric Soils <sup>3</sup> :	
_ Histic Epipedon (A2) _ Black Histic (A3) _ Hydrogen Sulfide (A4) _ Stratified Layers (A5) _ 2 cm Muck (A10) (LRR N) _ Depleted Below Dark Surface ( _ Thick Dark Surface (A12) _ Sandy Mucky Mineral (S1) (LRI _ Sandy Gleyed Matrix (S5) _ Stripped Matrix (S6)		Thin Da Loamy Depleto Redox Redox 48) Iron-Ma Umbric Piedmo	ark Surface (S9) ( Gleyed Matrix (F3) ed Matrix (F3) Dark Surface (F6) ed Dark Surface ( Depressions (F8) anganese Masses Surface (F13) ( <b>N</b> ont Floodplain So	2) ) ;F7) s (F12) <b>(LRR N, MLRA 13</b>	<ul> <li>2 cm Muck (A10) (ML</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplair</li> <li>147)</li> <li>Very Shallow Dark St</li> <li>Other (Explain in Rer</li> <li>6)<sub>3</sub>Indicators of hydrophytwetland hydrology must</li> <li>disturbed or problemati</li> </ul>	(A16) <b>(MLRA 147, 148)</b> Soils (F19) <b>(MLRA 136,</b> urface (TF12) marks) tic vegetation and be present, unless	
estrictive Layer (if observed):			Territ Material (F2	(WERA 127, 147)	•		
Type:	N	one		Hydric Soil Present?	,	Yes □ No ☑	
Depth (inches):				riyune son resent:			
<b>temarks:</b> 'he criterion for hydric soil is r	not met.						

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	Reidsville, Rockingha	am Sampling Dat	te: 2019-Jan-08	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	A19-263_PEM-1
Investigator(s): Laur	a Giese, Simon	King		Section, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Depression	Local re	lief (concave, convex,	none): Concave	<b>Slope (%):</b> 0 to 1
Subregion (LRR or MLF	RA):			Lat: 36.3341971	Long: -79.6547326	Datum: WGS84
Soil Map Unit Name:	Clifford-Urba	n land complex, 2 to	o 10 percent slopes		NWI classificat	ion:
Are climatic/hydrologic	c conditions on	the site typical for t	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	5.)
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, exp	olain any answers in Remarl	ks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes _ 🖌 No	ls the Sampled Area within a Wetland?	Yes 🖌 No
Remarks:			
Covertype is PEM. Area is wetland, all three	wetland parameters are pr	esent. Created stormwater feature .	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	Secondary Indicators (minimum of two required)			
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	F 6 F 1 0	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Dther (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	1	
Water Table Present?	Yes 🖌 No	Depth (inches):	0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring w	ell, aerial photos, previous inspe	ections), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

# Sampling Point: W-A19-263\_PEM-1

Tree Stratum (Plot size:30)			Indicator	Dominance Test workshe			
	% Cover	Species?	Status	Number of Dominant Spe	ecies That	5	(A)
1				Are OBL, FACW, or FAC:	nt Chasias		
2				Total Number of Domina Across All Strata:	nt species	5	(B)
3				Percent of Dominant Spe	cies That		
4				Are OBL, FACW, or FAC:		100	(A/B)
5				Prevalence Index worksh	eet:		
6				Total % Cover of	•	Multiply	<u>By:</u>
7				OBL species	15	x 1 =	15
		= Total Co		FACW species	55	x 2 =	110
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species	30	x 3 =	90
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15</u> )				FACU species	0	x 4 =	0
1				UPL species	0	x 5 =	0
2				Column Totals	100	(A)	215 (B)
3				Prevalence Inde	ex = B/A =	2.2	
4				Hydrophytic Vegetation I			
5				1- Rapid Test for Hy		/egetatior	
6				✓ 2 - Dominance Test		-8	
7				3 - Prevalence Index			
8				4 - Morphological A		<sup>1</sup> (Provide	supporting
9				data in Remarks or on a s			
	0	= Total Co		Problematic Hydrop	hytic Vege	tation <sup>1</sup> (E>	(plain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	<sup>1</sup> Indicators of hydric soil a			gy must be
<u>Herb Stratum</u> (Plot size: <u>5' radius</u> )				present, unless disturbed	l or proble	matic	
1. Juncus tenuis	25	Yes	FAC	Definitions of Four Veget	ation Strat	a:	
2. Juncus effusus	20	Yes	FACW				
3. Typha X glauca	15	Yes	OBL	Tree – Woody plants, exc	-		
4. <u>Scirpus cyperinus</u>	15	Yes	FACW	in diameter at breast hei	ght (DBH),	regardless	s of height.
5. <i>Salix interior</i>	15	Yes	FACW				
6. Ludwigia alternifolia	5	No	FACW	Sapling/shrub – Woody p		-	
7. <u>Vernonia fasciculata</u>	5	No	FAC	in. DBH and greater than	or equal to	0 3.28 IL (I	m) tall.
8				Herb – All herbaceous (no	an woody)	nlants ro	ardless of
9				size, and woody plants le		•	gai uless of
10							
11							20.6.1
		= Total Co		Woody vines – All woody	vines grea	ter than 3	.28 ft in
50% of total cover: <u>50</u>	_ 20% of to	otal cover:	20	height.			
Woody Vine Stratum (Plot size:)							
1							
2.				I badaa a badia Maradadia a	D	( 🗖 N - 1	_
3.				Hydrophytic Vegetation	Present?	res 🗹 No i	
4.							
5							
	0	= Total Co					
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0				
Remarks: (Include photo numbers here or on a separa A positive indication of hydrophytic vegetation was ob- end of wetland.	-	0% of domi	nant species	indexed as OBL, FACW, or l	FAC). Row o	of Salix nig	gra on west

#### SOIL

# Sampling Point: W-A19-263\_PEM-1

nches) Color (moist)		Features			
	% Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 2 10YR 4/3 1	100			Silt Loam	
2 - 13 N 5/	95 10YR 5/8	5	Sa	ndy Clay Loam	
13 - 20 10B 6/1	90 10YR 5/8	10 C	Μ	Sandy Clay	
Type: C = Concentration, D = Depl	etion, RM = Reduced Matrix	x, MS = Masked S	Sand Grains. <sup>2</sup> Location		
ydric Soil Indicators:				Indicators for Problema	itic Hydric Soils <sup>3</sup> :
_ Histosol (A1)		iurface (S7)	e (S8) <b>(MLRA 147, 148)</b>	2 cm Muck (A10) <b>(M</b>	LRA 147)
_ Histic Epipedon (A2) _ Black Histic (A3)		liue Below Surface ark Surface (S9) <b>(I</b>		Coast Prairie Redox	(A16) <b>(MLRA 147, 148)</b>
_ Hydrogen Sulfide (A4)		Gleyed Matrix (F2		Piedmont Floodplai	n Soils (F19) <b>(MLRA 136</b>
Stratified Layers (A5)	_ ,	ed Matrix (F3)		147)	
_ 2 cm Muck (A10) <b>(LRR N)</b>		Dark Surface (F6)		Very Shallow Dark S	urface (TF12)
_ Depleted Below Dark Surface (A11	· /	ted Dark Surface (	F7)	Other (Explain in Re	marks)
_ Thick Dark Surface (A12) _ Sandy Mucky Mineral (S1) <b>(LRR N,</b>	Redox	Depressions (F8)	(E12) (I DD NI MI DA 12	6)	
_ Sandy Gleyed Matrix (S4)	Umbri	c Surface (F13) <b>(M</b>	ILRA 136. 122)	<b>6)<sub>3</sub>Indicators of hydrophy</b>	tic vegetation and
_ Sandy Redox (S5)			ils (F19) <b>(MLRA 148)</b>	wetland hydrology mus	
_ Stripped Matrix (S6)			1) <b>(MLRA 127, 147)</b>	disturbed or problemat	ic.
estrictive Layer (if observed):					
Туре:	None		Hydric Soil Present?		Yes 🛛 No 🗆
Depth (inches):					
emarks:					

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West Photo of Sample Plot LAG. SLK 1/8/19 NC- RD - 136 - 300 - CY 08 W-A19.262 PEM TN W-A19-263 PEM PFO 000 W-A19-262 PEM W-A19- 263 D 26 0 PEM 101 0 0 PPO W-A19-263 110 7

E.O

Sketch

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County:	Reidsville, Rockinghar	m Sampling Da	te: 2019-Jan-08	
Applicant/Owner: N	lextEra			State: North C	arolina Sampling Point: W	-A19-263_PFO-1
Investigator(s): Laur	ra Giese, Simon l	King	Se	ection, Township, Ra	nge:	
Landform (hillslope, te	errace, etc.):	Тое	Local relie	ef (concave, convex,	none): Concave	Slope (%): 1 to 3
Subregion (LRR or ML	RA):		L	at: 36.3338244	Long: -79.6552068	Datum: WGS84
Soil Map Unit Name:	Clifford-Urban	land complex, 2 to	10 percent slopes		NWI classifica	tion:
Are climatic/hydrologi	c conditions on t	he site typical for th	nis time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	s.)
Are Vegetation,	Soil, oi	r Hydrology sig	gnificantly disturbed?	Are "Normal (	Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil 🟒 , 🛛 o	r Hydrology na	aturally problematic?	(If needed, ex	plain any answers in Remar	ks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes _ 🖌 No	ls the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PFO. Area is wetland, all three v	vetland parameters are pr	resent. Red colored soils.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	Secondary Indicators (minimum of two required)			
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydr Oxidi Prese Rece Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) ized Rhizospheres on Living ence of Reduced Iron (C4) nt Iron Reduction in Tilled S Muck Surface (C7) r (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	0	− Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	_
(includes capillary fringe)				-
Describe Recorded Data (stream ga	auge, monitoring well, a	aerial photos, previous insp	ections), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

# Sampling Point: W-A19-263\_PFO-1

<u>Tree Stratum</u> (Plot size: <u>30)</u>		Dominant		Dominance Test worksheet:		
1 Liquidambar styraciflua	% Cover 30	Species? Yes	Status FAC	Are OBL, FACW, or FAC:	<sup>at</sup> 3	(A)
<ol> <li>Liquidambar styraciflua</li> <li>Fraxinus pennsylvanica</li> </ol>	5	No	FAC	Total Number of Dominant Specie	es _	(5)
3. Quercus phellos	5	No	FAC	Across All Strata:	5	(B)
4.				Percent of Dominant Species Tha	t 60	(A/B)
5.	·			Are OBL, FACW, or FAC:		()
6.	·			Prevalence Index worksheet:	<b>N</b> 4 - 14 <sup>1</sup> - 14 -	<b>D</b>
7.				- <u>Total % Cover of:</u> - OBL species 0	<u>Multiply</u>	-
	40	= Total Cov	er	- OBL species 0 FACW species 5	x1= x2=	0
50% of total cover: <u>20</u>	_20% of to	otal cover:	8	FAC species 70		210
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species 10		40
1. Malus sp.	10	Yes	NI	UPL species 0		0
2. Quercus phellos	10	Yes	FAC	- Column Totals 85	(A)	260 (B)
3				Prevalence Index = B/A	_ · · _	200 (D)
4				Hydrophytic Vegetation Indicator		
5				1- Rapid Test for Hydrophyti		n
6				2 - Dominance Test is >50%	e vegetatioi	•
7				$\sim$ 3 - Prevalence Index is $\leq$ 3.0	1	
8		·		4 - Morphological Adaptatio		supporting
9		<u> </u>		data in Remarks or on a separate	-	11 0
		= Total Cov		Problematic Hydrophytic Ve	getation <sup>1</sup> (E:	xplain)
50% of total cover: <u>10</u>	_ 20% of to	otal cover:	4	<sup>1</sup> Indicators of hydric soil and wetl	-	gy must be
Herb Stratum (Plot size: <u>5' radius</u> )			54.6	present, unless disturbed or prob	lematic	
1. Toxicodendron radicans	25	Yes	FAC	Definitions of Four Vegetation Str	ata:	
2. Lonicera japonica	10	Yes	FACU	-		
3	·	<u> </u>		Tree – Woody plants, excluding vi		
4	·			in diameter at breast height (DBH	i), regardless	s of neight.
5 6.	·			- Sapling/shrub – Woody plants, ex	cluding vine	s loss than 3
7.		·		in. DBH and greater than or equa	-	
0	·			-		,
9.		·		Herb – All herbaceous (non-wood	y) plants, re	gardless of
10.	·			size, and woody plants less than 3	3.28 ft tall.	-
11.		·		-		
	35	= Total Cov	≏r	- Woody vines – All woody vines gr	eater than 3	.28 ft in
50% of total cover:17.5		-	7	height.		
Woody Vine Stratum (Plot size:)	_ 20/0 01 10					
1						
2.				-		
3.				Hydrophytic Vegetation Present?	Yes 🗹 No	
4.				-		
5.						
	0	= Total Cov	er			
50% of total cover: <u>0</u>	_20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separat	te sheet.)			-		
A positive indication of hydrophytic vegetation was obs	erved (>50	0% of domin	ant species	indexed as OBL, FACW, or FAC).		

SOIL

# Sampling Point: W-A19-263\_PFO-1

Profile De Depth	escription: (Describe to Matrix	the depth		ent the i x Featur		or confirn	n the absenc	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 16	5YR 4/4	95	5YR 4/2	5	<u> </u>	 M	Sa	ndy Clay Loam	
	511(4)4		511(4/2				50		·
					·				
						<u> </u>			·
					·				
					·				
	Concentration D = D	enletion R	M = Reduced Matr	V MS =	Maskad S	and Grain	as 21 ocatio	on: PL = Pore Lining, M =	Matrix
		epiecion, n		IX, IVIJ -	Maskeu S		is. Locatic		
-	il Indicators:		Deule	Surface (	(7)			Indicators for Problem	auc Hyuric Solis <sup>3</sup> :
Histoso	I (A1) pipedon (A2)			Surface (S		(58) (141 -	A 147, 148)	2 cm Muck (A10) <b>(N</b>	
	pipedon (A2) istic (A3)				ace (S9) <b>(N</b>			Coast Prairie Redo	x (A16) <b>(MLRA 147, 148)</b>
	en Sulfide (A4)				Matrix (F2			Piedmont Floodpla	in Soils (F19) <b>(MLRA 136,</b>
	ed Layers (A5)			ted Matr		-,		147)	
	uck (A10) (LRR N)				irface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (A	A11)	_ Deple	ted Dark	Surface (F	-7)		Other (Explain in	Remarks)
	ark Surface (A12)		Redox	( Depres	sions (F8)				
-	/lucky Mineral (S1) <b>(LRR</b>	N, MLRA 14	47, 148) Iron-N	/langane:	se Masses	(F12) <b>(LRI</b>	R N, MLRA 13	<sup>6)</sup> ³Indicators of hydroph	vtic vegetation and
	Gleyed Matrix (S4)		_ •…•	ie bailae	e (i i e) (iii		,	wetland hydrology mu	st be present, unless
-	Redox (S5)				dplain Soi			disturbed or problema	-
	d Matrix (S6)		Red P	arent Ma	terial (F21	) (MLRA 1	27, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None	-		Hydric S	oil Present?		Yes 🗹 No 🗆
	Depth (inches):			_					
Remarks									
Soils wer	e assumed to be hydri	c due to th	e presence of inun	dation, F	ACW and	l OBL veg	etation spec	ies, and a definitive wetl	and boundary.
	,					0	1		,

Photo of Sample Plot North

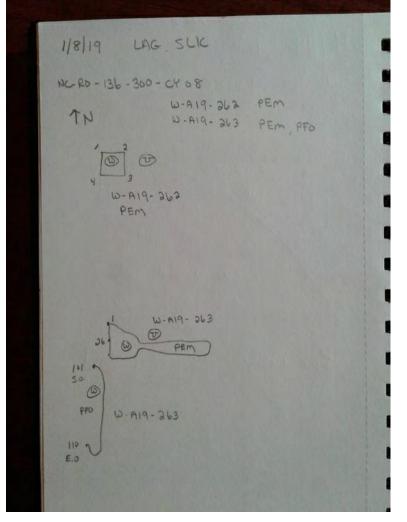


Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

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Photo of Sample Plot
Sketch
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# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County:	Reidsville, Rockingham	Sampling Date	e: 2019-Jan-08	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-A	19-263_UPL-1
Investigator(s): Laur	ra Giese, Simo	n King	Secti	on, Township, Ran	ge:	
Landform (hillslope, te	errace, etc.):	Back slope	Local relief (	concave, convex, r	none): Convex	Slope (%): 5 to 10
Subregion (LRR or ML	RA):		Lat:	36.3340377	Long: -79.6544051	Datum: WGS84
Soil Map Unit Name:					NWI classificati	on:
Are climatic/hydrologi	c conditions o	n the site typical for th	is time of year?	Yes 🟒 No	_ (If no, explain in Remarks	)
Are Vegetation,	Soil 🟒,	or Hydrology sig	nificantly disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology na	turally problematic?	(If needed, expl	ain any answers in Remark	s.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all three	e wetland parameters are	e present.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	Secondary Indicators (minimum	<u>of two required)</u>		
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidiz Preset Recen Thin N Other	Aquatic Plants (B14) Igen Sulfide Odor (C1) red Rhizospheres on Living Roots (C3 nce of Reduced Iron (C4) It Iron Reduction in Tilled Soils (C6) Auck Surface (C7) (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Ir</li> <li>Stunted or Stressed Plants (D</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	nagery (C9) 01)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	— Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):	_	
(includes capillary fringe)			—	
Describe Recorded Data (stream ga	uge, monitoring well, a	erial photos, previous inspections), i	f available:	
Remarks:				
No positive indication of wetland hy	/drology was observed.			

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

# Sampling Point: W-A19-263\_UPL-1

Tree Stratum (Plot size:30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	0	(A)
1				Are OBL, FACW, or FAC:	-	
2	. <u></u>			Total Number of Dominant Species Across All Strata:	1	(B)
3				Percent of Dominant Species That		
4	·			Are OBL, FACW, or FAC:	0	(A/B)
5	. <u></u>			Prevalence Index worksheet:		
6	. <u></u>			Total % Cover of:	Multiply	Bv:
7				OBL species 0	x 1 =	- <b></b> - 0
	0	= Total Cov	er	FACW species 0	x 2 =	0
50% of total cover: <u>0</u>	_20% of to	otal cover:	00	FAC species 0	x 3 =	0
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species 75	x 4 =	300
1				UPL species 0	x 5 =	0
2				Column Totals 75	(A)	300 (B)
3				Prevalence Index = B/A =		
4				Hydrophytic Vegetation Indicators:	-	
5				1- Rapid Test for Hydrophytic		
6				2 - Dominance Test is > 50%	vegetation	
7				$3$ - Prevalence Index is $\leq 3.0^{1}$		
8				4 - Morphological Adaptations	<sup>1</sup> (Provide	supporting
9				data in Remarks or on a separate sl		
	0	= Total Cov	er	Problematic Hydrophytic Vege		plain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	<sup>1</sup> Indicators of hydric soil and wetlar	nd hydrolog	gy must be
Herb Stratum (Plot size: <u>5' radius</u> )				present, unless disturbed or proble	matic	
1. <i>Lespedeza cuneata</i>	55	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2. Rubus allegheniensis	10	No	FACU			
3. <u>Allium vineale</u>	10	No	FACU	Tree – Woody plants, excluding vine		
4. Asteracae	10	No	NI	in diameter at breast height (DBH),	regardless	of height.
5						
6				Sapling/shrub – Woody plants, exclu	-	
7				in. DBH and greater than or equal t	.0 3.28 ft (1	m) tall.
8				Llorb All borbaccours (non-woods)	plants ro	tardlass of
9				Herb – All herbaceous (non-woody) size, and woody plants less than 3.2		gar diess of
10				size, and woody plants less than 5.2	-0 11 1011.	
11						
	85	= Total Cov	er	Woody vines – All woody vines grea	iter than 3.	.28 ft in
50% of total cover: <u>42.5</u>	_20% of to	otal cover:	17	height.		
Woody Vine Stratum (Plot size:)						
1	·					
2	·	·				
3	·	·		Hydrophytic Vegetation Present?	Yes 🗆 No 🛙	
4	·					
5						
	0	= Total Cov	er			
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separa	e sheet.)					
Fallow field. No positive indication of hydrophytic vege	tation was	observed (≥	≥50% of don	ninant species indexed as FAC– or dri	ier).	

SOIL

# Sampling Point: W-A19-263\_UPL-1

Depth	Matrix		the depth needed to document the indicator or confi Redox Features				ence of indicators.	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 16	5YR 4/3	80					Sandy Clay	
0 - 16	5YR 4/6	20			. <u> </u>		Sandy Clay	
					. <u> </u>			
					. <u> </u>			
								_
		<u> </u>						
'Type: C =	Concentration, D = D	epletion, F	RM = Reduced Ma	trix, MS =	Masked S	and Grains. <sup>2</sup> Loc	ation: PL = Pore Lining, M =	= Matrix.
Hydric Soi	l Indicators:						Indicators for Probler	natic Hydric Soils <sup>3</sup> :
_ Histosol				k Surface (			2 cm Muck (A10) <b>(</b>	MLRA 147)
	ipedon (A2)					(S8) (MLRA 147, 14	8)	ox (A16) (MLRA 147, 148)
Black His	stic (A3) en Sulfide (A4)			n Dark Surf my Gleyed		MLRA 147, 148)		ain Soils (F19) (MLRA 136
_ , 0	d Layers (A5)			leted Matr		-)	147)	
	ick (A10) <b>(LRR N)</b>			ox Dark Su			Very Shallow Dark	Surface (TF12)
•	d Below Dark Surface (	A11)		leted Dark	-	-7)	Other (Explain in I	Remarks)
	rk Surface (A12)		Red	ox Depres	sions (F8)		120)	
-	lucky Mineral (S1) <b>(LRF</b> leyed Matrix (S4)	( N, MLRA 1	47, 148) Iror	i-Mangane: bric Surfac	se Masses	(F12) (LRR N, MLRA LRA 136, 122)	. <b>136)<sub>3</sub>Indicators of hydrop</b>	hytic vegetation and
-	edox (S5)			one ounde	c ( ) (	ls (F19) (MLRA 148)	wetland hydrology m	ust be present, unless
	Matrix (S6)					) (MLRA 127, 147)	disturbed or problem	atic.
Restrictive	Layer (if observed):							
	Туре:		None			Hydric Soil Prese	nt?	Yes 🗆 No 🗹
	Depth (inches):					-		
Remarks:								
The criteri	on for hydric soil is n	ot met. mi	xed several minor	r colors.				

Photo of Sample Plot North



Photo of Sample Plot East





Photo of Sample Plot West



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County:	McLeansville, Guilford	d Sampling Date	e: 2019-Jan-09		
Applicant/Owner: N	extEra			State: North Ca	rolina Sampling Point: W-A	19-265_PFO-1	
Investigator(s): Laura Giese, Simon King, Jim Bolduc Section, Township, Range:							
Landform (hillslope, te	rrace, etc.):	Back slope	ef (concave, convex, r	Slope (%): 2 to 5			
Subregion (LRR or MLR	RA): MLRA	A 136 of LRR P	L	at: 36.1087294	Long: -79.6569703	Datum: WGS84	
Soil Map Unit Name:	Helena-Sedg	efield complex, 0 to (	6 percent slopes		NWI classificatio	on:	
Are climatic/hydrologic	conditions or	the site typical for t	his time of year?	Yes 🟒 No	_ (If no, explain in Remarks.	)	
Are Vegetation,	Soil,	or Hydrology si	gnificantly disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, exp	lain any answers in Remark	5.)	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 No Yes 🖌 No	is the Compled Area within a Wetland?	
Remarks:	Yes No	Is the Sampled Area within a Wetland?	Yes No
Covertype is PFO. Area is wetland, all three v	vetland parameters are pi	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; checl	<u>k all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>		rue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soi Thin Muck Surface (C7) Other (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	6	- Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	-
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring w	ell, aerial photos, previous inspec	tions), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met. Soil is epis	aturated. saturated from 0-6 inch	es. Satur	ation may not be present in summer

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

# Sampling Point: W-A19-265\_PFO-1

Tree Stratum (Plot size:30)		Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	3	(A)
1. <u>Pinus taeda</u>	30	Yes	FAC	Are OBL, FACW, or FAC: Total Number of Dominant Species		
2. <u>Ulmus rubra</u>	20	Yes	FAC	Across All Strata:	5	(B)
3				Percent of Dominant Species That		
4				Are OBL, FACW, or FAC:	60	(A/B)
5		·		Prevalence Index worksheet:	_	
6		·		Total % Cover of:	Multiply I	<u>By:</u>
7				OBL species 0	x 1 =	0
		= Total Cov		FACW species 0	x 2 =	0
50% of total cover: <u>25</u>	_20% of to	ital cover:	10	FAC species 80	x 3 =	240
Sapling/Shrub Stratum (Plot size:15)	20		FAC	FACU species 30	x 4 =	120
1. Liquidambar styraciflua	30	Yes	FAC	UPL species 0	x 5 =	0
2. <u>Acer saccharum</u>	25	Yes	FACU	Column Totals 110	(A)	360 (B)
3	·			Prevalence Index = B/A =	3.3	
4	·			Hydrophytic Vegetation Indicators:		
5	·			1- Rapid Test for Hydrophytic		
6		·		✓ 2 - Dominance Test is >50%	0	
7		·		$3 - Prevalence Index is \leq 3.0^{1}$		
8		<u> </u>		4 - Morphological Adaptations	<sup>1</sup> (Provide	supporting
9				data in Remarks or on a separate s	neet)	
	55	= Total Cov		Problematic Hydrophytic Vege	etation <sup>1</sup> (Ex	plain)
50% of total cover: <u>27.5</u>	_ 20% of to	tal cover:	11	<sup>1</sup> Indicators of hydric soil and wetlar	nd hydrolog	gy must be
Herb Stratum (Plot size: <u>5' radius</u> )				present, unless disturbed or proble	matic	
1. <i>Lonicera japonica</i>	5	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2						
3		·		<b>Tree</b> – Woody plants, excluding vine		
4		·		in diameter at breast height (DBH),	regardless	of height.
5		<u> </u>				
6	. <u> </u>			Sapling/shrub – Woody plants, excl	-	
7		<u> </u>		in. DBH and greater than or equal t	ο 3.28 π (1	m) tall.
8						
9				Herb – All herbaceous (non-woody) size, and woody plants less than 3.2		gardiess of
10					.0 11 tan.	
11						
	5	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.	28 ft in
50% of total cover: <u>2.5</u>	_20% of to	tal cover:	1	height.		
Woody Vine Stratum (Plot size:15)						
1						
2						
3	. <u> </u>			Hydrophytic Vegetation Present?	Yes 🗹 No 🛛	
4	. <u> </u>					
5						
	0	= Total Cov	er			
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0			
Remarks: (Include photo numbers here or on a separa	te sheet.)					
A positive indication of hydrophytic vegetation was ob	served (>50	)% of domin	ant species	indexed as OBL, FACW, or FAC).		

SOIL

# Sampling Point: W-A19-265\_PFO-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicator Depth Matrix Redox Features							·····,	
(inches)	Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 2	10YR 3/2	100		<u></u>			Sandy Loam	
2-6	10YR 4/2	100			······		Loamy Sand	
6 - 12	2.5Y 5/1	90	10YR 5/8	10 C	M		Sandy Clay	
12 - 20	2.5Y 6/1	80	10YR 5/8	20 C			Sandy Clay	
			1011(3)0					
·								
	Concentration, D = D	epletion,	RM = Reduced Matri	x, MS = Masked S	Sand Grair	is. <sup>2</sup> Locatio	on: PL = Pore Lining, M = Indicators for Problem	
_ Black Hi _ Hydroge _ Stratified _ 2 cm Mu _ Depleted _ Thick Da _ Sandy W _ Sandy G	pipedon (A2)		Polyva Thin D Loamy Deplet Redox Redox Redox 147, 148) Iron-M Umbri	Surface (S7) Jue Below Surface (ark Surface (S9) ( Gleyed Matrix (F3) Dark Surface (F6) (and Surface (F6) (and Surface (F8) Depressions (F8) Danganese Massee c Surface (F13) ( <b>M</b> ont Floodplain So	MLRA 147, 2) F7) 5 (F12) (LRF 1LRA 136, 1	148) : N, MLRA 13 22)	Piedmont Floodpla 147) Very Shallow Dark ! Other (Explain in Re <sup>6)</sup> <sub>3</sub> Indicators of hydroph wetland hydrology mu	( (A16) <b>(MLRA 147, 148)</b> in Soils (F19) <b>(MLRA 136</b> Surface (TF12) emarks) ytic vegetation and st be present, unless
_ Stripped	d Matrix (S6)			arent Material (F2			disturbed or problema	tic.
	e Layer (if observed):							
	Type:		Clay		Hydric So	oil Present?		Yes 🗹 No 🗆
emarks:	Depth (inches):		6					
"he criteri	ion for hydric soil is m	net.						

Photo of Sample Plot North

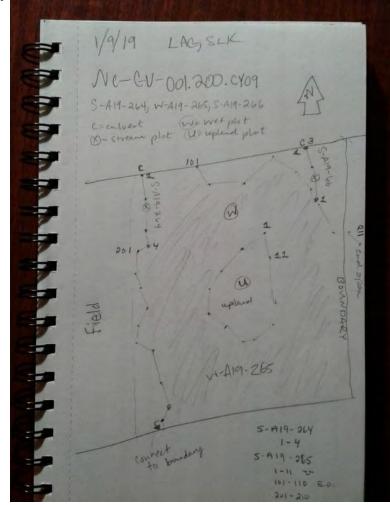


Photo of Sample Plot East

Photo of Sample Plot South



Photo of Sample Plot West Photo of Sample Plot Sketch



Project/Site: MVP Sou	Ithgate	City/County:	McLeansville, Guilford	. Sampling Dat	t <b>e:</b> 2019-Jan-09	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W	-A19-265_UPL-1
Investigator(s): Laur	ra Giese, Simo	n King	Sect	tion, Township, Rai	nge:	
Landform (hillslope, te	errace, etc.):	Back slope	Local relief	(concave, convex,	none): Undulating	Slope (%): 2 to 5
Subregion (LRR or ML	RA):		Lat	: 36.1078602	Long: -79.6559117	Datum: WGS84
Soil Map Unit Name:					NWI classificat	tion:
Are climatic/hydrologi	c conditions o	n the site typical for th	is time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	s.)
Are Vegetation,	Soil,	or Hydrology sig	nificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology na	turally problematic?	(If needed, exp	olain any answers in Remar	ks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes _ 🖌 _ No Yes _ 🖌 _ No		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all thre	e wetland parameters are	present.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all t	<u>hat apply)</u>	Secondary Indicators (minimum	<u>of two required)</u>
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidiz Prese Recen Thin N Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 nce of Reduced Iron (C4) It Iron Reduction in Tilled Soils (C6) Auck Surface (C7) · (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Ir</li> <li>Stunted or Stressed Plants (E</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	nagery (C9) 01)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	— Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):	_	
(includes capillary fringe)			_	
Describe Recorded Data (stream ga	auge, monitoring well, a	erial photos, previous inspections), if	available:	
Remarks:				
No positive indication of wetland h	ydrology was observed.			

## Sampling Point: W-A19-265\_UPL-1

Tree Streeture (Plat size: 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	4 (	A)
1. Pinus taeda	30	Yes	FAC	Are OBL, FACW, or FAC:		A)
2. Liquidambar styraciflua	20	Yes	FAC	Total Number of Dominant Species	6 (	B)
3. Acer saccharum	5	No	FACU	Across All Strata:		
4.	·			Percent of Dominant Species That	66.7 (	A/B)
5.				Are OBL, FACW, or FAC:		,
6.	·			Prevalence Index worksheet:		
7.				<u>Total % Cover of:</u>	<u>Multiply By:</u>	
···	55	= Total Cov	er	OBL species 0	x 1 =	0
50% of total cover: 27.5		-	11	FACW species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size:15)	_2070 01 10	tai cover.		FAC species 70	x 3 =2	10
1. Acer saccharum	10	Yes	FACU	FACU species 20	x 4 =8	0
2. Liquidambar styraciflua	10	Yes	FAC	UPL species 0	x 5 =	C
	10	162	FAC	Column Totals 90	(A) 290	(B)
3.	·			Prevalence Index = B/A =	3.2	
4.	·			Hydrophytic Vegetation Indicators:		
5				1- Rapid Test for Hydrophytic \	/egetation	
6				✓ 2 - Dominance Test is >50%	egetation	
7				$3$ - Prevalence Index is $\leq 3.0^{1}$		
8				4 - Morphological Adaptations	1 (Provide suppo	orting
9				data in Remarks or on a separate sh		n ting
	20	= Total Cov	er	Problematic Hydrophytic Vege		
50% of total cover: <u>10</u>	_20% of to	tal cover:	4	<sup>1</sup> Indicators of hydric soil and wetlan	-	
<u>Herb Stratum</u> (Plot size: <u>5' radius</u> )				present, unless disturbed or proble		5050
1. <i>Lonicera japonica</i>	5	Yes	FACU	Definitions of Four Vegetation Strate		
2.	·			Deminions of Four Vegetation Strat		
3.	·			Tree – Woody plants, excluding vine	s 3 in (7.6 cm)	or more
4.	·			in diameter at breast height (DBH),		
5				in dameter de bredst height (bbri),	regulatess of the	ignt.
6.	·			Sapling/shrub – Woody plants, exclu	Iding vines less	than 3
7.				in. DBH and greater than or equal to	-	
	·				5.2010(111)(0	
8				Herb – All herbaceous (non-woody)	nlants regardle	ss of
9				size, and woody plants less than 3.2		33 01
10				size, and woody planes less than 5.2		
11						
	5	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 ft i	n
50% of total cover: <u>2.5</u>	_20% of to	tal cover:	1	height.		
Woody Vine Stratum (Plot size: <u>30</u> )						
1. Smilax rotundifolia	10	Yes	FAC			
2.						
3.				Hydrophytic Vegetation Present?	íes 🗹 No 🗆	
4.	·					
5.						
	10	= Total Cov	or			
50% of total cover: <u>5</u>		-	2			
50% of total cover. <u>5</u>	_ 20% 01 10	tai cover.	<u> </u>			
Remarks: (Include photo numbers here or on a separat	te sheet.)					
A positive indication of hydrophytic vegetation was obs	erved (>50	% of domin	ant species	indexed as OBL, FACW, or FAC).		

SOIL

## Sampling Point: W-A19-265\_UPL-1

	Depth Matrix		Redox	<pre>K Features</pre>				
(inches)	Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 2	10YR 3/2	100					Sandy Loam	
2 - 10	10YR 4/2	100		· ·			Sandy Loam	
	10YR 6/1	80	10YR 5/8	20 C	M		Clay	
							,	
				·				
				· ·			·	
Type: C =	Concentration, D = I	Depletion,	RM = Reduced Matri	ix, MS = Masked	Sand Grai	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M = N	latrix.
	Indicators:	- I ,		,			Indicators for Problemat	
_ Histosol			Dark S	Surface (S7)				•
_ Histic Ep	ipedon (A2)		Polyva	alue Below Surfac			2 cm Muck (A10) <b>(ML</b> Coast Prairie Redox (	
_ Black His				Dark Surface (S9)	-	, 148)	Piedmont Floodplain	
	n Sulfide (A4) I Layers (A5)			y Gleyed Matrix (l ted Matrix (F3)	-2)		147)	
	ck (A10) <b>(LRR N)</b>			k Dark Surface (F6	5)		Very Shallow Dark Su	ırface (TF12)
	Below Dark Surface	(A11)	Deple	ted Dark Surface	(F7)		Other (Explain in Ren	
_	rk Surface (A12)		Redo>	Corressions (F8	)			
-	ucky Mineral (S1) <b>(LR</b> leyed Matrix (S4)	R N, MLRA	147, 148) Iron-N	/langanese Masse ic Surface (F13) <b>(</b> l	es (F12) (LR	R N, MLRA 13	<b>6)<sub>3</sub>Indicators of hydrophyt</b>	ic vegetation and
_ Sandy Gi _ Sandy Re	•		_ •…•	nont Floodplain S		·,	wetland hydrology must	be present, unless
-	Matrix (S6)			arent Material (F2			disturbed or problemati	с.
Restrictive	Layer (if observed):							
٦	Гуре:		Clay		Hydric S	oil Present?	,	⁄es 🗵 No 🗆
[	Depth (inches):		10		-			
Remarks:								
o positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					
A positive	indication of hydric	soil was ob	oserved.					

Photo of Sample Plot North

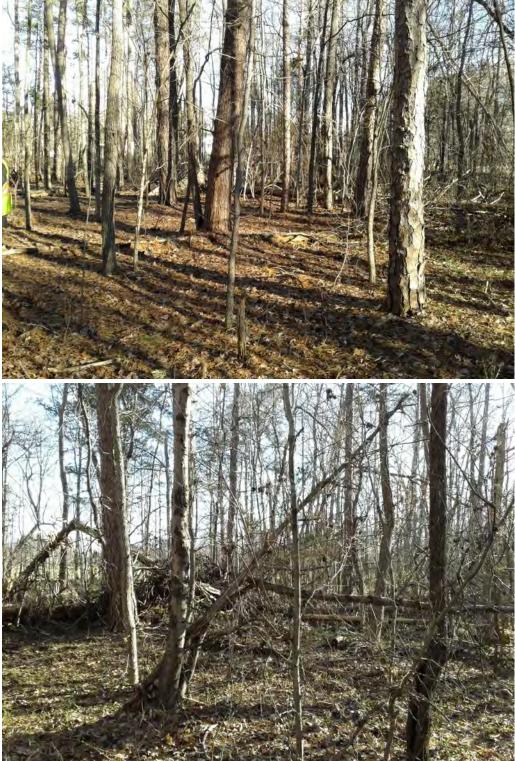


Photo of Sample Plot East Photo of Sample Plot



Photo of Sample Plot West

Project/Site: MVP Sou	thgate	City/Count	<b>y:</b> Reidsville, Rockingha	am Sampling Dat	te: 2019-Jan-10	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	A19-268_PEM-1
Investigator(s): Laur	a Giese, Simo	n King		Section, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Depression	Local re	lief (concave, convex,	none): Concave	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.4335878	Long: -79.670946	Datum: WGS84
Soil Map Unit Name:	Rhodhiss sa	ndy loam, 15 to 30 p	ercent slopes		NWI classificati	on:
Are climatic/hydrologic	c conditions o	n the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)
Are Vegetation,	Soil,	or Hydrology s	significantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology I	naturally problematic?	(If needed, exp	olain any answers in Remark	s.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes _ 🖌 No	Is the Sampled Area within a Wetland?	Yes 🧹 No
Remarks:			
Covertype is PEM. Area is wetland, all three v	wetland parameters are p	resent.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check	<u>c all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— H — C — P — R — T	rue Aquatic Plants (B14) lydrogen Sulfide Odor (C1) )xidized Rhizospheres on Living l resence of Reduced Iron (C4) lecent Iron Reduction in Tilled So hin Muck Surface (C7) Other (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	10	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	10	
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring w	ell, aerial photos, previous inspe	ctions), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

## Sampling Point: W-A19-268\_PEM-1

, ,							
Trac Stratum (Plat size) 20)	Absolute	Dominant	Indicator Status	Dominance Test works	heet:		
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Indicator Status	Number of Dominant	Species That	1	(A)
1.				Are OBL, FACW, or FAC	:	I	(A)
2.				Total Number of Domi	nant Species	3	(B)
3		·		<ul> <li>Percent of Dominant S</li> </ul>	pecies That		
4.		<u> </u>		- Are OBL, FACW, or FAC		33.3	(A/B)
5				- Prevalence Index work			
6				- <u>Total % Cover</u>	of:	Multiply	<u>By:</u>
7				- OBL species	0	x 1 =	0
	0	= Total Cover		FACW species	2	x 2 =	4
50% of total cover: <u>0</u>	-	tal cover:	0	FAC species	0	x 3 =	0
Sapling/Shrub Stratum (Plot size:15	)			FACU species	4	x 4 =	16
1				- UPL species	0	x 5 =	0
2				- Column Totals	6	(A)	20 (B)
3				-	ndex = B/A =		20 (0)
4				- Hydrophytic Vegetatio			
5				— 1- Rapid Test for		logotation	
6				– 2 - Dominance Te		vegetation	
7				3 - Prevalence Ind			
8				– 4 - Morphologica		1 (Drovido	supporting
9				– data in Remarks or on	•		supporting
	0	= Total Cover		Problematic Hydr			nlain)
50% of total cover: <u>0</u>	20% of to	tal cover:	0	<sup>1</sup> Indicators of hydric so			
Herb Stratum (Plot size: <u>5</u> )				present, unless disturb		-	By must be
1. Polystichum acrostichoides	2	Yes	FACU	_ Definitions of Four Veg			
2. Allium vineale	2	Yes	FACU		, eta tion o ti at		
3. Juncus effusus	2	Yes	FACW		excluding vine	es. 3 in. (7.6	5 cm) or more
4.				in diameter at breast h	-		
5.				-	<b>.</b>		, , , , , , , , , , , , , , , , , , ,
6.				Sapling/shrub - Wood	y plants, exclu	uding vine	s, less than 3
7.				in. DBH and greater th	an or equal t	o 3.28 ft (1	m) tall.
8.				=			
9.		·		Herb – All herbaceous			gardless of
10.		·		size, and woody plants	less than 3.2	28 ft tall.	
11.				-			
	6	= Total Cover		- Woody vines – All woo	dy vines grea	ter than 3	.28 ft in
50% of total cover: 3	20% of to	•	1.20000000000000002	height.			
<u>Woody Vine Stratum</u> (Plot size: <u>15</u> )							
1							
2.				-			
2				<ul> <li>Hydrophytic Vegetatic</li> </ul>	on Present?	Yes 🗹 No 🛛	
1							
4 5.				-			
	0	= Total Cover		-			
50% of total cover: <u>0</u>			0				
Remarks: (Include photo numbers here	or on a se	parate sheet.)					
A positive indication of hudron huting	atatica		oblomatic Hudwards at - 1	Vagatation)			
A positive indication of hydrophytic veg	etation wa	s observed (Pi	obiematic Hydrophytic	vegetation).			
1							

## SOIL

## Sampling Point: W-A19-268\_PEM-1

(:	Color (maniat)	0/	Calar (maaint)	0/	T	1 2		Tautuma	Damaarika
(inches) 0 - 10	Color (moist)	<u>%</u> 85	Color (moist)	<u>%</u> 15	Type <sup>1</sup> C	Loc <sup>2</sup>		Texture	Remarks
	2.5Y 4/1		7.5YR 4/6		 C			Sandy Loam	
10 - 20	10Y 5/1	85	7.5YR 4/6	15		M		Loamy Sand	
·									
·									
Type: C =	Concentration, D = I	Depletion,	RM = Reduced Mat	ix, MS = N	Masked S	and Grai	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M = I	Matrix.
<b>-Hydric Soi</b> Histosol	Indicators:							Indicators for Problema	ntic Hydric Soils <sup>3</sup> :
Black His Hydroge Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G Sandy Ro	n Sulfide (A4) l Layers (A5) ck (A10) <b>(LRR N)</b> l Below Dark Surface rk Surface (A12) ucky Mineral (S1) <b>(LR</b> eyed Matrix (S4)		Thin Loan _^ Depl Redo Depl Redo (47, 148) Iron- Umb Piedu	Dark Surfa ny Gleyed eted Matri x Dark Su eted Dark x Depress Manganes ric Surface	ace (S9) <b>(f</b> Matrix (F2 x (F3) rface (F6) Surface (f ions (F8) e (F13) <b>(M</b> dplain Soi	MLRA 147 2) 57) (F12) (LR ILRA 136, ils (F19) (I	R N, MLRA 13 122) //LRA 148)	<ul> <li>2 cm Muck (A10) (M</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplai</li> <li>147)</li> <li>Very Shallow Dark S</li> <li>Other (Explain in Re</li> <li>6)<sub>3</sub>Indicators of hydrophy wetland hydrology mus disturbed or problematical</li> </ul>	(A16) <b>(MLRA 147, 148)</b> n Soils (F19) <b>(MLRA 136</b> urface (TF12) marks) rtic vegetation and st be present, unless
	Layer (if observed):						27, 147)		
	Type:		None			Hydric S	oil Present?		Yes 🗹 No 🗆
	Depth (inches):			-		-			
Remarks:									
A positive	indication of hydric	soil was ob	served.						

Photo of Sample Plot North

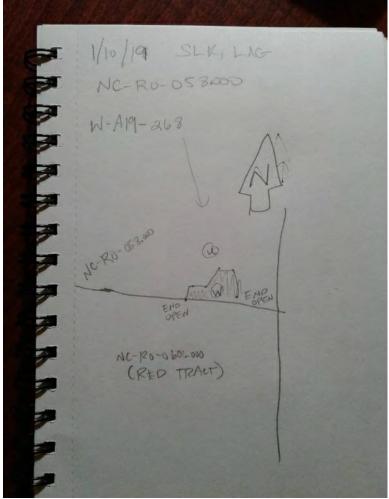


Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

Photo of Sample Plot Sketch



Project/Site: MVP Sou	thgate	City/County	: Reidsville, Rockingham.	Sampling Dat	t <b>e:</b> 2019-Jan-10	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W	-A19-268_UPL-1
Investigator(s): Laur	a Giese, Simo	n King	Sect	ion, Township, Rai	nge:	
Landform (hillslope, te	rrace, etc.):	Foot slope	Local relief	(concave, convex,	none): Concave	Slope (%): 2 to 5
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P	Lat	36.4333055	Long: -79.6709337	Datum: WGS84
Soil Map Unit Name:					NWI classificat	tion:
Are climatic/hydrologic	c conditions or	n the site typical for t	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	s.)
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, exp	olain any answers in Remar	ks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No _ <b>∠</b> Yes No _ <b>∠</b>		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all three	e wetland parameters are	e present.	

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	ie is required; check	<u>k all that apply)</u>	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— H — C — P — R — T	rue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Thin Muck Surface (C7) Other (Explain in Remarks)	Dry-Season Water Table (C2)
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No 🟒	Depth (inches):	──── Wetland Hydrology Present? Yes No _∠
Saturation Present?	Yes No 🟒	Depth (inches):	
(includes capillary fringe)			
Describe Recorded Data (stream ga	auge, monitoring w	ell, aerial photos, previous inspections	;), if available:
Remarks:			
The criterion for wetland hydrolog	y is not met. No pos	sitive indication of wetland hydrology v	was observed.

## Sampling Point: W-A19-268\_UPL-1

Tree Stratum (Plot size: <u>30)</u>		Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That		
1. Liriodendron tulipifera	20	Yes	FACU	Are OBL, FACW, or FAC:	1	(A)
2. Magnolia acuminata	10	Yes	FACU	Total Number of Dominant Species	6	(D)
3. Diospyros virginiana	5	No	FAC	Across All Strata:	0	(B)
4.				Percent of Dominant Species That	16.7	(A/B)
5.	·	· ·		Are OBL, FACW, or FAC:		(,,,,,,)
6.	·	· ·		Prevalence Index worksheet:		
7.	·	· ·		Total % Cover of:	<u>Multiply</u>	•
	35	= Total Cov	er	OBL species 0	x 1 =	0
50% of total cover: <u>17.5</u>		-	7	FACW species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size:15)				FAC species 15	x 3 =	45
1				FACU species 70	x 4 =	280
2.				UPL species 0	x 5 =	0
3.		· ·		Column Totals 85	(A)	325 (B)
4.	·			Prevalence Index = B/A =	3.8	
5.	·			Hydrophytic Vegetation Indicators:		
c	·	· ·		1- Rapid Test for Hydrophytic	Vegetation	ı
	·	<u> </u>		2 - Dominance Test is > 50%		
				$3$ - Prevalence Index is $\leq 3.0^{1}$		
8 9.		·		4 - Morphological Adaptations		supporting
·	0	= Total Cov	er	data in Remarks or on a separate sh		
50% of total cover: 0		-		Problematic Hydrophytic Vege		
Herb Stratum (Plot size: _ 5_)	_ 20 /0 01 00			<sup>1</sup> Indicators of hydric soil and wetlan present, unless disturbed or proble	-	gy must be
1. Lonicera japonica	20	Yes	FACU	1 · · · · · · · · · · · · · · · · · · ·		<u> </u>
2. Polystichum acrostichoides	10	Yes	FACU	Definitions of Four Vegetation Strat	d.	
3. Allium vineale	10	Yes	FACU	-	a Jin (7)	
4.		105	17100	Tree – Woody plants, excluding vine in diameter at breast height (DBH),		
5.	·				regardiess	s of fielgric.
6.	·			- Sapling/shrub – Woody plants, exclu	uding vine	s less than 3
7.	·			in. DBH and greater than or equal to	-	
8.	·					
9.	·	<u> </u>		Herb – All herbaceous (non-woody)	plants, re	gardless of
9 10.	·			size, and woody plants less than 3.2		0
	·	<u> </u>		-		
11		- Tatal Cau		Woody vines – All woody vines grea	tor than 3	28 ft in
	40	= Total Cov		height.		.2010111
50% of total cover: <u>20</u>	_20% 01 to	ital cover:	8			
<u>Woody Vine Stratum</u> (Plot size: <u>15</u> ) 1. <i>Smilax rotundifolia</i>	10	Yes	FAC			
	·	165	FAC	-		
	·	·		Hydrophytic Vegetation Present?		
3.		·		- Hydrophytic Vegetation Present?		<u> </u>
4.	·	<u> </u>				
5		Tatal Car				
	10	= Total Cov	er			
50% of total cover: <u>5</u>	_20% of to	ital cover:				
Remarks: (Include photo numbers here or on a separa						
No positive indication of hydrophytic vegetation was o	bserved (≥	50% of dom	iinant speci	es indexed as FAC– or drier).		

SOIL

## Sampling Point: W-A19-268\_UPL-1

	Matrix		Redox	Feature			the absenc		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 2	7.5YR 4/4	100						Silt Loam	
2 - 16	5YR 4/6	95	7.5YR 4/3	5	D	Μ	Si	ilty Clay Loam	
16 - 20	5YR 5/8	95	7.5YR 4/2	5	D	М		Sandy Loam	
. <u> </u>								·	
17	Concentration D. I		DM De du se d'Matui				21	Di D	A - 4 - 1 - 1
		Depletion,	RM = Reduced Matrix	k, IVIS = I	viasked S	and Grain	is. <sup>2</sup> Locatio	on: PL = Pore Lining, M = N	
Histosol	il Indicators:		Dark S	urface (S	57)			Indicators for Problemat	lic Hydric Solis <sup>3</sup> .
	bipedon (A2)					(S8) (MLR	A 147, 148)	2 cm Muck (A10) <b>(ML</b>	
Black Hi	•					/LRA 147,		Coast Prairie Redox	
	en Sulfide (A4)				Matrix (F2	2)			Soils (F19) <b>(MLRA 136,</b>
	d Layers (A5)			ed Matri				147)	
	uck (A10) <b>(LRR N)</b>				rface (F6)			Very Shallow Dark Su	
	d Below Dark Surface ark Surface (A12)	(ATT)	Deplet Redox		Surface (I	-/)		Other (Explain in Rer	narks)
	lucky Mineral (S1) <b>(LR</b>	R N. MI RA 1	Kedox	anganes	se Masses	(F12) <b>(I RR</b>	N. MI RA 13	<b>6)</b> <sub>3</sub> Indicators of hydrophyt	
	ileyed Matrix (S4)		Umbri	c Surface	e (F13) <b>(M</b>	LRA 136, 1	22)	<sup>3</sup> Indicators of hydrophyt	ic vegetation and
	edox (S5)					ls (F19) <b>(M</b>		wetland hydrology must	
Stripped	d Matrix (S6)					) <b>(MLRA 1</b> 2		disturbed or problemati	с.
Restrictive	e Layer (if observed):								
	Туре:		None			Hydric So	oil Present?	,	Yes 🗆 No 🗹
	Depth (inches):								
Remarks:									
No positiv	re indication of hydri	c soils was	observed. The criteri	ion for h	nydric soi	l is not me	et.		

Photo of Sample Plot North



Photo of Sample Plot East

Photo of Sample Plot South



Photo of Sample Plot West

Project/Site: MVP Sou	thgate	City/County:	Reidsville, Rockinghan	n Sampling Da	ate: 2019-Jan-11	
Applicant/Owner: N	lextEra			State: North C	Carolina Sampling Point: M	/-A19-270_PFO-1
Investigator(s): Laur	a Giese, Simon	King	Se	ction, Township, Ra	ange:	
Landform (hillslope, te	rrace, etc.):	Foot slope	Local relie	ef (concave, convex	, none): Concave	Slope (%): 1 to 3
Subregion (LRR or MLF	RA):		L	at: 36.4070258	Long: -79.6468279	Datum: WGS84
Soil Map Unit Name:	Codorus loam	n, 0 to 2 percent slop	es, frequently flooded		NWI classifica	ation:
Are climatic/hydrologic	c conditions on	the site typical for th	is time of year?	Yes 🟒 No _	(If no, explain in Remarl	ks.)
Are Vegetation,	Soil, c	or Hydrology sig	nificantly disturbed?	Are "Normal	Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil, c	or Hydrology na	turally problematic?	(If needed, ex	plain any answers in Rema	rks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes _ 🖌 No	Is the Sampled Area within a Wetland?	Yes 🖌 No
Remarks:			
Covertype is PFO. Area is wetland, all three v	vetland parameters are p	resent.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	e is required; check	<u>all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— Hy Ox Pro Re Th Ot	ue Aquatic Plants (B14) /drogen Sulfide Odor (C1) kidized Rhizospheres on Living R esence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soil in Muck Surface (C7) cher (Explain in Remarks)		<ul> <li> Dry-Season Water Table (C2)</li> <li> Crayfish Burrows (C8)</li> <li> Saturation Visible on Aerial Imagery (C9)</li> <li> Stunted or Stressed Plants (D1)</li> <li> Geomorphic Position (D2)</li> <li> Shallow Aquitard (D3)</li> <li> Microtopographic Relief (D4)</li> </ul>
<u> </u>				FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		-
Water Table Present?	Yes 🟒 No	Depth (inches):	15	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	13	_
(includes capillary fringe)	_			
Describe Recorded Data (stream g	auge, monitoring we	ll, aerial photos, previous inspec	tions), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met. water rose t	o 9 inches in borehole.		

## Sampling Point: W-A19-270\_PFO-1

Tree Stratum (Plot size:30)		Dominant		Dominance Test worksheet:		
		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
1. Betula nigra	<u>40</u> 5	Yes	FACW	Total Number of Dominant Species		
2. Liquidambar styraciflua 3.	5	No	FAC	Across All Strata:	5	(B)
4.	·	·		Percent of Dominant Species That	60	(A/B)
5.	·	<u> </u>		Are OBL, FACW, or FAC:		(,,,,,,)
6.	·	·		Prevalence Index worksheet:		_
7.		· ·		Total % Cover of:	Multiply E	•
	45	= Total Cov	er	OBL species 0	x 1 =	0
50% of total cover: <u>22.5</u>	20% of to	tal cover:	9	FACW species40FAC species30	x 2 =	<u>80</u> 90
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FAC species 30 FACU species 20	x 3 = x 4 =	90 80
1. Liquidambar styraciflua	15	Yes	FAC	UPL species <u>20</u>	_	0
2. Acer negundo	10	Yes	FAC	Column Totals 90	x 5 =	
3.					(A)	250 (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 $\leq 3.0^{1}$	1 (Drovida (	upporting
9				<ul> <li>4 - Morphological Adaptations</li> <li>data in Remarks or on a separate sl</li> </ul>		supporting
	25	= Total Cov	er	Problematic Hydrophytic Vege		plain)
50% of total cover: <u>12.5</u>	_ 20% of to	tal cover:	5	<sup>1</sup> Indicators of hydric soil and wetlar		
Herb Stratum (Plot size:)				present, unless disturbed or proble		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1. <u>Allium vineale</u>	15	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2. <i>Lonicera japonica</i>	5	Yes	FACU			
3	<u> </u>			Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more
4	<u> </u>			in diameter at breast height (DBH),	regardless	of height.
5	. <u> </u>					
6				Sapling/shrub – Woody plants, exclu	-	
7				in. DBH and greater than or equal t	o 3.28 ft (1	m) tall.
8						
9				Herb – All herbaceous (non-woody) size, and woody plants less than 3.2		gardless of
10					20 11 1411.	
11						
	20	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.2	28 ft in
50% of total cover: <u>10</u>	_20% of to	tal cover:	4	height.		
Woody Vine Stratum (Plot size:)						
1		·				
2		·				
3	. <u> </u>			Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	
4	. <u> </u>					
5	. <u> </u>					
	0	= Total Cov				
50% of total cover: <u>0</u>	_ 20% of to	ital cover:	0			
Remarks: (Include photo numbers here or on a separa						
A positive indication of hydrophytic vegetation was ob	served (>50	)% of domin	ant species	indexed as OBL, FACW, or FAC).		

#### SOIL

## Sampling Point: W-A19-270\_PFO-1

Depth		0/		Featur		1		Terreture	Remarks
(inches) 0 - 4	Color (moist) 10YR 4/3	<u>%</u> 90	Color (moist) 7.5YR 5/8	<u>%</u> 5	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
-		90				<u>M</u>		Silt Loam	
0 - 4	10YR 4/2		10YR 4/2	5		<u> </u>		Silt Loam	
4 - 15	2.5Y 5/2	80	7.5YR 3/4	20	D	<u>M</u>		Silt Loam	
15 - 20	2.5Y 5/2	80	7.5YR 4/6	20	C			oamy Sand	
					- <u> </u>				
<sup>1</sup> Type: C =	Concentration, D = D	epletion	, RM = Reduced Matri	(, MS =	Masked S	and Grains	5. <sup>2</sup> Locatio	n: PL = Pore Lining, M =	Matrix.
Hydric Soi	il Indicators:							Indicators for Problema	atic Hydric Soils <sup>3</sup> :
Black Hi Hydroge Stratifie 2 cm Mu Deplete Thick Da Sandy M Sandy R Sandy R	pipedon (A2)	,	Thin D Loamy _^ Deplet Redox Deplet Redox 147, 148) Iron-M Umbri Piedm	lue Belo ark Sur Gleyec ed Mat Dark So ed Darl Depres angane c Surfac ont Floo	ow Surface face (S9) <b>(I</b> d Matrix (F2 rix (F3) urface (F6) k Surface (F8) ese Masses ce (F13) <b>(M</b> odplain So	F7)	48) N, MLRA 136 (2) RA 148)	<ul> <li>2 cm Muck (A10) (M</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplai</li> <li>147)</li> <li>Very Shallow Dark S</li> <li>Other (Explain in Re</li> <li>Indicators of hydrophy wetland hydrology must disturbed or problemation</li> </ul>	(A16) <b>(MLRA 147, 148)</b> n Soils (F19) <b>(MLRA 136,</b> Gurface (TF12) emarks) ytic vegetation and st be present, unless
	e Layer (if observed):						.,,		
	Type:		None			Hydric So	il Present?		Yes 🗹 No 🗆
	Depth (inches):					i iyane so	in resent.		
Remarks:	().								
A positive	indication of hydric s	oil was o	bserved. The criterior	for hy	dric soil is	: met.			

#### Photo of Sample Plot North

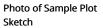


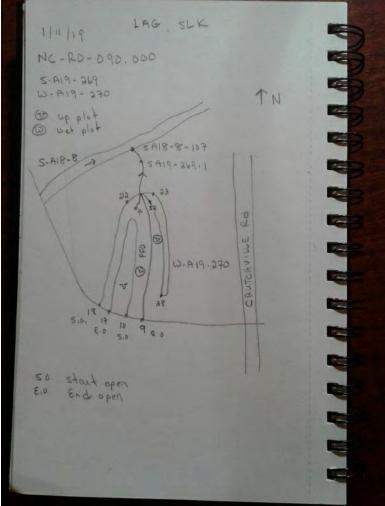
Photo of Sample Plot East

#### Photo of Sample Plot South



Photo of Sample Plot West





Project/Site: MVP Sout	thgate	City/County	: Reidsville, Rockinghan	n Sampling Dat	t <b>e:</b> 2019-Jan-11	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: W-	-A19-270_UPL-1
Investigator(s): Laura	a Giese, Simo	n King	Se	ction, Township, Rai	nge:	
Landform (hillslope, ter	rrace, etc.):	Foot slope	Local relie	ef (concave, convex,	none): Concave	Slope (%): 1 to 10
Subregion (LRR or MLR	A): MLR	A 136 of LRR P	L	at: 36.4070258	Long: -79.6468279	Datum: WGS84
Soil Map Unit Name:					NWI classificat	tion:
Are climatic/hydrologic	conditions o	n the site typical for t	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	s.)
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, exp	olain any answers in Remar	ks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No⁄_ Yes No⁄_		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all three	e wetland parameters are	e present.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; check	all that apply)		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— H O P R TI O	rue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) xidized Rhizospheres on Living resence of Reduced Iron (C4) ecent Iron Reduction in Tilled So hin Muck Surface (C7) ther (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	28	- Wetland Hydrology Present? Yes №
Saturation Present?	Yes 🟒 No	Depth (inches):	26	
(includes capillary fringe)				-
Describe Recorded Data (stream g	auge, monitoring we	ell, aerial photos, previous inspe	ections), if	available:

## Sampling Point: W-A19-270\_UPL-1

S       Number of Dominant Species That Are OBL, FACW, or FAC:       3       (A)         Total Number of Dominant Species Across All Strata:       6       (B)         Percent of Dominant Species That Are OBL, FACW, or FAC:       50       (A/B)         Prevalence Index worksheet:       50       (A/B)         OBL species       0       x 1 =       0         FACW species       40       x 2 =       80         FACU species       0       x 3 =       120         FACU species       0       x 5 =       0         UPL species       0       x 5 =       0         Column Totals       135       (A)       420         Hydrophytic Vegetation Indicators:
Total Number of Dominant Species       6       (B)         Percent of Dominant Species That       50       (A/B)         Are OBL, FACW, or FAC:       50       (A/B)         Prevalence Index worksheet:
Across All Strata:6(B)Percent of Dominant Species That Are OBL, FACW, or FAC:50(A/B)Prevalence Index worksheet: $100 \times 10^{-10} \times $
Percent of Dominant Species That Are OBL, FACW, or FAC:50(A/B)Prevalence Index worksheet:Multiply By:OBL species $0$ $x 1 =$ $0$ FACW species $40$ $x 2 =$ $80$ FAC species $40$ $x 3 =$ $120$ FAC species $55$ $x 4 =$ $220$ UPL species $0$ $x 5 =$ $0$ Column Totals $135$ (A) $420$ Hydrophytic Vegetation Indicators: $1.1$ Rapid Test for Hydrophytic Vegetation
Are OBL, FACW, or FAC:50(A/B)Prevalence Index worksheet:Multiply By:OBL species $0$ $x 1 =$ $0$ FACW species $40$ $x 2 =$ $80$ FACW species $40$ $x 3 =$ $120$ FACU species $55$ $x 4 =$ $220$ UPL species $0$ $x 5 =$ $0$ Column Totals $135$ (A) $420$ Prevalence Index = B/A = $3.1$ $1$ Hydrophytic Vegetation Indicators: $1$ -Rapid Test for Hydrophytic Vegetation
Total % Cover of:Multiply By:OBL species0 $x 1 =$ 0FACW species40 $x 2 =$ 80FAC species40 $x 3 =$ 120FACU species55 $x 4 =$ 220UPL species0 $x 5 =$ 0Column Totals135(A)420Prevalence Index = B/A =3.11Hydrophytic Vegetation Indicators:111Rapid Test for Hydrophytic Vegetation
OBL species0 $x 1 =$ 0FACW species40 $x 2 =$ 80FAC species40 $x 3 =$ 120FACU species55 $x 4 =$ 220UPL species0 $x 5 =$ 0Column Totals135(A)420Prevalence Index = B/A =3.13.1Hydrophytic Vegetation Indicators:111 - Rapid Test for Hydrophytic Vegetation
FACW species $40$ x 2 = $80$ FAC species $40$ x 3 = $120$ FACU species $55$ x 4 = $220$ UPL species $0$ x 5 = $0$ Column Totals $135$ (A) $420$ Prevalence Index = B/A = $3.1$ $3.1$ Hydrophytic Vegetation Indicators: $1.4$ $1.4$
FAC species       40       x 3 =       120         FACU species       55       x 4 =       220         UPL species       0       x 5 =       0         Column Totals       135       (A)       420       (B)         Prevalence Index = B/A =       3.1       3.1       3.1         Hydrophytic Vegetation Indicators:       1- Rapid Test for Hydrophytic Vegetation       3.1
FAC species     40     X 3 =     120       FACU species     55     X 4 =     220       UPL species     0     X 5 =     0       Column Totals     135     (A)     420       Prevalence Index = B/A =     3.1       Hydrophytic Vegetation Indicators:      1 - Rapid Test for Hydrophytic Vegetation
UPL species     0     x 5 =     0       Column Totals     135     (A)     420     (B)       Prevalence Index = B/A =     3.1     3.1     3.1       Hydrophytic Vegetation Indicators:     1- Rapid Test for Hydrophytic Vegetation
Column Totals     135     (A)     420     (B)       Prevalence Index = B/A =     3.1       Hydrophytic Vegetation Indicators:       1 - Rapid Test for Hydrophytic Vegetation
Prevalence Index = B/A =3.1         Hydrophytic Vegetation Indicators:        1- Rapid Test for Hydrophytic Vegetation
Prevalence Index = B/A =3.1         Hydrophytic Vegetation Indicators:        1- Rapid Test for Hydrophytic Vegetation
1- Rapid Test for Hydrophytic Vegetation
2 - Dominance Test is > 50%
3 - Prevalence Index is $≤ 3.0^1$
4 - Morphological Adaptations <sup>1</sup> (Provide supporting
data in Remarks or on a separate sheet)
Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) Indicators of hydric soil and wetland hydrology must be
indicators of Hydric soil and wetand Hydrology must be
present, unless disturbed or problematic
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more
in diameter at breast height (DBH), regardless of height.
Sapling/shrub – Woody plants, excluding vines, less than 3
in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in
height.
-
—
Hydrophytic Vegetation Present? Yes □ No ☑
_

## SOIL

## Sampling Point: W-A19-270\_UPL-1

(inchas)	Matrix			<pre>K Features</pre>		<u> </u>			
(inches)	Color (moist)	%	Color (moist)	<u>%</u> T	ype¹	Loc <sup>2</sup>		Texture	Remarks
0 - 2	7.5YR 3/2	100						Silt Loam	
2 - 20	7.5YR 4/3	95	10YR 5/1	5	D	M	Si	ty Clay Loam	
20 - 26	7.5YR 4/4	90	2.5Y 5/2	10	D	M		Silt Loam	has manganese
26 - 30	10YR 5/2	80	N 6/	20	D	M	9	Sandy Loam	
				·					
				·					
				·					
<sup>1</sup> Type: C =	Concentration, D =	Depletion. I	RM = Reduced Matri	x. MS = Mas	sked Sa	nd Grains.	<sup>2</sup> l ocatio	n: PL = Pore Lining, M =	Matrix
	Indicators:	Depiction, i		x, 1015 10103	Silca Sa		Locatio	Indicators for Problema	
Histosol			Dark 9	Surface (S7)					-
	ipedon (A2)				urface (	S8) <b>(MLRA 1</b> 4	7, 148)	2 cm Muck (A10) <b>(M</b>	
Black His	•					LRA 147, 148			(A16) <b>(MLRA 147, 148)</b>
	n Sulfide (A4)		Loam	y Gleyed Mat	trix (F2)				n Soils (F19) <b>(MLRA 136,</b>
	d Layers (A5)			ted Matrix (F				147)	
	ck (A10) (LRR N)	(4.4.4)		Dark Surfac				Very Shallow Dark S	
	d Below Dark Surface	(A11)		ted Dark Sur	-	()		Other (Explain in Re	emarks)
	rk Surface (A12) ucky Mineral (S1) <b>(LR</b>		Kedox	Depression	IS (F8) Abssoc (	E12) (I DD N I		5)	
	leyed Matrix (S4)	K IN, IVILKA I	47, 140) IIOII-N	ic Surface (F1	13) <b>(MI</b>	RA 136, 122)		5) <sub>3</sub> Indicators of hydrophy	tic vegetation and
Sandy G			_ 011151	ie bailace (i		s (F19) <b>(MLRA</b>		wetland hydrology mus	st be present, unless
-	Matrix (S6)					(MLRA 127, 1		disturbed or problema	tic.
	Layer (if observed):								
	Туре:		None			Hydric Soil P	resent?		Yes 🗆 No 🗵
	Depth (inches):			•					
Remarks:									
he bottor	n of the picture is th	e top of the	o soil						
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the bottor	n of the picture is th	e top of the	e soil.						
he bottor	n of the picture is th	e top of the	e soil.						

Soil Photos



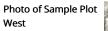
Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South





Project/Site: MVP Southgate Ci		City/County:	Leaksville, Rockingha	Sampling Date:	2019-Jan-15			
Applicant/Owner: N	lextEra			State: North Caro	lina Sampling Point: W-A	19-274_PEM-1		
Investigator(s): Laura Giese, Simon King, Doreen Donovan Section, Township, Range:								
Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Concave Slope (%): 1 to 3								
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P	Lat:	36.525598 I	<b>_ong:</b> -79.6484212	Datum: WGS84		
Soil Map Unit Name:	Dan River lo	am, 0 to 2 percent slo	pes, frequently flooded		NWI classificatio	n:		
Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🟒 No (If no, explain in Remarks.)								
Are Vegetation,	Soil,	or Hydrology sig	gnificantly disturbed?	Are "Normal Circ	umstances" present?	Yes 🟒 No		
Are Vegetation,	Soil 🟒,	or Hydrology na	iturally problematic?	(If needed, explai	n any answers in Remarks	.)		

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No Yes No						
Wetland Hydrology Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🧹 No				
Remarks:		·					
Covertype is PEM. Area is wetland, all three wetland parameters are present. Reddish color floodplain soils may be masking field indicators.							

Wetland Hydrology Indicators:								
Primary Indicators (minimum of or	<u>ie is required; check all</u>		Secondary Indicators (minimum of two required)					
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> </ul>	Hydr Oxidi Prese Rece	Aquatic Plants (B14) ogen Sulfide Odor (C1) ized Rhizospheres on Living ence of Reduced Iron (C4) nt Iron Reduction in Tilled S Muck Surface (C7)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> </ul>				
Algal Mat or Crust (B4)     Iron Deposits (B5)     Inundation Visible on Aerial Im     Water-Stained Leaves (B9)     Aquatic Fauna (B13)		r (Explain in Remarks)		<ul> <li> Stunted or Stressed Plants (D1)</li> <li> Geomorphic Position (D2)</li> <li> Shallow Aquitard (D3)</li> <li> Microtopographic Relief (D4)</li> <li> FAC-Neutral Test (D5)</li> </ul>				
Field Observations:								
Surface Water Present?	Yes No 🟒	Depth (inches):		_				
Water Table Present?	Yes No 🟒	Depth (inches):		Wetland Hydrology Present? Yes No				
Saturation Present?	Yes 🟒 No	Depth (inches):	0					
(includes capillary fringe)				-				
Describe Recorded Data (stream g	auge, monitoring well, a	aerial photos, previous insp	ections), if	available:				
<b>Remarks:</b> The criterion for wetland hydrology is met. Soil is episaturated.								

## Sampling Point: W-A19-274\_PEM-1

	-						
Tree Stratum (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksh			
	% Cover	Species?	Status	Number of Dominant S		4	(A)
1				Are OBL, FACW, or FAC:			
2				Total Number of Domin Across All Strata:	iant Species	4	(B)
4				Percent of Dominant Sp Are OBL, FACW, or FAC:		100	(A/B)
5				Prevalence Index works			
6				Total % Cover		Multiply E	3
7				OBL species	20	x 1 =	2 <b>9.</b> 20
	0	= Total Cov	/er	FACW species	70	x 2 =	140
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species	15	x 3 =	45
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				FACU species	0	x 4 =	0
1				UPL species	0	x 5 =	0
2.				Column Totals	105		
3						(A)	205 (B)
4.				Prevalence In		2	
5.				Hydrophytic Vegetation			
6.				1- Rapid Test for H		/egetation	
7.				_ ∠ 2 - Dominance Tes			
8.				3 - Prevalence Ind			
9.				4 - Morphological			supporting
	0	= Total Cov	/er	data in Remarks or on a			
50% of total cover:0	20% of to	-	0	Problematic Hydro			
Herb Stratum (Plot size: <u>5'</u> )				<sup>1</sup> Indicators of hydric soi present, unless disturbe			gy must be
1. Juncus effusus	45	Yes	FACW	Definitions of Four Vege			
2. <i>Carex frankii</i>	15	Yes	OBL	Demnitions of Four Vege		d.	
3. Carex squarrosa	15	Yes	FACW	<b>Tree</b> – Woody plants, ex	cluding ving	c 2 in /7 6	cm) or more
4. Microstegium vimineum	15	Yes	FAC	in diameter at breast he	-		
5. Agrimonia parviflora	5	No	FACW			regulatess	or neight.
6. Mimulus ringens	5	No	OBL	Sapling/shrub - Woody	plants, exclu	uding vines	less than 3
7. Ludwigia alternifolia	5	No	FACW	in. DBH and greater tha		-	
8.		110	17/01/	0		·	,
9.		·		Herb – All herbaceous (	non-woody)	plants, reg	ardless of
10				size, and woody plants	-		
11.							
' !. <u></u>	105	= Total Cov	uor.	Woody vines – All wood	ly vines grea	ter than 3 '	28 ft in
50% of total cover: <u>52.5</u>	-	-		height.	ly vines grea		
	_ 20% 01 tt	otal cover.	21				
Woody Vine Stratum (Plot size: <u>30'</u> )							
1 2.		·······					
				Hydrophytic Vegetation	Drocont2		1
3					i riesent:		1
4							
5		- Tatal Ca					
	0	_= Total Cov					
50% of total cover: <u>0</u>	_ 20% 01 to	otal cover:	0				
Remarks: (Include photo numbers here or on a separa	te sheet.)						
A positive indication of hydrophytic vegetation was ob	served (>5(	)% of domin	nant species	indexed as OBL_FACW_o	r FAC)		
			ant species		· · / Cj.		
1							

SOIL

## Sampling Point: W-A19-274\_PEM-1

Depth	Matrix		Redo	<pre>K Features</pre>					
(inches)	Color (moist)	%	Color (moist)	%	Гуре¹	Loc <sup>2</sup>		Texture	Remarks
0 - 2	7.5YR 4/3	100		·				Silt Loam	
2 - 10	7.5YR 4/4	95	2.5Y 5/2	5	D	M	Si	lty Clay Loam	
10 - 20	7.5YR 4/4	95	2.5Y 5/1	5				Clay Loam	
	Concentration, D = I	Depletion, I	RM = Reduced Matri	x, MS = Ma	isked S	and Grai	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M = N Indicators for Problema	
Black Hi Hydroge Stratifiee 2 cm Mu Depletee Thick Da Sandy M Sandy G Sandy R	oipedon (A2)		Polyva Thin I Loam Deple Redox Deple Redox 47, 148) Iron-N Umbr Piedm	Dark Surface y Gleyed Ma ted Matrix ( c Dark Surfa ted Dark Su c Depression	Surface e (S9) <b>(N</b> atrix (F2 F3) ice (F6) irface (F6) ms (F8) Masses F13) <b>(M</b> i lain Soil	<b>/ILRA 147,</b> )) (F12) <b>(LR</b> <b>LRA 136,</b> ) Is (F19) <b>(N</b>	R N, MLRA 13 122) /ILRA 148)	<ul> <li>2 cm Muck (A10) (MI</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplair</li> <li>147)</li> <li>Very Shallow Dark Si</li> <li>Other (Explain in R</li> <li>andicators of hydrophy wetland hydrology mus disturbed or problemat</li> </ul>	(A16) <b>(MLRA 147, 148)</b> a Soils (F19) <b>(MLRA 136,</b> urface (TF12) emarks) tic vegetation and t be present, unless
	Layer (if observed):						27, 147)		
	Type: Depth (inches):		None			Hydric S	Soil Present?		Yes 🛛 No 🗆
Remarks:									
me criteri	ion for hydric soil is r	net.							

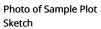
Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West





Project/Site: MVP Sou	uthgate	City/County	: Leaksville, Rockingha	a Sampling Date:	2019-Jan-15			
Applicant/Owner: N	NextEra			State: North Care	olina Sampling Point: W	-A19-274_UPL-1		
Investigator(s): Laura Giese, Simon King Section, Township, Range:								
Landform (hillslope, te	errace, etc.):	Flood Plain	Local rel	lief (concave, convex, n	one): Undulating	Slope (%): 1 to 3		
Subregion (LRR or ML	RA): MLR	A 136 of LRR P		Lat: 36.5257485	Long: -79.6492571	Datum: WGS84		
Soil Map Unit Name:					NWI classificat	tion:		
Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)								
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal Cire	cumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, expla	in any answers in Remar	ks.)		

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒								
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Remarks:									
Covertype is UPL. Area is upland, not all three wetland parameters are present.									

Wetland Hydrology Indicators:					
Primary Indicators (minimum of on	e is required; check	<u>all that apply)</u>	Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)			<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> </ul>		
Field Observations:			FAC-Neutral Test (D5)		
Surface Water Present?	Yes No 🟒	Depth (inches):	_		
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Yes No _		
Saturation Present?	Yes No 🟒	Depth (inches):			
(includes capillary fringe)					
Describe Recorded Data (stream ga	luge, monitoring wel	ll, aerial photos, previous inspections),	if available:		
Remarks:					
The criterion for wetland hydrology	' is not met. No posit	tive indication of wetland hydrology wa	s observed.		

## Sampling Point: W-A19-274\_UPL-1

<u>Tree Stratum</u> (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksh			
	% Cover	Species?	Status	Number of Dominant S		1	(A)
1				Are OBL, FACW, or FAC:			
2				Total Number of Domin Across All Strata:	ant Species	2	(B)
3				Percent of Dominant Sp	ecies That		
4				Are OBL, FACW, or FAC:		50	(A/B)
5				Prevalence Index works			
6				Total % Cover		Multiply	Bv:
7				OBL species	0	x 1 =	0
		= Total Cov	er	FACW species	45	x 2 =	90
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0	FAC species	0	x 3 =	0
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u> )				FACU species	25	x 4 =	100
1				UPL species	0	x 5 =	0
2.		<u> </u>		Column Totals	70	(A)	190 (B)
3.		<u> </u>		Prevalence In	dex = B/A =	2.7	
4.		<u> </u>		Hydrophytic Vegetation	Indicators:		
5		. <u> </u>		1- Rapid Test for H		/egetatior	ı
6		<u> </u>		2 - Dominance Tes		-	
7.		. <u> </u>		3 - Prevalence Ind	ex is $\leq 3.0^1$		
9.		·	<u> </u>	4 - Morphological	Adaptations	<sup>1</sup> (Provide	supporting
9	0	= Total Cov		data in Remarks or on a			
50% of total cover: <u>0</u>		•		Problematic Hydro			
Herb Stratum (Plot size:)	_ 20% 01 to	tai cover.	0	<sup>1</sup> Indicators of hydric soi			ogy must be
1 Caray cp	45	Yes	FACW	present, unless disturbe			
2. Ligustrum sinense	25	Yes	FACU	Definitions of Four Vege	etation Strat	a:	
2		105	17.00		معاديه متعاميه	- 2 in (7	(
				<b>Tree</b> – Woody plants, ex in diameter at breast he	-		
E		·				regulates	of height.
6.				Sapling/shrub - Woody	plants, exclu	uding vine	s. less than 3
7				in. DBH and greater tha			
0		· ·		_			
0	·			Herb – All herbaceous (	non-woody)	plants, re	gardless of
10	·			size, and woody plants	less than 3.2	8 ft tall.	
11.	·						
	70	= Total Cov	er	Woody vines – All wood	y vines grea	ter than 3	.28 ft in
50% of total cover: <u>35</u>				height.			
Woody Vine Stratum (Plot size: <u>30'</u> )	_						
1.							
2.							
3.				Hydrophytic Vegetation	n Present?	Yes 🗆 No	$\checkmark$
4.							
5.							
	0	= Total Cov	er				
50% of total cover: <u>0</u>	_20% of to	tal cover:	0				
Remarks: (Include photo numbers here or on a separa	te sheet.)						
A positive indication of hydrophytic vegetation was obs	served (Pre	valence Ind	ex is ≤ 3.00)				

SOIL

## Sampling Point: W-A19-274\_UPL-1

	Matrix		Redo	ox Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 2	7.5YR 4/3	100						Silt Loam	
2 - 15	7.5YR 4/4	98	7.5YR 4/2	2	D	М		Clay Loam	
15 - 20	7.5YR 4/6	95	7.5YR 4/2	5	D	М		Clay Loam	
					·				
					·				
$^{1}$ Type: C =	Concentration D =	Depletion (	RM = Reduced Mat	ix. MS = 1	Masked S	and Grai	ns. <sup>2</sup> l ocatio	on: PL = Pore Lining, M = N	latrix.
	il Indicators:			1, 115	Musicus		IIS. Locatio	Indicators for Problemat	
Histosol			Dark	Surface (S	57)				-
	bipedon (A2)					(S8) <b>(MLF</b>	RA 147, 148)	2 cm Muck (A10) <b>(ML</b>	
Black Hi	•		Thin	Dark Surf	ace (S9) <b>(</b>	MLRA 147,		Coast Prairie Redox (	
	en Sulfide (A4)			ny Gleyed		2)		Piedmont Floodplain	i Soils (F19) <b>(MLRA 136</b> )
	d Layers (A5)			eted Matr				147)	(
	uck (A10) <b>(LRR N)</b>	(444)		x Dark Su			Very Shallow Dark Su		
•	d Below Dark Surface ark Surface (A12)	(ATT)		eted Dark x Depress		-/)		Other (Explain in Rer	narks)
	lucky Mineral (S1) <b>(LR</b>	R N. MI RA 1	Kedo [47, 148) Iron-	Mangane	se Masses	(F12) <b>(I R</b>	R N. MI RA 13	6)	
-	ileyed Matrix (S4)		Umb	ric Surface	e (F13) <b>(M</b>	LRA 136,	122)	<b>6)</b> <sub>3</sub> Indicators of hydrophyt	ic vegetation and
-	edox (S5)						, /ILRA 148)	wetland hydrology must	
Stripped	d Matrix (S6)			Parent Ma				disturbed or problemati	с.
Restrictive	e Layer (if observed):								
	Туре:		None	_		Hydric S	oil Present?	Y	Yes 🗆 No 🗹
	Depth (inches):			_					
Remarks:				-					
No positiv	re indication of hydri	c soils was	observed. The crite	rion for h	nydric soi	l is not m	et.		

Vegetation Photos



Soil Photos



right is top

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	r: Reidsville, Rockingham	Sampling Date	e: 2019-Jan-16				
Applicant/Owner:         NextEra         State:         North Carolina         Sampling Point:         W-A19-277_PEM-1									
Investigator(s): Laura Giese, Simon King, Heather Patti Section, Township, Range:									
Landform (hillslope, terrace, etc.):       Back slope       Local relief (concave, convex, none):       Concave       Slope (%):       2									
Subregion (LRR or MLRA):         MLRA 136 of LRR P         Lat: 36.3688569         Long: -79.6216526         Datum: V									
Soil Map Unit Name:	Fairview-Pop	olar Forest complex,	8 to 15 percent slopes, m	oderately eroded	NWI classificatio	on:			
Are climatic/hydrologi	c conditions o	n the site typical for	this time of year?	Yes 🟒 No	_ (If no, explain in Remarks.)	1			
Are Vegetation,	Soil,	or Hydrologys	significantly disturbed?	Are "Normal Cir	cumstances" present?	Yes 🟒 No			
Are Vegetation,	Soil,	or Hydrology r	naturally problematic?	(If needed, expl	ain any answers in Remarks	.)			

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _✔_ No Yes _✔_ No Yes _✔_ No	ls the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:		·	
Covertype is PEM. Area is wetland, all three	wetland parameters are p	resent. Active pasture.	

#### HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	e is required; check	<u>all that apply)</u>		Secondary Indicators (minimum of two required)		
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hy O: Pr Re Th O:	ue Aquatic Plants (B14) /drogen Sulfide Odor (C1) kidized Rhizospheres on Living resence of Reduced Iron (C4) ecent Iron Reduction in Tilled S hin Muck Surface (C7) ther (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>		
Field Observations:						
Surface Water Present?	Yes No 🟒	Depth (inches):				
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No		
Saturation Present?	Yes 🟒 No	Depth (inches):	0			
(includes capillary fringe)						
Describe Recorded Data (stream ga	auge, monitoring we	ll, aerial photos, previous inspo	ections), if	available:		
Remarks:						
The criterion for wetland hydrology	/ is met. Hillside see	D.				

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

## Sampling Point: W-A19-277\_PEM-1

	-					
<u>Tree Stratum</u> (Plot size: <u>30)</u>		Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species Tha	t 2	(A)
1				Are OBL, FACW, or FAC:		
2	·			Total Number of Dominant Specie Across All Strata:	<sup>s</sup> 3	(B)
4.				Percent of Dominant Species That	66.7	(A/B)
5.			<u> </u>	Are OBL, FACW, or FAC:		
6.	- <u> </u>			Prevalence Index worksheet:		
7.	- <u> </u>			Total % Cover of:	Multiply E	•
	0	= Total Cove	er	OBL species 0	_ x 1 =	0
50% of total cover: <u>0</u>	20% of to	_ tal cover:	0	FACW species 45	x 2 =	90
Sapling/Shrub Stratum (Plot size:15)	_			FAC species 0	x 3 =	0
1				FACU species 15	x 4 =	60
2.				UPL species 0	x 5 =	0
3				Column Totals 60	(A)	150 (B)
4.				Prevalence Index = B/A =	2.5	
5.	·			Hydrophytic Vegetation Indicators	:	
6.	- <u> </u>			1- Rapid Test for Hydrophytic	Vegetation	
_	·			2 - Dominance Test is >50%		
				$_{✓}$ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>		
8 9.	·	<u> </u>		4 - Morphological Adaptation		supporting
<sup>2.</sup>	0	= Total Cove	or	data in Remarks or on a separate		
		-		Problematic Hydrophytic Veg	-	
50% of total cover: <u>0</u>	_ 20% 01 to	cover:	0	<sup>1</sup> Indicators of hydric soil and wetla		gy must be
<u>Herb Stratum</u> (Plot size: <u>5</u> )	25		EA CIAL	present, unless disturbed or probl		
1. Poa palustris	25	Yes	FACW	Definitions of Four Vegetation Stra	ita:	
2. Festuca rubra	15	Yes	FACU			
3. Ranunculus abortivus	15	Yes	FACW	Tree – Woody plants, excluding vin		
4. Juncus effusus	5	No	FACW	in diameter at breast height (DBH)	, regardless	of height.
5	<u> </u>	·				
6				Sapling/shrub – Woody plants, exc	-	
7				in. DBH and greater than or equal	10 3.28 11 (1	m) tall.
8	·			Herb – All herbaceous (non-woody	A plants ras	ardlacs of
9				size, and woody plants less than 3		aruless of
10				size, and woody plants less than 5	.20 m tan.	
11						
	60	= Total Cove	er	Woody vines – All woody vines gre	ater than 3.2	28 ft in
50% of total cover: <u>30</u>	_ 20% of to	otal cover:	12	height.		
Woody Vine Stratum (Plot size: <u>30</u> )						
1						
2						
3	<u> </u>			Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	]
4	<u> </u>					
5						
	0	= Total Cove	er			
50% of total cover: <u>0</u>	_20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separa						
A positive indication of hydrophytic vegetation was ob	served (>50	)% of domin	ant species	indexed as OBL, FACW, or FAC).		

SOIL

## Sampling Point: W-A19-277\_PEM-1

Profile Description: (Describe to the dep Depth				Feature		or confiri	n the absend	ce of indicators.)	
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 3	10YR 3/2	100						Silt Loam	
3 - 11	10YR 3/2	80	7.5YR 4/6	10	С	М		Silt Loam	
3 - 11			10YR 4/1	10	D	М			a lot of micah in this layer
11 - 20	5YR 4/6	95	7.5YR 4/3	5	D	М		Sandy Loam	
	Concontration D = I	Doplation	PM - Poducod Matri			and Crai		pp: DL - Doro Liping M	
	I Indicators:	Depletion,	RIM – REDUCED Matri	x, ivis – i	viaskeu s	anu Gra	nsLocalio	on: PL = Pore Lining, M Indicators for Proble	
_ Black His _ Hydroge _ Stratified _ 2 cm Mu _ Depleted _ Thick Da _ Sandy M _ Sandy G _ Sandy Ro	vipedon (A2) stic (A3) en Sulfide (A4) d Layers (A5) ick (A10) <b>(LRR N)</b> d Below Dark Surface irk Surface (A12) lucky Mineral (S1) <b>(LR</b> leyed Matrix (S4)		Thin D Loamy Deplet Redox Redox 47, 148) Iron-M Umbri Piedm	lue Belo ark Surfa Gleyed ed Matri Dark Su ed Dark Depress langanes c Surface ont Floo	w Surface ace (S9) <b>(I</b> Matrix (F2 ix (F3) rface (F6) Surface ( sions (F8) se Masses e (F13) <b>(M</b>	MLRA 147 2) 57) (F12) (LR ILRA 136, ils (F19) (I	R N, MLRA 13 122) //LRA 148)	Piedmont Floodp <b>147)</b> Very Shallow Dar Other (Explain in <sup>6)</sup> <sub>3</sub> Indicators of hydroj	dox (A16) <b>(MLRA 147, 148)</b> olain Soils (F19) <b>(MLRA 136</b> <sup>-</sup> k Surface (TF12) Remarks) phytic vegetation and nust be present, unless
	Layer (if observed):		News						
	Type:		None			Hydric S	Soil Present?		Yes 🛛 No 🗆
Remarks:	Depth (inches):								
4 positive	indication of hydric	soil was ob	served. The criterior	n for hyc	tric soil is	met.			

Photo of Sample Plot North

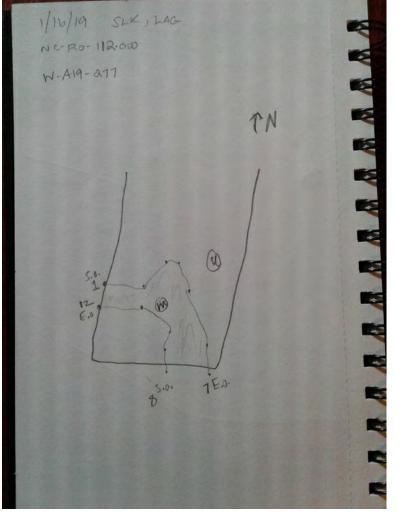


Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

Photo of Sample Plot Sketch



## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sour	thgate	City/County	: Reidsville, Rockingham	Sampling Da	te: 2019-Jan-16				
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: W	-A19-277_UPL-1			
Investigator(s): Laura Giese, Simon King Section, Township, Range:									
Landform (hillslope, te	rrace, etc.):	Back slope	Local relief	(concave, convex,	none): Convex	Slope (%): 2 to 5			
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P	La	t: 36.3688659	Long: -79.6216988	Datum: WGS84			
Soil Map Unit Name:					NWI classifica	tion:			
Are climatic/hydrologic	c conditions or	n the site typical for t	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	s.)			
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal C	Circumstances" present?	Yes 🟒 No			
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, exp	olain any answers in Remar	ks.)			

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Active pasture .			

#### HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	ie is required; check	<u>k all that apply)</u>	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Ti H C P R T C nagery (B7)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No 🟒	Depth (inches):	──── Wetland Hydrology Present? Yes No _∠
Saturation Present?	Yes No 🟒	Depth (inches):	
(includes capillary fringe)			
Describe Recorded Data (stream ga	auge, monitoring w	ell, aerial photos, previous inspections	;), if available:
Remarks:			
The criterion for wetland hydrolog	y is not met. No pos	sitive indication of wetland hydrology v	was observed.

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

## Sampling Point: W-A19-277\_UPL-1

Tree Stratum (Plot size:30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	0 (A)	
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Species Across All Strata:	1 (B)	
3				Percent of Dominant Species That		
4.		· ·		Are OBL, FACW, or FAC:	0 (A/E	3)
5		· ·		Prevalence Index worksheet:		
6.				Total % Cover of:	Multiply By:	
7	·			OBL species 0	x 1 = 0	
	0	= Total Cove		FACW species 5	x 2 = 10	
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species 0	x 3 = 0	
Sapling/Shrub Stratum (Plot size:15)				FACU species 55	x 4 = 220	
1				UPL species 0	x 5 = 0	
23.				Column Totals 60	(A) 230 (I	B)
				Prevalence Index = B/A =	3.8	
4.				Hydrophytic Vegetation Indicators:		
5				1- Rapid Test for Hydrophytic	Vegetation	
6.				2 - Dominance Test is > 50%		
7.				3 - Prevalence Index is ≤ $3.0^{1}$		
8				4 - Morphological Adaptations	<sup>1</sup> (Provide supporti	ng
9		- Tatal Cau		data in Remarks or on a separate s	heet)	
	0	= Total Cove		Problematic Hydrophytic Vege	-	
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	<sup>1</sup> Indicators of hydric soil and wetlar		be
Herb Stratum (Plot size: <u>5</u> )	45	Vee	FACU	present, unless disturbed or proble		
1. Festuca rubra	45	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2. Trifolium repens	10	No	FACU			
3. Poaceae	<u> </u>	No	NI	Tree – Woody plants, excluding vine		
4. <i>Ranunculus abortivus</i>	5	No	FACW	in diameter at breast height (DBH),	regardless of heigr	it.
5		<u> </u>		Capling (chrub Woody plants ovel	uding vines loss th	-n 7
6		<u> </u>		Sapling/shrub – Woody plants, excl in. DBH and greater than or equal t	-	dii 5
7					0 5.20 12 (1 11) tall.	
8				Herb – All herbaceous (non-woody)	plants, regardless	of
9		<u> </u>		size, and woody plants less than 3.2	1 0	0.
10						
11				Woody vines – All woody vines grea	touthow 2 20 ft in	
	70	= Total Cove		height.	ter than 5.26 it in	
50% of total cover: <u>35</u>	_ 20% of to	otal cover:	14			
Woody Vine Stratum (Plot size: <u>30</u> )						
1						
2.						
3.				Hydrophytic Vegetation Present?		
4.						
5		Tatal Car				
	0	= Total Cove				
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separa	te sheet.)					
Pasture. No positive indication of hydrophytic vegetati	on was obs	served (≥509	% of domina	ant species indexed as FAC– or drier).		

SOIL

## Sampling Point: W-A19-277\_UPL-1

Profile D Depth	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)	% realure		Loc <sup>2</sup>		Texture	Remarks	
<u> </u>			Color (moist)	90	Type <sup>1</sup>	LOC-			Remarks	
0-7	10YR 3/4	100			·			Silt Loam		
7 - 18	10YR 5/8	100			·			Clay		
		<u> </u>			·				. <u> </u>	
<sup>1</sup> Type: C	= Concentration. D = D	epletion.	RM = Reduced Matr	x. MS =	Masked S	and Grai	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M =	Matrix.	
	il Indicators:			,				Indicators for Problem		
Histoso			Dark	Surface (S	57)					
	pipedon (A2)			-	-	(S8) <b>(ML</b>	RA 147, 148)	2 cm Muck (A10) <b>(N</b>		
	istic (A3)				ace (S9) <b>(N</b>				x (A16) <b>(MLRA 147, 148)</b>	
Hydrog	en Sulfide (A4)				Matrix (F2				in Soils (F19) <b>(MLRA 136,</b>	
Stratifie	ed Layers (A5)			ted Matr				147)		
	uck (A10) <b>(LRR N)</b>				rface (F6)			Very Shallow Dark	Surface (TF12)	
	ed Below Dark Surface (	A11)			Surface (I	F7)		Other (Explain in R	emarks)	
	ark Surface (A12)		Redo	Depress	sions (F8)			0		
-	Mucky Mineral (S1) <b>(LRR</b> Gleyed Matrix (S4)	N, MIRA	147, 148) Iron-N	ianganes	se Masses e (F13) <b>(M</b>	(FIZ) (LR	K N, MLKA 13 122)	<b>6)<sub>3</sub>Indicators of hydroph</b>	ytic vegetation and	
	Redox (S5)		_ •…•	ie bailae	c ( ) (	2.0.1.000	122) MLRA 148)	wetland hydrology mu	ist be present, unless	
-	d Matrix (S6)				terial (F21			disturbed or problema	atic.	
	e Layer (if observed):					1				
nesaleat	Type:		None			Ludric 9	Soil Present?		Yes 🗆 No 🗹	
	Depth (inches):			-		ingune .	Join Tresent:			
	•			-						
Remarks										
				in a faul		l :=				
NO POSILI	ve indication of hydric	solis was	observed. The criter	non for f	iyaric soi	i is not m	iet.			

Vegetation Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot South

Photo of Sample Plot West



## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/Count	<b>y:</b> Eden, Rockingham (	, Rockingham Co Sampling Date: 2019-Jan-17					
Applicant/Owner: N	lextEra			State: North Carolina Sampling Point: W-A19-280_PEM-1					
Investigator(s): Laura Giese, Simon King Section, Township, Range:									
Landform (hillslope, te	rrace, etc.):	Back slope	Local re	Local relief (concave, convex, none): Concave Slope (%): 1					
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P		Lat: 36.5191406	Long: -79.6699783	Datum: WGS84			
Soil Map Unit Name:	Clover sand	/ loam, 2 to 8 perce	nt slopes		NWI classifica	tion:			
Are climatic/hydrologic	c conditions o	n the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	s.)			
Are Vegetation,	Soil 🟒,	or Hydrology	significantly disturbed?	Are "Normal (	Circumstances" present?	Yes 🟒 No			
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If needed, ex	plain any answers in Remar	ˈks.)			

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _	Is the Sampled Area within a Wetland?	Yes _ 🖌 No
Remarks:			
Covertype is PEM. Area is wetland, all three	wetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	e is required; checl	<u>c all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— H — C — P — R — T	rue Aquatic Plants (B14) lydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living resence of Reduced Iron (C4) recent Iron Reduction in Tilled Sc hin Muck Surface (C7) Dther (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	15	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	6	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring w	ell, aerial photos, previous inspe	ections), if	available:
Remarks:				
Soil is episaturated. water rose to 7	7 inches.			

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

## Sampling Point: W-A19-280\_PEM-1

· · ·							
Trans Chartering (Plat sizes 20)	Absolute	Dominant	Indicator	Dominance Test workshe	et:		
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Sp	ecies That	2	( • • •
1.		<u> </u>		Are OBL, FACW, or FAC:		2	(A)
2.		·		Total Number of Domina	nt Species	2	(B)
3.				Across All Strata:			
4.				Percent of Dominant Spe Are OBL, FACW, or FAC:	cies That	100	(A/B)
5				Prevalence Index worksh	eet.		
6				Total % Cover of		Multiply E	a.e.
7.				OBL species	_	x 1 =	- <u>y.</u> 0
	0	= Total Cov	er	· · ·	0		
50% of total cover: <u>0</u>	20% of to		0	FACW species	75	x 2 =	150
Sapling/Shrub Stratum (Plot size:)				FAC species	0	x 3 =	0
				FACU species	0	x 4 =	0
		·		UPL species	0	x 5 =	0
	·			Column Totals	75	(A)	150 (B)
3				Prevalence Ind	ex = B/A =	2	
4				Hydrophytic Vegetation I	ndicators.		
5				1- Rapid Test for Hy		logotation	
6				2 - Dominance Test		egetation	
7							
8.				3 - Prevalence Index			
9.				4 - Morphological A			supporting
	0	= Total Cov	er	data in Remarks or on a			
50% of total cover: <u>0</u>		-		Problematic Hydrop			
Herb Stratum (Plot size: _ 5_)	_20/00110	star cover.		<sup>1</sup> Indicators of hydric soil			gy must be
	40		EA CIA/	present, unless disturbed			
1. Juncus effusus	40	Yes	FACW	Definitions of Four Veget	ation Strata	a:	
2. <i>Carex sp.</i>	30	Yes	FACW				
3. <i>Solidago gigantea</i>	5	No	FACW	Tree – Woody plants, exc	luding vine	s, 3 in. (7.6	cm) or more
4. Asteracae	5	No	NI	in diameter at breast hei	ght (DBH), i	regardless	of height.
5							
6.				Sapling/shrub - Woody p	lants, exclu	iding vines	, less than 3
7.				in. DBH and greater than	or equal to	o 3.28 ft (1	m) tall.
8.	·						
9.	·	·		Herb – All herbaceous (n	on-woody)	plants, reg	ardless of
10				size, and woody plants le	ss than 3.2	8 ft tall.	
	·						
11				Marine Allowershi			
	80	= Total Cov	er	Woody vines – All woody	vines grea	ter than 3.	28 11 10
50% of total cover: <u>40</u>	_20% of to	otal cover:	16	height.			
Woody Vine Stratum (Plot size: <u>30</u> )							
1							
2							
3				Hydrophytic Vegetation	Present?	⁄es 🛛 No 🗆	]
4.							
5.							
	0	= Total Cov	er				
50% of total cover:0		-	0				
	-	Star cover.					
Remarks: (Include photo numbers here or on a separate sheet.) A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).							

#### SOIL

## Sampling Point: W-A19-280\_PEM-1

Dark Sur	%         Type1         Loc2           15         C         M           5         D         M           5         C         M           5         D         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           5         C         M           6         Topological state           6         MS = Masked Sand Grains. <sup>2</sup> Loca	Texture       Remarks         Silt Loam
10Y 5/1 10YR 5/6 5Y 5/1 7.5YR 5/8 on, RM = Reduced Matrix, M	5         D         M           5         C         M           5         D         M           5         C         M           5         C         M	Clay Clay Silty Clay Loam Silty Clay Silty Clay Ation: PL = Pore Lining, M = Matrix.
10Y 5/1 10YR 5/6 5Y 5/1 7.5YR 5/8 on, RM = Reduced Matrix, M	5         D         M           5         C         M           5         D         M           5         C         M           5         C         M	Clay Silty Clay Loam Silty Clay
10YR 5/6 5Y 5/1 7.5YR 5/8	5         C         M           5         D         M           5         C         M	Silty Clay Loam
5Y 5/1 7.5YR 5/8 	5         D         M           5         C         M	Silty Clay Loam
7.5YR 5/8	5 C M	Silty Clay
on, RM = Reduced Matrix, M	x, MS = Masked Sand Grains. <sup>2</sup> Loca	ation: PL = Pore Lining, M = Matrix.
Dark Sur		
Dark Sur		
	urface (S7)	Indicators for Problematic Hydric Soils <sup>3</sup> :
	urface (S7)	
Loamy G Depleted Redox Da Depleted Redox Da Redox Da RA 147, 148) Iron-Man Umbric S Piedmon	ue Below Surface (S8) <b>(MLRA 147, 148</b> ark Surface (S9) <b>(MLRA 147, 148)</b> Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8)	<ul> <li>a) 2 cm Muck (A10) (MLRA 147)</li> <li>b) Coast Prairie Redox (A16) (MLRA 147, 148)</li> <li>b) Piedmont Floodplain Soils (F19) (MLRA 136</li> <li>147)</li> <li>b) Very Shallow Dark Surface (TF12)</li> <li>c) Other (Explain in Remarks)</li> <li>136)<sub>3</sub>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</li> </ul>
Nono	Under Call Deserve	
None	Hydric Soil Presen	t? Yes ☑ No □

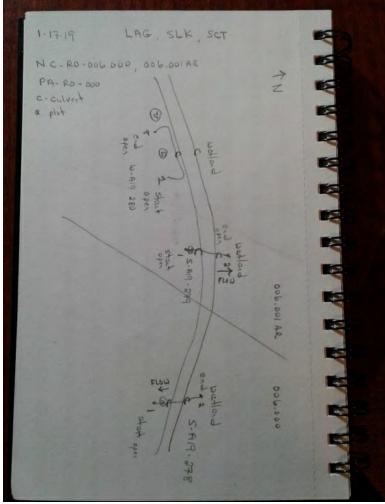
Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West Photo of Sample Plot Sketch



## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	y: Eden, Rockingham (	Co Sampling Dat	e: 2019-Jan-17	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-A	A19-280_UPL-1
Investigator(s): Sime	on King, Laura	Giese		Section, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Back slope	Local re	lief (concave, convex,	none): Convex	Slope (%): 1 to 10
Subregion (LRR or MLR	RA): MLRA	A 136 of LRR P		Lat: 36.5190296	Long: -79.6703356	Datum: WGS84
Soil Map Unit Name:	Clover sandy	loam, 2 to 8 percer	nt slopes		NWI classificati	on:
Are climatic/hydrologic	c conditions or	the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)
Are Vegetation,	Soil,	or Hydrology s	significantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology ı	naturally problematic?	(If needed, exp	lain any answers in Remark	s.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒						
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒				
Remarks:							
Covertype is UPL. Area is upland, not all three wetland parameters are present.							

#### HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	e is required; check a	<u>all that apply)</u>	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Image Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— Hy Ox Pre Re Th Ot	ue Aquatic Plants (B14) drogen Sulfide Odor (C1) idized Rhizospheres on Living Roots ( esence of Reduced Iron (C4) cent Iron Reduction in Tilled Soils (C6 in Muck Surface (C7) her (Explain in Remarks)	Dry-Season Water Table (C2)
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No 🟒	Depth (inches):	── Wetland Hydrology Present? Yes No _∠
Saturation Present?	Yes No 🟒	Depth (inches):	
(includes capillary fringe)			
Describe Recorded Data (stream ga	uge, monitoring wel	ll, aerial photos, previous inspections	), if available:
Remarks:			
The criterion for wetland hydrology	is not met.		

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

## Sampling Point: W-A19-280\_UPL-1

Trac Stratum (Blat size) 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	0	(A)
1.				Are OBL, FACW, or FAC:		(~)
2.				Total Number of Dominant Species Across All Strata:	3	(B)
3 4.	<u> </u>			Percent of Dominant Species That	0	(A/B)
5.				Are OBL, FACW, or FAC:		
6.				Prevalence Index worksheet:		
7.				Total % Cover of:	Multiply By:	
	0	= Total Cov	er	OBL species 0	x 1 =	0
50% of total cover: <u>0</u>	20% of to	_ otal cover:	0	FACW species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				FAC species	x 3 =	
1 Bidens vulgata		No	FAC	FACU species	x 4 =	
2 Rubus allegheniensis		No	FACU	UPL species 0	x 5 =	0
3.				Column Totals	(A)	(B)
4.				Prevalence Index = B/A =		
				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	Vegetation	
				2 - Dominance Test is > 50%		
7				$3$ - Prevalence Index is ≤ $3.0^{1}$		
8				4 - Morphological Adaptations	រ <sup>1</sup> (Provide sur	oporting
9				data in Remarks or on a separate s	heet)	
	0	= Total Cov	er	Problematic Hydrophytic Vege	etation <sup>1</sup> (Expla	ain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	<sup>1</sup> Indicators of hydric soil and wetlar	nd hydrology	must be
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed or proble	matic	
1. <i>Chamaecrista nictitans</i>	20	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2. <i>Rubus allegheniensis</i>	10	Yes	FACU			
3. Allium canadense	10	Yes	FACU	Tree – Woody plants, excluding vine	es, 3 in. (7.6 cr	n) or more
4.				in diameter at breast height (DBH),	regardless of	height.
5.				-		
6.				Sapling/shrub – Woody plants, excl	uding vines, le	ess than 3
7.				in. DBH and greater than or equal t	o 3.28 ft (1 m	) tall.
8.				-		
0				Herb – All herbaceous (non-woody)	plants, regar	dless of
10				size, and woody plants less than 3.2	28 ft tall.	
11						
11		Tabal Car		Woody vines – All woody vines grea	tor than 2.20	ftin
	40	= Total Cov		height.		1111
50% of total cover: <u>20</u>	_ 20% of to	otal cover:	8			
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )						
1						
2						
3				Hydrophytic Vegetation Present?	Yes 🗆 No 🗹	
4						
5						
	0	= Total Cov	er			
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separa	to shoot )					
Remarks. (include photo numbers here of on a separa	te sneet.j					
No positive indication of hydrophytic vegetation was o	bearied (~	50% of do~	inant choci	as indexed as EAC- or driver)		
	useiveu (≥	.5070 01 0011	mant specie	es muereu as FAC- ur urier).		

SOIL

## Sampling Point: W-A19-280\_UPL-1

Depth	Matrix			Features			
(inches)	Color (moist)	<u>%</u>	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 4	10YR 4/3	100		·	·	Silt Loam	
4 - 10	10YR 4/4	100		·	· ·	Silt Loam	
10 - 14	10YR 5/4	100		·	·	Clay	
14 - 18	5YR 5/6	100				Silt Loam	
		. <u> </u>		·	·		
				·			
		- <u> </u>			·		
				·	. <u> </u>		
		Depletion, RM	= Reduced Matri	x, MS = Masked S	and Grains. <sup>2</sup> Locatio	on: PL = Pore Lining, M =	
-	Indicators:		Dark			Indicators for Problema	atic Hydric Soils <sup>3</sup> :
Histosol Histic Ep	(A1) ipedon (A2)			Surface (S7) alue Below Surface	(S8) <b>(MLRA 147, 148)</b>	2 cm Muck (A10) <b>(M</b>	
_ Histic Lp _ Black His	•		-	Dark Surface (S9) <b>(N</b>		Coast Prairie Redox	
	n Sulfide (A4)			y Gleyed Matrix (F2			n Soils (F19) <b>(MLRA 136,</b>
	d Layers (A5)			ted Matrix (F3)		147)	
	ck (A10) <b>(LRR N)</b>			Dark Surface (F6)		Very Shallow Dark S	
•	Below Dark Surface	(A11)		ted Dark Surface (F	-7)	Other (Explain in Re	emarks)
	rk Surface (A12) lucky Mineral (S1) <b>(LR</b>	D NI MI DA 147	148) Kedox	Depressions (F8)	(E12) (I DD N MI DA 13	5)	
_ ,	leyed Matrix (S4)		, 146) 11011-N Umbr	ic Surface (F13) <b>(M</b>	(FT2) (ERK N, MERA T3	<b>6)</b> <sub>3</sub> Indicators of hydrophy	tic vegetation and
_ Sandy Re	•			ie Ballace (i 18) <b>(</b>	ls (F19) <b>(MLRA 148)</b>	wetland hydrology mu	st be present, unless
-	Matrix (S6)			arent Material (F21		disturbed or problema	tic.
Restrictive	Layer (if observed):						
-	Туре:		None	_	Hydric Soil Present?		Yes 🗆 No 🗹
I	Depth (inches):						
Remarks:							
√o positiv	e indication of hydri	c soils was ob	served.				
√o positiv	e indication of hydri	c soils was ob	served.				
√o positiv	e indication of hydri	c soils was ob	served.				
√o positiv	e indication of hydri	c soils was ob	served.				
No positiv	e indication of hydri	c soils was ob	served.				
No positiv	e indication of hydri	c soils was ob	served.				
√o positiv	e indication of hydri	c soils was ob	served.				
No positiv∕	e indication of hydri	c soils was ob	served.				
√o positiv	e indication of hydri	c soils was ob	served.				
lo positiv	e indication of hydri	c soils was ob	served.				

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	: Eden, Rockingham Co	. Sampling Dat	t <b>e:</b> 2019-Jan-17	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W	-A19-282_PEM-1
Investigator(s): Laura Giese, Simon King Section, Township, Range:						
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local relief	(concave, convex,	none): Concave	Slope (%): 0 to 1
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P	Lat	: 36.5291295	Long: -79.6518867	Datum: WGS84
Soil Map Unit Name:	Codorus loa	m, 0 to 2 percent slo	pes, frequently flooded		NWI classifica	tion:
Are climatic/hydrologic	c conditions or	n the site typical for t	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	s.)
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	naturally problematic?	(If needed, exp	olain any answers in Remar	ks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _	Is the Sampled Area within a Wetland?	Yes No
Remarks:		<u> </u>	
Covertype is PEM. Area is wetland, all three	wetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; checl	<u>k all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— F C P R T C	rue Aquatic Plants (B14) lydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Dther (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes 🖌 No	Depth (inches):	3	
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring w	ell, aerial photos, previous inspe	ctions), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met.			

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

## Sampling Point: W-A19-282\_PEM-1

<u>Tree Stratum</u> (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	3	(A)
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Species Across All Strata:	3	(B)
3	·			Percent of Dominant Species That		
4	·			Are OBL, FACW, or FAC:	100	(A/B)
5	·			Prevalence Index worksheet:		
6	·			Total % Cover of:	Multiply E	Bv:
7	·			OBL species 5	x 1 =	5
	0	= Total Cov	er	FACW species 25	x 2 =	50
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	FAC species 25	x 3 =	75
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species 0	x 4 =	0
1. <u>Salix nigra</u>	5	Yes	OBL	UPL species 0	x 5 =	0
2	·			Column Totals 55	(A)	130 (B)
3				Prevalence Index = B/A =	· · · -	130 (8)
4						
5				Hydrophytic Vegetation Indicators: 1- Rapid Test for Hydrophytic		
6				1- Rapid Test for Hydrophytic 2 - Dominance Test is >50%	vegetation	
7	. <u></u>			$\checkmark$ 3 - Prevalence Index is $\leq 3.0^{1}$		
8				4 - Morphological Adaptations	-1 (Drovida (	upporting
9				data in Remarks or on a separate s		supporting
	5	= Total Cov	er	Problematic Hydrophytic Vege		olain)
50% of total cover: <u>2.5</u>	_20% of to	tal cover:	1	<sup>1</sup> Indicators of hydric soil and wetlar		
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed or proble		5)
1. Juncus effusus	25	Yes	FACW	Definitions of Four Vegetation Strat	ta:	
2. Arthraxon hispidus	25	Yes	FAC			
3.				Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more
4.				in diameter at breast height (DBH),		
5						
6.				Sapling/shrub - Woody plants, excl	uding vines	, less than 3
7.				in. DBH and greater than or equal t	:o 3.28 ft (1	m) tall.
8.						
9.				Herb – All herbaceous (non-woody)		ardless of
10				size, and woody plants less than 3.2	28 ft tall.	
11.						
	50	= Total Cov	er	Woody vines - All woody vines grea	ater than 3.2	28 ft in
50% of total cover: <u>25</u>	20% of to	tal cover:	10	height.		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )						
1.						
2.						
3.				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	]
4.						
5.						
	0	= Total Cov	er			
50% of total cover: <u>0</u>	20% of to	tal cover:	0			
Remarks: (Include photo numbers here or on a separat						
Remarks. (include prioto numbers nere or on a separat	e sheet.)					
A positive indication of hydrophytic vegetation was obs	erved (>50	)% of domin	ant species i	indexed as OBL, FACW, or FAC).		
, , , , , , , , , , , , , , , , , , , ,				·····, ·····,		

#### SOIL

## Sampling Point: W-A19-282\_PEM-1

(inches)	Matrix Color (moist)	%	Color (moist)	Featur %	Type <sup>1</sup>	Loc <sup>2</sup>	Те	xture	Remarks
0 - 3	10YR 4/2	100			турс			Loam	Kemano
3 - 5	10YR 5/2	95	7.5YR 4/6	5	С	M		ly Loam	
5 - 13	2.5Y 5/3	80	10YR 5/8	15	 			ly Loam	
	2.51 5/5	00		-					manganaca concretions
5 - 13			2.5Y 5/1	5		<u>M</u>		ly Loam	manganese concretions
13 - 20	2.5Y 5/3	70	7.5YR 5/8	20	<u> </u>	<u>M</u>		Clay Loam	
13 - 20			2.5Y 5/2	5		<u> </u>	Sandy	Clay Loam	
	Concentration, D = [ Indicators:	Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Grain	s. <sup>2</sup> Location: P	L = Pore Lining, M =	Matrix.
Black His Hydroge Stratifiec 2 cm Mu Depletec Thick Da Sandy M Sandy G Sandy Re	n Sulfide (A4) d Layers (A5) lck (A10) <b>(LRR N)</b> d Below Dark Surface ( rk Surface (A12) ucky Mineral (S1) <b>(LR</b> leyed Matrix (S4)	. ,	Thin L Loamy Deple Redox Deple Redox 147, 148) Iron-M Umbr Piedm	ark Surf Gleyed Eed Matr Dark Su Eed Dark Depres langane c Surfac ont Floc	face (S9) <b>(I</b> Matrix (F2 rix (F3) urface (F6) sourface (F6) sions (F8) se Masses re (F13) <b>(M</b> odplain So	F7)	N, MLRA 136) <sub>31</sub> W, MLRA 136) <sub>31</sub> W, MLRA 136) <sub>31</sub>	Piedmont Floodpla 7) Very Shallow Dark Other (Explain in R dicators of hydroph	x (A16) <b>(MLRA 147, 148)</b> in Soils (F19) <b>(MLRA 136,</b> Surface (TF12) emarks) nytic vegetation and ist be present, unless
	Layer (if observed):						.,,,,,		
	Гуре:		None			Hvdric Sc	il Present?		Yes 🗹 No 🗆
	Depth (inches):					1			
Remarks:	• • •								
A positive	indication of hydric s	soil was o	bserved. The criterio	ו for hy	dric soil is	s met.			

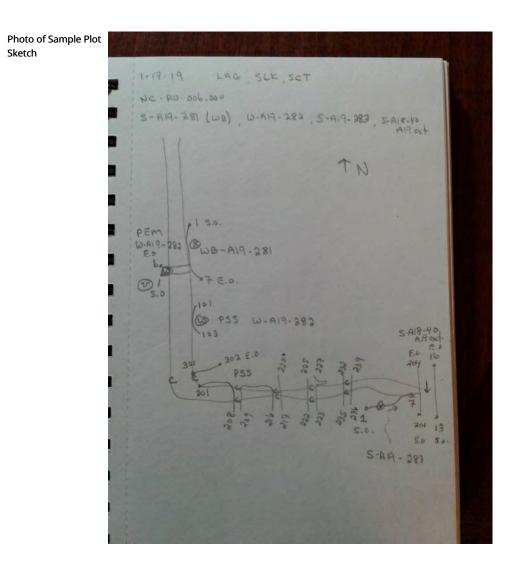
Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West



## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	Eden, Rockingham C	o Sampling Dat	t <b>e:</b> 2019-Jan-17			
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W	-A19-282_PSS-1		
Investigator(s): Laura Giese, Simon King Section, Township, Range:								
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local rel	ief (concave, convex,	none): Concave	Slope (%): 1 to 3		
Subregion (LRR or MLR	RA): MLR/	A 136 of LRR P		Lat: 36.5288433	Long: -79.6518163	Datum: WGS84		
Soil Map Unit Name:	Banister loar	n, 0 to 4 percent slo	pes, rarely flooded		NWI classifica	tion:		
Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)								
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, exp	olain any answers in Remar	ˈks.)		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes _ 🖌 No	ls the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PSS. Area is wetland, all three v	vetland parameters are pr	resent.	

# HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of or	Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required; check all that apply)            ✓ Surface Water (A1)         ✓ High Water Table (A2)         ✓ Hydrogen Sulfide Odor (C1)         ✓ Saturation (A3)         ✓ Oxidized Rhizospheres on Living Roots (C         ✓ Water Marks (B1)         ✓ Presence of Reduced Iron (C4)         Sediment Deposits (B2)         ✓ Recent Iron Reduction in Tilled Soils (C6)         Orift Deposits (B3)         ✓ Thin Muck Surface (C7)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Inundation Visible on Aerial Imagery (B7)         Water-Stained Leaves (B9)         Aquatic Fauna (B13)				Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)		
Field Observations:						
Surface Water Present?	Yes 🟒 No	Depth (inches):	1			
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No		
Saturation Present?	Yes 🟒 No	Depth (inches):	0	_		
(includes capillary fringe)						
Describe Recorded Data (stream g	auge, monitoring well,	aerial photos, previous insp	ections), if	available:		
Remarks:						
The criterion for wetland hydrolog	/ is met.					

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

## Sampling Point: W-A19-282\_PSS-1

Trac Stratum (Blat size) 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	5	(A)
1.				Are OBL, FACW, or FAC:		(~)
2.				Total Number of Dominant Species	5	(B)
3.				Across All Strata:		
4.				Percent of Dominant Species That	100	(A/B)
5.				Are OBL, FACW, or FAC:		
6.				Prevalence Index worksheet:	Markin I. D	
7.				- <u>Total % Cover of:</u>	Multiply B	-
	0	= Total Cov	/er	- OBL species 5	x 1 =	5
50% of total cover: <u>0</u>	20% of to	tal cover:	00	FACW species 60	x 2 =	120
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FAC species 45	x 3 =	135
1. Acer negundo	25	Yes	FAC	FACU species 0	x 4 =	0
2. Fraxinus pennsylvanica	15	Yes	FACW	UPL species 0	x 5 =	0
3.				Column Totals 110	(A)	260 (B)
4.				Prevalence Index = B/A =	2.4	
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	Vegetation	
7.				2 - Dominance Test is >50%		
0				$\checkmark$ 3 - Prevalence Index is $\leq 3.0^1$		
o 9.				4 - Morphological Adaptations		upporting
·	40	= Total Cov	/er	data in Remarks or on a separate s		
50% of total cover: <u>20</u>		-	8	Problematic Hydrophytic Vege		
Herb Stratum (Plot size:)	_ 20/00/10			<sup>1</sup> Indicators of hydric soil and wetlar		y must be
1 Jungue officieus	20	Yes	FACW	present, unless disturbed or proble		
2. Carex sp.	20	Yes	FACW	Definitions of Four Vegetation Strat	a:	
3. Arthraxon hispidus	20	Yes	FAC			
4. Persicaria lapathifolia	5	No	FACW	Tree – Woody plants, excluding vine in diameter at breast height (DBH),		
5. Mimulus ringens		No	OBL		regardiess (	or neight.
6.		110		- Sapling/shrub – Woody plants, excl	uding vines	less than 3
7.		·		in. DBH and greater than or equal t	-	
8.				-		,
9.				Herb – All herbaceous (non-woody)	plants, rega	ardless of
10.				size, and woody plants less than 3.2		
				-		
11		Tabal Car		- Woody vines – All woody vines grea	tor than 2 3	00 ft in
	70	= Total Cov		height.		.0 11 11
50% of total cover: <u>35</u>	_ 20% of to	otal cover:	14			
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )						
1		·		-		
2		<u> </u>		- Lively a shutia Vagatatian Dyacant2		
3				Hydrophytic Vegetation Present?		
4				-		
5		Tabal Car		-		
FOOL of total account of	0	= Total Cov				
50% of total cover:0	_ 20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separate sheet.)						
A positive indication of hydrophytic vegetation was ob	served (>5(	)% of domir	nant species	indexed as OBL. FACW. or FAC)		

#### SOIL

## Sampling Point: W-A19-282\_PSS-1

(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 5	10YR 4/2	100			<u>, , , , , , , , , , , , , , , , , , </u>			Silt Loam	
5 - 14	10YR 4/2	90	7.5YR 4/6	5	с	M	S	ilty Clay Loam	
5 - 14			10YR 5/1	5	 D			ilty Clay Loam	
14 - 20	2.5Y 5/2	80	10YR 5/8	20			5	Clay	
14-20	2.51 572		1011(3)0	20					
		·			·				
<sup>1</sup> Type: C =	Concentration, D = [	Depletion,	RM = Reduced Matrix	, MS =	Masked S	and Grain	s. ²Locatio	on: PL = Pore Lining, M = I	Matrix.
Hydric So	il Indicators:							Indicators for Problema	atic Hydric Soils <sup>3</sup> :
Black Hi Hydroge Stratifie 2 cm Mi Deplete Thick Da Sandy N Sandy R Sandy R	pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) <b>(LRR N)</b> d Below Dark Surface ( ark Surface (A12) Aucky Mineral (S1) <b>(LRI</b> Sleyed Matrix (S4) Redox (S5) d Matrix (S6)		Thin Da Loamy _⁄ Deplete Redox Redox 147, 148) Iron-M. Umbric Piedmo	ue Belo ark Surf Gleyed ed Matr Dark Su ed Dark Depress angane : Surfac ont Floc	w Surface Tace (S9) ( <b>N</b> Matrix (F2 ix (F3) urface (F6) c Surface (F sions (F8) se Masses e (F13) ( <b>M</b> odplain Soi	F7)	148) N, MLRA 13 22) LRA 148)	<ul> <li>2 cm Muck (A10) (M</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplai</li> <li>147)</li> <li>Very Shallow Dark S</li> <li>Other (Explain in Re</li> <li><sup>3</sup>Indicators of hydrophy wetland hydrology mus disturbed or problematic</li> </ul>	(A16) <b>(MLRA 147, 148)</b> n Soils (F19) <b>(MLRA 136,</b> surface (TF12) marks) rtic vegetation and st be present, unless
					10101 (121				
	e Layer (if observed): Type:		None			Livelain Co	il Duccout		
	Depth (inches):		None			Hydric Sc	oil Present?		Yes 🛛 No 🗆
Remarks:									
A positive	indication of hydric s	soil was o	bserved. The criterion	for hyd	dric soil is	: met.			



Photo of Sample Plot South



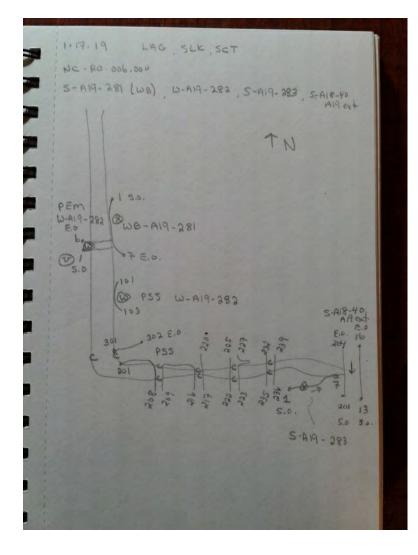
Photo of Sample Plot Sketch

Photo of Sample Plot

West



200 series, culvert under road



## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Reidsvill	e, Rockingham	Sampling Date:	2018-May-22	
Applicant/Owner: NextEra		Sta	te: North Carol	ina Sampling Point: W-B	18-43_PEM-1
Investigator(s): James Bolduc, T	ony Tredway, Heather Patti	Section, T	ownship, Range	. <u> </u>	
Landform (hillslope, terrace, etc.):	Flood Plain	Local relief (conc	ave, convex, nor	ne): Concave	Slope (%): 1 to 3
Subregion (LRR or MLRA): M	LRA 136 of LRR P	Lat: 36.3	369689 L	ong: -79.6197466	Datum: WGS84
Soil Map Unit Name: Fairview-F	oplar Forest complex, 15 to 25 p	ercent slopes		NWI classificatio	n: None
Are climatic/hydrologic conditions	on the site typical for this time o	f year? Yes	No (	lf no, explain in Remarks.)	
Are Vegetation 🟒 , Soil,	or Hydrology significantly	y disturbed? Ar	e "Normal Circu	imstances" present?	Yes No 🟒
Are Vegetation, Soil,	or Hydrology naturally pr	roblematic? (If	needed, explair	n any answers in Remarks.	.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _∠_ No Yes _∠_ No Yes _∠_ No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PEM. vegetation disturbed by a	ctive cow traffic.		

#### HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of or	ne is required; chec	<u>k all that apply)</u>	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> </ul>
			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	_ Depth (inches): 0	
(includes capillary fringe)			
Describe Recorded Data (stream g	auge, monitoring w	vell, aerial photos, previous inspections), if a	available:
Remarks:			

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

## Sampling Point: W-B18-43\_PEM-1

T () () () () ()	Absolute	Dominant	Indicator	Dominance Test worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species	That	3	(A)
1. <i>Ulmus americana</i>	60	Yes	FACW	Are OBL, FACW, or FAC:	_	5	
2. Liquidambar styraciflua	20	Yes	FAC	Total Number of Dominant Sp Across All Strata:	ecies	4	(B)
3				Percent of Dominant Species That			
4				Are OBL, FACW, or FAC:	mac	75	(A/B)
5	·	. <u> </u>		Prevalence Index worksheet:			
6		·		Total % Cover of:	1	Multiply	<u>By:</u>
7	80	- Total Cov		OBL species 0		x 1 =	0
50% of total cover: <u>40</u>		= Total Cov		FACW species 130	) )	x 2 =	260
Sapling/Shrub Stratum (Plot size:15_)	_ 20% 01 10	ital cover.		FAC species 20	:	x 3 = _	60
1				FACU species 70		x 4 =	280
2.				UPL species 0		x 5 = _	0
3.				Column Totals 220		(A) _	600 (B)
4.				Prevalence Index = I		_2./	
5.				Hydrophytic Vegetation Indica			
6.				1- Rapid Test for Hydrop	-	getatior	1
7.				2 - Dominance Test is >5			
8.				3 - Prevalence Index is ≤ 4 - Morphological Adapta		Duraviala	
9.				data in Remarks or on a separ			supporting
	0	= Total Cov	er	Problematic Hydrophytic			(nlain)
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	<sup>1</sup> Indicators of hydric soil and v	-		-
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed or p		-	0,5
1. <i>Persicaria lapathifolia</i>	50	Yes	FACW	Definitions of Four Vegetation	Strata:		
2. <i>Poa pratensis</i>	50	Yes	FACU				
3. <i>Ranunculus abortivus</i>	20	No	FACW	Tree – Woody plants, excludin	-		
4. <u>Trifolium repens</u>	20	No	FACU	in diameter at breast height (I	)BH), re	gardles	s of height.
5							
6				Sapling/shrub – Woody plants		-	
7	·			in. DBH and greater than or e	qual to :	3.28 IL (	i m) tali.
8				Herb – All herbaceous (non-w	oodv) ni	lants re	gardless of
9		·		size, and woody plants less th			garaiess or
10		·		,			
11		Tabal Ca		Woodywines Allwoodywine	arosto	r than 2	20 ft in
		= Total Cov		Woody vines – All woody vines height.	sgreate	r than 5	.201111
50% of total cover: <u>70</u>	_ 20% of to	ital cover:	28				
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> ) 1.							
	- <u> </u>	·					
				Hydrophytic Vegetation Prese	ont? Vo	s 🛛 No	
						5 🖂 140	
4 5.							
	0	= Total Cov	er				
50% of total cover: 0		-	0				
	_						
Remarks: (Include photo numbers here or on a separa	te sheet.)						

#### SOIL

## Sampling Point: W-B18-43\_PEM-1

(inches)         Color (moist)         %         Type?         Loc?         Texture           0.4         10R 5/1         90         7.5YR 5/6         10         C         M         Silty Clay Loam         4           4-18         10YR 5/2         90         7.5YR 5/6         10         C         M         Sandy Loam         -	Remarks
4 - 18       10YR 5/2       90       7.5YR 5/6       10       C       M       Sandy Loam	
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. <sup>2</sup> Location: PL = Pore Lining, M = Ma         Hydric Soil Indicators:       Indicators for Problematic         Histic Expipedon (A2)       Dark Surface (S7)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         2 cm Muck (A10)       Pelpteted Dark Surface (F6)         2 cm Muck (A11)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Gleyed Matrix (S6)       Umbric Surface (F12) (LRR N, MLRA 147, 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 148)         Type:       None         Deptht (inches):       None	
Hydric Soil Indicators:	
Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLR         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A	trix.
Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Polyvalue Below Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain S         Stratified Layers (A5)       ✓ Depleted Matrix (F3)       147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Sur         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remains)         Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)       Iron-Manganese Masses (F12) (LRR N, MLRA 136)       Indicators of hydrophytic         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122)       Indicators of hydrophytic         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)       disturbed or problematic.         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       disturbed or problematic.         Type:       None       Hydric Soil Present?       Ye         Depth (inches):       None       Ye	Hydric Soils <sup>3</sup> :
	A 147)
	ono (1 1 5) <b>(11 1 0 1 1 0 1</b>
_ Depleted Below Dark Surface (A11) _ Depleted Dark Surface (F7) _ Coher (Explain in Remain and the pressions (F8) _ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) _ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) _ Red Parent Material (F21) (MLRA 127, 147) Kestrictive Layer (if observed): _ Type: _ None _ Depth (inches): _ Depth (inches): _ Depth (inches): _ Depted Dark Surface (F7) _ Depted Dark Dark Dark Dark Dark Dark Dark Dark	face (TE12)
_ Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Indicators of hydrophytic Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Wetland hydrology must b Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) disturbed or problematic. Red Parent Material (F21) (MLRA 127, 147) & disturbed or problematic. Type: None Hydric Soil Present? Ye	
_ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) _ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) _ Type: _ None _ Depth (inches): None None None None	
_ Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) disturbed or problematic. _ Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) disturbed or problematic. Restrictive Layer (if observed): Type: None Hydric Soil Present? Ye	vegetation and
_ Stripped Matrix (S6)Red Parent Material (F21) (MLRA 127, 147) disturbed or problematic.  Restrictive Layer (if observed): Type:NoneHydric Soil Present? Ye Depth (inches):	
Type:     None     Hydric Soil Present?     Ye       Depth (inches):	
Depth (inches):	
	es 🗹 No 🗆
Remarks:	

Vegetation Photos



Soil Photos



Photo of Sample Plot North



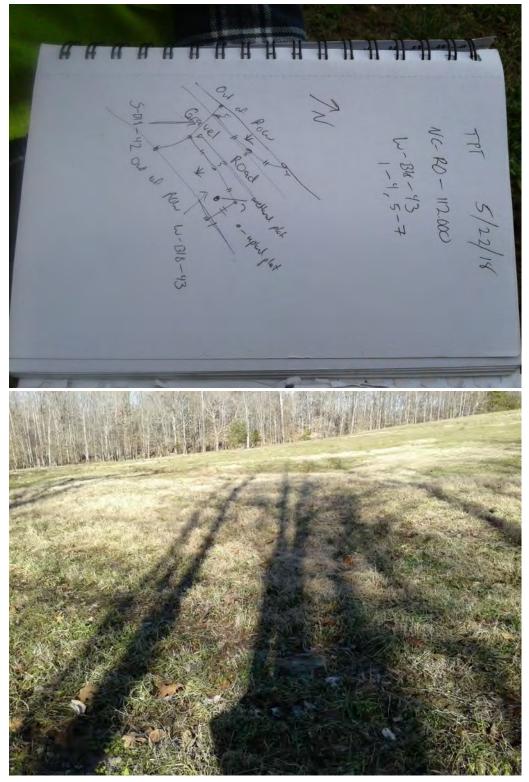
Photo of Sample Plot East

Photo of Sample Plot South



Photo of Sample Plot West

Photo of Sample Plot Sketch



A19 ext north



A19 ext, south



A19 ext, west

1/16/19 SLK, LAG NC-RO-112,000 S-B13-41 AM EXT (Flags 1, 101 + 102; 201 + 202) ( F.O. 102 E.O. NC-R0-113.000 5-B10-41 101 TN AA Ext. M Flow 2201 2. E.D. END OPEN I END OPEN 5-818-42 -A19 Ext. (floop 101 2102) 2102 E.D. W-818-43 Ala Ext. Gust Flag 1) 2.10 0.40 9

## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	Reidsville, Rockingha	m Sampling Date	e: 2018-May-31				
Applicant/Owner: N	lextEra			State: North Car	rolina Sampling Point: W-B	18-67_PEM-1			
Investigator(s): Will Buetow, Simon King, Heather Patti Section, Township, Range:									
Landform (hillslope, te	errace, etc.):	drainage	Local rel	ief (concave, convex, r	none): Concave	Slope (%): 1 to 10			
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.3339819	Long: -79.6021059	Datum: WGS84			
Soil Map Unit Name:	Fairview-Po	olar Forest complex, 8	8 to 15 percent slopes,	moderately eroded	NWI classificatio	n: None			
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No _∠ (If no, explain in Remarks.)									
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal Cir	rcumstances" present?	Yes 🟒 No			
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, expl	ain any answers in Remarks	.)			

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes 🟒 No Yes 🟒 No		
Wetland Hydrology Present?	Yes _ 🖌 No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PEM. Area is wetland, all three we	tland parameters are prese	ent. access road break s up wetland. No culvert present	

## HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	e is required; chec	<u>k all that apply)</u>	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	F F T	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Thin Muck Surface (C7) Dther (Explain in Remarks)	Dry-Season Water Table (C2)
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No 🟒	Depth (inches):	 Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes 🟒 No	Depth (inches):	l l
(includes capillary fringe)			
Describe Recorded Data (stream ga	auge, monitoring w	ell, aerial photos, previous inspections	s), if available:
Remarks:			
The criterion for wetland hydrology	/ is met.		

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

## Sampling Point: W-B18-67\_PEM-1

Tree Stratum (Plot size: <u>30)</u>			Indicator	Dominance Test worksheet			
	% Cover	Species?	Status	Number of Dominant Spec	ies That	2	(A)
1				Are OBL, FACW, or FAC:	-		
2.				Total Number of Dominant	t Species	3	(B)
3.				Across All Strata:	-		
4.				Percent of Dominant Speci	ies That	66.7	(A/B)
5.	·			Are OBL, FACW, or FAC:	-		
6.				Prevalence Index workshee	et:		
				Total % Cover of:		<b>Multiply</b>	By:
7	·			OBL species	15	x 1 =	15
	0	= Total Cov	ver	FACW species	0	x 2 =	0
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species	50	x 3 =	150
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species	35	x 4 =	140
1				UPL species	0	x 5 =	0
2				· · · · · · · · · · · · · · · · · · ·	100	(A)	305 (B)
3.							303 (B)
4.				Prevalence Index	( = B/A =	3.1	
5.				Hydrophytic Vegetation Inc			
				1- Rapid Test for Hydr	rophytic V	egetatior/	٦
				2 - Dominance Test is	>50%		
				3 - Prevalence Index i	s ≤ 3.0¹		
8				4 - Morphological Ada	aptations <sup>1</sup>	(Provide	supporting
9				data in Remarks or on a se	parate sh	leet)	
	0	= Total Cov	ver	Problematic Hydroph	ytic Veget	tation <sup>1</sup> (E	xplain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	<sup>1</sup> Indicators of hydric soil an			
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed of			0,
1. Euthamia graminifolia	30	Yes	FAC	Definitions of Four Vegetat	ion Strata	a:	
2. Solidago canadensis	20	Yes	FACU				
3. Microstegium vimineum	20	Yes	FAC	Tree – Woody plants, exclu	ding vines	s 3 in (7	6 cm) or more
4. Carex lurida	15	No	OBL	in diameter at breast heigh	-		
5. Urtica dioica	10	No	FACU		it (DDII), I	eguiules	s of fieldine.
	5		FACU	Sapling/shrub – Woody pla	nte ovelu	dingving	s loss than 2
6. <i>Parthenocissus quinquefolia</i>		No	FACU	in. DBH and greater than o		-	
7				in. Don and greater than o	n equal to	J J.20 II (	i iii) tali.
8							manual and af
9				Herb – All herbaceous (nor size, and woody plants less		•	igar diess of
10				size, and woody plants less	5 UIAII 5.20	o It tall.	
11.							
	100	= Total Cov	ver	Woody vines - All woody vi	ines great	er than 3	8.28 ft in
50% of total cover: <u>50</u>	20% of to	_ otal cover:	20	height.			
Woody Vine Stratum (Plot size: <u>30</u> )							
				Lludronhutic Verstation Dr		(a a 🖂 N a	
3				Hydrophytic Vegetation Pr	resent? r	es 🗹 No	
4							
5							
	0	= Total Cov	ver				
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0				
Remarks: (Include photo numbers here or on a separa A positive indication of hydrophytic vegetation was ob- hydrophytic vegetation was observed (Prevalence Inde	served (>50		nant species	indexed as OBL, FACW, or FA	AC). A posi	itive indic	ation of

SOIL

## Sampling Point: W-B18-67\_PEM-1

Depth	Matrix		Redox	x Featur	es				
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 3	10YR 4/2	100						Sandy Loam	
3 - 11	10YR 4/2	95	5YR 4/6	5	С	М	Sa	ndy Clay Loam	
11 - 15	10YR 4/3	98	7.5YR 4/4	2	С	М		Sandy Loam	
15 - 18	10YR 4/2	95	10YR 3/4	5	С	М		Sandy Loam	
·									
Type: C =	Concentration, D =	Depletion, I	RM = Reduced Matri	x, MS =	Masked S	and Grai	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M = N	/latrix.
ydric Soi	Indicators:							Indicators for Problema	tic Hydric Soils <sup>3</sup> :
Histosol				Surface (				2 cm Muck (A10) <b>(M</b> L	RA 147)
	ipedon (A2)						A 147, 148)	Coast Prairie Redox	
Black His	stic (A3) n Sulfide (A4)				ace (S9) (N		148)	Piedmont Floodplair	
- , 0	d Layers (A5)			ted Matr	Matrix (F2	.)		147)	
_	ick (A10) (LRR N)				irface (F6)			Very Shallow Dark Si	urface (TF12)
	Below Dark Surface	(A11)			Surface (F	7)		Other (Explain in Rer	
	rk Surface (A12)		Redo>	(Depres	sions (F8)				
- ,	ucky Mineral (S1) (LR	R N, MLRA 1	47, 148) Iron-N	/langane	se Masses	(F12) (LR	R N, MLRA 13	<b>6)<sub>3</sub>Indicators of hydrophy</b>	tic vegetation and
	leyed Matrix (S4)		_ 011101	ie Suiriae	c (i i 3) (iii	2101130,	)	wetland hydrology must	t be present, unless
Sandy Re	Matrix (S6)				dplain Soi aterial (F21			disturbed or problemati	
							27, 147)		
	Layer (if observed):		None						
	Type:		None	-		Hydric S	oil Present?		Yes 🛛 No 🗆
	Depth (inches):			-					
emarks:									

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South

Photo of Sample Plot

West



Photo of Sample Plot Sketch



US Army Corps of Engineers

Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

A19 new boundary center, north

## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP South	ngate	City/County: E	den, Rockingham		Sampling Date:	2018-June-08	
Applicant/Owner: Ne	xtEra				State: North Carc	olina Sampling Point: W-B	18-103_PEM-1
Investigator(s): Will B	uetow, Jake Bril	llo, Jim Bolduc	Se	ectio	n, Township, Range	e:	
Landform (hillslope, terr	race, etc.):	hillside seep and	Local reli	ief (co	oncave, convex, no	one): Concave	Slope (%): 2 to 5
	-	floodplain					
Subregion (LRR or MLRA	A): MLRA 1	136 of LRR P	I	Lat:	36.4860202 I	Long: -79.6853448	Datum: WGS84
Soil Map Unit Name:	Fairview-Popla	r Forest complex, 15	to 25 percent slopes	5		NWI classification	on: None
Are climatic/hydrologic	conditions on t	he site typical for this	time of year?		Yes 🟒 No	(If no, explain in Remarks.)	)
Are Vegetation,	Soil, or	· Hydrology sign	ificantly disturbed?		Are "Normal Circ	umstances" present?	Yes 🟒 No
Are Vegetation, S	Soil, or	Hydrology natu	urally problematic?		(If needed, expla	in any answers in Remarks	i.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes 🟒 No Yes 🟒 No		
Wetland Hydrology Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PEM. Area is wetland, all three v	vetland parameters are p	resent.	

## HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of or	ne is required; check all t	hat apply)	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial In</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidiz Prese Recen Thin N Other	quatic Plants (B14) gen Sulfide Odor (C1) ed Rhizospheres on Living Roots nce of Reduced Iron (C4) t Iron Reduction in Tilled Soils (C6 Auck Surface (C7) (Explain in Remarks)	Dry-Season Water Table (C2)
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes 🟒 No	Depth (inches): 3	3 Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches): 0	0
(includes capillary fringe)			
Describe Recorded Data (stream g	auge, monitoring well, a	erial photos, previous inspections	s), if available:
<b>Remarks:</b> A positive indication of wetland hy	drology was observed (p	rimary and secondary indicators	were present).
US Army Corps of Engineers			Eastern Mountains and Piedmont Version 2.0 Adapted by TR

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

## Sampling Point: W-B18-103\_PEM-1

Tree Stratum (Plot size:30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	6	(A)
1. <i>Fraxinus pennsylvanica</i>	10	Yes	FACW	Are OBL, FACW, or FAC:		
2. <u>Carpinus caroliniana</u>	5	Yes	FAC	Total Number of Dominant Species Across All Strata:	6	(B)
3				Percent of Dominant Species That		
4				Are OBL, FACW, or FAC:	100	(A/B)
5				Prevalence Index worksheet:		
6.				Total % Cover of:	Multiply E	<u>By:</u>
7	·			OBL species 15	x 1 =	15
		= Total Cov		FACW species 65	x 2 =	130
50% of total cover: <u>7.5</u>	_20% of to	tal cover:	3	FAC species 10	x 3 =	30
Sapling/Shrub Stratum (Plot size:15)	1 5	Vee		FACU species 0	x 4 =	0
1. Fraxinus pennsylvanica	<u> </u>	Yes	FACW	UPL species 0	x 5 =	0
2. Lindera benzoin 3.	5	Yes	FAC	Column Totals 90	(A)	175 (B)
	·			Prevalence Index = B/A =	1.9	
4 5				Hydrophytic Vegetation Indicators:		
5 6.				1- Rapid Test for Hydrophytic	Vegetation	
7.				2 - Dominance Test is >50%		
0				$\checkmark$ _ ✓ 3 - Prevalence Index is $\le 3.0^{1}$		
8 9.	·			4 - Morphological Adaptations	<sup>1</sup> (Provide s	supporting
9	20	= Total Cov		data in Remarks or on a separate s	-	
50% of total cover: <u>10</u>		-		Problematic Hydrophytic Vege		
Herb Stratum (Plot size:)	_ 20% 01 to	ital cover.	4	<sup>1</sup> Indicators of hydric soil and wetlar		gy must be
1. Impatiens capensis	30	Yes	FACW	present, unless disturbed or proble		
2. Carex crinita	15	Yes	OBL	Definitions of Four Vegetation Strat	a:	
3. Arisaema triphyllum	10	No	FACW			
4.		110	TACI	<b>Tree</b> – Woody plants, excluding vine in diameter at breast height (DBH),		
	·				regartiess	or neight.
5 6.	·			Sapling/shrub – Woody plants, excl	uding vines	s less than 3
7	·			in. DBH and greater than or equal t	-	
8.						
0				Herb – All herbaceous (non-woody)	plants, reg	ardless of
10				size, and woody plants less than 3.2	28 ft tall.	
11	·					
····	55	= Total Cov	/er	Woody vines – All woody vines grea	iter than 3.	28 ft in
50% of total cover: <u>27.5</u>		-	11	height.		
Woody Vine Stratum (Plot size:15_)	_ 20 % 01 10		1			
1.						
2.						
3.				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	]
4.						
5.						
	0	= Total Cov	/er			
50% of total cover: <u>0</u>	20% of to	-	0			
Remarks: (Include photo numbers here or on a separa A positive indication of hydrophytic vegetation was ob hydrophytic vegetation was observed (Prevalence Inde	served (>50		nant species	indexed as OBL, FACW, or FAC). A pos	sitive indica	ation of

SOIL

## Sampling Point: W-B18-103\_PEM-1

Depth	Matrix		Redox Fe		or confirm the abser		
(inches)	Color (moist)		(moist)	% Type <sup>1</sup>		Texture	Remarks
0 - 5	10YR 2/1	100			M	ucky Sandy Loam	
5 - 12	10YR 5/1	100				Loamy Sand	
'Type: C = C H <b>ydric Soil I</b>		epletion, RM = Rec	luced Matrix, N	IS = Masked	Sand Grains. <sup>2</sup> Locat	ion: PL = Pore Lining, M = Ma Indicators for Problemation	
_ Histosol (A _ Histic Epip _ Black Histi _ Hydrogen _ Stratified I _ 2 cm Mucl ∠ Depleted I _ Thick Dark _ Sandy Mu	N1) (c (A3) Sulfide (A4) Layers (A5) (A10) <b>(LRR N)</b> Below Dark Surface (A Surface (A12) (cky Mineral (S1) <b>(LRR</b> ) yed Matrix (S4)		Thin Dark Loamy Glu Depleted Redox Da Depleted Redox De Iron-Mang Umbric Su Piedmont	Below Surface Surface (S9) ( eyed Matrix (F Matrix (F3) rk Surface (F6) Dark Surface (F6) pressions (F8) ganese Masse urface (F13) ( <b>N</b> Floodplain Sc	) (F7)	2 cm Muck (A10) <b>(MI F</b>	A 147) (16) (MLRA 147, 148) Soils (F19) (MLRA 136, face (TF12) arks) c vegetation and pe present, unless
	ayer (if observed):						
	/pe:	Bedroc	k		Hydric Soil Present	7 V	es 🗹 No 🗆
-	epth (inches):	12			ingune son resent		
A positive ir	idication of hydric so	il was observed.					

Photo of Sample Plot North



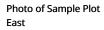


Photo of Sample Plot South



Photo of Sample Plot West

Photo of Sample Plot Sketch

In TO, WD, JG 6/8/2018 5-B18-102-1 To 5-B18+02-17 END At Rock Creek 4 Start open W-B18-103-1 TO W-B18-103-7 45 mit at strem 4 OND At stream 1-D18-103-11 + W-B18-103-8 W- D18-103-8 To W-B18-10311 • 7 5-018-102-1 NC-RO-025.000

A19 ext north



A19 ext, west

1/9/19 SLK, LAG NC-R0-025.000 W-B18-103 # this is a state requested added feature & is not on the current corridor Flags 1 to 7 both connect to 5-13-102 \* extension \* - AL

## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	: Burlington, Alamano	ce	Sampling Dat	t <b>e:</b> 2018	-June-13	
Applicant/Owner: N	lextEra				State: North Ca	arolina S	ampling Point: W-B	18-115_PFO-1
Investigator(s): Josep	ph Roy, Jim Bol	duc, Jeremy Humme	el s	Sectior	n, Township, Rar	nge:		
Landform (hillslope, te	rrace, etc.):	Hillslope	Local re	elief (co	oncave, convex,	none):	Concave	Slope (%): 1 to 10
Subregion (LRR or MLR	RA): MLRA	136 of LRR P		Lat: 3	36.1462138	Long: -	79.4188285	Datum: WGS84
Soil Map Unit Name:	Louisburg co	arse sandy loam, 15	5 to 45 percent slopes				NWI classificatio	n: None
Are climatic/hydrologic	conditions on	the site typical for	this time of year?	`	Yes 🟒 No 🔄	(lf no,	explain in Remarks.)	
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	?	Are "Normal C	ircumsta	inces" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology r	naturally problematic?		(If needed, exp	olain any	answers in Remarks	.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _	Is the Sampled Area within a Wetland?	Yes No
Remarks:		·	
Covertype is PFO. Area is wetland, all three v	vetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	e is required; check	<u>all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>✓ Surface Water (A1)</li> <li>✓ High Water Table (A2)</li> <li>✓ Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>✓ Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— Hy O> Pr Re Th Ot	ue Aquatic Plants (B14) vdrogen Sulfide Odor (C1) kidized Rhizospheres on Living Ro esence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soils in Muck Surface (C7) ther (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	1	
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring we	ll, aerial photos, previous inspect	ions), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met.			

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

## Sampling Point: W-B18-115\_PFO-1

Tree Stratum (Plot size:15)		Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That	F (4	
1. Fraxinus pennsylvanica	10	Yes	FACW	Are OBL, FACW, or FAC:	5 (A	()
2. Carpinus caroliniana	10	Yes	FAC	Total Number of Dominant Species	5 (B	3)
3. Fraxinus pennsylvanica				Across All Strata:		.,
4.				Percent of Dominant Species That	100 (A	√B)
5.				Are OBL, FACW, or FAC: Prevalence Index worksheet:		
6				Total % Cover of:	Multiply By:	
7				· OBL species 0	x1= 0	
	20	= Total Cov	er	FACW species 20	$x = \frac{3}{40}$	
50% of total cover: <u>10</u>	_20% of to	tal cover:	4	FAC species 25	x3= 75	
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species 0	x 4 = 0	
1. Acer rubrum	15	Yes	FAC	UPL species 0	x = 0	
2				Column Totals 45	(A) 115	
3				Prevalence Index = B/A =	· · ·	(D)
4					2.0	
5				Hydrophytic Vegetation Indicators:	lagatation	
6				<ul> <li>1- Rapid Test for Hydrophytic</li> <li>2 - Dominance Test is &gt;50%</li> </ul>	regelation	
7				$\checkmark$ 2 - Dominance Test is >50% $\checkmark$ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>		
8					1 (Drovido cuppo)	rting
9				<ul> <li>4 - Morphological Adaptations</li> <li>data in Remarks or on a separate s</li> </ul>		ung
	15	= Total Cov	er	Problematic Hydrophytic Vege		
50% of total cover: <u>7.5</u>	_20% of to	tal cover:	3	<sup>1</sup> Indicators of hydric soil and wetlar	-	t he
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed or proble		
1. Woodwardia areolata	5	Yes	FACW	Definitions of Four Vegetation Strat		
2. Viola cucullata	5	Yes	FACW			
3.				Tree – Woody plants, excluding vine	s. 3 in. (7.6 cm) o	r more
4.				in diameter at breast height (DBH),		
5.					-	-
6.				Sapling/shrub – Woody plants, excl	uding vines, less t	than 3
7.	- <u> </u>			in. DBH and greater than or equal t	o 3.28 ft (1 m) tal	I.
8.						
9.				Herb – All herbaceous (non-woody)	plants, regardles	s of
10.				size, and woody plants less than 3.2	.8 ft tall.	
11.	·					
	10	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 ft ir	ı
50% of total cover: <u>5</u>		-	2	height.		
Woody Vine Stratum (Plot size:30_)	_ 20 /0 01 10	tai cover.				
1						
2						
2				Hydrophytic Vegetation Present?		
				ingerophytic vegetation resent.		
4. 5.	·					
		= Total Cov	or			
	0	-				
50% of total cover: <u>0</u>	_ 20% 01 to	ital cover:	0			
Remarks: (Include photo numbers here or on a separa A positive indication of hydrophytic vegetation was obs		)% of domin	ant species	indexed as OBL, FACW, or FAC).		

SOIL

## Sampling Point: W-B18-115\_PFO-1

0 - 8       10YR 3/1       100       Sandy Loam         0 - 8       10YR 3/1       100       Sandy Loam         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1         1       1       1       1       1       1         1       1       1       1       1       1         1       1       1       1       1       1       1         1       1       1       1		Matrix			lox Featur				
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. <sup>2</sup> Location: PL = Pore Lining, M = Matrix.         Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. <sup>2</sup> Location: PL = Pore Lining, M = Matrix.         Histosol (A1)		Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Remarks
ydric Soil Indicators: Histosol (A1) Histo Epipedon (A2) Bidsk Histic (A3) Lydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Bidsk Histic (A3) Lydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Bidsk Histic (A3) 2 cm Muck (A10) (MLRA 147) Bidsk Histic (A3) Sandy Mucky (S1) (MLRA 147, 148) Sandy Gleyed Matrix (S4) Stripped Matrix (S6) 2 med Parent Material (F21) (MLRA 136, 122) Bidsk Bidsk (S5) 2 med Parent Material (F21) (MLRA 127, 147) Bidsk Bidsk Distribution Bidsk (F19) Hydric Soil Present? Yes ⊠ No □ Bidsk Distribution Bidsk (F19) Hydric Soil Present? Yes ⊠ No □	0 - 8	10YR 3/1	100					Sandy Loam	
ydric Soil Indicators: Histosol (A1) Histo Epipedon (A2) Black Histic (A3) Lydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Black Histic (A3) Coast Prairie Redox (A16) (MLRA 147, 148) 2 cm Muck (A10) (MLRA 147, 148) Sandy Mucky (S1) (MLRA 147, 148) Sandy Gleyed Matrix (S4) Stripped Matrix (S6) Estrictive Layer (if observed): Type: <u>Bedrock</u> Depth (inches): <u>8</u> emarks: Hydric Soil Present? Yes ⊠ No □									
ydric Soil Indicators: Histosol (A1) Histo Epipedon (A2) Bidsk Histic (A3) Lydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Bidsk Histic (A3) Lydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) Bidsk Histic (A3) 2 cm Muck (A10) (MLRA 147) Bidsk Histic (A3) Sandy Mucky (S1) (MLRA 147, 148) Sandy Gleyed Matrix (S4) Stripped Matrix (S6) 2 med Parent Material (F21) (MLRA 136, 122) Bidsk Bidsk (S5) 2 med Parent Material (F21) (MLRA 127, 147) Bidsk Bidsk Distribution Bidsk (F19) Hydric Soil Present? Yes ⊠ No □ Bidsk Distribution Bidsk (F19) Hydric Soil Present? Yes ⊠ No □									
ydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Lydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147, 148) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147, 148) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) (MLRA 147, 148) Stratified Layers (A5) 2 cm Muck (A10) (MLRA 147, 148) 2 cm Muck (A10) (MLRA 147, 148) Sandy Mucky Mineral (S1) (MLRA 147, 148) Sandy Redox (S5) S mitped Matrix (S6) S tripped Matrix (S6) Type: Medrock Depth (inches): 8 emarks: Hydric Soil Present? Yes ⊠ No □									
ydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Lydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147, 148) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147, 148) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) (MLRA 147, 148) Stratified Layers (A5) 2 cm Muck (A10) (MLRA 147, 148) 2 cm Muck (A10) (MLRA 147, 148) Sandy Mucky Mineral (S1) (MLRA 147, 148) Sandy Redox (S5) S mitped Matrix (S6) S tripped Matrix (S6) Type: Medrock Depth (inches): 8 emarks: Hydric Soil Present? Yes ⊠ No □									
ydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Lydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147, 148) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147, 148) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) (MLRA 147, 148) Stratified Layers (A5) 2 cm Muck (A10) (MLRA 147, 148) 2 cm Muck (A10) (MLRA 147, 148) Sandy Mucky Mineral (S1) (MLRA 147, 148) Sandy Redox (S5) S mitped Matrix (S6) S tripped Matrix (S6) Type: Medrock Depth (inches): 8 emarks: Hydric Soil Present? Yes ⊠ No □									
ydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Lydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147, 148) Hydrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147, 148) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) (MLRA 147, 148) Stratified Layers (A5) 2 cm Muck (A10) (MLRA 147, 148) 2 cm Muck (A10) (MLRA 147, 148) Sandy Mucky Mineral (S1) (MLRA 147, 148) Sandy Redox (S5) S mitped Matrix (S6) S tripped Matrix (S6) Type: Medrock Depth (inches): 8 emarks: Hydric Soil Present? Yes ⊠ No □									
iydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) - Yddrogen Sulfide (A4) 2 cm Muck (A10) (MLRA 147) - Oast Prairie Redox (A16) (MLRA 147, 148) - Piedmont Floodplain Soils (F19) (MLRA 147) 2 cm Muck (A10) (MLRA 147, 148) - Piedmont Floodplain Soils (F19) (MLRA 147) 2 cm Muck (A10) (MLR N) - Zem Muck (A10) (MLR N) - Zem Muck (A10) (MLR N) - Piedmont Floodplain Soils (F19) (MLRA 147) - Coast Prairie Redox (A16) (MLRA 147, 148) - Piedmont Floodplain Soils (F19) (MLRA 147) - Zem Muck (A10) (MLR N) - Piedmont Floodplain Soils (F19) (MLRA 147) - Wery Shallow Dark Surface (TF12) - Depleted Below Dark Surface (A11) - Depleted Dark Surface (F6) - Very Shallow Dark Surface (TF12) - Other (Explain in Remarks) - Thich Zark Surface (F13) (MLRA 136, 122) - Sandy McVy Mineral (S1) (LRR N, MLRA 147, 148) - Sandy McVy Mineral (S1) (LRR N, MLRA 147, 148) - Sandy McVy Mineral (S1) (LRR N, MLRA 147, 148) - Sandy McVy Mineral (S1) (LRR N, MLRA 147, 148) - Sandy McVy Mineral (S1) (LRR N, MLRA 147, 148) - Piedmont Floodplain Soils (F19) (MLRA 136, 122) - Muck (A10) (MLRA 147) - Coast Prairie Redox (S5) - Very Shallow Dark Surface (F13) - Umbric Surface (F13) (MLRA 136, 122) - Wetand hydrology must be present, unlesd - disturbed or problematic. - Wetand hydrology must be present, unlesd - disturbed or problematic. - Wetand hydrology must be present, unlesd - Mydric Soil Present? Yes ⊠ No □ - Depth (inches): 8 - Red Parent Material (F21) (MLRA 127, 147) - Red Parent Material (F21) (MLRA 127, 147) - Muck (A10) - Much A180 - Mu									
tydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)									
tydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)						<u> </u>			
Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147, 148)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 147, 148)         Stratified Layers (A5)       Depleted Matrix (F3)       1477         2 cm Muck (A10) (LRR N)       Redox Derpessions (F8)	Type: C =	Concentration, D = D	epletion, RI	M = Reduced Ma	trix, MS =	Masked S	and Grains. <sup>2</sup> L	ocation: PL = Pore Lining, I	M = Matrix.
	lydric Soi <sup>l</sup>	Indicators:						Indicators for Prob	ematic Hydric Soils <sup>3</sup> :
Listic Epipedon (A2)								2 cm Muck (A10	) (MLRA 147)
								148)	
_Straitfied Layers (A5) Depleted Matrix (F3) 147) _2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122) _ Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 136, 122) wetland hydrology must be present, unless Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Wetland hydrology must be present, unless Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Wetland hydrology must be present, unless Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Remarks:	_							Piedmont Flood	lplain Soils (F19) (MLRA 136
_ Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Redox Depressions (F8) Inno-Manganese Masses (F12) (LRR N, MLRA 136) Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) wetland hydrology must be present, unles disturbed or problematic Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) disturbed or problematic disturbed or problematic Methods and Depth (inches): 8 No No Remarks: Remarks:							,	•	
_ Thick Dark Surface (A12) Redox Depressions (F8) Indicators of hydrophytic vegetation and Umbric Surface (F13) ( <b>LRR N, MLRA 136</b> ) <sub>3</sub> Indicators of hydrophytic vegetation and Umbric Surface (F13) ( <b>MLRA 136</b> , 122) Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> ) wetland hydrology must be present, unles disturbed or problematic	_							Very Shallow Da	ark Surface (TF12)
_ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) _ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) Type: <u>Bedrock</u> Depth (inches): <u>8</u> Remarks: _ Iron-Manganese Masses (F12) (LRR N, MLRA 136) _ Umbric Surface (F13) (MLRA 136, 122) _ Piedmont Floodplain Soils (F19) (MLRA 148) _ Red Parent Material (F21) (MLRA 147) Hydric Soil Present? Yes ☑ No □ _ Remarks:	•		411)				7)	Other (Explain i	n Remarks)
	_		N MIRA 14	Red 7 148) Iron	ox Depres Mangane	sions (F8) se Masses	(F12) (I RR N MI	RA 136)	
	-	-		Um	bric Surfac	e (F13) <b>(M</b>	LRA 136, 122)	<sup>3</sup> Indicators of hydro	ophytic vegetation and
Restrictive Layer (if observed):   Type:   Bedrock   Depth (inches):   8   Remarks:	Sandy Re	edox (S5)						to) disturbed or proble	
Type:     Bedrock       Depth (inches):     8    Remarks:	_ Stripped	Matrix (S6)		Red	Parent Ma	aterial (F21	) (MLRA 127, 14	7) disturbed of proble	ematic.
	Restrictive	Layer (if observed):							
Remarks:	-	Гуре:		Bedrock			Hydric Soil Pre	sent?	Yes 🗹 No 🗆
	!	Depth (inches):		8					
s positive indication of hydric soil was observed.	≀emarks:								
ኣ positive indication of hydric soil was observed.									
ት positive indication of hydric soil was observed.									
A positive indication of hydric soil was observed.									
A positive indication of hydric soil was observed.									
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A positive indication of hydric soil was observed.									
A positive indication of hydric soil was observed.									
	positive	indication of hydric s	oil was obse	erved.					
	A positive	indication of hydric s	oil was obse	erved.					
	o positive	indication of hydric so	oil was obse	erved.					
	A positive	indication of hydric s	oil was obse	erved.					
	۹ positive	indication of hydric so	oil was obse	erved.					
	A positive	indication of hydric s	oil was obse	erved.					
	A positive	indication of hydric s	bil was obse	erved.					
	A positive	indication of hydric s	bil was obse	erved.					

Photo of Sample Plot North



extension

Photo of Sample Plot East



extension

Photo of Sample Plot South

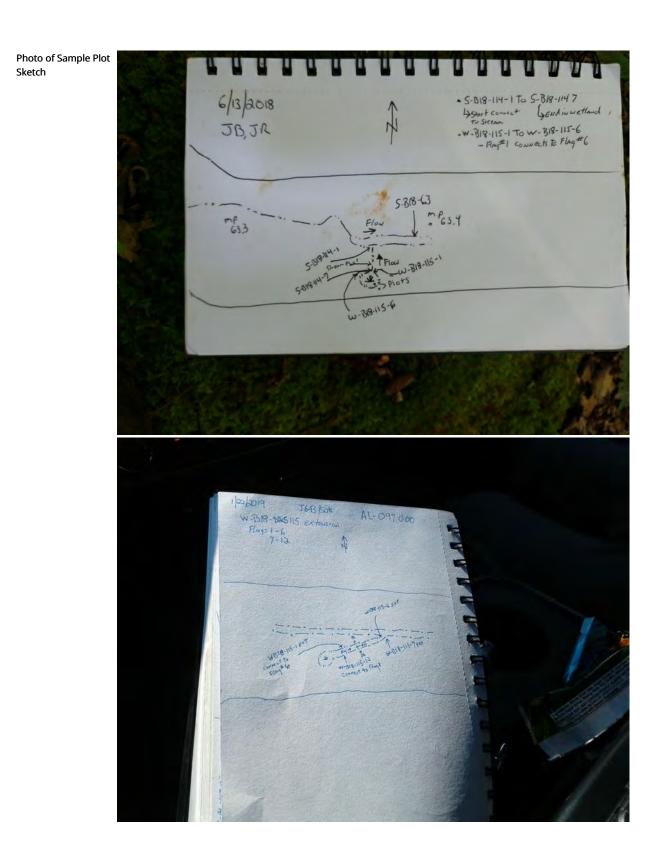


extension

Photo of Sample Plot West



extennsion



Project/Site: MVP Sou	thgate	City/County: Haw Riv	ver, Alamance	Sampling Da	te: 2019-Jan-08		
Applicant/Owner: N	lextEra			State: North C	arolina Sampling Point: W	-B19-146_PFO-1	
Investigator(s): Sime	on King, Joe Roy,	Susan Thebert	Sectio	on, Township, Ra	nge:		
Landform (hillslope, te	errace, etc.):	Flat	Local relief (	oncave, convex,	none): Concave	Slope (%): 1 to 3	
Subregion (LRR or MLF	RA):		Lat:	36.0908834	Long: -79.3623287	Datum: WGS84	
Soil Map Unit Name:	Enon sandy lo	am, 10 to 15 percent slopes			NWI classifica	tion: PFO	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)							
Are Vegetation,	Soil 🟒 , 🛛 oi	r Hydrology 🟒 significant	ly disturbed?	Are "Normal C	Circumstances" present?	Yes No 🟒	
Are Vegetation,	Soil, or	r Hydrology naturally p	problematic?	(If needed, exp	plain any answers in Remar	ks.)	

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes _ 🖌 _ No Yes _ 🖌 _ No		
Wetland Hydrology Present?	Yes _🖌 No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PFO. 6 foot bank may contribut	e drainage.		

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check	<u>k all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— H — C — P — R — T	rue Aquatic Plants (B14) Aydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)		<ul> <li> Dry-Season Water Table (C2)</li> <li> Crayfish Burrows (C8)</li> <li> Saturation Visible on Aerial Imagery (C9)</li> <li> Stunted or Stressed Plants (D1)</li> <li> Geomorphic Position (D2)</li> <li> Shallow Aquitard (D3)</li> <li> Microtopographic Relief (D4)</li> </ul>
Field Observations:				FAC-Neutral Test (D5)
Surface Water Present?	Yes No _	Depth (inches):		
				- Netland the dual are Dual and D
Water Table Present?	Yes 🖌 No	Depth (inches):	5	Wetland Hydrology Present? Yes _ No
Saturation Present?	Yes No 🟒	Depth (inches):		-
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring w	ell, aerial photos, previous inspe	ections), if	available:
nemarks.				

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

## Sampling Point: W-B19-146\_PFO-1

		Dominant Species?	Indicator Status	Dominance Test workshee Number of Dominant Spe		2	(A)
. Liquidambar styraciflua	20	Yes	FAC	Are OBL, FACW, or FAC:	-	Z	(^)
2. Acer negundo	5	No	FAC	Total Number of Dominar	nt Species	2	(B)
3. Juniperus virginiana	3	No	FACU	Across All Strata:	-		(2)
A. Platanus occidentalis	1	No	FACW	Percent of Dominant Spe	cies That	100	(A/B)
5.				Are OBL, FACW, or FAC:	4-		<u> </u>
j.				Prevalence Index workshe     Tatal % Course f		N. 4 147 1.	. D
				- <u>Total % Cover of</u>		<u>Multiply</u>	
	29	= Total Cove	r	- OBL species	0	x 1 =	0
50% of total cover: <u>14.5</u>	20% of to	tal cover:	5.800000000000001	FACW species	1	x 2 =	2
apling/Shrub Stratum (Plot size:)		-		FAC species	75	x 3 =	225
		No	FACU	FACU species	8	x 4 =	32
				UPL species	0	x 5 =	0
				- Column Totals	84	(A)	259 (B)
				Prevalence Inde	ex = B/A =	3.1	·
				Hydrophytic Vegetation Ir	ndicators:		
				1- Rapid Test for Hyd	drophytic V	egetatio	n
				2 - Dominance Test i	s >50%		
				3 - Prevalence Index	is ≤ 3.0 <sup>1</sup>		
				4 - Morphological Ac	daptations <sup>1</sup>	(Provide	e supporting
·		= Total Cove	<i>ب</i>	– data in Remarks or on a s	•		
				Problematic Hydrop			
50% of total cover: <u>1.5</u>	20% 01 to	tal cover: _	0.6000000000000000000000000000000000000	<ul> <li>Indicators of hydric soil a</li> </ul>		-	ogy must be
lerb Stratum (Plot size:)	50		EAC.	present, unless disturbed			
. Microstegium vimineum	50	Yes	FAC	Definitions of Four Vegeta	ation Strata	<b>i</b> :	
)				_			
				Tree – Woody plants, excl	-		
l				in diameter at breast heig	ght (DBH), r	egardles	s of height.
				_			
					ante ovelu	ding vine	es, less than
				Sapling/shrub – Woody pl		-	
				in. DBH and greater than		-	1 m) tall.
				in. DBH and greater than	or equal to	o 3.28 ft (	
				in. DBH and greater than Herb – All herbaceous (no	or equal to on-woody)	o 3.28 ft ( plants, re	
				in. DBH and greater than	or equal to on-woody)	o 3.28 ft ( plants, re	
  0				in. DBH and greater than Herb – All herbaceous (no	or equal to on-woody)	o 3.28 ft ( plants, re	
   0				in. DBH and greater than Herb – All herbaceous (no	or equal to on-woody)   ss than 3.28	o 3.28 ft ( plants, re 8 ft tall.	egardless of
  0		= Total Cove		<ul> <li>in. DBH and greater than</li> <li>Herb – All herbaceous (nc</li> <li>size, and woody plants les</li> </ul>	or equal to on-woody)   ss than 3.28	o 3.28 ft ( plants, re 8 ft tall.	egardless of
0		= Total Cove	r	in. DBH and greater than Herb – All herbaceous (no size, and woody plants les Woody vines – All woody	or equal to on-woody)   ss than 3.28	o 3.28 ft ( plants, re 8 ft tall.	egardless of
50% of total cover: <u>25</u> Voody Vine Stratum (Plot size:)		= Total Cove	r	in. DBH and greater than Herb – All herbaceous (no size, and woody plants les Woody vines – All woody	or equal to on-woody)   ss than 3.28	o 3.28 ft ( plants, re 8 ft tall.	egardless of
	 	= Total Cove tal cover:	r10	in. DBH and greater than Herb – All herbaceous (no size, and woody plants les Woody vines – All woody	or equal to on-woody)   ss than 3.28	o 3.28 ft ( plants, re 8 ft tall.	egardless of
0 1 50% of total cover:25 Voody Vine Stratum (Plot size:))		= Total Cove tal cover:	r10	in. DBH and greater than Herb – All herbaceous (no size, and woody plants les Woody vines – All woody height.	or equal to on-woody) p ss than 3.28 vines great	9 3.28 ft ( plants, re 8 ft tall. er than 3	egardless of 3.28 ft in
0 1 50% of total cover:25 Voody Vine Stratum (Plot size:) Lonicera japonica	 	= Total Cove tal cover:	r10	in. DBH and greater than Herb – All herbaceous (no size, and woody plants les Woody vines – All woody	or equal to on-woody) p ss than 3.28 vines great	9 3.28 ft ( plants, re 8 ft tall. er than 3	egardless of 3.28 ft in
	 	= Total Cove tal cover:	r10	in. DBH and greater than Herb – All herbaceous (no size, and woody plants les Woody vines – All woody height.	or equal to on-woody) p ss than 3.28 vines great	9 3.28 ft ( plants, re 8 ft tall. er than 3	egardless of 3.28 ft in
	 	= Total Cove tal cover: No	r10 FACU	in. DBH and greater than Herb – All herbaceous (no size, and woody plants les Woody vines – All woody height.	or equal to on-woody) p ss than 3.28 vines great	9 3.28 ft ( plants, re 8 ft tall. er than 3	egardless of 3.28 ft in
5 7 9 0 1 50% of total cover:2 50% of total cover: 50% of total cover: 50% of total cover: 1 50% of total cover: 50% of total cover:	 	= Total Cove tal cover: <u>No</u> = Total Cove	r10 FACU	in. DBH and greater than Herb – All herbaceous (no size, and woody plants les Woody vines – All woody height.	or equal to on-woody) p ss than 3.28 vines great	9 3.28 ft ( plants, re 8 ft tall. er than 3	egardless of 3.28 ft in

SOIL

## Sampling Point: W-B19-146\_PFO-1

	Matrix		Redov	Featur	es				
Depth nches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 2	10YR 3/2	100			турс			Silt Loam	Kenturks
2 - 16	2.5Y 4/3	90	10YR 4/6	5	С				
2 - 16	2.5Y 5/1		1011( 4/0		 D				
2 - 10	2.31 3/1								
					·				
·									
<u> </u>									
ype: C =	Concentration, D = I	Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Grai	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M =	Matrix.
ydric Soil	Indicators:							Indicators for Problema	atic Hydric Soils <sup>3</sup> :
Histosol			_ Dark S			(60) (1)		2 cm Muck (A10) <b>(M</b>	LRA 147)
Histic Ep Black His	ipedon (A2)		•		ow Surface face (S9) <b>(N</b>		A 147, 148)	Coast Prairie Redox	-
	n Sulfide (A4)				Matrix (F2		140)	Piedmont Floodplai	n Soils (F19) <b>(MLRA 136</b>
, ,	l Layers (A5)		Deple			-)		147)	
	ck (A10) <b>(LRR N)</b>				urface (F6)			Very Shallow Dark S	jurface (TF12)
•	Below Dark Surface	(A11)			Surface (F	7)		Other (Explain in Re	marks)
	rk Surface (A12)		Redox	Depres	sions (F8)	(F12) <b>/I D</b>		<b>C</b> )	
-	ucky Mineral (S1) <b>(LR</b> leyed Matrix (S4)	R N, MILRA	147, 148) Iron-N Limbri	iangane c Surfac	se Masses e (F13) <b>(M</b>	(FIZ) (LR	R N, MILKA 13 122)	<b>6)</b> <sub>3</sub> Indicators of hydrophy	tic vegetation and
Sandy Re	•		_ •	e barrae	dplain Soi	2.0.1.000	,	wetland hydrology mus	st be present, unless
-	Matrix (S6)				, aterial (F21			disturbed or problema	tic.
estrictive	Layer (if observed):								
	Type:		None			Hvdric S	oil Present?		Yes 🗹 No 🗆
	Depth (inches):								
		-				1			
emarks:									

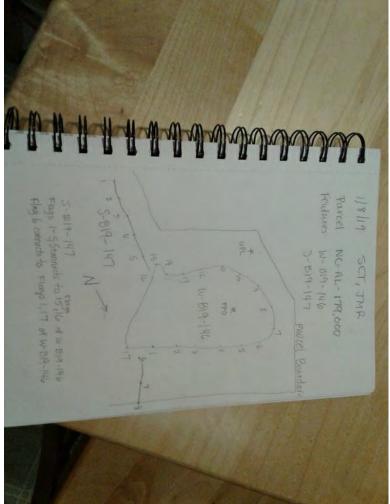
Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West Photo of Sample Plot Sketch



Project/Site: MVP Sou	thgate	City/County:	Haw River, Alamance	Sampling Date	: 2019-Jan-08	
Applicant/Owner: N	lextEra			State: North Car	olina Sampling Point: W	/-B19-146_UPL-2
Investigator(s): Sime	on King, Joe Ro	y, Susan Thebert	Sectio	n, Township, Rang	ge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local relief (c	oncave, convex, n	one): Convex	Slope (%): 1 to 10
Subregion (LRR or MLF	RA):		Lat:	36.0910489	Long: -79.36243	Datum: WGS84
Soil Map Unit Name:					NWI classifica	tion:
Are climatic/hydrologi	c conditions o	n the site typical for thi	s time of year?	Yes 🟒 No	_ (If no, explain in Remark	(S.)
Are Vegetation,	Soil,	or Hydrology sign	nificantly disturbed?	Are "Normal Cir	cumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology nat	urally problematic?	(If needed, expl	ain any answers in Rema	rks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL.			

Wetland Hydrology Indicators:			
Primary Indicators (minimum of or	ne is required; check all	that apply)	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— Hydr — Oxid — Pres — Rece — Thin — Othe	Aquatic Plants (B14) rogen Sulfide Odor (C1) lized Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) ent Iron Reduction in Tilled Soils (C6) Muck Surface (C7) er (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No 🟒	Depth (inches):	— Wetland Hydrology Present? Yes No _∠
Saturation Present?	Yes No 🟒	Depth (inches):	
(includes capillary fringe)			_
Describe Recorded Data (stream g	auge, monitoring well,	aerial photos, previous inspections), i	f available:

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

## Sampling Point: W-B19-146\_UPL-2

Tree Stratum (Plot size:)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	1	(A)
1. <i>Juniperus virginiana</i>	15	Yes	FACU	Are OBL, FACW, or FAC:		
2. Liquidambar styraciflua	5	Yes	FAC	Total Number of Dominant Species	3	(B)
3				Across All Strata: Percent of Dominant Species That		
4				Are OBL, FACW, or FAC:	33.3	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply I	Bv:
7				OBL species 0	x 1 =	0
		= Total Cov	er	FACW species 0	x 2 =	0
50% of total cover: <u>10</u>	_20% of to	otal cover:	4	FAC species 5	x 3 =	15
Sapling/Shrub Stratum (Plot size:)				FACU species 77	x 4 =	308
1				UPL species 0	x 5 =	0
2.	. <u> </u>			Column Totals 82	(A)	323 (B)
3.	·			Prevalence Index = B/A =	3.9	
4.	. <u> </u>			Hydrophytic Vegetation Indicators:		
5				1- Rapid Test for Hydrophytic		
6.				2 - Dominance Test is > 50%	•	
7				3 - Prevalence Index is $\leq 3.0^1$		
8				4 - Morphological Adaptations	<sup>1</sup> (Provide s	supporting
9	0	= Total Cov		data in Remarks or on a separate sl		
50% of total cover: <u>0</u>		-		Problematic Hydrophytic Vege		
Herb Stratum (Plot size:)	_ 20% 01 to	lai cover.	0	<sup>1</sup> Indicators of hydric soil and wetlar		gy must be
1. Allium canadense	2	No	FACU	present, unless disturbed or proble		
2.			1/100	Definitions of Four Vegetation Strat	a:	
3.	·			Tree Meady plants avoluting vine	a 2 in (7 6	(m) or more
4.				Tree – Woody plants, excluding vine in diameter at breast height (DBH),		
5.				in diameter at breast height (bbri),	reguratess	or neight.
6.				Sapling/shrub – Woody plants, exclu	uding vines	s, less than 3
7.				in. DBH and greater than or equal t	-	
8.						
9.			<u> </u>	Herb – All herbaceous (non-woody)	1 0	ardless of
10.				size, and woody plants less than 3.2	28 ft tall.	
11.			<u> </u>			
	2	= Total Cov	er	Woody vines – All woody vines grea	iter than 3.	28 ft in
50% of total cover:1	20% of to	tal cover:	0.4	height.		
<u>Woody Vine Stratum</u> (Plot size:)						
1. <i>Hedera helix</i>	50	Yes	FACU			
2. <i>Lonicera japonica</i>	10	No	FACU			
3	<u> </u>			Hydrophytic Vegetation Present?	Yes 🗆 No 🛛	2
4						
5						
	60	= Total Cov	er			
50% of total cover: <u>30</u>	_ 20% of to	otal cover:	12			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

## Sampling Point: W-B19-146\_UPL-2

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) % Type <sup>1</sup> Loc <sup>2</sup> Texture	Remarks
0-3 10YR 3/1 100 Loam	Kemarks
<u>3 - 16</u> <u>2.5Y 4/4</u> <u>90</u> <u>10YR 5/8</u> <u>10</u>	
1Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. 2Location: PL = Pore Lining, M =	Matrix
Hydric Soil Indicators: Indicators for Problem	auc riyunic sollss:
Histosol (A1)Dark Surface (S7)2 cm Muck (A10) (N Histic Epipedon (A2)Polyvalue Below Surface (S8) (MLRA 147, 148)2 cm Muck (A10) (N	ILRA 147)
Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redo:	k (A16) <b>(MLRA 147, 148)</b>
	in Soils (F19) <b>(MLRA 136,</b>
Stratified Layers (A5) Depleted Matrix (F3) 147)	
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark	Surface (TF12)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in R	emarks)
Thick Dark Surface (A12)Redox Depressions (F8)	
Sandy Gleved Matrix (S4) [LRR N, MLRA 147, 148] [Impric Surface (E13) (MLRA 136, 122)] [Impric Surface (E13) (MLRA 136, 122)]	ytic vegetation and
	st be present, unless
Sandy Redox (SS) Pledmont Floodplain Solis (F19) (MLRA 148) disturbed or problems	
Restrictive Layer (if observed):	
Type: None Hydric Soil Present?	Yes 🗆 No 🗵
Depth (inches):	
Remarks:	

Photo of Sample Plot North



Photo of Sample Plot South

Project/Site: MVP Sou	ıthgate	City/County	: Eden, Rockingham Co	. Sampling Dat	te: 2019-Jan-17	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: M	/-A19-282_UPL-1
Investigator(s): Sime	on King, Laura	Giese	Sect	tion, Township, Ra	nge:	
Landform (hillslope, te	errace, etc.):	Back slope	Local relief	(concave, convex,	none): Convex	Slope (%): 5 to 10
Subregion (LRR or ML	RA): MLR	A 136 of LRR P	Lat	t: 36.5291138	Long: -79.6518838	Datum: WGS84
Soil Map Unit Name:					NWI classifica	ition:
Are climatic/hydrologi	c conditions o	n the site typical for t	his time of year?	Yes No 🟒	(If no, explain in Remark	5.)
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, exp	olain any answers in Rema	rks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No _	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL.			

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	<u>e is required; check a</u>	<u>ll that apply)</u>	Secondary Indicators (minimum	of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Image Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hyd Oxio Pres Rec Thir Oth	e Aquatic Plants (B14) Irogen Sulfide Odor (C1) dized Rhizospheres on Living Roots (C3 sence of Reduced Iron (C4) ent Iron Reduction in Tilled Soils (C6) n Muck Surface (C7) er (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave S</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial In</li> <li>Stunted or Stressed Plants (D</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	nagery (C9)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):		
(includes capillary fringe)			_	
Describe Recorded Data (stream ga	uge, monitoring well,	aerial photos, previous inspections), if	available:	
Remarks:				
The criterion for wetland hydrology	is not met.			

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

## Sampling Point: W-A19-282\_UPL-1

Tree Stratum (Plot size: <u>30)</u>		Dominant		Dominance Test worksheet:		
1. Pinus taeda	% Cover	Species? Yes	Status FAC	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)	
2.			TAC	Total Number of Dominant Species Across All Strata:	<b>3</b> (B)	
3.		·		Percent of Dominant Species That		
4 5	·			Are OBL, FACW, or FAC:	33.3 (A/B)	)
	·	•		Prevalence Index worksheet:		
6 7.	·	·		<u>Total % Cover of:</u>	Multiply By:	
/	5	= Total Cov	or	OBL species 0	x 1 =0	
50% of total cover: <u>2.5</u>		-	1	FACW species 0	x 2 = 0	
Sapling/Shrub Stratum (Plot size:15')	_ 20% 01 10	car cover.		FAC species 5	x 3 = 15	
1 Pubus allaghaniansis	20	Yes	FACU	FACU species 70	x 4 =280	
2.				UPL species 0	x 5 = 0	
3.				Column Totals 75	(A) 295 (B)	)
	·			Prevalence Index = B/A =	3.9	
5.	·			Hydrophytic Vegetation Indicators:		
6	·			1- Rapid Test for Hydrophytic	/egetation	
7		·		2 - Dominance Test is > 50%		
0		<u> </u>		3 - Prevalence Index is $\leq 3.0^1$		
	·			4 - Morphological Adaptations	<sup>1</sup> (Provide supporting	ıg
9		- Tatal Cau		data in Remarks or on a separate sl	ieet)	
FOW of tasks and the		= Total Cov		Problematic Hydrophytic Vege		
50% of total cover: <u>10</u>	_ 20% of to	tal cover:	4	<sup>1</sup> Indicators of hydric soil and wetlar		е
<u>Herb Stratum</u> (Plot size: <u>5</u> )	50		FACU	present, unless disturbed or proble		
1. Solidago canadensis	50	Yes	FACU	Definitions of Four Vegetation Strat	а:	
2.		·				
3.	·	<u> </u>		Tree – Woody plants, excluding vine		
4.	·			in diameter at breast height (DBH),	regardless of height.	
5	·	·				-
6.	·	·		Sapling/shrub – Woody plants, exclu	-	n 3
7	·	·		in. DBH and greater than or equal t	J 5.20 It (1 III) tall.	
8	·	·		Herb – All herbaceous (non-woody)	plants regardless o	f
9	·	·		size, and woody plants less than 3.2		"
10	·					
11		·				
		= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 ft in	
50% of total cover: <u>25</u>	_20% of to	tal cover:	10	height.		
Woody Vine Stratum (Plot size: <u>30'</u> )						
1						
2						
3				Hydrophytic Vegetation Present?	/es 🗆 No 🗹	
4						
5						
	0	= Total Cov	er			
50% of total cover: <u>0</u>	_20% of to	tal cover:	0			
Remarks: (Include photo numbers here or on a separa No positive indication of hydrophytic vegetation was o		50% of dom	iinant specie	es indexed as FAC– or drier).		

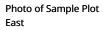
SOIL

## Sampling Point: W-A19-282\_UPL-1

Denth	Matrix			<pre>c Feature</pre>			i the absent	e of indicators.)	
Depth		04				Loc2		Toyturo	Remarks
inches)	Color (moist)	<u>%</u> 100	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture Silt Loam	Remarks
0-7	10YR 3/6			- <u>-</u>		·			
7 - 18	2.5Y 4/3	95	2.5YR 3/6	5	C	M		Silt Loam	
·				·		· ·			
					·	<u> </u>			
				·	·	<u> </u>			
·					·	·			
·						<u> </u>	21		
	Concentration, D = I	Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Grair	is. <sup>2</sup> Locatio	on: PL = Pore Lining, M =	
_ Histosol			Dark S	Surface (	57)			Indicators for Problema	-
	ipedon (A2)					(S8) (MLR	A 147, 148)	2 cm Muck (A10) <b>(M</b>	
_ Black His	•				ace (S9) (N			Coast Prairie Redox	
	n Sulfide (A4)				Matrix (F2				n Soils (F19) <b>(MLRA 136</b>
_ Stratified	d Layers (A5)		_ Deple	ted Matr	ix (F3)			147)	
_ 2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox	Dark Su	rface (F6)			Very Shallow Dark S	jurface (TF12)
•	d Below Dark Surface	(A11)			Surface (F	-7)		Other (Explain in Re	marks)
_	rk Surface (A12)		Redox	Depress	sions (F8)				
_ ,	ucky Mineral (S1) (LR	R N, MLRA 1	147, 148) Iron-N	langane	se Masses	(F12) <b>(LRF</b>	R N, MLRA 13	<b>6)</b> <sub>3</sub> Indicators of hydrophy	tic vegetation and
_ ,	leyed Matrix (S4)		_ 011101	ic Surrac	c (i i 3) (iii	2101130, 1	)	wetland hydrology mu	st be present, unless
_ Sandy Re					dplain Soi iterial (F21			disturbed or problema	
	Matrix (S6) Layer (if observed):				iteriai (FZ I		27, 147)		
	Type:		None			Hudric S	oil Present?		Yes 🗆 No 🗵
	Depth (inches):		None	-		riyuric 3	on Fresent?		
	Deptil (inches).			-					
emarks:									

Photo of Sample Plot North





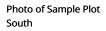




Photo of Sample Plot West



Project/Site: MVP Sou	thgate	City/County:	Gibsonville, Caswell C	Sampling Dat	e: 2019-Jan-18	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-/	A19-284_PEM-1
Investigator(s): Laur	ra Giese, Tony	Tredway	Sect	tion, Township, Rar	nge:	
Landform (hillslope, te	errace, etc.):	Back slope	Local relief	(concave, convex,	none): Concave	Slope (%): 5 to 10
Subregion (LRR or ML	RA):		Lat	: 36.258826	Long: -79.546354	Datum: WGS84
Soil Map Unit Name:	Mecklenburg	g sandy clay loam, 2 to	8 percent slopes, mode	erately eroded	NWI classificati	on: None
Are climatic/hydrologi	c conditions or	the site typical for th	is time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)
Are Vegetation,	Soil 🟒,	or Hydrology sig	nificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil 🟒,	or Hydrology nat	turally problematic?	(If needed, exp	olain any answers in Remark	s.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes _ 🖌 No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PEM. Area is wetland, all three w	etland parameters are pre	esent. power line ROW construction.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check al	<u>l that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hyd Oxic Pres Rece Thin Othe	e Aquatic Plants (B14) rogen Sulfide Odor (C1) lized Rhizospheres on Living ence of Reduced Iron (C4) ent Iron Reduction in Tilled S Muck Surface (C7) er (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	0	- Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring well,	aerial photos, previous insp	ections), if	available:

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

## Sampling Point: W-A19-284\_PEM-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:			
Tree Stratum (Plot size: <u>30)</u>		Species?	Status	Number of Dominant Species	s That	2	(4)
1.				Are OBL, FACW, or FAC:		3	(A)
2.				Total Number of Dominant S	pecies	3	(B)
3.				Across All Strata:		5	(0)
4.				Percent of Dominant Species	That	100	(A/B)
5.				Are OBL, FACW, or FAC:			
6.				Prevalence Index worksheet:			_
7.				Total % Cover of:		ultiply E	•
	0	= Total Cov	/er	OBL species 15		1=	15
50% of total cover: <u>0</u>		-	0	FACW species 40		2 =	80
Sapling/Shrub Stratum (Plot size: <u>15</u> )	_			FAC species 35		3 =	105
1.				FACU species 0		4 =	0
2.				UPL species 0		5 =	0
3.				Column Totals 90	· · ·	(A)	200 (B)
4.	·			Prevalence Index =	B/A =	2.2	
5.	·			Hydrophytic Vegetation Indic			
6.				1- Rapid Test for Hydrop		etation	
7.				2 - Dominance Test is >5			
8.				3 - Prevalence Index is ≤			
9.				4 - Morphological Adapt			supporting
	0	= Total Cov	/er	data in Remarks or on a sepa Problematic Hydrophyti			nlain)
50% of total cover: <u>0</u>	20% of to	tal cover:	00	<sup>1</sup> Indicators of hydric soil and	-		
Herb Stratum (Plot size: <u>5' radius</u> )				present, unless disturbed or			sy must be
1. Bidens frondosa	20	Yes	FACW	Definitions of Four Vegetation			
2. Microstegium vimineum	20	Yes	FAC				
3. Scirpus atrovirens	15	Yes	OBL	Tree – Woody plants, excludir	ng vines, 3	in. (7.6	cm) or more
4. Vernonia fasciculata	10	No	FAC	in diameter at breast height (	-		
5. <i>Ludwigia alternifolia</i>	10	No	FACW				
6. Juncus effusus	10	No	FACW	Sapling/shrub – Woody plant	s, excludir	ng vines	, less than 3
7. <i>Smilax rotundifolia</i>	5	No	FAC	in. DBH and greater than or e	equal to 3.	28 ft (1	m) tall.
8							
9	<u> </u>			Herb – All herbaceous (non-w		-	ardless of
10				size, and woody plants less th	nan 3.28 π	t tall.	
11	<u> </u>						
	90	= Total Cov	/er	Woody vines – All woody vine	es greater	than 3.	28 ft in
50% of total cover: <u>45</u>	_20% of to	otal cover:	18	height.			
Woody Vine Stratum (Plot size:)							
1							
2							
3	<u> </u>			Hydrophytic Vegetation Pres	sent? Yes	⊠ No □	]
4	<u> </u>						
5							
	0	= Total Cov	/er				
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0				
Remarks: (Include photo numbers here or on a separa	te sheet.)						

#### SOIL

## Sampling Point: W-A19-284\_PEM-1

	pth Matrix		Depth Matrix		Redo	x Features			
(inches)	Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0 - 4	2.5YR 5/2	95	7.5YR 5/8	5 C	M	Silt Loam			
4 - 8	2.5YR 4/6	85	2.5Y 5/3	15 D	Μ	Silt Loam			
8 - 14	10YR 5/3	70				Clay Loam	mg depletion		
8 - 14	5YR 4/4	30				Clay Loam			
14 - 20	2.5Y 5/1	95	5YR 4/6	5 C	M	Clay Loam			
					· ·				
·					·				
Type: C =	Concentration D =	Depletion	RM = Reduced Matr	ix MS = Masked	Sand Grains 21	ocation: PL = Pore Lining, M =	Matrix		
	Indicators:	Depiction,		ix, inis musiced		Indicators for Problem			
_ Histosol			Dark	Surface (S7)			•		
_	ipedon (A2)				e (S8) <b>(MLRA 147,</b> <sup>-</sup>	148) 2 cm Muck (A10) (N			
_ Black His	•		-	Dark Surface (S9)		Coast Prairie Redox	(A16) (MLRA 147, 148)		
	n Sulfide (A4)			y Gleyed Matrix (F	2)		in Soils (F19) <b>(MLRA 136</b>		
	d Layers (A5)			ted Matrix (F3)		147)	$\Gamma_{\rm conference}(TE12)$		
	ck (A10) <b>(LRR N)</b> d Below Dark Surface	( <b>Δ</b> 11)		k Dark Surface (F6 eted Dark Surface		Very Shallow Dark S			
•	rk Surface (A12)	(/(1))	Redo	Contractions (F8)		Other (Explain in Re			
_	ucky Mineral (S1) (LR	R N, MLRA	147, 148) Iron-1	Manganese Masse	s (F12) <b>(LRR N, ML</b>	RA 136) <sub>3</sub> Indicators of hydroph	vtic vegetation and		
-	leyed Matrix (S4)		_ •///.	(i i i i i i i i i i i i i i i i i i i		watland bydrology mu	st he present unless		
_ Sandy Re					oils (F19) (MLRA 14	(isturbed or problems			
	Matrix (S6)		Red P	arent Material (F2	1) (MLRA 127, 147	)			
	Layer (if observed):								
	Туре:		None	-	Hydric Soil Pres	sent?	Yes 🗹 No 🗆		
I									
	Depth (inches):			-					
emarks:	Depth (inches):								
emarks:	Depth (inches):			<u>.</u>					
emarks:	Depth (inches):								
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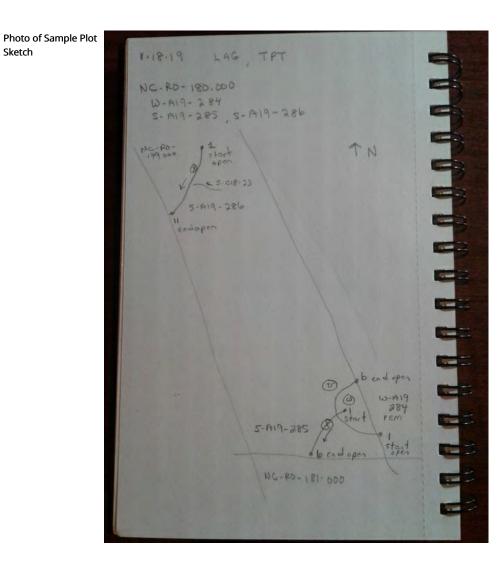
Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West



Project/Site: MVP Sou	uthgate	City/County:	Gibsonville, Caswell C	Sampling Date:	2019-Jan-18	
Applicant/Owner: N	NextEra			State: North Card	olina Sampling Point: M	/-A19-284_UPL-1
Investigator(s): Lau	ra Giese, Tony <sup>·</sup>	Tredway, Nate Renau	idin Sectio	on, Township, Rang	e: FIX location	
Landform (hillslope, te	errace, etc.):	Back slope	Local relief (	concave, convex, no	one): Convex	Slope (%): 5 to 10
Subregion (LRR or MLI	RA): MLR	A 136 of LRR P	Lat:	36.258868	Long: -79.546497	Datum: WGS84
Soil Map Unit Name:					NWI classifica	tion:
Are climatic/hydrologi	c conditions or	n the site typical for t	his time of year?	Yes No (	lf no, explain in Remarks	5.)
Are Vegetation,	Soil,	or Hydrology si	gnificantly disturbed?	Are "Normal Circ	umstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(lf needed, expla	in any answers in Rema	rks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No⁄_ Yes No⁄_		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all three	e wetland parameters are	e present.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all	that apply)	Secondary Indicators (minimum	<u>of two required)</u>
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidi Prese Recer Thin I Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ince of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave :</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Ir</li> <li>Stunted or Stressed Plants (D</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	nagery (C9)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No⁄_	Depth (inches):	Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):		
(includes capillary fringe)				
Describe Recorded Data (stream ga	uge, monitoring well, a	erial photos, previous inspections), il	Favailable:	

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

## Sampling Point: W-A19-284\_UPL-1

Trop Stratum (Plot size: 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	2 (A)
1.				Are OBL, FACW, or FAC:	
2.				Total Number of Dominant Species Across All Strata:	5 <b>6</b> (B)
3				Percent of Dominant Species That	33.3 (A/B)
5.				Are OBL, FACW, or FAC:	
6.				Prevalence Index worksheet:	
7.				Total % Cover of:	<u>Multiply By:</u>
···	0	= Total Cov	er	OBL species 0	x 1 = 0
50% of total cover:0		-	0	FACW species 0	x 2 = 0
Sapling/Shrub Stratum (Plot size:)	_ 20/0 01 10		0	FAC species 15	x 3 = 45
1. Liquidambar styraciflua	5	Yes	FAC	FACU species 70	x 4 =280
2. Acer rubrum	5	Yes	FAC	UPL species 0	x 5 = 0
3. Liriodendron tulipifera	5	Yes	FACU	Column Totals 85	(A) 325 (B)
·		res	FACU	Prevalence Index = B/A =	3.8
4				Hydrophytic Vegetation Indicators	
5	·			1- Rapid Test for Hydrophytic	
6				2 - Dominance Test is > 50%	
7	·			$3 - Prevalence Index is \leq 3.0^{1}$	
8				4 - Morphological Adaptation	s <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate s	
	15	= Total Cov	er	Problematic Hydrophytic Veg	
50% of total cover: <u>7.5</u>	_20% of to	otal cover:	3	<sup>1</sup> Indicators of hydric soil and wetla	
Herb Stratum (Plot size: <u>5' radius</u> )				present, unless disturbed or probl	
1. Solidago canadensis	20	Yes	FACU	Definitions of Four Vegetation Stra	
2. Rubus allegheniensis	20	Yes	FACU		
3. Lonicera japonica	15	Yes	FACU	Tree – Woody plants, excluding vin	es 3 in (7.6 cm) or mor
4. Allium vineale	10	No	FACU	in diameter at breast height (DBH)	
5. Dichanthelium clandestinum	5	No	FAC		-8
6.				Sapling/shrub – Woody plants, exc	uding vines. less than 3
7.				in. DBH and greater than or equal	-
8.	·	<u> </u>			х <i>У</i>
0				Herb – All herbaceous (non-woody	) plants, regardless of
				size, and woody plants less than 3.	
10					
11		<u> </u>			
	70	= Total Cov		Woody vines – All woody vines gre	ater than 3.28 ft in
50% of total cover: <u>35</u>	_ 20% of to	otal cover:	14	height.	
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )					
1					
2					
3				Hydrophytic Vegetation Present?	Yes 🗆 No 🗹
4					
5					
	0	= Total Cov	er		
50% of total cover: <u>0</u>	20% of to	tal cover:	0		
Remarks: (Include photo numbers here or on a separa				1	
No positive indication of hydrophytic vegetation was o	bserved (≥	:50% of don	ninant specie	es indexed as FAC– or drier).	

SOIL

## Sampling Point: W-A19-284\_UPL-1

Depth	Matrix		Redu	ox Feature	S			
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 1	10YR 3/2	100	co.o. (moise)		.,,,,,		Silt Loam	
1 - 16	7.5YR 4/6	100				·	Silt Loam	
16 - 20	7.5YR 5/6	100					Silt Loam	mn depletion
	7.511(5)0						Sitteoth	
			M = Doducod Mat				acation: DL - Dava Lining A	
lydric Soil li		Jepletion, F	avi – Reduced Mat	rix, ivis – iv	laskeu S		ocation: PL = Pore Lining, M Indicators for Proble	
_ Depleted E _ Thick Dark _ Sandy Muo	edon (A2) c (A3) Sulfide (A4) ayers (A5) c (A10) <b>(LRR N)</b> Below Dark Surface Surface (A12) cky Mineral (S1) <b>(LR</b> ved Matrix (S4) ox (S5)		Polyo Thin Loar Depl Redo Redo 47, 148) Iron- Umb Pied	Dark Surfa ny Gleyed I eted Matrix xx Dark Sur eted Dark s xx Depressi Manganes ric Surface mont Flood	v Surface ice (S9) <b>(N</b> Matrix (F2 x (F3) face (F6) Surface (F6) e Masses (F13) <b>(M</b> splain Soil	7)	Coast Prairie Red — Piedmont Flood 147) — Very Shallow Da — Other (Explain ir RA 136) <sub>3</sub> Indicators of hydro wetland hydrology r disturbed og probled	dox (A16) <b>(MLRA 147, 148)</b> olain Soils (F19) <b>(MLRA 136</b> rk Surface (TF12) ı Remarks) phytic vegetation and nust be present, unless
			_ Keu		enai (FZ I	) (IVIERA 127, 147	)	
	ayer (if observed):		None					
-	pe: opth (inchos):		None			Hydric Soil Pres	sent?	Yes 🗆 No 🗹
emarks:	epth (inches):			_				

#### Photo of Sample Plot North



Photo of Sample Plot East

#### Photo of Sample Plot South



Photo of Sample Plot West

Project/Site: MVP Sou	thgate	City/County	: Reidsville, Rockingha	am Sampling Dat	e: 2019-Jan-18	
Applicant/Owner: N	extEra			State: North Ca	rolina Sampling Point: W-	A19-287_PEM-1
Investigator(s): Laur	a Giese, Tony	Tredway		Section, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Foot slope	Local re	lief (concave, convex,	none): Concave	<b>Slope (%):</b> 1 to 3
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.3413962	Long: -79.6061698	Datum: WGS84
Soil Map Unit Name:	Siloam sand	y loam, 10 to 45 per	cent slopes		NWI classificati	ion:
Are climatic/hydrologic	conditions o	n the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	5.)
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology r	naturally problematic?	(If needed, exp	lain any answers in Remark	(S.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _✔_ No Yes _✔_ No Yes _✔_ No	Is the Sampled Area within a Wetland?	Yes 🧹 No
Remarks:			
Covertype is PEM. Area is wetland, all thr	ee wetland parameters are p	resent. Area likely disturbed from past land use .	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all t	<u>hat apply)</u>	Secondary Indicators (minimum	<u>of two required)</u>
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidiz Prese Recer Thin M Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 nce of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) · (Explain in Remarks)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Drainage Patterns (B10) ) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Ir Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)	magery (C9) 01)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	– Wetland Hydrology Present?	Yes 🟒 No
Saturation Present?	Yes No 🟒	Depth (inches):	_	
(includes capillary fringe)			_	
Describe Recorded Data (stream ga	uge, monitoring well, a	erial photos, previous inspections), if	available:	
Remarks:				
The criterion for wetland hydrology	'is met.			

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

## Sampling Point: W-A19-287\_PEM-1

Tree Stratum (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	2	(A)
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Species Across All Strata:	<sup>5</sup> 2	(B)
3				Percent of Dominant Species That	100	(A/B)
5.				Are OBL, FACW, or FAC:		
6.				Prevalence Index worksheet:		
7.				Total % Cover of:	Multiply E	•
	0	= Total Cov	/er	OBL species 5	x 1 =	5
50% of total cover: <u>0</u>		-	0	FACW species 40	x 2 =	80
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FAC species 25	x 3 =	75
				FACU species 5	x 4 =	20
2				UPL species 0	x 5 =	0
3.				Column Totals 75	(A)	180 (B)
4.				Prevalence Index = B/A =	2.4	
5				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	Vegetation	
				2 - Dominance Test is >50%		
7				$\checkmark$ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>		
8				4 - Morphological Adaptation	s¹ (Provide s	supporting
9				data in Remarks or on a separate s		
	0	= Total Co	/er	Problematic Hydrophytic Veg	etation <sup>1</sup> (Ex	plain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	<sup>1</sup> Indicators of hydric soil and wetla	nd hydrolog	gy must be
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed or proble	ematic	
1. Juncus effusus	25	Yes	FACW	Definitions of Four Vegetation Stra	ta:	
2. Microstegium vimineum	25	Yes	FAC			
3. Asteracae	10	No	NI	Tree – Woody plants, excluding vin	es, 3 in. (7.6	cm) or more
4. <i>Solidago gigantea</i>	10	No	FACW	in diameter at breast height (DBH),	regardless	of height.
5. <i>Eupatorium perfoliatum</i>	5	No	FACW			
6. Mimulus ringens	5	No	OBL	Sapling/shrub – Woody plants, excl	uding vines	, less than 3
7. Andropogon virginicus	5	No	FACU	in. DBH and greater than or equal	to 3.28 ft (1	m) tall.
8.						
9.				Herb – All herbaceous (non-woody		ardless of
10				size, and woody plants less than 3.	28 ft tall.	
11.						
	85	= Total Cov	/er	Woody vines – All woody vines grea	ater than 3.2	28 ft in
50% of total cover: <u>42.5</u>		-		height.		
Woody Vine Stratum (Plot size: <u>30</u> )						
1						
2.						
3.				Hydrophytic Vegetation Present?	Yes 🖓 No 🗆	1
4.						
5.						
·	0	= Total Cov	/or			
50% of total cover: <u>0</u>		-	0			
		tai cover.	0			
Remarks: (Include photo numbers here or on a separa A positive indication of hydrophytic vegetation was obs		0% of domir	nant species	indexed as OBL, FACW, or FAC).		

#### SOIL

## Sampling Point: W-A19-287\_PEM-1

(inches)	Color (moist)	%	Color (moist)	Featur %	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 2	10YR 3/2	100						Silt Loam	
2 - 10	10YR 4/3	90	7.5YR 4/6	5	С	М		Silt Loam	
2 - 10			2.5Y 5/2	5			S	ilty Clay Loam	
10 - 16	N 5/	85	7.5YR 4/6	15	С	М	-	Silt Loam	
16 - 20	2.5Y 5/2	85	7.5YR 5/8	15		M		Sandy Loam	
		Depletion,	RM = Reduced Matri	x, MS =	Masked S	Sand Grain	is. ²Locatio	on: PL = Pore Lining, M = I	Matrix.
Hydric Soi	Indicators:							Indicators for Problema	tic Hydric Soils <sup>3</sup> :
Histosol			_ Dark S					2 cm Muck (A10) <b>(M</b>	LRA 147)
	ipedon (A2)						A 147, 148)	Coast Prairie Redox	
Black His	stic (A3) n Sulfide (A4)				ace (S9) <b>(I</b> Matrix (F2	MLRA 147,	148)	Piedmont Floodplai	
	d Layers (A5)		Loang	-		2)		147)	
	ick (A10) (LRR N)				urface (F6)			Very Shallow Dark S	urface (TF12)
_ Depleted	d Below Dark Surface	(A11)	_ Deple	ted Dark	Surface (	F7)		Other (Explain in Re	
	rk Surface (A12)		Redox	Depres	sions (F8)				
	ucky Mineral (S1) <b>(LR</b>	R N, MLRA	147, 148) Iron-M	langane	se Masses	s (F12) <b>(LRR</b>	N, MLRA 13	<b>6)<sub>3</sub>Indicators of hydrophy</b>	tic vegetation and
_ ,	leyed Matrix (S4)		_ •		(i i i i i i i i i i i i i i i i i i i		,	wetland hydrology mus	t be present, unless
_ Sandy Re					•	ils (F19) <b>(M</b> 1) <b>(MLRA 1</b> 2		disturbed or problemat	
	Matrix (S6)				ateriai (FZ		27, 147)		
	Layer (if observed): Type:		None			Li vili e C	: I D		
			None				oil Present?		Yes 🗹 No 🗆
Remarks:	Depth (inches):								
A positive	indication of hydric :	soil was ob	oserved. The criterio	n for hyd	dric soil is	s met.			

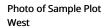
Photo of Sample Plot North

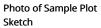


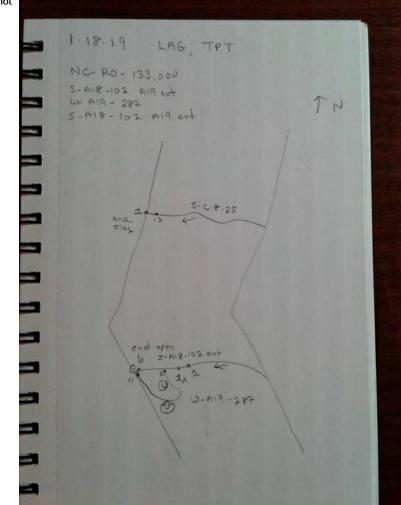
Photo of Sample Plot East

Photo of Sample Plot South









Project/Site: MVP Sout	thgate	City/Coun	ty: Reidsville, Rockingh	am	Sampling Dat	e: 2019-Jan-18	
Applicant/Owner: N	extEra				State: North Ca	rolina Sampling Point: W	/-A19-287_UPL-1
Investigator(s): Laur	a Giese, Tony	Tredway		Section	, Township, Ran	ige:	
Landform (hillslope, te	rrace, etc.):	Back slope	Local re	elief (co	ncave, convex, i	none): Convex	Slope (%): 10 to 15
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P		Lat: 3	6.3414553	Long: -79.6060037	Datum: WGS84
Soil Map Unit Name:						NWI classifica	tion:
Are climatic/hydrologic	conditions o	n the site typical fo	r this time of year?	١	/es No	_ (If no, explain in Remark	(S.)
Are Vegetation,	Soil,	or Hydrology	significantly disturbed	?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	•	(If needed, exp	lain any answers in Remai	rks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No <b>⁄_</b> Yes No <b>⁄_</b>							
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒					
Remarks:								
Covertype is UPL. Area is upland, not all three wetland parameters are present.								

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	<u>e is required; check a</u>	Secondary Indicators (minimum of two required)		
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hyc Oxi Pre Rec Thin Oth	e Aquatic Plants (B14) drogen Sulfide Odor (C1) dized Rhizospheres on Living Roots (C3 sence of Reduced Iron (C4) tent Iron Reduction in Tilled Soils (C6) n Muck Surface (C7) her (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):		
Saturation Present?	Yes No 🟒	Depth (inches):		
(includes capillary fringe)				
Describe Recorded Data (stream ga	uge, monitoring well	, aerial photos, previous inspections), i	available:	
Remarks:				
The criterion for wetland hydrology	' is not met. No positi	ve indication of wetland hydrology was	observed.	

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

## Sampling Point: W-A19-287\_UPL-1

Tree Stratum (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	1	(A)
1.				Are OBL, FACW, or FAC:		(~)
2.				Total Number of Dominant Species	3	(B)
3.				Across All Strata:		(0)
4.				Percent of Dominant Species That	33.3	(A/B)
				Are OBL, FACW, or FAC:		(70 D)
				Prevalence Index worksheet:		
6.				Total % Cover of:	<u>Multiply B</u>	<u>y:</u>
7		<u> </u>		OBL species 0	x 1 =	0
	0	= Total Cov	er	FACW species 0	x 2 =	0
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species 15	x 3 =	45
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species 50	x 4 =	200
1				UPL species 15	x 5 =	75
2.				Column Totals 80		
3.					· · · —	320 (B)
4.				Prevalence Index = B/A =	4	
5.				Hydrophytic Vegetation Indicators:		
6.	·			1- Rapid Test for Hydrophytic	Vegetation	
7.				2 - Dominance Test is > 50%		
				$3$ - Prevalence Index is ≤ $3.0^{1}$		
8				4 - Morphological Adaptations	s¹ (Provide s	upporting
9		<u> </u>		data in Remarks or on a separate s	heet)	
	0	= Total Cov	er	Problematic Hydrophytic Vege	etation <sup>1</sup> (Exp	olain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	<sup>1</sup> Indicators of hydric soil and wetlar	nd hydrolog	y must be
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed or proble	ematic	
1. Erigeron canadensis	30	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2. Dichanthelium dichotomum	15	Yes	FAC			
3. Stellaria media	15	Yes	UPL	Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more
4. Allium vineale	10	No	FACU	in diameter at breast height (DBH),		
5. Rubus allegheniensis	10	No	FACU		0	0
6.	·			- Sapling/shrub – Woody plants, excl	uding vines.	less than 3
7.				in. DBH and greater than or equal t	-	
8.				-		
				Herb – All herbaceous (non-woody)	plants, reg	ardless of
9				size, and woody plants less than 3.2		
10				-		
11						
	80	= Total Cov	er	Woody vines – All woody vines grea	iter than 3.2	28 ft in
50% of total cover: <u>40</u>	_ 20% of to	otal cover:	16	height.		
Woody Vine Stratum (Plot size: <u>30</u> )						
1				.		
2.						
3.				Hydrophytic Vegetation Present?	Yes 🗆 No 🗵	
4.						
5.	·			·		
·	0	= Total Cov	or	•		
50% of total cover:0		-	0			
	_ 20% 01 tt	Juli Cover.	0			
Remarks: (Include photo numbers here or on a separa	te sheet.)					
No positive indication of hydrophytic vegetation was o	bserved (≥	50% of dom	ninant specie	es indexed as FAC– or drier).		

SOIL

## Sampling Point: W-A19-287\_UPL-1

Depth	Matrix	o the depth		Features	or confirm the absen	ce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 9	7.5YR 5/8	100			S	ilty Clay Loam	
9 - 18	10YR 4/2	100				Sandy Loam	
18 - 20	10YR 5/3	100				Sandy Loam	
1Type: C =	Concentration $D = I$		M = Reduced Matrix		Sand Grains 21 ocati	on: PL = Pore Lining, M = N	Aatrix
	Indicators:	Schiedon, Ki		, wis - wiaskeu s		Indicators for Problema	
Black His Hydroge Stratifiec 2 cm Mu Depletec Thick Da Sandy M Sandy Gl Sandy Re	ipedon (A2) stic (A3) n Sulfide (A4) l Layers (A5) ck (A10) <b>(LRR N)</b> l Below Dark Surface rk Surface (A12) ucky Mineral (S1) <b>(LR</b> eyed Matrix (S4)		Polyval Thin Da Loamy Deplet Redox Redox 7, 148) Iron-M Umbrid Piedmo	ark Surface (S9) <b>(I</b> Gleyed Matrix (F3) ed Matrix (F3) Dark Surface (F6) ed Dark Surface ( Depressions (F8) anganese Masses c Surface (F13) <b>(N</b> ont Floodplain So	2) F7) 5 (F12) (LRR N, MLRA 13 ILRA 136, 122) ils (F19) (MLRA 148)	<ul> <li>2 cm Muck (A10) (ML</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplair</li> <li>147)</li> <li>Very Shallow Dark St</li> <li>Other (Explain in Ref</li> <li>36)<sub>3</sub>Indicators of hydrophytwetland hydrology musidisturbed or problemati</li> </ul>	(A16) <b>(MLRA 147, 148)</b> a Soils (F19) <b>(MLRA 136,</b> urface (TF12) marks) tic vegetation and t be present, unless
	Matrix (S6)		Red Pa	rent Material (F2	1) (MLRA 127, 147)		
	Layer (if observed):						
	Гуре: Denth (in charce)		None		Hydric Soil Present?		Yes 🗆 No 🗹
Remarks:	Depth (inches):		<u> </u>				
No positiv	e indication of hydri	c soils was o	bserved. The criteri	on for hydric so	il is not met.		

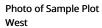
Photo of Sample Plot North



Photo of Sample Plot East

Photo of Sample Plot South





## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/Coun	ty: Gibsonville, Rocking	ha San	npling Date: 20	19-Jan-19				
Applicant/Owner: N	lextEra			State:	State: North Carolina Sampling Point: W-A19-288_PEM-1					
Investigator(s): Laura Giese, Tony Tredway, Jim Bolduc S					nship, Range:					
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local re	lief (concave	e, convex, none)	Concave	Slope (%): 1 to 3			
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.263	34532 Lon	g: -79.5508953	Datum: WGS84			
Soil Map Unit Name:	Pacolet sand	ly loam, 8 to 15 per	rcent slopes			NWI classificatio	on:			
Are climatic/hydrologic	c conditions or	n the site typical for	r this time of year?	Yes	🖊 No (If r	o, explain in Remarks.	)			
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "	Normal Circum	stances" present?	Yes 🟒 No			
Are Vegetation,	Soil 🟒,	or Hydrology	naturally problematic?	(lf ne	eded, explain a	ny answers in Remarks	5.)			

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes 🟒 No Yes _🖌 No		
Wetland Hydrology Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PEM. Area is wetland, all three v	wetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	e is required; check all	<u>that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydr Oxid Preso Rece Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) ized Rhizospheres on Living ence of Reduced Iron (C4) nt Iron Reduction in Tilled 5 Muck Surface (C7) r (Explain in Remarks)	_	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No _	Depth (inches):		
Water Table Present?	Yes No	Depth (inches):	20	- Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes 🟒 No	Depth (inches):	20	-
(includes capillary fringe)				-
Describe Recorded Data (stream g	auge, monitoring well, a	aerial photos, previous insp	pections), if	available:
Remarks: The criterion for wetland hydrolog	/ is met.			

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

## Sampling Point: W-A19-288\_PEM-1

<u>Tree Stratum</u> (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	3	(A)
1				Are OBL, FACW, or FAC:		
2	·			Total Number of Dominant Species	3	(B)
3				Across All Strata:		
4	·			Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)
5	·			Prevalence Index worksheet:		
6				Total % Cover of:	Multiply B	Rv.
7				OBL species 10	x 1 =	10
	0	= Total Cov	er	FACW species 65	x 2 =	130
50% of total cover: <u>0</u>	_20% of to	otal cover:	0	FAC species 25	x 3 =	75
Sapling/Shrub Stratum (Plot size: <u>15</u> )				FACU species 0	x 4 =	0
1. <i>Carpinus caroliniana</i>	5	Yes	FAC	UPL species 0	x 5 =	0
2				Column Totals 100	(A)	215 (B)
3				Prevalence Index = B/A =		210 (0)
4				Hydrophytic Vegetation Indicators:		
5				1- Rapid Test for Hydrophytic		
6				1 Napid Test for Hydrophydre	vegetation	
7				$\checkmark$ 3 - Prevalence Index is $\leq 3.0^{1}$		
8				4 - Morphological Adaptations	1 (Provide s	unnorting
9				data in Remarks or on a separate sl		
	5	= Total Cov	er	Problematic Hydrophytic Vege	etation <sup>1</sup> (Exp	olain)
50% of total cover: <u>2.5</u>	_20% of to	otal cover:	1	<sup>1</sup> Indicators of hydric soil and wetlar		
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed or proble	matic	-
1. <u>Cyperaceae</u>	55	Yes	FACW	Definitions of Four Vegetation Strat	a:	
2. Microstegium vimineum	20	Yes	FAC			
3. Impatiens capensis	10	No	FACW	Tree – Woody plants, excluding vine		
4. Persicaria sagittata	10	No	OBL	in diameter at breast height (DBH),	regardless	of height.
5						
6				Sapling/shrub – Woody plants, exclusion	-	
7				in. DBH and greater than or equal t	0 3.28 IL ( I	m) tall.
8				Herb – All herbaceous (non-woody)	nlants rog	ardless of
9				size, and woody plants less than 3.2		ai uless oi
10				size, and woody plants less than siz		
11						
	95	= Total Cov		Woody vines – All woody vines grea	iter than 3.2	28 ft in
50% of total cover: <u>47.5</u>	_20% of to	otal cover:	19	height.		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )						
1		·				
2		· ·				_
3	·			Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	]
4						
5						
	0	= Total Cov	er			
50% of total cover: <u>0</u>	_20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separate of a		0% of domin	ant species	indexed as OBL, FACW, or FAC). Trees	s are dead.	

SOIL

## Sampling Point: W-A19-288\_PEM-1

Depth _	Matrix			Featur					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 2	10YR 3/2	100						Silt Loam	
2 - 9	10YR 5/3	90	7.5YR 4/6	10	C	M		Silt Loam	
9 - 15	10YR 4/3	95	2.5Y 5/2	5	D	M		Sandy Loam	
15 - 23	10YR 5/6	95	10Y 6/1	5	D	M		Sandy Loam	
		·			  	 			
<sup>1</sup> Type: C =	Concentration, D = I	Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Grain	s. ²Locatio	on: PL = Pore Lining, M = N	Aatrix.
Hydric Soi	Indicators:	•						Indicators for Problema	tic Hydric Soils <sup>3</sup> :
Black Hi Hydroge Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G Sandy R	en Sulfide (A4) d Layers (A5) lick (A10) <b>(LRR N)</b> d Below Dark Surface irk Surface (A12) lucky Mineral (S1) <b>(LR</b> leyed Matrix (S4)		Thin L Loam Deple Redox Deple Redox 147, 148) Iron-N Umbr Piedm	Dark Surf y Gleyed ted Matr Dark Su ted Dark Depress Mangane ic Surfac	ace (S9) <b>(I</b> Matrix (F2 ix (F3) irface (F6) sourface (F6) sions (F8) se Masses e (F13) <b>(M</b> odplain So	F7)	N, MLRA 13 22) LRA 148)	<ul> <li>2 cm Muck (A10) (ML</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplair</li> <li>147)</li> <li>Very Shallow Dark St</li> <li>Other (Explain in R</li> <li>G)<sub>3</sub>Indicators of hydrophyrwetland hydrology mussidisturbed or problemat</li> </ul>	(A16) <b>(MLRA 147, 148)</b> a Soils (F19) <b>(MLRA 136,</b> urface (TF12) emarks) tic vegetation and t be present, unless
	Layer (if observed):				ateriai (i z		., 147)		
	Type:		None			Hydric So	il Present?		Yes 🛛 No 🗆
	Depth (inches):		None			i iyunc so	in Fresent:		
Remarks:									
A positive	indication of hydric	soil was o	bserved. The criterio	n for hyd	dric soil is	: met.			

Soil Photos



right is top

Photo of Sample Plot North



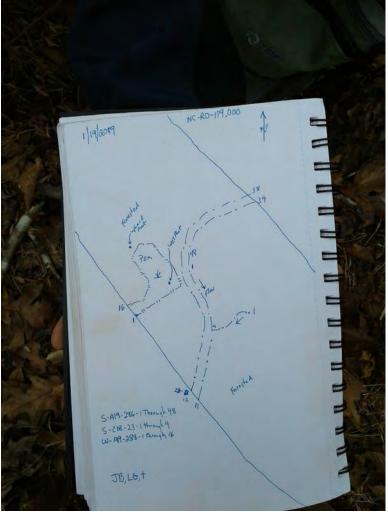
Photo of Sample Plot East

Photo of Sample Plot South



Photo of Sample Plot West

Photo of Sample Plot Sketch



## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Gil	bsonville, Rockingha	Sampling Date: 20	19-Jan-19				
Applicant/Owner: NextEra		Sta	State: North Carolina Sampling Point: W-A19-288_UPL-1					
Investigator(s): Laura Giese,	Tony Tredway, Jim Bolduc	Section, T	ownship, Range:					
Landform (hillslope, terrace, et	<b>c.):</b> Foot slope	Local relief (conc	ave, convex, none)	Convex	Slope (%): 2 to 5			
Subregion (LRR or MLRA):	MLRA 136 of LRR P	Lat: 36.	2634267 Lon	<b>g:</b> -79.5509923	Datum: WGS84			
Soil Map Unit Name:				NWI classificatio	n:			
Are climatic/hydrologic conditi	ons on the site typical for this t	ime of year? Yes	s 🟒 No (If r	io, explain in Remarks.)				
Are Vegetation, Soil	_, or Hydrology signifi	icantly disturbed? A	re "Normal Circum	stances" present?	Yes 🟒 No			
Are Vegetation, Soil	_, or Hydrology natur	ally problematic? (I	f needed, explain a	ny answers in Remarks.	.)			

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes 🟒 No Yes No 🟒		
Wetland Hydrology Present?	Yes No	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all three	e wetland parameters are	present.	

#### HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	<u>e is required; check</u>	all that apply)	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Image Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hy O: Pr Re Th O:	rue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) xidized Rhizospheres on Living Roots resence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soils (C6 hin Muck Surface (C7) ther (Explain in Remarks)	Dry-Season Water Table (C2)
Field Observations:			
Surface Water Present?	Voc No (	Dopth (inchas):	
	Yes No	Depth (inches):	<u> </u>
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present?	Yes No 🟒	Depth (inches):	
(includes capillary fringe)			
Describe Recorded Data (stream ga	uge, monitoring we	ell, aerial photos, previous inspections	s), if available:
Remarks:			
The criterion for wetland hydrology	is not met. No posi	itive indication of wetland hydrology	was observed.

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

## Sampling Point: W-A19-288\_UPL-1

Tr	<u>ee Stratum</u> (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	<u></u>	% Cover	Species?	Status	Number of Dominant Species That	2	(A)
1.	Liquidambar styraciflua	10	Yes	FAC	Are OBL, FACW, or FAC:		
2.	Fraxinus americana	10	Yes	FACU	Total Number of Dominant Species	3	(B)
3.	Carya glabra	5	No	FACU	Across All Strata:		
4.	Betula nigra	5	No	FACW	<ul> <li>Percent of Dominant Species That</li> <li>Are OBL, FACW, or FAC:</li> </ul>	66.7	(A/B)
5.	Carpinus caroliniana	5	No	FAC	Prevalence Index worksheet:		
6.					- Total % Cover of:	Multiply E	sv.
7.					- OBL species 0	x 1 =	0
		35	= Total Cov	er	FACW species 5	x 2 =	10
	50% of total cover: <u>17.5</u>	_ 20% of to	tal cover:	7	FAC species 60	x3=	180
<u>Sa</u>	pling/Shrub Stratum (Plot size: <u>15</u> )				FACU species 35	x 4 =	140
1.					UPL species 0	x 4 =	0
2.					· · · · · · · · · · · · · · · · · · ·		
3.						(A)	330 (B)
4.					Prevalence Index = B/A =	3.3	
5.					Hydrophytic Vegetation Indicators:		
6.					1- Rapid Test for Hydrophytic	√egetation	
7.					2 - Dominance Test is >50%		
8.					3 - Prevalence Index is $≤ 3.0^1$		
9.					4 - Morphological Adaptations	-	supporting
		0	= Total Cov	er	data in Remarks or on a separate sh		
	50% of total cover: <u>0</u>		-		Problematic Hydrophytic Vege		
Не	rb Stratum (Plot size: <u>5</u> )	_ 20/0 01 00			<sup>1</sup> Indicators of hydric soil and wetlan		y must be
	Microstegium vimineum	45	Yes	FAC	present, unless disturbed or proble		
	Lonicera japonica	10	No	FACU	Definitions of Four Vegetation Strat	a:	
2. 3.	Solidago canadensis	10	No	FACU	-	a: (7.6	
		10	NU	FACU	Tree – Woody plants, excluding vine		
4. 5					in diameter at breast height (DBH),	regardiess	or neight.
5.			<u> </u>		- Capling (shruh Weady plants evel)	uding vines	lace than 2
6. 7			<u> </u>		Sapling/shrub – Woody plants, exclu in. DBH and greater than or equal to	-	
7.					-	0 5.20 10 (1	iii) tali.
8.					Herb – All herbaceous (non-woody)	nlants reg	ardless of
9.					size, and woody plants less than 3.2		
10	·				-		
11					-		
		65	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.2	28 ft in
	50% of total cover: <u>32.5</u>	_ 20% of to	tal cover:	13	height.		
W	oody Vine Stratum (Plot size: <u>30</u> )						
1.					-		
2.					_		
3.					Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	]
4.					_		
5.					_		
		0	= Total Cov	er			
	50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0			
	marks: (Include photo numbers here or on a separa		0% of domin	ant species	indexed as OBL, FACW, or FAC).		
Î.							

SOIL

## Sampling Point: W-A19-288\_UPL-1

Depth	Matrix			ox Feature			i the absent	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 6	7.5YR 4/4	100						Sandy Loam	
6 - 17	7.5YR 5/8	100						Sandy Loam	
17 - 20	7.5YR 5/8	98	2.5Y 6/2	2	D	М		Sandy Loam	
				_					
				_					
				_					
				_					
<sup>1</sup> Type: C =	Concentration, D = [	Depletion,	RM = Reduced Mat	rix, MS = I	Masked S	and Grair	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M = N	/latrix.
Hydric So	il Indicators:							Indicators for Problema	tic Hydric Soils³:
Histoso	l (A1)		Dark	Surface (S	57)			2 cm Muck (A10) <b>(MI</b>	RA 147)
	pipedon (A2)						A 147, 148)	Coast Prairie Redox	
	istic (A3)					MLRA 147,	148)		n Soils (F19) <b>(MLRA 136,</b>
	en Sulfide (A4) ed Layers (A5)			ny Gleyed eted Matr		2)		147)	(inclut 130,
	uck (A10) (LRR N)			ox Dark Su				Very Shallow Dark Si	urface (TF12)
	d Below Dark Surface	(A11)		eted Dark		F7)		Other (Explain in Rei	
	ark Surface (A12)		Redo	x Depress	sions (F8)			•	
-	Mucky Mineral (S1) <b>(LR</b>	R N, MLRA 1	147, 148) Iron-	Manganes	se Masses	i (F12) <b>(LRF</b> ILRA 136, 1	R N, MLRA 13	<b>6)</b> <sub>3</sub> Indicators of hydrophy	tic vegetation and
	Gleyed Matrix (S4) Redox (S5)		_ 01115	ine banaci	c ( ) (	ils (F19) <b>(N</b>	,	wetland hydrology mus	t be present, unless
	d Matrix (S6)					I) (MLRA 1		disturbed or problemat	ic.
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric S	oil Present?		Yes 🗆 No 🗹
	Depth (inches):			_					
Remarks:									
No positi <sup>n</sup>	ve indication of hydri	c soils was	observed. The crite	erion for h	nydric soi	il is not m	et.		

Photo of Sample Plot North



Photo of Sample Plot East

Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

Photo of Sample Plot South



Photo of Sample Plot West

#### WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	: Burlington, Alamance	e	Sampling Date	e: 2018-	May-10		
Applicant/Owner: N	extEra				State: North Car	rolina <b>Sa</b>	mpling Point: W-B1	8-5_PFO-1	
Investigator(s): Jame	es Bolduc, Tony	Tredway, Karla For	tier Se	ection	, Township, Rang	ge:			
Landform (hillslope, te	rrace, etc.):	Hillslope	Local reli	ief (co	ncave, convex, n	none): C	onvex	Slope (%): 2 to 5	
Subregion (LRR or MLF	RA): MLRA	136 of LRR P	I	Lat: 3	36.1001062	Long: -7	9.3893178	Datum: WGS84	
Soil Map Unit Name:	Helena-Urba	n land complex, 2 to	o 6 percent slopes				NWI classification	n: None	
Are climatic/hydrologic	Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)								
Are Vegetation,	Soil,	or Hydrology s	significantly disturbed?		Are "Normal Cir	rcumstar	ices" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology r	naturally problematic?		(If needed, expl	ain any a	inswers in Remarks.	)	

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes 🟒 No Yes 🟒 No		
Wetland Hydrology Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PFO.			

#### HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	e is required; check a	ll that apply)	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hyd Oxio Pres Rec Thir Oth	e Aquatic Plants (B14) rogen Sulfide Odor (C1) dized Rhizospheres on Living Roots (G sence of Reduced Iron (C4) ent Iron Reduction in Tilled Soils (C6) n Muck Surface (C7) er (Explain in Remarks)	<ul> <li> Surface Soil Cracks (B6)</li> <li> Sparsely Vegetated Concave Surface (B8)</li> <li> Drainage Patterns (B10)</li> <li> Moss Trim Lines (B16)</li> <li> Dry-Season Water Table (C2)</li> <li> Crayfish Burrows (C8)</li> <li> Saturation Visible on Aerial Imagery (C9)</li> <li> Stunted or Stressed Plants (D1)</li> <li> Geomorphic Position (D2)</li> <li> Shallow Aquitard (D3)</li> <li> Microtopographic Relief (D4)</li> <li> FAC-Neutral Test (D5)</li> </ul>
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No	Depth (inches): 6	—
Saturation Present?	Yes 🟒 No	Depth (inches): 0	_
(includes capillary fringe)		· · · · · · · · · · · · · · · · · · ·	—
Describe Recorded Data (stream ga	auge, monitoring well,	aerial photos, previous inspections),	if available:
Remarks:			

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

## Sampling Point: W-B18-5\_PFO-1

T C / (Pl / ) 200	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30</u> )	% Cover	Species?	Status	Number of Dominant Species That	5	(A)
1. <i>Fraxinus pennsylvanica</i>	30	Yes	FACW	Are OBL, FACW, or FAC:		
2. <u>Cornus florida</u>	20	Yes	FACU	Total Number of Dominant Species Across All Strata:	6	(B)
3	·			Percent of Dominant Species That		
4.	·			Are OBL, FACW, or FAC:	83.3	(A/B)
5	·			Prevalence Index worksheet:		
6.	·			Total % Cover of:	Multiply I	<u>By:</u>
7	50	= Total Cov	or	OBL species 0	x 1 =	0
50% of total cover: <u>25</u>		-	<u>10</u>	FACW species 120	x 2 =	240
Sapling/Shrub Stratum (Plot size:15'_)	_2070 01 10			FAC species 90	x 3 =	270
1. Carpinus caroliniana	40	Yes	FAC	FACU species 30	x 4 =	120
2. Acer rubrum	30	Yes	FAC	UPL species 0	x 5 =	0
3. Cornus florida	10	No	FACU	Column Totals 240	(A)	630 (B)
4.				Prevalence Index = B/A =		
5.				Hydrophytic Vegetation Indicators:		
6				1- Rapid Test for Hydrophytic2 - Dominance Test is >50%	vegetation	
7				$\checkmark$ 3 - Prevalence Index is $\leq 3.0^{1}$		
8				4 - Morphological Adaptations	s <sup>1</sup> (Provide :	supporting
9				data in Remarks or on a separate s		
		= Total Cov		Problematic Hydrophytic Veg	etation <sup>1</sup> (Ex	plain)
50% of total cover: <u>40</u>	_20% of to	otal cover:	16	<sup>1</sup> Indicators of hydric soil and wetla		gy must be
<u>Herb Stratum</u> (Plot size: <u>5'</u> ) 1. <i>Leersia virginica</i>	90	Yes	FACW	present, unless disturbed or proble		
2. Sambucus nigra	<u> </u>	No	FACV	Definitions of Four Vegetation Strat	:a:	
3.			FAC			· • • • • • • • • • • • • • • • • • • •
4.	·			<b>Tree</b> – Woody plants, excluding vine in diameter at breast height (DBH),		
5.	·				reguratess	or neight.
6.	·			Sapling/shrub – Woody plants, excl	uding vines	s, less than 3
7.	·			in. DBH and greater than or equal	:o 3.28 ft (1	m) tall.
8.						
9.				Herb – All herbaceous (non-woody		ardless of
10				size, and woody plants less than 3.	28 ft tall.	
11						
	100	= Total Cov	er	Woody vines – All woody vines grea	ater than 3.	28 ft in
50% of total cover: <u>50</u>	_20% of to	otal cover:	20	height.		
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )						
1. <i>Toxicodendron radicans</i>	10	Yes	FAC			
2.	·			Undrandutic Vagatation Procent?		7
3.	·			Hydrophytic Vegetation Present?		
4 5	·					
J	10	= Total Cov	er			
50% of total cover:5	-	-	2			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

## SOIL

## Sampling Point: W-B18-5\_PFO-1

(inchoc)	Matrix Color (moist)	%	Color (moist)	ox Feature		Loc <sup>2</sup>		Texture	Remarks
(inches) 0 - 5	10YR 3/2	<u> </u>		%2	Type <sup>1</sup> C	M		Silt Loam	Remarks
			7.5YR 5/6						
5 - 15	10YR 5/1	70	7.5YR 5/6	30	<u>с</u>			Silt Loam	
·									
·					·				
Type: C =	Concentration, D =	Depletion,	RM = Reduced Ma	trix, MS =	Masked S	and Grai	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M =	Matrix.
-	l Indicators:							Indicators for Problem	atic Hydric Soils <sup>3</sup> :
_ Histosol				k Surface (		(80)		2 cm Muck (A10) <b>(N</b>	ILRA 147)
•	ipedon (A2)						RA 147, 148)		(A16) <b>(MLRA 147, 148)</b>
Black His	stic (A3) In Sulfide (A4)			n Dark Surf my Gleyed			, 148)		in Soils (F19) (MLRA 136,
	d Layers (A5)			leted Matr		2)		147)	
	ick (A10) <b>(LRR N)</b>			ox Dark Su				Very Shallow Dark S	Surface (TF12)
_ Depleted	d Below Dark Surface	(A11)	_ Dep	leted Dark	Surface (	F7)		Other (Explain in Re	
	rk Surface (A12)		Red	ox Depres	sions (F8)				
-	lucky Mineral (S1) <b>(LR</b>	R N, MLRA 1	147, 148) Iron	-Mangane	se Masses	s (F12) <b>(LR</b>	R N, MLRA 13	<b>6)</b> <sub>3</sub> Indicators of hydroph	vtic vegetation and
	leyed Matrix (S4)		_ •…	one ounde	c (i i b) (iii		·,	wetland hydrology mu	st be present, unless
Sandy Re	edox (SS) Matrix (S6)			dmont Floo Parent Ma				disturbed or problema	
			Red	Parent Ma	iteriai (FZ		27, 147)		
	Layer (if observed): -								
	Туре:		None	_		Hydric S	oil Present?		Yes 🛛 No 🗆
	Depth (inches):			_					
Remarks:									
۱ positive	indication of hydric	soil was ob	served.						
۹ positive	indication of hydric	soil was ob	oserved.						
۹ positive	indication of hydric	soil was ob	iserved.						
4 positive	indication of hydric	soil was ob	oserved.						
4 positive	indication of hydric	soil was ob	oserved.						

Hydrology Photos



Vegetation Photos



#### Soil Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot South Photo of Sample Plot West

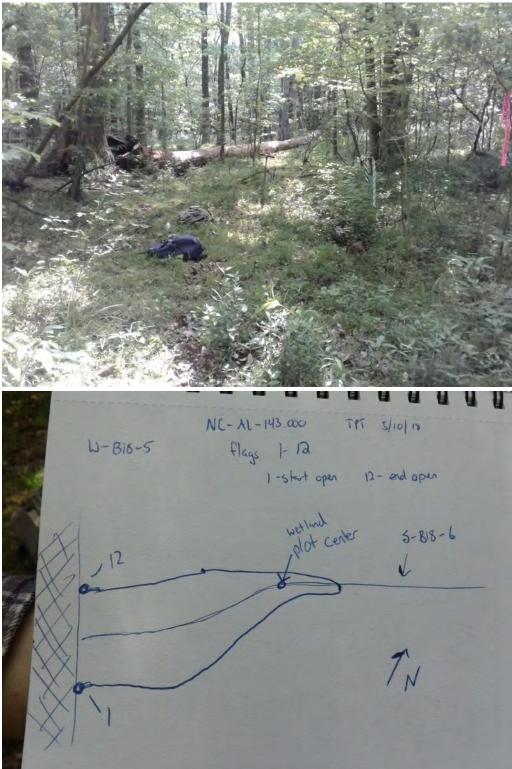


Photo of Sample Plot Sketch



extension

## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP South	hgate	City/County:	Eden, Rockingham	Sampling Date:	2018-May-21			
Applicant/Owner: Ne	extEra			State: North Caro	lina Sampling Point: W-B	18-36_PEM-1		
Investigator(s): James Bolduc, Tony Tredway, Simon King Section, Township, Range:								
Landform (hillslope, terr	race, etc.):	Flood Plain	Local relief (	concave, convex, no	ne): Concave	Slope (%): 0 to 1		
Subregion (LRR or MLRA	A): MLRA	136 of LRR P	Lat:	36.4950179 I	<b>_ong:</b> -79.6792357	Datum: WGS84		
Soil Map Unit Name:	Codorus loam	n, 0 to 2 percent slope	es, frequently flooded		NWI classificatio	n: None		
Are climatic/hydrologic	conditions on	the site typical for th	is time of year?	Yes 🟒 No	(If no, explain in Remarks.)			
Are Vegetation,	Soil, o	or Hydrology sig	nificantly disturbed?	Are "Normal Circ	umstances" present?	Yes No 🟒		
Are Vegetation, S	Soil, o	or Hydrology na	turally problematic?	(If needed, explai	in any answers in Remarks.	.)		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes _ 🏑 No	Is the Sampled Area within a Wetland?	Yes 🧹 No
Remarks:			
Covertype is PEM. Circumstances are not no	rmal due to agricultural a	ctivities.	

# HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; che	eck all that apply)		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>✓ FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	1	
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No _	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring	well, aerial photos, previous inspe	ctions), if	available:
Remarks.				

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

## Sampling Point: W-B18-36\_PEM-1

ecies?	0	Number of Dominant Species That         Are OBL, FACW, or FAC:         Total Number of Dominant Species         Across All Strata:         Percent of Dominant Species That         Are OBL, FACW, or FAC:         Prevalence Index worksheet:         Total % Cover of:         OBL species       10         FACW species       90         FAC species       0         VPL species       0         Column Totals       100         Prevalence Index = B/A =       Hydrophytic Vegetation Indicators:        1 - Rapid Test for Hydrophytic Y       10	$ \begin{array}{c} 1 & (A) \\ \hline 1 & (B) \\ \hline 100 & (A/B) \\ \hline Multiply By: \\ \times 1 = 10 \\ \times 2 = 180 \\ \times 3 = 0 \\ \times 3 = 0 \\ \times 4 = 0 \\ \times 5 = 0 \\ (A) 190 (B) \\ \hline 1.9 \\ \hline /egetation $
over:	0	Total Number of Dominant Species         Across All Strata:         Percent of Dominant Species That         Are OBL, FACW, or FAC:         Prevalence Index worksheet:         Total % Cover of:         OBL species       10         FACW species       90         FAC species       0         VPL species       0         Column Totals       100         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:        1 - Rapid Test for Hydrophytic V	1  (B) $100  (A/B)$ $Multiply By:$ $x 1 = 10$ $x 2 = 180$ $x 3 = 0$ $x 4 = 0$ $x 5 = 0$ $(A)  190  (B)$ $1.9$
over:	0	Across All Strata:         Percent of Dominant Species That         Are OBL, FACW, or FAC:         Prevalence Index worksheet:         Total % Cover of:         OBL species       10         FACW species       90         FAC species       0         VPL species       0         Column Totals       100         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:        1 - Rapid Test for Hydrophytic V	100  (A/B) $Multiply By:$ $x 1 = 10$ $x 2 = 180$ $x 3 = 0$ $x 4 = 0$ $x 5 = 0$ $(A)  190  (B$ $1.9$
over:	0	Percent of Dominant Species That         Are OBL, FACW, or FAC:         Prevalence Index worksheet:         Total % Cover of:         OBL species       10         FACW species       90         FACW species       0         FACU species       0         VPL species       0         Column Totals       100         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:         _       1- Rapid Test for Hydrophytic V	Multiply By: $x 1 =$ 10 $x 2 =$ 180 $x 3 =$ 0 $x 4 =$ 0 $x 5 =$ 0         (A)       190         1.9
over:	0	Are OBL, FACW, or FAC:         Prevalence Index worksheet:         Image: Total % Cover of:         OBL species       10         FACW species       90         FAC species       0         FACU species       0         VPL species       0         Column Totals       100         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:         Image:	Multiply By: $x 1 =$ 10 $x 2 =$ 180 $x 3 =$ 0 $x 4 =$ 0 $x 5 =$ 0         (A)       190         1.9
over:	0	Prevalence Index worksheet:         Total % Cover of:         OBL species       10         FACW species       90         FAC species       0         FACU species       0         UPL species       0         Column Totals       100         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:         ✓       1- Rapid Test for Hydrophytic V	$\begin{array}{c} x \ 1 = & 10 \\ x \ 2 = & 180 \\ x \ 3 = & 0 \\ x \ 4 = & 0 \\ x \ 5 = & 0 \\ (A) & 190  (B \\ 1.9 \\ \end{array}$
over:	0	Total % Cover of:         OBL species       10         FACW species       90         FAC species       0         FACU species       0         UPL species       0         Column Totals       100         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:         ✓       1- Rapid Test for Hydrophytic V	$\begin{array}{c} x \ 1 = & 10 \\ x \ 2 = & 180 \\ x \ 3 = & 0 \\ x \ 4 = & 0 \\ x \ 5 = & 0 \\ (A) & 190  (B \\ 1.9 \\ \end{array}$
over:	0	FACW species     90       FAC species     0       FACU species     0       UPL species     0       Column Totals     100       Prevalence Index = B/A =       Hydrophytic Vegetation Indicators:       ✓     1- Rapid Test for Hydrophytic V	$\begin{array}{c} x \ 2 = \\ x \ 3 = \\ 0 \\ x \ 4 = \\ 0 \\ x \ 5 = \\ 0 \\ (A) \\ 1.9 \end{array}$
over:	0	FAC species       0         FACU species       0         UPL species       0         Column Totals       100         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:         ✓       1- Rapid Test for Hydrophytic V	x 3 = 0 x 4 = 0 x 5 = 0 (A) 190 (B 1.9
		FACU species       0         UPL species       0         Column Totals       100         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:         ✓       1- Rapid Test for Hydrophytic Vegetation	x 4 = 0 x 5 = 0 (A) <u>190 (B</u> <u>1.9</u>
		UPL species     0       Column Totals     100       Prevalence Index = B/A =       Hydrophytic Vegetation Indicators:       ✓     1- Rapid Test for Hydrophytic Vegetation	x 5 = 0 (A) <u>190 (B</u> <u>1.9</u>
		Column Totals     100       Prevalence Index = B/A =       Hydrophytic Vegetation Indicators:       ✓     1- Rapid Test for Hydrophytic	(A) <u>190 (B</u> <u>1.9</u>
  		Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1- Rapid Test for Hydrophytic	
		Hydrophytic Vegetation Indicators:	
  		1- Rapid Test for Hydrophytic	/egetation
			/egetation
			0
		2 - Dominance Test is >50%	
		$3$ - Prevalence Index is $\leq 3.0^1$	
		4 - Morphological Adaptations	
tal Cove	r	data in Remarks or on a separate sl	
over:	0	Problematic Hydrophytic Vege	
		<sup>1</sup> Indicators of hydric soil and wetlar	
/es	FACW		
No	OBL		u.
No	OBL	Tree – Woody plants, excluding vine	s. 3 in. (7.6 cm) or m
		Sapling/shrub – Woody plants, excl	uding vines, less tha
		in. DBH and greater than or equal t	o 3.28 ft (1 m) tall.
		size, and woody plants less than 3.2	28 ft tall.
otal Cove	r		ter than 3.28 ft in
over:	20	height.	
		Hydrophytic Vegetation Present?	Yes 🗹 No 🗆
	_		
over:	0		
	lo lo lo lo lo lo lo lo lo lo lo lo lo l	lo OBL lo OBL OBL IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Io       OBL         Io       OBL         Io       OBL         Io       OBL         In       Tree – Woody plants, excluding vine in diameter at breast height (DBH),         Sapling/shrub – Woody plants, excluding vine in. DBH and greater than or equal to in. DBH and greater than or equal to size, and woody plants less than 3.2         Moody vines – All herbaceous (non-woody) size, and woody plants less than 3.2         Woody vines – All woody vines grea height.         Hydrophytic Vegetation Present?         tal Cover         Lal Cover

## SOIL

## Sampling Point: W-B18-36\_PEM-1

inches) Color (moist)	%	Color (moist)	% -	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 10 10YR 5/2	90	7.5YR 5/6	10	C	 M	S	ilty Clay Loam	Mixed
10 - 18 10YR 4/2	90	7.5YR 5/6	10	C	M		ilty Clay Loam	
					·			
			·		·			
Type: C = Concentration, D =	= Depletion,	RM = Reduced Matr	ix, MS = Ma	asked S	and Grair	ns. ²Locatio	on: PL = Pore Lining, M = N	latrix.
lydric Soil Indicators:							Indicators for Problemat	ic Hydric Soils³:
_ Histosol (A1) _ Histic Epipedon (A2)			Surface (S7) alue Below S		(58) (MI R	a 147 148)	2 cm Muck (A10) <b>(ML</b>	
_ Black Histic (A3)			Dark Surface				Coast Prairie Redox (	
_ Hydrogen Sulfide (A4)		Loam	y Gleyed Ma	atrix (F2			Piedmont Floodplain	Soils (F19) (MLRA 136,
_ Stratified Layers (A5)			ted Matrix (				147)	urface (TE12)
_ 2 cm Muck (A10) <b>(LRR N)</b> _ Depleted Below Dark Surfac	e (A11)		c Dark Surfa ted Dark Su		-7)		Very Shallow Dark Su	
_ Thick Dark Surface (A12)		Redox	Depressio	ns (F8)			Other (Explain in Rer	
Sandy Mucky Mineral (S1) <b>(L</b>	RR N, MLRA 1	47, 148) Iron-N	langanese	Masses	(F12) (LRF	N, MLRA 13	<sup>6)</sup> ³Indicators of hydrophyt	ic vegetation and
_ Sandy Gleyed Matrix (S4)		_ •	ie bailace (i			/	wetland hydrology must	be present unless
_ Sandy Redox (S5)			nont Floodp				disturbed or problemati	
_ Stripped Matrix (S6)		Red P	arent Mater	rial (F21	) (MLRA 1	27, 147)		
Restrictive Layer (if observed	l):							
Туре:		None	•		Hydric S	oil Present?	``	fes 🗹 No 🗆
Depth (inches):								
s positive indication of hydri	c soil was ob	served.						



## Vegetation Photos



Soil Photos

Photo of Sample Plot North



extension facing n near flag W-B19-3

Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West

Photo of Sample Plot Sketch



## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	<b>City/County:</b> Graham, Alamance Co	Sampling Date: 201	9-Jan-09					
Applicant/Owner: NextEra		State: North Carolina	Sampling Point: W-B1	9-151_PEM-1				
Investigator(s): Simon King, Joe Roy, Susan Thebert Section, Township, Range:								
Landform (hillslope, terrace, etc.): De	pression Local relief (	concave, convex, none):	Concave	Slope (%): 0 to 1				
Subregion (LRR or MLRA): MLRA 136	of LRR P Lat:	36.0463536 Long:	-79.3665937	Datum: WGS84				
Soil Map Unit Name: Chewacla loam, 0	to 2 percent slopes, frequently flooded		NWI classification	n: None				
Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)								
Are Vegetation, Soil, or Hy	drology significantly disturbed?	Are "Normal Circumst	ances" present?	∕es No				
Are Vegetation, Soil, or Hy	drology naturally problematic?	(If needed, explain any	answers in Remarks.)	1				

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 No Yes 🖌 No Yes 🖌 No	Is the Sampled Area within a Wetland?	Yes 🖌 No
Remarks:			
Covertype is PEM. Area is wetland, all three	wetland parameters are p	resent.	

#### HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of or	e is required; cheo	Secondary Indicators (minimum of two required)			
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	A2) True Aquatic Plants (B14)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres on Living Roots     Presence of Reduced Iron (C4)     (B2) Recent Iron Reduction in Tilled Soils (C6     Thin Muck Surface (C7)     (B4) Other (Explain in Remarks) on Aerial Imagery (B7) ves (B9)			<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> </ul>	
				FAC-Neutral Test (D5)	
Field Observations: Surface Water Present?	Yes 🟒 No	•	1		
Water Table Present?	Yes No 🟒	Depth (inches):		Wetland Hydrology Present? Yes No	
Saturation Present?	Yes No 🟒	Depth (inches):			
(includes capillary fringe)					
Describe Recorded Data (stream g	auge, monitoring v	vell, aerial photos, previous i	nspections), if	available:	

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

## Sampling Point: W-B19-151\_PEM-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	2 (A)	
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Species Across All Strata:	<b>3</b> (B)	
3.				Percent of Dominant Species That		
4.				Are OBL, FACW, or FAC:	66.7 (A/B)	
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply By:	
/	0	= Total Cov	or	OBL species 10	x 1 =10	
50% of total cover: <u>0</u>		-	0	FACW species 25	x 2 = 50	
Sapling/Shrub Stratum (Plot size:15_)	_ 20% 01 10			FAC species 0	x 3 = 0	
1				FACU species 10	x 4 = 40	
2.				UPL species 0	x 5 = 0	
3.				Column Totals 45	(A) <u>100 (B)</u>	
4.				Prevalence Index = B/A =	2.2	
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	/egetation	
7.				2 - Dominance Test is >50%		
8.				$3$ - Prevalence Index is $\leq 3.0^{1}$	1 (Dravida cupporting	
9				<ul> <li>4 - Morphological Adaptations</li> <li>data in Remarks or on a separate sl</li> </ul>		
	0	= Total Cov	rer	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0	<sup>1</sup> Indicators of hydric soil and wetlan		
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed or proble		
1. Juncus effusus	25	Yes	FACW	Definitions of Four Vegetation Strat	a:	
2. Symphyotrichum puniceum	10	Yes	OBL			
3. <i>Festuca rubra</i>	10	Yes	FACU	Tree – Woody plants, excluding vine		
4				in diameter at breast height (DBH),	regardless of height.	
5						
6				Sapling/shrub – Woody plants, exclu	-	
7				in. DBH and greater than or equal t	3.28 It (1 m) tall.	
8				Herb – All herbaceous (non-woody)	nlants regardless of	
9				size, and woody plants less than 3.2		
10						
11		Tabal Ca		. <b>Woody vines</b> – All woody vines grea	tor than 2 28 ft in	
<b>50%</b> - <b>Statel</b> - <b>Statel</b>	45	= Total Cov		height.	ter than 5.26 it in	
50% of total cover: <u>22.5</u>	_ 20% of to	otal cover:	9			
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> ) 1.						
2				Hydrophytic Vegetation Present?	Yes 🖓 No 🗖	
4 5.						
	0	= Total Cov	er			
50% of total cover:0_		-	0			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

# Sampling Point: W-B19-151\_PEM-1

	Madrix	Matrix Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 3	10YR 4/2	50	10YR 4/4	45	C	М		Loam	
0 - 3	10YR 5/8	5							
3 - 8	10YR 4/2	70	10YR 4/4	25	С	Μ		Clay Loam	
3 - 8	10YR 5/8	5							
8 - 16	10YR 4/2	80	10YR 4/4	15	С	М		Clay Loam	
8 - 16	10YR 5/8	5							
		· ·			·	·			
<sup>1</sup> Type: C =	Concentration, D = [	Depletion,	RM = Reduced Matr	ix, MS =	Masked S	and Grair	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M = I	Matrix.
Hydric Soi	l Indicators:							Indicators for Problema	ntic Hydric Soils <sup>3</sup> :
Black Hi Hydroge Stratifier 2 cm Mu Depleter Thick Da Sandy M Sandy G Sandy R	vipedon (A2)		Polyva Thin I Loam Deple Redox Deple Redox 147, 148) Iron-M Umbr Piedm	Dark Surf y Gleyed ted Matr d Dark Su ted Dark Depress Mangane ic Surfac	w Surface face (S9) <b>(I</b> Matrix (F2 ix (F3) urface (F6) Surface (F6) se Masses e (F13) <b>(M</b> udplain So	<b>MLRA 147,</b> 2) F7)	R N, MLRA 13 22) ILRA 148)	<ul> <li>2 cm Muck (A10) (M</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplai</li> <li>147)</li> <li>Very Shallow Dark S</li> <li>Other (Explain in Re</li> <li><sup>6)</sup><sub>3</sub>Indicators of hydrophy wetland hydrology mus disturbed or problematication</li> </ul>	(A16) <b>(MLRA 147, 148)</b> n Soils (F19) <b>(MLRA 136</b> , urface (TF12) marks) rtic vegetation and st be present, unless
Restrictive	Layer (if observed):								
	Type:		None			Hydric So	oil Present?		Yes 🛛 No 🗆
	Depth (inches):					-			
Soil distur	bed, although not si	gnificantly	enough to obscure l	hydric so	oil indicat	ors, as a r	esult of histo	orical filling or grading.	

Photo of Sample Plot North

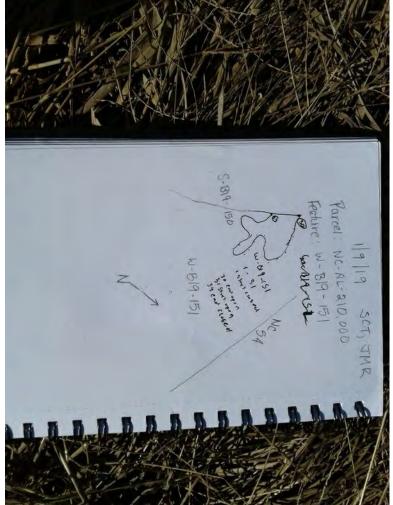


Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

Photo of Sample Plot Sketch



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County:	Graham, Alamance Co	Sampling Dat	e: 2019-Jan-09	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-	B19-151_UPL-1
Investigator(s): Sime	on King, Joe Ro	y, Susan Thebert	Sectio	n, Township, Ran	ge:	
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local relief (c	oncave, convex, i	none): Convex	<b>Slope (%):</b> 1 to 3
Subregion (LRR or MLF	RA):		Lat:	36.0463901	Long: -79.3664878	Datum: WGS84
Soil Map Unit Name:					NWI classificat	ion:
Are climatic/hydrologic	c conditions or	the site typical for thi	is time of year?	Yes 🟒 No 🔄	_ (If no, explain in Remarks	5.)
Are Vegetation,	Soil,	or Hydrology sig	nificantly disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology nat	turally problematic?	(If needed, exp	lain any answers in Remarl	ks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all three	e wetland parameters are	e present.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all t	that apply)	Secondary Indicators (minimum of two required)	
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidi: Prese Recer Thin I Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3) nce of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) • (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial In</li> <li>Stunted or Stressed Plants (E</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	magery (C9) D1)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	– Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):	-	
(includes capillary fringe)			-	
Describe Recorded Data (stream ga	uge, monitoring well, a	erial photos, previous inspections), if	available:	
Remarks:				
The criterion for wetland hydrology	' is not met.			

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

# Sampling Point: W-B19-151\_UPL-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)		Dominant Species?	Status	Number of Dominant Species That		
1.	70 00001	opecies.	50005	Are OBL, FACW, or FAC:	0	(A)
				Total Number of Dominant Species	;;	
2.		<u> </u>		Across All Strata:	2	(B)
3				Percent of Dominant Species That		
4.				Are OBL, FACW, or FAC:	0	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply	<u> / By:</u>
7				OBL species 5	x 1 =	5
	0	= Total Cove	er	FACW species 0	x 2 =	0
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species 0	x 3 =	0
Sapling/Shrub Stratum (Plot size:)				FACU species 40	x 4 =	160
1				UPL species 0	x 5 =	0
2				Column Totals 45	(A)	165 (B)
3				Prevalence Index = B/A =	-	105 (D)
4	<u> </u>					·
5	<u> </u>			Hydrophytic Vegetation Indicators:		-
6				1- Rapid Test for Hydrophytic	vegetatio	n
7				2 - Dominance Test is > 50%		
8.				3 - Prevalence Index is $\leq 3.0^{1}$	-1 (Duran dala	
9.				<ul> <li>4 - Morphological Adaptations</li> <li>data in Remarks or on a separate s</li> </ul>		supporting
	0	= Total Cove	r	Problematic Hydrophytic Veg		(volain)
50% of total cover: <u>0</u>	20% of to		0	<sup>1</sup> Indicators of hydric soil and wetlan		-
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed or proble	-	bgy must be
1. <i>Festuca rubra</i>	20	Yes	FACU	Definitions of Four Vegetation Strat		
2. Dactylis glomerata	20	Yes	FACU			
3. Symphyotrichum puniceum	5	No	OBL	Tree – Woody plants, excluding vine	es 3 in <i>(</i> 7	6 cm) or more
4.				in diameter at breast height (DBH),		
5.						
6.				- Sapling/shrub – Woody plants, excl	uding vind	es. less than 3
7.				in. DBH and greater than or equal		
8.						
9.				Herb – All herbaceous (non-woody	) plants, re	egardless of
10.				size, and woody plants less than 3.	28 ft tall.	
11.		·				
11	45	= Total Cove	r	. Woody vines – All woody vines grea	ater than i	3 28 ft in
50% of total cover: <u>22.5</u>			9	height.		5.2010111
Woody Vine Stratum (Plot size:)	_ 20% 01 to	Juli Cover.	9			
2.		<u> </u>				
				Hydrophytic Vegetation Present?		
3.						
4						
5		- Tatal Caus				
	0	_= Total Cove				
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separa	te sheet.)					
Fallow field. No positive indication of hydrophytic vege	tation was	observed ( $\geq$	50% of dor	minant species indexed as FAC– or dr	ier).	

# Sampling Point: W-B19-151\_UPL-1

Depth	h Matrix Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 8	10YR 4/4	90	10YR 4/2	5	С	Μ		Silt	
0 - 8	10YR 5/8	5						Loam	
8 - 16	10YR 4/4	90	10YR 4/2	7	C	М		Loam	
8 - 16	10YR 5/8	3							
16 - 20	10YR 4/2	60	10YR 4/4	35	C	М		Clay Loam	
16 - 20	10YR 5/8	5				·			
						·			
<sup>1</sup> Type: C = 0	Concentration, D = I	Depletion,	RM = Reduced Matr	ix, MS = N	Aasked S	and Grair	ns. ²Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric Soil	Indicators:							Indicators for Problema	tic Hydric Soils <sup>3</sup> :
Black His Hydrogen Stratified 2 cm Mud Depleted Thick Dan Sandy Mu Sandy Glu Sandy Re	n Sulfide (A4) Layers (A5) Ek (A10) <b>(LRR N)</b> Below Dark Surface Ek Surface (A12) Jucky Mineral (S1) <b>(LR</b> Eyed Matrix (S4)		Thin I Loam Deple Redo Deple Redo 147, 148)Iron-I Umbi Piedr	Dark Surfa y Gleyed M eted Matrix x Dark Sur eted Dark Sur x Depressi Manganes ric Surface nont Flood	ce (S9) <b>(f</b> Matrix (F3 < (F3) face (F6) Surface (f ions (F8) e Masses (F13) <b>(M</b> Iplain Soi	<b>MLRA 147,</b> 2) F7)	R N, MLRA 13 22) ILRA 148)	<ul> <li>2 cm Muck (A10) (M</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplai</li> <li>147)</li> <li>Very Shallow Dark S</li> <li>Other (Explain in Re</li> <li><sup>6</sup>)<sub>3</sub>Indicators of hydrophy wetland hydrology mus disturbed or problematic</li> </ul>	(A16) <b>(MLRA 147, 148)</b> n Soils (F19) <b>(MLRA 136,</b> urface (TF12) marks) tic vegetation and t be present, unless
	Layer (if observed):					1			
	ype:		None			Hydric S	oil Present?		Yes 🗆 No 🗹
0	Pepth (inches):			-		,			
Remarks: No positive	indication of hydri	c soils was	observed.						

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southga	ate Ci	ty/County: Reidsville, Rockingh	am Sampling Dat	t <b>e:</b> 2019-Jan-10	
Applicant/Owner: NextE	Era		State: North Ca	arolina Sampling Point: W-E	819-156_PFO-1
Investigator(s): Simon Ki	ing, Joe Roy, Susan Tl	nebert	Section, Township, Rar	nge:	
Landform (hillslope, terrac	<b>e, etc.):</b> Valley	Local re	elief (concave, convex,	none): Concave	Slope (%): 1 to 3
Subregion (LRR or MLRA):	MLRA 136 of LF	R P	Lat: 36.4221524	Long: -79.655121	Datum: WGS84
Soil Map Unit Name: Co	odorus loam, 0 to 2 p	ercent slopes, frequently floode	ed	NWI classification	on:
Are climatic/hydrologic cor	nditions on the site ty	pical for this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks.	)
Are Vegetation, Soil	l, or Hydrold	ogy significantly disturbed	? Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation, Soil	l, or Hydrold	ogy naturally problematic?	(If needed, exp	olain any answers in Remarks	5.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No _ <b>∠</b> Yes No _ <b>∠</b>		
Wetland Hydrology Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No _
Remarks:			
Covertype is PFO. Per USACE site visit on 9/25	/18, site is a wetland, soils	are hydric, vegetation is not hydrophytic.	

#### HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of on	e is required; check all t	<u>hat apply)</u>	Secondary Indicators (minimum of two required)		
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidi: Prese Recer Thin M Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3) nce of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) · (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial In</li> <li>Stunted or Stressed Plants (I</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	magery (C9) 01)	
Field Observations:					
Surface Water Present?	Yes No 🟒	Depth (inches):			
Water Table Present?	Yes No 🟒	Depth (inches):	- Wetland Hydrology Present?	Yes 🟒 No	
Saturation Present?	Yes No 🟒	Depth (inches):	-		
(includes capillary fringe)			_		
Describe Recorded Data (stream ga	auge, monitoring well, a	erial photos, previous inspections), if	available:		

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

# Sampling Point: W-B19-156\_PFO-1

Tree Stratum (Plot size: <u>30)</u>		Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	0	(A)
1. Liriodendron tulipifera	15	Yes	FACU	Are OBL, FACW, or FAC:		
2. Ligustrum sinense	10	Yes	FACU	Total Number of Dominant Species Across All Strata:	4	(B)
3				Percent of Dominant Species That		
4				Are OBL, FACW, or FAC:	0	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply	Bv:
7				OBL species 0	x 1 =	 0
	25	= Total Cov	er	FACW species 0	x 2 =	0
50% of total cover: <u>12.5</u>	_20% of to	tal cover:	5	FAC species 0	x 3 =	0
Sapling/Shrub Stratum (Plot size:15')				FACU species 45	x 4 =	180
1. Ligustrum sinense	15	Yes	FACU	UPL species 0	x 5 =	0
2				Column Totals 45	(A)	180 (B)
3	<u> </u>			Prevalence Index = B/A =	-	100 (B)
4	<u> </u>			·	4	
5	<u> </u>			Hydrophytic Vegetation Indicators:		_
6				1- Rapid Test for Hydrophytic	regetation	1
7				2 - Dominance Test is > 50%		
8				$3 - Prevalence Index is \le 3.0^{1}$	1 (Durau dala	
9.				4 - Morphological Adaptations data in Remarks or on a separate sl		supporting
	15	= Total Cov	er	Problematic Hydrophytic Vege		volain)
50% of total cover: <u>7.5</u>	_20% of to	tal cover:	3	<sup>1</sup> Indicators of hydric soil and wetlar		-
<u>Herb Stratum</u> (Plot size: <u>5'</u> )				present, unless disturbed or proble	-	by must be
1				Definitions of Four Vegetation Strat		
2.						
3.				Tree – Woody plants, excluding vine	es. 3 in. (7.	6 cm) or more
4.				in diameter at breast height (DBH),		
5.					-	-
6.				Sapling/shrub – Woody plants, exclu	uding vine	es, less than 3
7.				in. DBH and greater than or equal t	o 3.28 ft (*	1 m) tall.
8.						
9.		·		Herb – All herbaceous (non-woody)	plants, re	gardless of
10.		·		size, and woody plants less than 3.2	28 ft tall.	
11.						
	0	= Total Cov	er	Woody vines – All woody vines grea	ter than 3	8.28 ft in
50% of total cover: <u>0</u>		tal cover:	0	height.		
Woody Vine Stratum (Plot size: <u>30'</u> )						<u> </u>
1. Lonicera japonica	5	Yes	FACU			
2.						
3.		·		Hydrophytic Vegetation Present?	Yes 🗆 No	1
4		·				
5.		·				
	5	= Total Cov	er			
50% of total cover: <u>2.5</u>		-	1			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

# Sampling Point: W-B19-156\_PFO-1

Depth Matrix			e depth needed to document the indicator or confir Redox Features								
(inches)	Color (moist)	%	Color (m	noist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks	
0 - 4	2.5Y 3/2	95	5YR 4	/6	5	С			Loam		
4 - 18	5GY 5/1	90	5YR 4	/6	10	С			Silt Loam		
Type: C =	Concentration, D = D	epletion,	, RM = Redu	ed Matrix	k, MS = N	Masked S	Sand Grains	. <sup>2</sup> Locatio	n: PL = Pore Lining, M = N	Matrix.	
lydric Soi	l Indicators:								Indicators for Problema	tic Hydric Soils <sup>3</sup> :	
_ Histosol				_ Dark Si					2 cm Muck (A10) <b>(MI</b>	-RA 147)	
•	pipedon (A2)			-			e (S8) (MLRA		Coast Prairie Redox		
Black His	stic (A3) en Sulfide (A4)			_ Loamy			MLRA 147, 14	48)	Piedmont Floodplair		
_ , 0	d Lavers (A5)			_ Deplete	2	-	-)		147)		
_	uck (A10) <b>(LRR N)</b>			Redox					Very Shallow Dark S	urface (TF12)	
•	d Below Dark Surface (	A11)		•		Surface (	F7)		Other (Explain in Re	marks)	
	ark Surface (A12)		4 47 4 40	Redox	Depress	ions (F8)	(54.0) (1.00.0		-,		
-	lucky Mineral (S1) <b>(LRF</b> leyed Matrix (S4)	( N, MLRA	147, 148)	_ Iron-M	anganes - Surface	e Masses	s (F12) (LRR f ILRA 136, 12	N, MLRA 136 2)	5 <b>)</b> <sub>3</sub> Indicators of hydrophy	tic vegetation and	
_ Sandy G _ Sandy R					- Dunace	(i i o) (iii	ils (F19) <b>(ML</b>	=,	wetland hydrology mus	t be present, unless	
	Matrix (S6)						1) (MLRA 12)		disturbed or problemat	ic.	
Restrictive	Layer (if observed):										
	Type:		None				Hydric Soi	Drocont?		Yes 🗆 No 🗵	
	Type.						ingune Sol	resent			
	Depth (inches):						i iyunc soi	i Fresent?			
								rresent:			
								rresent?			
								- resent			

Photo of Sample Plot North

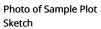


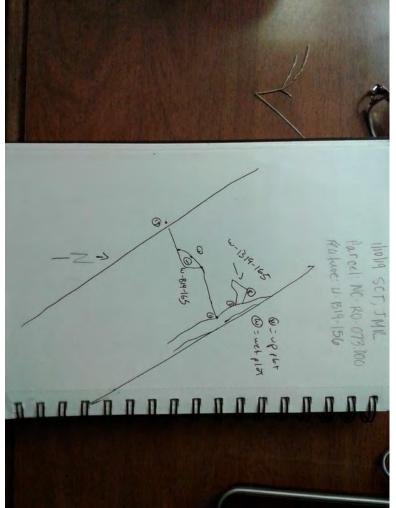
Photo of Sample Plot East

Photo of Sample Plot South



Photo of Sample Plot West





# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Reidsville	, Rockingham	Sampling Date	: 2019-Jan-10	
Applicant/Owner: NextEra			State: North Car	olina Sampling Poir	nt: W-B19-156_UPL-2
Investigator(s): Simon King, Joe Roy	, Karla Fortier, Susan Thebert	Sectio	n, Township, Ran	ge:	
Landform (hillslope, terrace, etc.):	Foot slope	Local relief (c	oncave, convex, n	one): Convex	Slope (%): 2 to 5
Subregion (LRR or MLRA): MLRA	136 of LRR P	Lat:	36.422229	Long: -79.6551565	Datum: WGS84
Soil Map Unit Name:				NWI clas	ssification:
Are climatic/hydrologic conditions on	the site typical for this time of	year?	Yes 🟒 No	_ (If no, explain in Re	emarks.)
Are Vegetation, Soil, c	or Hydrology significantly	disturbed?	Are "Normal Cir	cumstances" preser	nt? Yes 🟒 No
Are Vegetation, Soil, o	or Hydrology naturally pro	oblematic?	(If needed, expl	ain any answers in F	Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No <b>⁄_</b> Yes No <b>⁄_</b>		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all three	e wetland parameters are	e present.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all t	that apply)	Secondary Indicators (minimum	<u>of two required)</u>
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidi: Prese Recer Thin I Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3) ince of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Ir</li> <li>Stunted or Stressed Plants (D</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	nagery (C9) 01)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	- Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):		
(includes capillary fringe)			-	
Describe Recorded Data (stream ga	iuge, monitoring well, a	erial photos, previous inspections), if	available:	

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

# Sampling Point: W-B19-156\_UPL-2

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30</u> )		Species?	Status	Number of Dominant Species That	1	(A)
1. Liriodendron tulipifera	40	Yes	FACU	Are OBL, FACW, or FAC:		(~)
2. Carpinus caroliniana	10	Yes	FAC	Total Number of Dominant Species	5	(B)
3				Across All Strata: Percent of Dominant Species That		
4				Are OBL, FACW, or FAC:	20	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply	By:
7				OBL species 0	x 1 =	0
		= Total Cov		FACW species 0	x 2 =	0
50% of total cover: <u>25</u> Sapling/Shrub Stratum (Plot size: <u>15'</u> )	_ 20% of to	ital cover:	10	FAC species 10	x 3 =	30
1				FACU species 75	x 4 =	300
2				UPL species 0	x 5 =	0
2				Column Totals 85	(A)	330 (B)
4.				Prevalence Index = B/A =	3.9	
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	Vegetatior	1
7.	·			2 - Dominance Test is > 50%		
8.				$3$ - Prevalence Index is $\leq 3.0^{1}$		
9.				4 - Morphological Adaptations data in Remarks or on a separate sl		supporting
	0	= Total Cov	er	Problematic Hydrophytic Vege		(plain)
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	<sup>1</sup> Indicators of hydric soil and wetlar		-
Herb Stratum (Plot size: <u>5'</u> )				present, unless disturbed or proble	-	8)
1. <i>Polystichum acrostichoides</i>	20	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2						
3				Tree – Woody plants, excluding vine	es, 3 in. (7.	6 cm) or more
4				in diameter at breast height (DBH),	regardless	s of height.
5						
6				Sapling/shrub – Woody plants, exclu	-	
7				in. DBH and greater than or equal t	ο 3.28 π (1	i m) tall.
8				Herb – All herbaceous (non-woody)	nlants ro	gardless of
9	·			size, and woody plants less than 3.2		
10	·					
11		Tatal Ca		Woody vines – All woody vines grea	tor than 2	20 ft in
		= Total Cov		height.		.201111
50% of total cover: <u>10</u> <u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )	_ 20% 01 10	ital cover.	4			
1. Lonicera japonica	10	Yes	FACU			
2. Smilax auriculata	5	Yes	FACU			
3.				Hydrophytic Vegetation Present?	Yes 🗆 No !	7
4.						
5.						
	15	= Total Cov	er			
50% of total cover: <u>7.5</u>	_20% of to	tal cover:	3			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

# Sampling Point: W-B19-156\_UPL-2

Depth	Matrix		Rec	ox Featur	ndicator o es				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 2	7.5YR 4/4	100						Loam	
2 - 16	2.5YR 5/8	100						Clay Loam	
					<u> </u>				
					·				
					·				
		Depletion, I	RM = Reduced Ma	trix, MS =	Masked S	and Grai	ns. <sup>2</sup> Locatio	n: PL = Pore Lining, M = M	
<b>iyarıc Soli</b> Histosol	Indicators:		Dar	k Surface (	(7)			Indicators for Problemat	ic Hydric Solls <sup>3</sup> :
	ipedon (A2)					(S8) (MLF	A 147, 148)	2 cm Muck (A10) <b>(ML</b>	
_ Black His	•		Thi	n Dark Surf	ace (S9) <b>(N</b>	/LRA 147,		Coast Prairie Redox (	
	n Sulfide (A4)			my Gleyed		!)			Soils (F19) (MLRA 136,
	l Layers (A5)			leted Matr				147)	
	ck (A10) <b>(LRR N)</b>			ox Dark Su				Very Shallow Dark Su	
•	Below Dark Surface	(A11)		leted Dark		-7)		Other (Explain in Rer	narks)
	rk Surface (A12) ucky Mineral (S1) <b>(LR</b> l		Kec	ox Depres	SIONS (F8)	(E12) <b>/I D</b>		5)	
_ ,	eyed Matrix (S4)	R IN, IVILKA I	47, 140) 1101	bric Surfac	6 (E13) (M	(FIZ) (LRI	(11), IVILKA 150 1221	5) <sub>3</sub> Indicators of hydrophyt	ic vegetation and
_ Sandy Gi _ Sandy Re			_ •…	dmont Floo	c (i i c) (iii	2.0.1.000		wetland hydrology must	be present, unless
-	Matrix (S6)			Parent Ma				disturbed or problemati	с.
	Layer (if observed):								
٦	Гуре:		None			Hydric S	oil Present?	y	∕es 🗆 No 🗹
[	Depth (inches):								
Remarks:									

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Burlington, Alamar	nce Sampling Date:	2019-Jan-15					
Applicant/Owner: NextEra		State: North Card	olina Sampling Point: W-B1	19-159_PFO-1				
Investigator(s): Simon King, Joe Roy, Karla Fortier, Susan Thebert Section, Township, Range:								
Landform (hillslope, terrace, etc.):	Depression Local r	elief (concave, convex, no	one): Concave	Slope (%): 0 to 1				
Subregion (LRR or MLRA): MLRA 1	36 of LRR P	Lat: 36.1432976	Long: -79.3829895	Datum: WGS84				
Soil Map Unit Name: Vance sandy lo	am, 6 to 10 percent slopes		NWI classification	n:				
Are climatic/hydrologic conditions on th	Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)							
Are Vegetation, Soil, or	Hydrology significantly disturbed	l? Are "Normal Circ	umstances" present?	Yes 🟒 No				
Are Vegetation, Soil, or	Hydrology naturally problematic	? (If needed, expla	in any answers in Remarks.	)				

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes _ 🖌 No	Is the Sampled Area within a Wetland?	Yes 🖌 No						
Remarks:									
Covertype is PFO. Area is wetland, all three v	Covertype is PFO. Area is wetland, all three wetland parameters are present.								

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; chec	<u>k all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li> Surface Water (A1)</li> <li>✓ High Water Table (A2)</li> <li> Saturation (A3)</li> <li> Water Marks (B1)</li> <li> Sediment Deposits (B2)</li> <li> Drift Deposits (B3)</li> <li> Algal Mat or Crust (B4)</li> <li> Iron Deposits (B5)</li> <li> Inundation Visible on Aerial Im</li> <li> Water-Stained Leaves (B9)</li> <li> Aquatic Fauna (B13)</li> </ul>		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Sc Thin Muck Surface (C7) Other (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🖌 No	Depth (inches):	1	- Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes No 🟒	Depth (inches):		-
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring w	vell, aerial photos, previous inspe	ctions), if	available:
Remarks:				

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

# Sampling Point: W-B19-159\_PFO-1

<u>Tree Stratum</u> (Plot size: <u>30)</u>		Dominant	Indicator	Dominance Test worksheet:	
<u></u>	% Cover	Species?	Status	Number of Dominant Species That	2 (A)
1. Acer rubrum	25	Yes	FAC	Are OBL, FACW, or FAC:	
2. Liquidambar styraciflua	5	No	FAC	Total Number of Dominant Species	3 (B)
3.				Across All Strata:	
4.		· ·		Percent of Dominant Species That	66.7 (A/B)
	·			Are OBL, FACW, or FAC:	
				Prevalence Index worksheet:	
	·			Total % Cover of:	Multiply By:
7	. <u> </u>			OBL species 0	x 1 = 0
		= Total Cov	er	FACW species 0	x 2 = 0
50% of total cover: <u>15</u>	_ 20% of to	tal cover:	66	FAC species 50	x 3 = 150
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				FACU species 15	x 4 = 60
1				UPL species 0	x = 0
2				· · · · · · · · · · · · · · · · · · ·	
3.				Column Totals 65	(A) 210 (B)
4.	·			Prevalence Index = B/A =	3.2
5.				Hydrophytic Vegetation Indicators:	
6	·	······································		1- Rapid Test for Hydrophytic	√egetation
6		······································		2 - Dominance Test is >50%	
7				$3 - Prevalence Index is \leq 3.0^{1}$	
8				4 - Morphological Adaptations	<sup>1</sup> (Provide supporting
9	<u> </u>			- data in Remarks or on a separate s	
	0	= Total Cov	er	Problematic Hydrophytic Vege	,
50% of total cover: <u>0</u>	_20% of to	tal cover:	00	<sup>1</sup> Indicators of hydric soil and wetlar	
Herb Stratum (Plot size: 5')	_			present, unless disturbed or proble	
1. Microstegium vimineum	20	Yes	FAC		
2.				Definitions of Four Vegetation Strat	a.
		······································			
3.		······································		Tree – Woody plants, excluding vine	
4		<u> </u>		in diameter at breast height (DBH),	regardless of height.
5					
6				Sapling/shrub – Woody plants, excl	-
7				in. DBH and greater than or equal t	o 3.28 ft (1 m) tall.
8.					
9.				Herb – All herbaceous (non-woody)	1 0
10.	·			size, and woody plants less than 3.2	28 ft tall.
11				•	
<sup>11.</sup>		Tabal Car		. Woody vines – All woody vines grea	tor than 2 20 ft in
		= Total Cov			
50% of total cover: <u>10</u>	_ 20% of to	ital cover:	4	height.	
Woody Vine Stratum (Plot size: <u>30'</u> )					
1. <i>Lonicera japonica</i>	15	Yes	FACU	_	
2					
3				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆
4.				-	
5.		······································		-	
	15	= Total Cov	or	•	
		-	2		
50% of total cover: <u>7.5</u>	_ 20% 01 to	ital cover:			
Remarks: (Include photo numbers here or on a separa	te sheet.)				
A positive indication of hydrophytic vegetation was ob	served (>50	)% of domin	ant species	indexed as OBL FACW or FAC)	
		er dennin			

# Sampling Point: W-B19-159\_PFO-1

ofile Description: (Describe t Depth Matrix	o trie deptr		Features			absence of Indicators.)	
nches) Color (moist)	%	Color (moist)	<u>%</u> T	ype <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 3 10YR 4/3	100					Silt Loam	
3 - 8 10YR 5/3	100		<u> </u>			Silt Loam	
8 - 16 10YR 5/3	95	7.5YR 5/6	5	С	М	Silt Loam	
ype: C = Concentration, D = [	Depletion, F	RM = Reduced Matri	x, MS = Ma	sked Sa	and Grains.	<sup>2</sup> Location: PL = Pore Lini	ng, M = Matrix.
dric Soil Indicators:						Indicators for P	roblematic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) <b>(LRR N)</b> Depleted Below Dark Surface ( Thick Dark Surface (A12) Sandy Mucky Mineral (S1) <b>(LRI</b> Sandy Gleyed Matrix (S4) Sandy Redox (S5)		Thin D Loamy Deplet Redox Redox 47, 148) Iron-M Umbri Piedm	ark Surface ( Gleyed Ma ( Gleyed Matrix () Dark Surfa () Dark Surfa () Depression langanese N c Surface (F ont Floodpl	(S9) <b>(N</b> trix (F2 F3) ce (F6) rface (F ns (F8) Masses 13) <b>(MI</b> ain Soil	7) (F12) <b>(LRR N, N</b> <b>.RA 136, 122)</b> s (F19) <b>(MLRA</b>	LRA 136) JURA 136)	ydrophytic vegetation and ogy must be present, unless
Stripped Matrix (S6)		Red Pa	arent Mater	ial (F21)	) (MLRA 127, 1	4/) albeal beal of pr	
strictive Layer (if observed):		Nana				12	
Type:		None			Hydric Soil Pi	resent?	Yes 🗹 No 🗆
Depth (inches):							

Photo of Sample Plot North

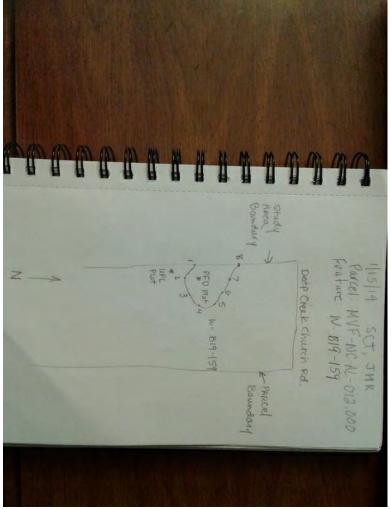


Photo of Sample Plot East

#### Photo of Sample Plot South



Photo of Sample Plot West Photo of Sample Plot Sketch



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County:	Burlington, Alamance	Sampling Dat	e: 2019-Jan-15	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-l	319-159_UPL-2
Investigator(s): Simon King, Joe Roy, Susan Thebert Section, Township, Range:						
Landform (hillslope, te	rrace, etc.):	Foot slope	Local relie	f (concave, convex,	none): Convex	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): MLR/	A 136 of LRR P	Lä	at: 36.1432115	Long: -79.3830361	Datum: WGS84
Soil Map Unit Name:					NWI classificati	on:
Are climatic/hydrologic	c conditions or	the site typical for th	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)
Are Vegetation,	Soil,	or Hydrology si	gnificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology na	aturally problematic?	(If needed, exp	lain any answers in Remark	s.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No⁄_ Yes No⁄_								
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Remarks:									
Covertype is UPL. Area is upland, not all three wetland parameters are present.									

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; check all f	that apply)	Secondary Indicators (minimum	<u>of two required)</u>
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial In</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidi: Prese Recer Thin M Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3) nce of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) • (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Ir</li> <li>Stunted or Stressed Plants (D</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	nagery (C9) 01)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	– Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):	-	
(includes capillary fringe)			-	
Describe Recorded Data (stream g	auge, monitoring well, a	erial photos, previous inspections), if	available:	

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

# Sampling Point: W-B19-159\_UPL-2

<u>Tree Stratum</u> (Plot size: <u>30)</u>		Dominant	Indicator	Dominance Test worksheet:		
		Species?	Status	Number of Dominant Species That	0	(A)
1. Liriodendron tulipifera	30	Yes	FACU	Are OBL, FACW, or FAC: Total Number of Dominant Species		
2.				Across All Strata:	3	(B)
3				Percent of Dominant Species That		(4 (5)
4 5				Are OBL, FACW, or FAC:	0	(A/B)
6				Prevalence Index worksheet:		
7.				<u>Total % Cover of:</u>	<u>Multiply</u>	<u>' By:</u>
/·	30	= Total Cov	er	OBL species 0	x 1 =	0
50% of total cover: <u>15</u>		-	<u>6</u>	FACW species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size: <u>15</u> )	_ 20 /0 01 10	tai cover.	0	FAC species 0	x 3 =	0
				FACU species 80	x 4 =	320
2				UPL species 0	x 5 =	0
3.				Column Totals 80	(A)	320 (B)
4.			······································	Prevalence Index = B/A =	4	
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	Vegetatio	n
7.				2 - Dominance Test is > 50%		
8.				$3$ - Prevalence Index is $\leq 3.0^{1}$		
9.	·			4 - Morphological Adaptations		supporting
	0	= Total Cov	er	data in Remarks or on a separate sl Problematic Hydrophytic Vege		(aiclay
50% of total cover: <u>0</u>	20% of to	tal cover:	0	<sup>1</sup> Indicators of hydric soil and wetlar		-
Herb Stratum (Plot size: <u>5'</u> )				present, unless disturbed or proble	-	bgy must be
1				Definitions of Four Vegetation Strat		
2.						
3.				Tree – Woody plants, excluding vine	es, 3 in. (7	.6 cm) or more
4.				in diameter at breast height (DBH),		
5						
6				Sapling/shrub – Woody plants, exclu	-	
7				in. DBH and greater than or equal t	o 3.28 ft (	1 m) tall.
8						
9	<u> </u>			Herb – All herbaceous (non-woody)		egardless of
10				size, and woody plants less than 3.2	28 ft tall.	
11						
	0	= Total Cov	er	Woody vines – All woody vines grea	ter than 3	3.28 ft in
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	height.		
Woody Vine Stratum (Plot size: <u>30'</u> )						
1. <i>Lonicera japonica</i>	30	Yes	FACU			
2. <u>Hedera helix</u>	20	Yes	FACU			
3				Hydrophytic Vegetation Present?	Yes 🗆 No	
4						
5						
	50	= Total Cov				
50% of total cover: <u>25</u>	_ 20% of to	tal cover:	10			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

# Sampling Point: W-B19-159\_UPL-2

Depth Matrix	the depth heede	a to documen Redox F		ator or confir	m the absenc	e of indicators.)	
(inches) Color (moist)	% Colo	r (moist)	% Ту	pe <sup>1</sup> Loc <sup>2</sup>		Texture	Remarks
0 - 3 10YR 3/4	100					Loam	
3 - 18 10YR 4/4	100				9	Sandy Loam	
<sup>1</sup> Type: C = Concentration, D = De	pletion, RM = Re	duced Matrix,	MS = Mask	ed Sand Gra	ins. <sup>2</sup> Locatio	on: PL = Pore Lining, M = N	latrix.
Hydric Soil Indicators:						Indicators for Problema	tic Hydric Soils³:
Histosol (A1)		Dark Su				2 cm Muck (A10) <b>(MI</b>	.RA 147)
Histic Epipedon (A2)				rface (S8) <b>(MI</b>		Coast Prairie Redox	-
Black Histic (A3) Hydrogen Sulfide (A4)			Gleyed Matr	59) <b>(MLRA 14</b> ix (F2)	/, 148)	Piedmont Floodplair	
Stratified Layers (A5)			d Matrix (F3			147)	
2 cm Muck (A10) (LRR N)			ark Surface			Very Shallow Dark Si	urface (TF12)
Depleted Below Dark Surface (A1	11)	•	d Dark Surfa			Other (Explain in Rei	marks)
<ul> <li>Thick Dark Surface (A12)</li> <li>Sandy Mucky Mineral (S1) (LRR N</li> </ul>	N. MI RA 147, 148)	Redox D	epressions	(F8) asses (F12) <b>(I</b> I	R N. MI RA 13	<b>6)<sub>3</sub>Indicators of hydrophy</b>	
Sandy Gleyed Matrix (S4)	(, MERCENT, 140)	Umbric 1	Surface (F13	B) (MLRA 136,	122)	<sup>3</sup> Indicators of hydrophy	tic vegetation and
Sandy Redox (S5)				n Soils (F19) <b>(</b>		wetland hydrology mus disturbed or problemat	
Stripped Matrix (S6)		Red Pare	ent Material	I (F21) (MLRA	127, 147)	disturbed of problemat	
Restrictive Layer (if observed):							
Type:	None			Hydric	Soil Present?		Yes 🗆 No 🗹
Depth (inches):							
No positive indication of hydric s	oils was observe	d.					



Photo of Sample Plot South



Photo of Sample Plot West

#### WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/Count	ty: Burlington, Alama	ince	Sampling Dat	te: 2019	-Jan-15	
Applicant/Owner: N	lextEra				State: North Ca	arolina S	Sampling Point: W-E	319-161_PFO-1
Investigator(s): Sime	on King, Joe Ro	y, Karla Fortier, Sus	an Thebert	Sectio	n, Township, Ra	nge:		
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local	relief (c	oncave, convex,	none):	Concave	Slope (%): 1 to 3
Subregion (LRR or MLR	RA): MLRA	A 136 of LRR P		Lat:	36.1401398	Long:	-79.3825376	Datum: WGS84
Soil Map Unit Name:	Helena sand	y loam, 6 to 10 per	cent slopes				NWI classificatio	on:
Are climatic/hydrologic	c conditions or	the site typical for	this time of year?		Yes No 🟒	🖊 (lf no, e	explain in Remarks.)	
Are Vegetation,	Soil,	or Hydrology	significantly disturbe	d?	Are "Normal C	lircumsta	ances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally problemati	c?	(If needed, exp	olain any	answers in Remark	5.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes 🟒 No Yes 🟒 No		
Wetland Hydrology Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PFO.			

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check	<u>all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	— H O Pr Re Th O	rue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) xidized Rhizospheres on Living F resence of Reduced Iron (C4) ecent Iron Reduction in Tilled So hin Muck Surface (C7) ther (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	2	Wetland Hydrology Present? Yes No
Saturation Present?	Yes No 🟒	Depth (inches):		
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring we	ell, aerial photos, previous inspe	ections), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

# Sampling Point: W-B19-161\_PFO-1

Tree Stratum (Plot size: <u>30)</u>		Dominant		Dominance Test worksheet:		
		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
1. Quercus phellos           2.	15	Yes	FAC	Total Number of Dominant Species Across All Strata:	1	(B)
3	·	·		Percent of Dominant Species That		
4	·	<u> </u>		Are OBL, FACW, or FAC:	100	(A/B)
5 6.	·			Prevalence Index worksheet:		
7.	·	<u> </u>		Total % Cover of:	<u>Multiply By</u>	<u>/:</u>
/	15	= Total Cov	er	OBL species 0	x 1 =	0
50% of total cover: <u>7.5</u>			2	FACW species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size:15')	_ 20% 01 to			FAC species 15	x 3 =	45
1. Ligustrum sinense	2	No	FACU	FACU species 2	x 4 =	8
2.	·	·		UPL species 0	x 5 =	0
3.	·	·		Column Totals <u>17</u>		53 (B)
4.	·	·		Prevalence Index = B/A =	3.1	
5.	·	·		Hydrophytic Vegetation Indicators:		
6.	·	·		1- Rapid Test for Hydrophytic	Vegetation	
7.	·	·		2 - Dominance Test is >50%		
8.				$3$ - Prevalence Index is ≤ $3.0^1$		
9.	·			4 - Morphological Adaptations		ipporting
	2	= Total Cov	er	data in Remarks or on a separate sl		
50% of total cover:1	20% of to	tal cover:	0.4	Problematic Hydrophytic Vege <sup>1</sup> Indicators of hydric soil and wetlar		
Herb Stratum (Plot size:5')	-			present, unless disturbed or proble		mustbe
1				Definitions of Four Vegetation Strat		
2.	·	·			<b>u.</b>	
3.	·	· ·		Tree – Woody plants, excluding vine	es. 3 in. (7.6 c	m) or more
4.	·	·		in diameter at breast height (DBH),		
5.	·	·			0	0
6.	·	· ·		Sapling/shrub – Woody plants, exclu	uding vines,	less than 3
7.	·	· ·		in. DBH and greater than or equal t	o 3.28 ft (1 m	n) tall.
8.						
9.				Herb – All herbaceous (non-woody)		rdless of
10.				size, and woody plants less than 3.2	28 ft tall.	
11.	·	·				
	0	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28	8 ft in
50% of total cover: <u>0</u>	20% of to	tal cover:	0	height.		
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )	-					
1						
2.	·					
3.	·			Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	
4.						
5.	·					
	0	= Total Cov	er			
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0			
Remarks: (Include photo numbers here or on a separa	to choot )					
Remarks. (include photo numbers here of on a separa	le sneet.j					
A positive indication of hydrophytic vegetation was obs	erved (>50	% of domin	ant species	indexed as OBL, FACW, or FAC).		
				·····, ····, ·····,		

# Sampling Point: W-B19-161\_PFO-1

Profile Description: (Describe to t Depth Matrix				x Features			-	
(inches)	Color (moist)	%	Color (moist)	% Ty	rpe¹ Lo	DC <sup>2</sup>	Texture	Remarks
0 - 6	10YR 5/4	90	7.5YR 4/4	10	C N	N	Silt Loam	
6 - 18	2.5YR 5/4	80	5YR 5/8	20	C N	N	Silt Loam	
	Concentration $D = [$	)enletion	RM = Reduced Mat	riv MS = Masl	ked Sand	Grains <sup>2</sup> l ocati	on: PL = Pore Lining, M =	Matrix
	I Indicators:	Jepiction,					Indicators for Problem	
_ Histosol			Dark	Surface (S7)				-
	oipedon (A2)					) (MLRA 147, 148)	2 cm Muck (A10) <b>(N</b>	(A16) (MLRA 147, 148)
_ Black Hi				Dark Surface (		A 147, 148)		in Soils (F19) (MLRA 136
	en Sulfide (A4)			ny Gleyed Matr			Pleamont Plooupla 147)	
	d Layers (A5) uck (A10) <b>(LRR N)</b>			eted Matrix (F3 ox Dark Surface			Very Shallow Dark S	Surface (TE12)
	d Below Dark Surface (	(A11)		eted Dark Surf		Other (Explain in Re		
•	ark Surface (A12)	. ,	Redo	v Denressions	; (F8)			
-	lucky Mineral (S1) <b>(LRI</b>	R N, MLRA	147, 148) Iron-	Manganese M	asses (F12	2) <b>(LRR N, MLRA 13</b>	<b>6)<sub>3</sub>Indicators of hydroph</b>	vtic vegetation and
-	leyed Matrix (S4)		_ • • • • •	ne banace (i i	o) ( <b>_</b>		wetland hydrology mu	st be present, unless
	edox (S5) l Matrix (S6)			mont Floodpla Parent Materia		19) <b>(MLRA 148)</b> 11 RA 127 147)	disturbed or problema	
	Layer (if observed):							
	Type:		None		ни	dric Soil Present?		Yes 🛛 No 🗆
	Depth (inches):			_	,			
emarks:				_				

Photo of Sample Plot North



extension north

Photo of Sample Plot East



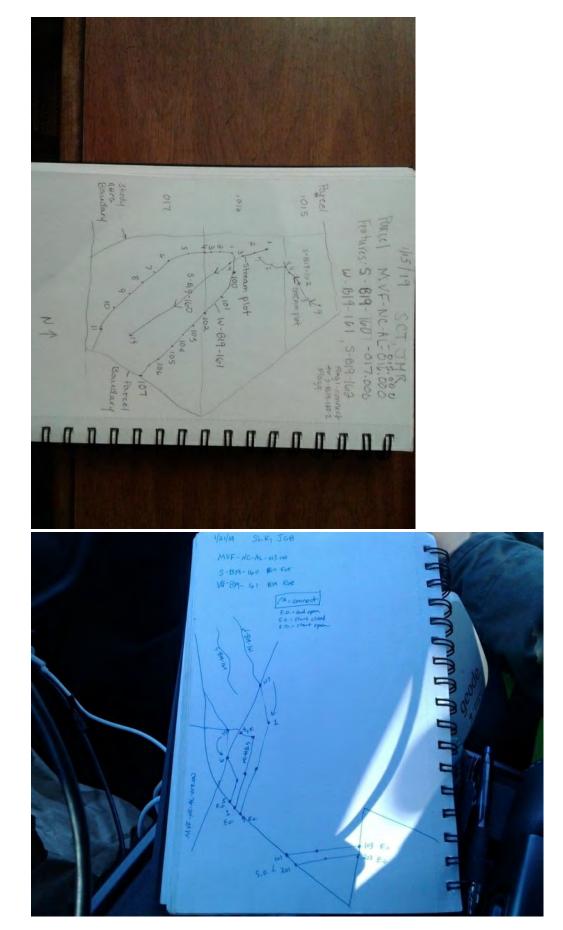
extension south

Photo of Sample Plot South



Photo of Sample Plot West

Photo of Sample Plot Sketch



Project/Site: MVP Southgate	City/County: Burlington, A	lamance Sampling Dat	t <b>e:</b> 2019-Jan-15	
Applicant/Owner: NextEra		State: North Ca	arolina Sampling Point: W-B	19-161_UPL-2
Investigator(s): Simon King, Joe Roy	, Karla Fortier, Susan Thebert	Section, Township, Rai	nge:	
Landform (hillslope, terrace, etc.):	Foot slope	Local relief (concave, convex,	none): Convex	Slope (%): 1 to 10
Subregion (LRR or MLRA): MLRA	136 of LRR P	Lat: 36.1400711	Long: -79.3825135	Datum: WGS84
Soil Map Unit Name:			NWI classificatio	n:
Are climatic/hydrologic conditions on	the site typical for this time of yea	r? Yes 🟒 No 🔄	(If no, explain in Remarks.)	
Are Vegetation, Soil, c	r Hydrology significantly dis	turbed? Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation, Soil, o	r Hydrology naturally proble	ematic? (If needed, exp	olain any answers in Remarks	.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all thre	e wetland parameters are	e present.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all th	nat apply)	Secondary Indicators (minimum of two r	equired)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydrog Oxidize Present Recent Thin M Other	quatic Plants (B14) gen Sulfide Odor (C1) ed Rhizospheres on Living Roots (C3 ace of Reduced Iron (C4) : Iron Reduction in Tilled Soils (C6) luck Surface (C7) (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	
Field Observations:				
Surface Water Present?	Yes No	Depth (inches):		
Water Table Present?	Yes No	Depth (inches):	Wetland Hydrology Present? Yes _	No _
Saturation Present?	Yes No	Depth (inches):		
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring well, ae	rial photos, previous inspections), if	available:	
Remarks:				
The criterion for wetland hydrolog	y is not met.			

# Sampling Point: W-B19-161\_UPL-2

Tree Stratum (Plot size: <u>30)</u>	Absolute Domin	ant	or Status	Dominance Test work	sheet:		
	% Cover Specie	es?		Number of Dominant Are OBL, FACW, or FA		0	(A)
1. <i>Quercus alba</i>	<u>15 Yes</u>			Total Number of Dom			
2. <i>Quercus stellata</i>	5 Yes		PL	Across All Strata:	initiant opecies	2	(B)
3. <u>Acer rubrum</u>	<u>3</u> No	F/	AC	Percent of Dominant	Species That		
	<u> </u>			Are OBL, FACW, or FA	C:	0	(A/B)
5				Prevalence Index wor	ksheet:		
6				Total % Cove	<u>er of:</u>	<u>Multiply B</u>	<u>y:</u>
7				OBL species	0	x 1 =	0
	23 = Total			FACW species	0	x 2 =	0
50% of total cover: <u>11.5</u>	-	er: <u>4.6000000</u>	000000005	FAC species	3	x 3 =	9
Sapling/Shrub Stratum (Plot size:15'	2			FACU species		x 4 =	
1	·	<u> </u>		UPL species	5	x 5 =	25
2		<u> </u>		Column Totals		(A)	(B)
3	·	<u> </u>		Prevalence	Index = B/A =		
4.	·	<u> </u>		Hydrophytic Vegetati	on Indicators:		
5	·	<u> </u>		1- Rapid Test for	· Hydrophytic \	Vegetation	
6		<u> </u>		2 - Dominance T	est is > 50%	-	
7	·	<u> </u>		3 - Prevalence Ir	ndex is $\leq 3.0^1$		
8	<u> </u>			4 - Morphologic	al Adaptations	<sup>1</sup> (Provide s	upporting
9				data in Remarks or o	n a separate sł	neet)	
	0 = Total		<u> </u>	Problematic Hyd			
50% of total cover: <u>0</u>	_20% of total cove	er:	0	<sup>1</sup> Indicators of hydric s			y must be
Herb Stratum (Plot size: <u>5'</u> )	Ne	F.4	<u>cu</u>	present, unless distu			
1. <u>Allium canadense</u>		FA	CU	Definitions of Four Ve	getation Strat	a:	
2.	<u> </u>	·					
3				Tree – Woody plants,	-		
4 5.	<u> </u>	<u> </u>		in diameter at breast	neight (DBH),	regardiess (	of neight.
···	<u> </u>	·		Sapling/shrub - Wood	hy plants ovel	iding vinos	loss than 3
6	<u> </u>	·		in. DBH and greater t		-	
7	<u> </u>	·		and greater e	inan or equal t	0.0120.10(1.1	ny can
8	<u> </u>	·		Herb – All herbaceou	s (non-woodv)	plants, rega	ardless of
9				size, and woody plant			
10							
11				Mooduuinee Alluve	advivinas graa	tor than 2 2	0 ft in
	0 = Total			Woody vines – All wo height.	buy viries grea	ter triari 5.2	01111
50% of total cover: <u>0</u>	20% of total cove	er:	0				
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )							
1							
2.				Hydrophytic Vegetat	ion Precent?		
3.					on riesellt	ics ∟ NU ⊠	
4 5		<u> </u>					
S	0 = Total						
			0				
50% of total cover: <u>0</u>			0				
Remarks: (Include photo numbers here	or on a separate s	sheet.)					

SOIL

# Sampling Point: W-B19-161\_UPL-2

Depth	Matrix	o ane depu	n needed to docum Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	% Typ	pe <sup>1</sup> Loc <sup>2</sup>		Texture	Remarks
0 - 6	10YR 3/4	100		/			Silt Loam	
6 - 11	7.5YR 5/6	100					Silt Loam	
11 - 18	2.5YR 5/6	100					Clay Loam	
·								
							·	
·								
·								
Type: C =	Concentration, D = I	Depletion, I	RM = Reduced Matr	ix, MS = Mask	ed Sand Grain	ns. <sup>2</sup> Locatio	on: PL = Pore Lining, M = M	atrix.
	Indicators:						Indicators for Problemati	
_ Histosol				Surface (S7)			2 cm Muck (A10) <b>(MLF</b>	-
	ipedon (A2)			alue Below Sur			Coast Prairie Redox (A	
Black His				Dark Surface (S		148)	Piedmont Floodplain	
	n Sulfide (A4) l Layers (A5)			iy Gleyed Matri eted Matrix (F3			147)	
	ck (A10) <b>(LRR N)</b>			x Dark Surface	-		Very Shallow Dark Su	rface (TF12)
•	l Below Dark Surface	(A11)		eted Dark Surfa			Other (Explain in Rem	arks)
_	rk Surface (A12) ucky Mineral (S1) <b>(LR</b>		Redo	x Depressions	(F8)		5)	
_ ,	leyed Matrix (S4)	R N, WILKA I	47, 148) Iron- Umb	ric Surface (F13	(MI RA 136, 1	22)	<sup>5)</sup> ₃Indicators of hydrophyti	c vegetation and
_ Sandy Re				nont Floodplai			wetland hydrology must	
_ Stripped	Matrix (S6)		Red F	Parent Material	l (F21) <b>(MLRA 1</b>	27, 147)	disturbed or problematic	
Restrictive	Layer (if observed):							
-	Гуре:		None	_	Hydric S	oil Present?	Ye	es 🗆 No 🗹
	Depth (inches):			_				
Remarks:								

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

Project/Site: MVP Southgate	<b>City/County:</b> Burlington, Alamance	. Sampling Date: 201	9-Jan-16				
Applicant/Owner: NextEra		State: North Carolina	Sampling Point: W-B1	9-164_PFO-1			
Investigator(s): Simon King, Joe Roy, Karla Fortier, Susan Thebert Section, Township, Range:							
Landform (hillslope, terrace, etc.): Dep	pression Local relief	(concave, convex, none):	Concave	Slope (%): 1 to 10			
Subregion (LRR or MLRA): MLRA 136 0	of LRR P Lat	: 36.1307275 Long:	-79.3691272	Datum: WGS84			
Soil Map Unit Name: Helena sandy loam	n, 6 to 10 percent slopes		NWI classification	n:			
Are climatic/hydrologic conditions on the s	ite typical for this time of year?	Yes No 🟒 (If no,	explain in Remarks.)				
Are Vegetation, Soil, or Hyd	drology significantly disturbed?	Are "Normal Circumst	ances" present?	/es 🟒 No			
Are Vegetation, Soil, or Hyd	drology naturally problematic?	(If needed, explain an	y answers in Remarks.	1			

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes 🖌 No		
	Yes No		
Wetland Hydrology Present?	Yes No	Is the Sampled Area within a Wetland?	Yes No
Remarks:			
Covertype is PFO. Area is wetland, all three v	vetland parameters are pi	resent.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; check all	<u>l that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial In</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydı Oxid Pres Rece Thin Othe	Aquatic Plants (B14) rogen Sulfide Odor (C1) lized Rhizospheres on Living ence of Reduced Iron (C4) ent Iron Reduction in Tilled S Muck Surface (C7) er (Explain in Remarks)	,	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	3	
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes No 🟒	Depth (inches):		-
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring well,	aerial photos, previous insp	ections), if	available:
Remarks:				

# Sampling Point: W-B19-164\_PFO-1

<u>Tree Stratum (</u> Plot size: <u>30)</u>		Dominant		Dominance Test worksheet:		
		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
1. Acer rubrum	30	Yes	FAC	Total Number of Dominant Species		
2. Platanus occidentalis	10	Yes	FACW	Across All Strata:	3	(B)
3. <i>Liriodendron tulipifera</i>	5	No	FACU	Percent of Dominant Species That		
4				Are OBL, FACW, or FAC:	66.7	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply B	v:
7	<u> </u>			OBL species 0	x 1 =	0
	45	= Total Cov	er	FACW species	x 2 =	•
50% of total cover: <u>22.5</u>	_ 20% of to	tal cover:	9	FAC species 30	x 3 =	90
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				FACU species 27	x 4 =	108
1. Ligustrum sinense	20	Yes	FACU	UPL species 0		0
2.					x 5 =	
3.				Column Totals	(A)	(B)
4.	·			Prevalence Index = B/A =		
5.				Hydrophytic Vegetation Indicators:		
6				1- Rapid Test for Hydrophytic V	√egetation	
7		·		2 - Dominance Test is >50%		
		<u> </u>	,	3 - Prevalence Index is $\leq 3.0^1$		
	·	·		4 - Morphological Adaptations	<sup>1</sup> (Provide s	upporting
9				data in Remarks or on a separate sh	neet)	
		= Total Cov		Problematic Hydrophytic Vege	tation <sup>1</sup> (Exp	olain)
50% of total cover: <u>10</u>	_ 20% of to	ital cover:	4	<sup>1</sup> Indicators of hydric soil and wetlan		y must be
Herb Stratum (Plot size: <u>5'</u> )				present, unless disturbed or proble	matic	
1. <i>Carex annectens</i>		No	FACW	Definitions of Four Vegetation Strat	a:	
2						
3				Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more
4.				in diameter at breast height (DBH),	regardless	of height.
5.						
6.				Sapling/shrub – Woody plants, exclu	uding vines,	less than 3
7.				in. DBH and greater than or equal to	o 3.28 ft (1 ı	m) tall.
8.	·	·				
9.	·			Herb – All herbaceous (non-woody)	plants, rega	ardless of
10				size, and woody plants less than 3.2	28 ft tall.	
11.	·	·				
11	0	= Total Cov	<u>.</u>	Woody vines – All woody vines grea	iter than 3.7	98 ft in
		-		height.		.0 11 11
50% of total cover: <u>0</u>	_ 20% of to	ital cover:	00			
Woody Vine Stratum (Plot size: <u>30'</u> )						
1. <i>Lonicera japonica</i>	2	No	FACU			
2						
3	. <u> </u>			Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	
4						
5						
	2	= Total Cov	er			
50% of total cover: <u>1</u>	_20% of to	tal cover:	0.4			
Remarks: (Include photo numbers here or on a separa	to choot )					
Remarks: (Include photo numbers here or on a separa	le sneel.)					
		0/ <b>af</b> d '				
A positive indication of hydrophytic vegetation was ob	served (>50	1% of domin	ant species	indexed as OBL, FACW, or FAC).		

#### SOIL

# Sampling Point: W-B19-164\_PFO-1

_	Matrix			Redox Feat	ures				
(inches)	Color (moist)	%	Color (moi	st) %	5 Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 3	10YR 5/2	90	7.5YR 5/4			M		Silt Loam	
3 - 18	10YR 5/2	80	7.5YR 4/0	5 20	<u> </u>	Μ		Silt Loam	
<u> </u>									
		Depletion,	RM = Reduced	d Matrix, MS	= Masked S	and Gra	ins. <sup>2</sup> Locatio	on: PL = Pore Lining, M =	
_ Histosol	I Indicators:			_ Dark Surfac	o (S7)			Indicators for Problema	atic Hydric Solis <sup>3</sup> :
_	bipedon (A2)				elow Surface	(S8) <b>(ML</b>	RA 147. 148)	2 cm Muck (A10) <b>(M</b>	-
_ Black Hi	•			-	urface (S9) <b>(</b>				(A16) <b>(MLRA 147, 148)</b>
- , 0	en Sulfide (A4)			_ , ,	ved Matrix (F2	2)			in Soils (F19) <b>(MLRA 136</b>
_	d Layers (A5)			Depleted N				147)	- ( ( <b>TF</b> ( <b>)</b> )
	uck (A10) <b>(LRR N)</b> d Below Dark Surface	(A11)			: Surface (F6) ark Surface (			Very Shallow Dark S	
	ark Surface (A12)	(711)	_	Redox Dep	ressions (F8)			Other (Explain in Re	
_	lucky Mineral (S1) (LR	R N, MLRA 1	47, 148) _	_ Iron-Manga	inese Masses	; (F12) <b>(LF</b>	R N, MLRA 13	<b>6)</b> <sub>3</sub> Indicators of hydroph	utic vogstation and
_ ,	ileyed Matrix (S4)			_ 01110110 041			·==,	wetland hydrology mu	st he present unless
-	edox (S5)		-		loodplain So			disturbed or problema	
	Matrix (S6)			_ Red Parent	Material (F2		127, 147)	· · · · · · · · · · · · ·	
	e Layer (if observed):		Nama						
	Type:		None			Hydric	Soil Present?		Yes 🗹 No 🗆
	Depth (inches):								
amarka									
Remarks:	·								
Remarks:									
Remarks:									
Remarks:									
emarks:									
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Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



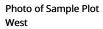
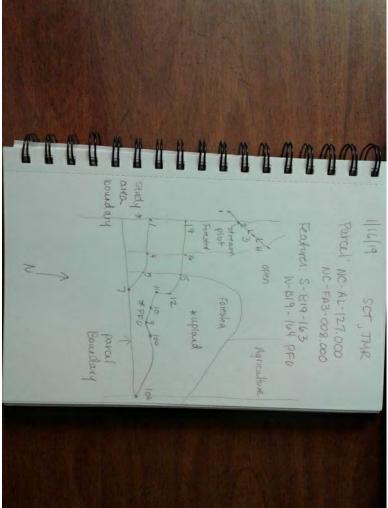


Photo of Sample Plot Sketch



Project/Site: MVP South	ngate	City/County: Burlington, Ala	amance	Sampling Date	e: 2019-Jan-16	
Applicant/Owner: Nex	xtEra			State: North Car	rolina Sampling Point: W-I	319-164_UPL-2
Investigator(s): Joseph	n Roy, Joe Roy, Susan	Thebert	Sectio	n, Township, Ran	ge:	
Landform (hillslope, terr	race, etc.): Flat	Lo	ocal relief (o	oncave, convex, r	none): None	Slope (%): 0 to 1
Subregion (LRR or MLRA	): MLRA 136 of	LRR P	Lat:	36.1309906	Long: -79.3692222	Datum: WGS84
Soil Map Unit Name:					NWI classificati	on:
Are climatic/hydrologic o	conditions on the site	e typical for this time of year	?	Yes 🟒 No	_ (lf no, explain in Remarks	.)
Are Vegetation, S	Soil, or Hydr	ology significantly distu	irbed?	Are "Normal Cir	rcumstances" present?	Yes 🟒 No
Are Vegetation, S	Soil, or Hydr	ology naturally problen	natic?	(If needed, expl	ain any answers in Remark	s.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all three	wetland parameters are	e present.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all	that apply)	Secondary Indicators (minimum	<u>of two required)</u>
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidi Prese Recer Thin I Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3) once of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave 9</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial In</li> <li>Stunted or Stressed Plants (D</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	nagery (C9)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	– Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):		
(includes capillary fringe)			_	
Describe Recorded Data (stream ga	iuge, monitoring well, a	erial photos, previous inspections), if	available:	
Remarks:				
The criterion for wetland hydrology	/ is not met.			

# Sampling Point: W-B19-164\_UPL-2

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: <u>15)</u>		Species?	Status	Number of Dominant Species That		
1. Liriodendron tulipifera	10	Yes	FACU	Are OBL, FACW, or FAC:	1	(A)
2. Juniperus virginiana	5	Yes	FACU	Total Number of Dominant Species	6	(B)
3. Platanus occidentalis	5	Yes	FACW	Across All Strata:		(8)
4. Oxydendrum arboreum	5	Yes	UPL	Percent of Dominant Species That	16.7	(A/B)
5.			<u> </u>	Are OBL, FACW, or FAC: Prevalence Index worksheet:		
6.				Total % Cover of:	Multiply E	D. #
7.				OBL species 0	x 1 =	<u>-y.</u> 0
	25	= Total Cov	er	FACW species 5	x 2 =	10
50% of total cover: <u>12.5</u>	_20% of to	tal cover:	5	FAC species 0	x 3 =	0
Sapling/Shrub Stratum (Plot size: <u>10</u> )				FACU species 20	x 4 =	80
1. Ligustrum japonicum	5	Yes	UPL	UPL species 10	x 5 =	50
2. <i>Lonicera japonica</i>	5	Yes	FACU	Column Totals 35	(A)	140 (B)
3				Prevalence Index = B/A =		140 (b)
4					4	
5				Hydrophytic Vegetation Indicators:	(	
6				<ul> <li>1- Rapid Test for Hydrophytic</li> <li>2 - Dominance Test is &gt; 50%</li> </ul>	vegetation	
7				2 - Dominance rest is > 50% 3 - Prevalence Index is $\leq 3.0^{1}$		
8				4 - Morphological Adaptations	1 (Drovido d	supporting
9				data in Remarks or on a separate sl		supporting
	10	= Total Cov	er	Problematic Hydrophytic Vege		plain)
50% of total cover: <u>5</u>	_20% of to	tal cover:	2	<sup>1</sup> Indicators of hydric soil and wetlar		
Herb Stratum (Plot size: <u>5'</u> )				present, unless disturbed or proble		5)
1				Definitions of Four Vegetation Strat	a:	
2						
3				Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more
4				in diameter at breast height (DBH),	regardless	of height.
5						
6				Sapling/shrub – Woody plants, exclu	-	
7				in. DBH and greater than or equal t	o 3.28 ft (1	m) tall.
8						
9				Herb – All herbaceous (non-woody)		ardless of
10				size, and woody plants less than 3.2	28 11 1811.	
11						
	0	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.	28 ft in
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	height.		
Woody Vine Stratum (Plot size: <u>30'</u> )						
1						
2						
3				Hydrophytic Vegetation Present?	Yes 🗆 No 🛛	2
4						
5						
	0	= Total Cov	er			
50% of total cover: <u>0</u>	_20% of to	tal cover:	0			
Remarks: (Include photo numbers here or on a separat	e sheet )					
Remarks. (include photo numbers here of on a separat	e sneet.)					
No positive indication of hydrophytic vegetation was ol	oserved (>	50% of dom	inant specie	es indexed as FAC– or drier).		

SOIL

# Sampling Point: W-B19-164\_UPL-2

Profile Description: (Des Depth Mat	-		Features		ce or mulcators.	
(inches) Color (moi		Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 2 10YR 3/3			<u></u>		Loam	
2 - 14 2.5Y 5/4			·	·	Clay Loam	
14 - 16 2.5Y 5/4		10YR 4/6	5	· ·	Clay Loam	
2.51 5/4		1011(4)0				
Type: C = Concentratior	n, D = Depletion,	, RM = Reduced Matri	x, MS = Masked S	and Grains. <sup>2</sup> Locati	on: PL = Pore Lining, M = N	Matrix.
lydric Soil Indicators:					Indicators for Problema	tic Hydric Soils <sup>3</sup> :
_Histosol (A1)			Surface (S7)		2 cm Muck (A10) <b>(M</b>	-
_ Histic Epipedon (A2)		•		(S8) <b>(MLRA 147, 148)</b>	Coast Prairie Redox	
Black Histic (A3)			ark Surface (S9) (N		Piedmont Floodplai	
_ Hydrogen Sulfide (A4) _ Stratified Layers (A5)			/ Gleyed Matrix (F2 ted Matrix (F3)	-)	147)	
_ 2 cm Muck (A10) (LRR N	1)		Dark Surface (F6)		Very Shallow Dark S	urface (TF12)
_ Depleted Below Dark Si		Deple	ed Dark Surface (I	F7)	Other (Explain in Re	
_ Thick Dark Surface (A12		Redox	Depressions (F8)			
_ Sandy Mucky Mineral (S		147, 148) Iron-M	langanese Masses	(F12) (LRR N, MLRA 13	<b><sup>36)</sup></b> 3Indicators of hydrophy	tic vegetation and
_ Sandy Gleyed Matrix (S4	4)	_ 0111011		210(150,122)	wetland hydrology mus	t be present, unless
_ Sandy Redox (S5) _ Stripped Matrix (S6)				ils (F19) <b>(MLRA 148)</b> ) <b>(MLRA 127, 147)</b>	disturbed or problemat	
	n (od);					
Restrictive Layer (if obse	rved):	None				
Type:		None		Hydric Soil Present?		Yes 🗆 No 🗹
Depth (inches)						
emarks:						

Photo of Sample Plot North



Photo of Sample Plot South

Project/Site: MVP Sou	thgate	City/County	: Greensboro, Guilfor	d	Sampling Date	: 2019	)-Jan-16		
Applicant/Owner: N	lextEra			S	State: North Car	olina 🤉	Sampling Point: W-B1	19-165_PFO-1	
Investigator(s): Sime	on King, Joe Roy	ι, Susan Thebert		Section	, Township, Ran	ge:			
Landform (hillslope, te	rrace, etc.):	Depression	Local re	lief (co	ncave, convex, n	one):	Concave	Slope (%): 1 to 1	0
Subregion (LRR or MLF	RA): MLRA	136 of LRR P		Lat: 3	6.278478	Long:	-79.559647	Datum: WGS84	
Soil Map Unit Name:	Pacolet sandy	y loam, 8 to 15 perc	ent slopes				NWI classification	n:	
Are climatic/hydrologic	c conditions on	the site typical for t	this time of year?	Y	′es 🟒 No	_ (If no,	explain in Remarks.)		
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	•	Are "Normal Cir	cumsta	ances" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology n	naturally problematic?		(If needed, expl	ain any	answers in Remarks.	)	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _	Is the Sampled Area within a Wetland?	Yes No
Remarks:		·	
Covertype is PFO. Area is wetland, all three v	vetland parameters are p	resent.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	e is required; check	<u>all that apply)</u>		Secondary Indicators (minimum of two required)
<ul> <li> Surface Water (A1)</li> <li>✓ High Water Table (A2)</li> <li> Saturation (A3)</li> <li> Water Marks (B1)</li> <li> Sediment Deposits (B2)</li> <li> Drift Deposits (B3)</li> <li> Algal Mat or Crust (B4)</li> <li> Iron Deposits (B5)</li> <li> Inundation Visible on Aerial Im</li> <li> Water-Stained Leaves (B9)</li> <li> Aquatic Fauna (B13)</li> </ul>	— Hy O; Pr Re Th Ot	ue Aquatic Plants (B14) /drogen Sulfide Odor (C1) kidized Rhizospheres on Living esence of Reduced Iron (C4) ecent Iron Reduction in Tilled Sc in Muck Surface (C7) ther (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	1	
Water Table Present?	Yes 🟒 No	Depth (inches):	10	− Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring we	ll, aerial photos, previous inspe	ctions), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

# Sampling Point: W-B19-165\_PFO-1

	-					
Tree Stratum (Plot size: <u>30)</u>		Dominant	Indicator	Dominance Test worksheet:		
		Species?	Status	Number of Dominant Species Tha	t 4	(A)
1. Liquidambar styraciflua	10	Yes	FAC	Are OBL, FACW, or FAC: Total Number of Dominant Specie	<u></u>	
2. <u>Acer rubrum</u>	10	Yes	FAC	- Across All Strata:	<sup>3</sup> 4	(B)
3.		·		Percent of Dominant Species That	100	(4 (D)
4 5.				Are OBL, FACW, or FAC:	100	(A/B)
				Prevalence Index worksheet:		
o 7.		· ·		- <u>Total % Cover of:</u>	<u>Multiply</u>	<u>By:</u>
···	20	= Total Cov	er	- OBL species 0	x 1 =	0
50% of total cover: <u>10</u>		-	4	FACW species 15	x 2 =	30
Sapling/Shrub Stratum (Plot size:)	_ 20/0 01 00			FAC species 35	x 3 =	105
1				FACU species 0	x 4 =	0
2.	·			UPL species 0	x 5 =	0
3.		·		- Column Totals 50	(A)	135 (B)
4.		·		Prevalence Index = B/A =	2.7	
5.				Hydrophytic Vegetation Indicators		
6.		·		1- Rapid Test for Hydrophytic	: Vegetation	
7.				2 - Dominance Test is >50%		
8.				$-$ 3 - Prevalence Index is $\leq 3.0^{\circ}$		
9.		·		4 - Morphological Adaptation		supporting
	0	= Total Cov	er	- data in Remarks or on a separate		(nlain)
50% of total cover: <u>0</u>	20% of to	- otal cover:	00	Problematic Hydrophytic Veg Indicators of hydric soil and wetla		
Herb Stratum (Plot size:5')	_			present, unless disturbed or probl		gy must be
1. <i>Carex sp.</i>	15	Yes	FACW	Definitions of Four Vegetation Stra		
2				_		
3				_ <b>Tree</b> – Woody plants, excluding vir	ies, 3 in. (7.6	5 cm) or more
4				in diameter at breast height (DBH)		
5						
6				Sapling/shrub – Woody plants, exc		
7	<u> </u>			in. DBH and greater than or equal	to 3.28 ft (1	m) tall.
8				_		
9	<u> </u>			Herb – All herbaceous (non-woody		gardless of
10				size, and woody plants less than 3	.28 ft tall.	
11				_		
	15	= Total Cov	er	Woody vines – All woody vines gre	ater than 3.	.28 ft in
50% of total cover: <u>7.5</u>	_ 20% of to	otal cover:	3	height.		
Woody Vine Stratum (Plot size: <u>30'</u> )						
1. <i>Smilax rotundifolia</i>	15	Yes	FAC	_		
2				_		
3				_ Hydrophytic Vegetation Present?	Yes 🗹 No 🛛	
4				_		
5				-		
	15	= Total Cov	er			
50% of total cover: <u>7.5</u>	_20% of to	otal cover:	3			
Remarks: (Include photo numbers here or on a separa	te sheet.)					
A positive indication of hydrophytic vegetation was ob	served (>50	)% of domin	ant species	s indexed as OBL, FACW, or FAC).		

SOIL

# Sampling Point: W-B19-165\_PFO-1

Depth	Matrix	•	h needed to docum Redo:	<pre>K Features</pre>			
inches)	Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 3	2.5Y 5/3	100				Silt Loam	
3 - 18	2.5Y 5/3	80	7.5YR 5/8	10		Silt Loam	
3 - 18	10YR 5/8	10				Silt Loam	
				·			
Гуре: C =	Concentration, D =	Depletion,	RM = Reduced Matr	ix, MS = Masked S	Sand Grains. <sup>2</sup> Locatio	on: PL = Pore Lining, M = N	/latrix.
ydric Soi	Indicators:					Indicators for Problema	tic Hydric Soils <sup>3</sup> :
_ Histosol				Surface (S7)		2 cm Muck (A10) <b>(M</b> L	- RA 147)
	ipedon (A2)				e (S8) <b>(MLRA 147, 148)</b>	Coast Prairie Redox	•
Black His	stic (A3) n Sulfide (A4)			Dark Surface (S9) <b>(I</b> y Gleyed Matrix (F2		Piedmont Floodplair	
	d Layers (A5)			ted Matrix (F3)	-)	<u> </u>	
_ 2 cm Mu	ick (A10) <b>(LRR N)</b>		Redox	K Dark Surface (F6)		Very Shallow Dark Su	urface (TF12)
•	d Below Dark Surface	(A11)		ted Dark Surface (	F7)	Other (Explain in Rer	marks)
_	ırk Surface (A12) lucky Mineral (S1) <b>(LR</b>		Redo: [47 148] Iron-N	Contractions (F8)	(F12) (I RR N MI RA 13	6)	
-	leyed Matrix (S4)		Umbr	ic Surface (F13) <b>(M</b>	ILRA 136, 122)	6) <sub>3</sub> Indicators of hydrophyt	tic vegetation and
Sandy R			Piedn	nont Floodplain So	ils (F19) <b>(MLRA 148)</b>	wetland hydrology must	
_ Stripped	Matrix (S6)		Red P	arent Material (F21	1) (MLRA 127, 147)	disturbed or problemati	C.
lestrictive	Layer (if observed):						
	Туре:		None		Hydric Soil Present?	`	Yes 🗹 No 🗆
	Depth (inches):						
emarks:							

Photo of Sample Plot North

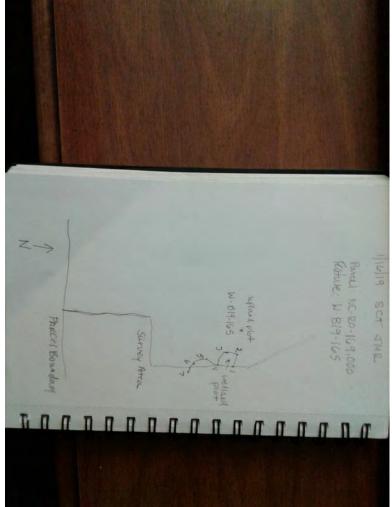


Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

Photo of Sample Plot Sketch



Project/Site: MVP Sou	thgate	City/County:	Greensboro, Guilford	Sampling Da	te: 2019-Jan-16		
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W	-B19-165_UPL-2	
Investigator(s): Simon King, Joe Roy, Susan Thebert Section, Township, Range:							
Landform (hillslope, te	rrace, etc.):	Foot slope	Local relief	(concave, convex,	none): Convex	Slope (%): 2 to 5	
Subregion (LRR or MLF	RA): MLR/	A 136 of LRR P	La	t: 36.278465	Long: -79.559797	Datum: WGS84	
Soil Map Unit Name:					NWI classificat	tion:	
Are climatic/hydrologic	c conditions or	the site typical for th	nis time of year?	Yes No 🟒	🖊 (If no, explain in Remarks	.)	
Are Vegetation,	Soil,	or Hydrology sig	gnificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology na	aturally problematic?	(If needed, exp	olain any answers in Remar	ks.)	

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No _ <b>∠</b> _ Yes No _ <b>∠</b> _		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. Area is upland, not all thr	e wetland parameters are	e present.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	<u>e is required; check all t</u>	<u>hat apply)</u>	Secondary Indicators (minimum	<u>of two required)</u>
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidiz Prese Recen Thin M Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 nce of Reduced Iron (C4) it Iron Reduction in Tilled Soils (C6) Auck Surface (C7) · (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Ir</li> <li>Stunted or Stressed Plants (D</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	nagery (C9)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):		
(includes capillary fringe)				
Describe Recorded Data (stream ga	uge, monitoring well, a	erial photos, previous inspections), if	available:	

# Sampling Point: W-B19-165\_UPL-2

Tree Stratum (Plot size: <u>30)</u>		Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That	
1. Liriodendron tulipifera	20	Yes	FACU	Are OBL, FACW, or FAC:	1 (A)
2. Prunus serotina	10	Yes	FACU	Total Number of Dominant Species	<b>3</b> (D)
3. Acer rubrum	10	Yes	FAC	Across All Strata:	3 (B)
4.				Percent of Dominant Species That	33.3 (A/B)
5.	·			Are OBL, FACW, or FAC:	
6.				Prevalence Index worksheet:	
7.	·			Total % Cover of:	Multiply By:
	40	= Total Cove	er	OBL species 0 FACW species 0	x = 0
50% of total cover: <u>20</u>	20% of to	tal cover:	8	· · · · · · · · · · · · · · · · · · ·	x 2 = 0
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				· · · · · · · · · · · · · · · · · · ·	x 3 = <u>30</u>
1				· · · · · · · · · · · · · · · · · · ·	x 4 = 128 x 5 = 0
2.					
3.					(A) <u>158 (B)</u>
4.				Prevalence Index = B/A =	3.8
5.				Hydrophytic Vegetation Indicators:	
6.				1- Rapid Test for Hydrophytic	/egetation
7.				2 - Dominance Test is > 50%	
8.				3 - Prevalence Index is $\leq 3.0^{1}$	1 (Dura dala anna antina
9.				4 - Morphological Adaptations data in Remarks or on a separate s	
	0	= Total Cove	er	Problematic Hydrophytic Vege	
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	<sup>1</sup> Indicators of hydric soil and wetlar	
Herb Stratum (Plot size: <u>5'</u> )				present, unless disturbed or proble	
1. <i>Polystichum acrostichoides</i>	2	No	FACU	Definitions of Four Vegetation Strat	a:
2					
3				Tree – Woody plants, excluding vine	es, 3 in. (7.6 cm) or more
4				in diameter at breast height (DBH),	
5					
6				Sapling/shrub – Woody plants, excl	uding vines, less than 3
7				in. DBH and greater than or equal t	o 3.28 ft (1 m) tall.
8					
9				Herb – All herbaceous (non-woody)	
10				size, and woody plants less than 3.2	.8 ft tall.
11.					
	2	= Total Cove	er	Woody vines – All woody vines grea	ter than 3.28 ft in
50% of total cover: <u>1</u>	_20% of to	tal cover:	0.4	height.	
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )					
1					
2					
3				Hydrophytic Vegetation Present?	Yes 🗆 No 🗹
4					
5					
	0	= Total Cove	er		
50% of total cover: <u>0</u>	_20% of to	tal cover:	0		
Remarks: (Include photo numbers here or on a separa	te sheet.)				
No positive indication of hydrophytic vegetation was o	bserved (≥	50% of dom	inant specie	es indexed as FAC– or drier).	

SOIL

# Sampling Point: W-B19-165\_UPL-2

Depth Matrix		Redox	Features	or confirm the absen		
(inches) Color (moist)	<u>%</u> C	olor (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 3 10YR 3/2	100			· <u> </u>	Clay Loam	
3 - 18 10YR 6/4		<u> </u>		·		
		<u> </u>		·		
<sup>1</sup> Type: C = Concentration, D =	Depletion, RM =	Reduced Matrix,	, MS = Masked	Sand Grains. <sup>2</sup> Locati	on: PL = Pore Lining, M = Matr	fix.
Hydric Soil Indicators:					Indicators for Problematic H	Hydric Soils <sup>3</sup> :
Histosol (A1)		Dark Su			2 cm Muck (A10) (MLRA	147)
Histic Epipedon (A2) Black Histic (A3)		•	ue Below Surfaco Irk Surface (S9) <b>(</b>	e (S8) (MLRA 147, 148)	Coast Prairie Redox (A1	
Hydrogen Sulfide (A4)			Gleyed Matrix (F		Piedmont Floodplain So	ils (F19) <b>(MLRA 136,</b>
Stratified Layers (A5)			ed Matrix (F3)	,	147)	
2 cm Muck (A10) (LRR N)			Dark Surface (F6		Very Shallow Dark Surfa	
_ Depleted Below Dark Surface _ Thick Dark Surface (A12)	e (A11)		ed Dark Surface ( Depressions (F8)		Other (Explain in Remar	ks)
Sandy Mucky Mineral (S1) <b>(L</b>	RR N. MLRA 147. 1	48) Iron-Ma	anganese Masse	s (F12) (LRR N. MLRA 13	<b><sup>36)</sup>₃Indicators of hydrophytic v</b>	
Sandy Gleyed Matrix (S4)		Umbric	Surface (F13) (N	ILRA 136, 122)	wetland hydrology must be	regetation and
Sandy Redox (S5)				ils (F19) <b>(MLRA 148)</b>	disturbed or problematic.	present, unless
Stripped Matrix (S6)		Red Par	ent Material (F2	1) (MLRA 127, 147)	disturbed of problematic.	
Restrictive Layer (if observed						
Туре:	N	one		Hydric Soil Present?	Yes	□ No 🗹
Depth (inches):						
No positive indication of hyd	ric soils was obse	rved.				

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

Project/Site: MVP Sou	thgate	City/Coun	ty: Burlington, Alamar	nce	Sampling Da	te: 2019	9-Jan-21	
Applicant/Owner: N	lextEra				State: North Ca	arolina !	Sampling Point: W-B	19-168_PEM-2
Investigator(s): Jose	ph Roy, Simon	King, Jim Bolduc		Sectio	n, Township, Ra	nge:		
Landform (hillslope, te	rrace, etc.):	Hillslope	Local r	elief (c	oncave, convex,	none):	Concave	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat:	36.1400061	Long:	-79.3815155	Datum: WGS84
Soil Map Unit Name:	Helena sand	y loam, 2 to 6 perc	ent slopes				NWI classificatio	n:
Are climatic/hydrologic	c conditions or	the site typical for	r this time of year?		Yes 🟒 No 🔄	(If no	, explain in Remarks.)	1
Are Vegetation,	Soil,	or Hydrology	significantly disturbed	l?	Are "Normal C	ircumst	ances" present?	Yes No 🟒
Are Vegetation,	Soil,	or Hydrology	naturally problematic	?	(If needed, exp	olain any	answers in Remarks	.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes No	ls the Sampled Area within a Wetland?	Yes 🯒 No					
Remarks:								
Covertype is PEM. Area is wetland, all three wetland parameters are present. previously disturbed areas.								

Wetland Hydrology Indicators:						
Primary Indicators (minimum of or	ne is required; check	all that apply)		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)				Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)		
Field Observations:						
Surface Water Present?	Yes 🟒 No	Depth (inches):	1			
Water Table Present?	Yes No 🟒	Depth (inches):		− Wetland Hydrology Present? Yes No		
Saturation Present?	Yes 🖌 No	Depth (inches):	0	-		
(includes capillary fringe)				-		
Describe Recorded Data (stream g	auge, monitoring we	ll, aerial photos, previous insp	ections), if	available:		

# Sampling Point: W-B19-168\_PEM-2

					,	
<u>Tree Stratum</u> (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	2	(A)
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Species Across All Strata:	<sup>5</sup> 2	(B)
4.	·			Percent of Dominant Species That	100	(A/B)
5.				Are OBL, FACW, or FAC:		
6.				Prevalence Index worksheet:		
7.				Total % Cover of:	Multiply E	•
	0	= Total Cove	er	OBL species 0	x 1 =	0
50% of total cover: <u>0</u>	20% of to	_ tal cover:	0	FACW species 70	x 2 =	140
Sapling/Shrub Stratum (Plot size:15)	_			FAC species 0	x 3 =	0
1				FACU species 0	x 4 =	0
2.				UPL species 0	x 5 =	0
				Column Totals 70	(A)	140 (B)
4.	·			Prevalence Index = B/A =	2	
5.				Hydrophytic Vegetation Indicators		
6.	·			1- Rapid Test for Hydrophytic	Vegetation	
_	·			2 - Dominance Test is >50%		
				$_ ✓ 3$ - Prevalence Index is $\leq 3.0^{1}$		
8 9.	·	<u> </u>		4 - Morphological Adaptation		supporting
<sup>2.</sup>	0	= Total Cove		data in Remarks or on a separate s		
50% of total cover: <u>0</u>		-		Problematic Hydrophytic Veg		-
	_ 20% 01 to	lai cover.	0	<sup>1</sup> Indicators of hydric soil and wetla		gy must be
Herb Stratum (Plot size: <u>5</u> )	50	Vac		present, unless disturbed or probl		
1. Eleocharis intermedia	<u>50</u>	Yes	FACW	Definitions of Four Vegetation Stra	ta:	
2. Juncus effusus	20	Yes	FACW			
3. Juncus sp.	·	No	Obl	Tree – Woody plants, excluding vin		
4	·			in diameter at breast height (DBH)	, regardless	of height.
5				Configuration of the structure of the		
6.	·			Sapling/shrub – Woody plants, exc	-	
7	·	·		in. DBH and greater than or equal	10 5.26 11 (1	III) (dii.
8	·	·		Herb – All herbaceous (non-woody	) plants roc	ardless of
9	·			size, and woody plants less than 3		
10					2010 1010	
11						
	70	= Total Cove	er	Woody vines – All woody vines gre	ater than 3.	28 ft in
50% of total cover: <u>35</u>	_ 20% of to	otal cover:	14	height.		
Woody Vine Stratum (Plot size: <u>30</u> )						
1						
2						
3				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	]
4						
5						
	0	= Total Cove	er			
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separa A positive indication of hydrophytic vegetation was obs		0% of domin	ant species	indexed as OBL, FACW, or FAC).		

# SOIL

# Sampling Point: W-B19-168\_PEM-2

(in almost)	Matrix	0/		Features	T	1 2		Tauda ana	Demonstra
(inches) 0 - 6	Color (moist)	<u>%</u> 95	Color (moist)	<u>%</u> 5	Type <sup>1</sup> C	Loc <sup>2</sup>		Texture	Remarks
	10YR 6/2		7.5YR 5/6			<u>M</u>		ilty Clay Loam	
6 - 16	10YR 6/1		7.5YR 5/6	30	С	M		ilty Clay Loam	
		· ·							
		- <u> </u>							
<sup>1</sup> Type: C =	Concentration, D = [	Depletion,	RM = Reduced Matri	x, MS = Ma	asked S	and Grai	ins. <sup>2</sup> Locatio	on: PL = Pore Lining, M = N	Matrix.
Hydric Soi	l Indicators:							Indicators for Problema	tic Hydric Soils <sup>3</sup> :
Black Hi Hydroge Stratifie 2 cm Mu Deplete Thick Da Sandy M Sandy R Sandy R	en Sulfide (A4) d Layers (A5) uck (A10) <b>(LRR N)</b> d Below Dark Surface ( ark Surface (A12) lucky Mineral (S1) <b>(LRI</b> leyed Matrix (S4)		Thin_E Loam; Deple Redox Deple Redox Redox Iron-N Umbr Piedm	Dark Surfac y Gleyed M ted Matrix Dark Surfa ted Dark Su Depressio	e (S9) <b>(N</b> atrix (F2 (F3) ace (F6) urface (F ns (F8) Masses F13) <b>(M</b> olain Soi	MLRA 147 2) (F12) (LR LRA 136, Is (F19) (I	R N, MLRA 13 122) MLRA 148)	<ul> <li>2 cm Muck (A10) (MI</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplain</li> <li>147)</li> <li>Very Shallow Dark S</li> <li>Other (Explain in Re</li> <li><sup>6)</sup> Indicators of hydrophy wetland hydrology mus disturbed or problemat</li> </ul>	(A16) <b>(MLRA 147, 148)</b> n Soils (F19) <b>(MLRA 136,</b> urface (TF12) marks) tic vegetation and t be present, unless
					riai (FZ I		127, 147)	•	
	e Layer (if observed): Type:		None			L budiric (	Coil Drocont?		
	Depth (inches):		None			Hydric :	Soil Present?		Yes 🛛 No 🗆
Remarks:	Depth (menes).								
A positive	indication of hydric s	soil was ob	served.						

Vegetation Photos



Photo of Sample Plot North

Photo of Sample Plot East



Photo of Sample Plot South

Photo of Sample Plot West



Project/Site: MVP South	hgate City/County: Burlington, Alamance Sampling Date: 2019-Jan-21							
Applicant/Owner: Ne	extEra				State: North Ca	arolina Sampling Point: W-	B19-168_PFO-1	
Investigator(s): Simon King, Simon King, Karla Fortier, Susan Thebert Section, Township, Range:								
Landform (hillslope, terr	race, etc.):	Hillslope	Lo	cal relief (c	oncave, convex,	none): Concave	<b>Slope (%):</b> 1 to 3	
Subregion (LRR or MLRA	A): MLRA 1	136 of LRR P		Lat:	36.1395516	Long: -79.3803595	Datum: WGS84	
Soil Map Unit Name:	Helena sandy l	loam, 6 to 10 per	cent slopes			NWI classificat	ion:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)								
Are Vegetation, S	Soil, or	r Hydrology	significantly distu	rbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No	
Are Vegetation, S	Soil, or	r Hydrology	naturally problem	natic?	(If needed, exp	olain any answers in Remarl	ks.)	

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes 🖌 No Yes 🖌 No		
Wetland Hydrology Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:			
Covertype is PFO.			

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	<u>e is required; check a</u>	all that apply)		Secondary Indicators (minimum of two required)
<ul> <li>✓ Surface Water (A1)</li> <li>✓ High Water Table (A2)</li> <li>✓ Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Im</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hyo Oxi Pre Rec Thi Oth	e Aquatic Plants (B14) drogen Sulfide Odor (C1) idized Rhizospheres on Living esence of Reduced Iron (C4) cent Iron Reduction in Tilled Sc n Muck Surface (C7) ner (Explain in Remarks)		<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes 🖌 No	Depth (inches):	2	
Water Table Present?	Yes 🟒 No	Depth (inches):	0	- Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	-
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring well	l, aerial photos, previous inspe	ctions), if	available:

# Sampling Point: W-B19-168\_PFO-1

<u>Tree Stratum</u> (Plot size: <u>30)</u>		Dominant	Indicator	Dominance Test worksheet:	
	% Cover	Species?	Status	Number of Dominant Species That	6 (A)
1. <u>Acer rubrum</u>	30	Yes	FAC	Are OBL, FACW, or FAC: Total Number of Dominant Species	
2. Ulmus americana	10	Yes	FACW	Across All Strata:	6 (B)
3. Liquidambar styraciflua	10	Yes	FAC	Percent of Dominant Species That	
4.	·	<u> </u>		Are OBL, FACW, or FAC:	100 (A/B)
5	·	<u> </u>		Prevalence Index worksheet:	
6	·			Total % Cover of:	Multiply By:
7		- Total Cov		OBL species 0	x 1 =0
E0% of total covery 25		= Total Cove		FACW species 40	x 2 = 80
50% of total cover: <u>25</u> Sapling/Shrub Stratum (Plot size: <u>15</u> )	_ 20% 01 to	cal cover.	10	FAC species 130	x 3 = 390
1				FACU species 0	x 4 = 0
				UPL species 0	x 5 = 0
3.	·	·		Column Totals 170	(A) 470 (B)
4	·	·		Prevalence Index = B/A =	2.8
4 5.	·			Hydrophytic Vegetation Indicators:	
c	·			1- Rapid Test for Hydrophytic	/egetation
7	·			2 - Dominance Test is >50%	
o	·			$▲$ 3 - Prevalence Index is $≤ 3.0^{1}$	
9.	·			4 - Morphological Adaptations	
· · · · · · · · · · · · · · · · · · ·	0	= Total Cove	≏r	data in Remarks or on a separate sl	
50% of total cover: <u>0</u>		-		Problematic Hydrophytic Vege	
Herb Stratum (Plot size: <u>5</u> )	_ 20 /0 01 00			<sup>1</sup> Indicators of hydric soil and wetlan	
1. Microstegium vimineum	80	Yes	FAC	present, unless disturbed or proble Definitions of Four Vegetation Strat	
2. Juncus effusus	30	Yes	FACW		a.
3.				<b>Tree</b> – Woody plants, excluding vine	as 3 in (7.6 cm) or more
4.	·			in diameter at breast height (DBH),	
F					egaraiese er neight
6.				Sapling/shrub – Woody plants, exclu	uding vines, less than 3
7	·			in. DBH and greater than or equal t	-
8.	·				
9.	·			Herb – All herbaceous (non-woody)	plants, regardless of
10.	·			size, and woody plants less than 3.2	8 ft tall.
11.	·				
	110	= Total Cove	er	Woody vines – All woody vines grea	ter than 3.28 ft in
50% of total cover: <u>55</u>	20% of to	tal cover:	22	height.	
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )	-				
<i>1. Toxicodendron radicans</i>	10	Yes	FAC		
2.					
3.				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆
4.					
5.					
	10	= Total Cove	er		
50% of total cover: <u>5</u>	20% of to	tal cover:	2		
Remarks: (Include photo numbers here or on a separa	to choot )				
Remarks. (include photo numbers here of on a separa	le sheet.)				
A positive indication of hydrophytic vegetation was obs	served (>50	1% of domin	ant species	indexed as OBL, FACW, or FAC)	

#### SOIL

· ·						
(inches) Color (mois	t) %	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 6 10YR 4/3	95	7.5YR 5/6	5 C	Μ	Sandy Loam	
6 - 15 10YR 6/2	70	7.5YR 5/8	30 C		Silt Loam	
<sup>1</sup> Type: C = Concentration	D = Depletion,	RM = Reduced Matri	x, MS = Masked S	and Grains. <sup>2</sup> Locati	on: PL = Pore Lining, M = I	Matrix.
Hydric Soil Indicators:					Indicators for Problema	atic Hydric Soils <sup>3</sup> :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N Depleted Below Dark Su Thick Dark Surface (A12) Sandy Mucky Mineral (S Sandy Gleyed Matrix (S6)	rface (A11) ) <b>(LRR N, MLRA</b> 1	Polyva Thin D Loamy Deple Redox Deple Redox 147, 148) Iron-M Umbr Piedm	Dark Surface (S9) <b>(N</b> y Gleyed Matrix (F2 ted Matrix (F3) : Dark Surface (F6) ted Dark Surface (F : Depressions (F8) 1anganese Masses ic Surface (F13) <b>(M</b> iont Floodplain Soi	2) F7) : (F12) <b>(LRR N, MLRA 1</b> 3	<ul> <li>2 cm Muck (A10) (M</li> <li>Coast Prairie Redox</li> <li>Piedmont Floodplaie</li> <li>147)</li> <li>Very Shallow Dark S</li> <li>Other (Explain in Re</li> <li>36)<sub>3</sub>Indicators of hydrophy wetland hydrology must disturbed or problemate</li> </ul>	(A16) <b>(MLRA 147, 148)</b> n Soils (F19) <b>(MLRA 136,</b> uurface (TF12) marks) tic vegetation and st be present, unless
Restrictive Layer (if obser	ved):					
Type:	,	None		Hydric Soil Present?	2	Yes 🗹 No 🗆
Depth (inches):						
<b>Remarks:</b> The criterion for hydric so	bil is met.					

Hydrology Photos



Vegetation Photos



#### Soil Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot South Photo of Sample Plot West

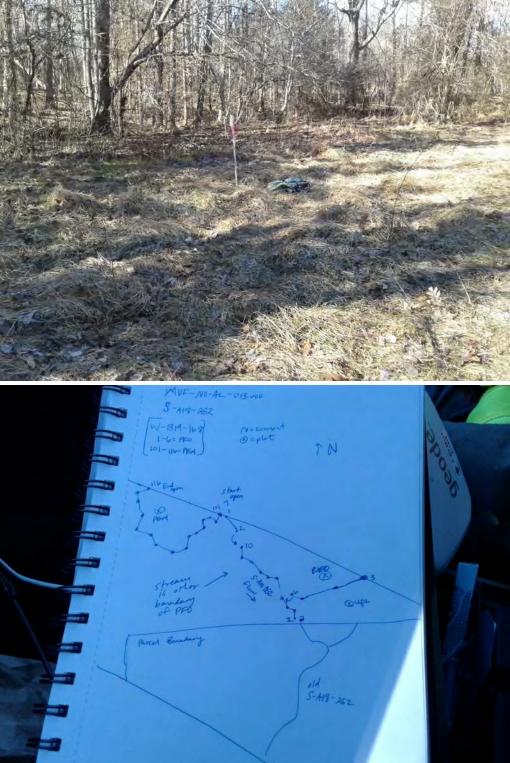


Photo of Sample Plot Sketch

#### WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/Count	y: Burlington, Alamand	se Sampling Dat	e: 2019-Jan-21				
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	-B19-168_UPL-1			
Investigator(s): Sime	nvestigator(s):Simon King, Simon King Section, Township, Range:								
Landform (hillslope, te	rrace, etc.):	Hillslope	Local re	lief (concave, convex,	none): Undulating	Slope (%): 0 to 1			
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P		Lat: 36.1393682	Long: -79.3803059	Datum: WGS84			
Soil Map Unit Name:					NWI classificat	ti <b>on:</b> None			
Are climatic/hydrologic	c conditions o	n the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	s.)			
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No			
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If needed, exp	lain any answers in Remar	ks.)			

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL.			

#### HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is r	required; check all	<u>that apply)</u>	Secondary Indicators (minimum of two required)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imager</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydr Oxidi Prese Recei Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Root ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C Muck Surface (C7) r (Explain in Remarks)	Dry-Season Water Table (C2)
Field Observations:			
Surface Water Present? Yes	s No	Depth (inches):	
Water Table Present? Yes	sNo _∡	Depth (inches):	Wetland Hydrology Present? Yes No _∠
Saturation Present? Yes	6 No 🟒	Depth (inches):	
(includes capillary fringe)			
Describe Recorded Data (stream gauge,	, monitoring well, a	erial photos, previous inspectior	ns), if available:

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

Tree Stratum (Plot size: <u>30)</u>		Dominant		Dominance Test worksheet:		
		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	0	(A)
1. Quercus rubra	30	Yes	FACU	Total Number of Dominant Species		
2. Quercus alba	20	Yes	FACU	Across All Strata:	5	(B)
3. Carya glabra	10	No	FACU	Percent of Dominant Species That		(1 (D)
4. Acer rubrum	10	No	FAC	Are OBL, FACW, or FAC:	0	(A/B)
5	·	<u> </u>		Prevalence Index worksheet:		
6.	·	<u> </u>		Total % Cover of:	<b>Multiply</b>	<u>By:</u>
7				OBL species 0	x 1 =	0
		= Total Cov		FACW species 0	x 2 =	0
50% of total cover: <u>35</u>	_20% of to	tal cover:	14	FAC species 10	x 3 =	30
Sapling/Shrub Stratum (Plot size:15)	20	Vec	FACU	FACU species 110	x 4 =	440
1. Juniperus virginiana	20	Yes	FACU	UPL species 0	x 5 =	0
2.	·	·		Column Totals 120	(A)	470 (B)
3.	·	·		Prevalence Index = B/A =	3.9	
4		·		Hydrophytic Vegetation Indicators:		
5.		·		1- Rapid Test for Hydrophytic	Vegetatior	ı
6	·	·		2 - Dominance Test is > 50%	0	
7	·			$3 - Prevalence Index is \le 3.0^{1}$		
8	·	·		4 - Morphological Adaptations	<sup>1</sup> (Provide	supporting
9	·			data in Remarks or on a separate s		
		= Total Cov		Problematic Hydrophytic Vege	etation <sup>1</sup> (E:	xplain)
50% of total cover: <u>10</u>	_20% of to	tal cover:	4	<sup>1</sup> Indicators of hydric soil and wetlar	ıd hydrolo	gy must be
Herb Stratum (Plot size: <u>5</u> )				present, unless disturbed or proble	matic	
1. <i>Lonicera japonica</i>	20	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2. <i>Polystichum acrostichoides</i>	10	Yes	FACU			
3				Tree – Woody plants, excluding vine	es, 3 in. (7.	6 cm) or more
4				in diameter at breast height (DBH),	regardles	s of height.
5						
6				Sapling/shrub – Woody plants, excl	-	
7				in. DBH and greater than or equal t	o 3.28 ft (1	1 m) tall.
8						
9				Herb – All herbaceous (non-woody)		gardless of
10				size, and woody plants less than 3.2	28 It tall.	
11						
	30	= Total Cov	er	Woody vines – All woody vines grea	ter than 3	.28 ft in
50% of total cover: <u>15</u>	_20% of to	tal cover:	6	height.		
Woody Vine Stratum (Plot size: <u>30</u> )						
1		<u> </u>				
2						
3				Hydrophytic Vegetation Present?	Yes 🗆 No 🛛	<b>V</b>
4						
5						
	0	= Total Cov	er			
50% of total cover: <u>0</u>	_20% of to	tal cover:	0			
Remarks: (Include photo numbers here or on a separat		50% of dom	inant specie	es indexed as FAC– or drier).		

SOIL

Depth	scription: (Describe t Matrix	to the dept		ox Featur			n die absend	e of mulcalors.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 4	10YR 4/3	100						Silt Loam	
4 - 15	10YR 5/6	95	7.5YR 5/6	5	С	М		Silt Loam	
					·				
·									
					·				
Type: C =	Concentration, D = I	Depletion,	RM = Reduced Mat	rix, MS =	Masked S	and Grai	ns. ²Locatio	on: PL = Pore Lining, M =	Matrix.
-	Indicators:							Indicators for Problem	atic Hydric Soils <sup>3</sup> :
_ Histosol				Surface (			A 147 140)	2 cm Muck (A10) <b>(N</b>	ILRA 147)
_ Histic Ep _ Black His	ipedon (A2) stic (A3)				w Surface ace (S9) <b>(N</b>		RA 147, 148) 148)	Coast Prairie Redo>	(A16) <b>(MLRA 147, 148)</b>
	n Sulfide (A4)				Matrix (F2		, 140)	Piedmont Floodpla	in Soils (F19) <b>(MLRA 136</b>
	Layers (A5)			eted Matr		,		147)	
	ck (A10) <b>(LRR N)</b>		Redo	ox Dark Su	urface (F6)			Very Shallow Dark S	Surface (TF12)
	d Below Dark Surface	(A11)			Surface (l	F7)		Other (Explain in Re	emarks)
_	rk Surface (A12)		Redo	x Depres	sions (F8)				
_ ,	ucky Mineral (S1) (LR	R N, MLRA 1	147, 148) Iron-	Mangane	se Masses	(F12) (LR	R N, MLRA 13	<b>6)<sub>3</sub>Indicators of hydroph</b>	ytic vegetation and
_ Sandy Gl _ Sandy Re	eyed Matrix (S4)			ine bainae	e (i i e) (iii	2.0.1.000	·==)	wetland hydrology mu	st be present, unless
-	Matrix (S6)				aterial (F21		/ILRA 148) I 27, 147)	disturbed or problema	itic.
Restrictive	Layer (if observed):								
-	Гуре:		None	_		Hydric S	Soil Present?		Yes 🗆 No 🗵
	Depth (inches):								
Remarks:									

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	ıthgate	City/Count	<b>y:</b> Burlington, Alamano	e Sampling Date	e: 2019-Jan-21	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: V	V-B19-168_UPL-2
Investigator(s): Jose	ph Roy, Simor	King		Section, Township, Ran	ge:	
Landform (hillslope, te	errace, etc.):	Flat	Local re	lief (concave, convex, ı	none): None	Slope (%): 0 to 1
Subregion (LRR or ML	RA): MLR	A 136 of LRR P		Lat: 36.1399208	Long: -79.3814725	Datum: WGS84
Soil Map Unit Name:					NWI classifica	ation:
Are climatic/hydrologi	c conditions o	n the site typical for	this time of year?	Yes 🟒 No 🔄	_ (If no, explain in Remar	ks.)
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Normal Ci	rcumstances" present?	Yes No 🟒
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If needed, exp	lain any answers in Rema	rks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No⁄_ Yes No⁄_		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. previously disturbed area.	previously disturbed area	a.	

#### HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; check all f	that apply)	Secondary Indicators (minimum	<u>of two required)</u>
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial In</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Hydro Oxidi: Prese Recer Thin M Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 nce of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) • (Explain in Remarks)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Ir</li> <li>Stunted or Stressed Plants (D</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	nagery (C9) 01)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	– Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):	-	
(includes capillary fringe)			-	
Describe Recorded Data (stream g	auge, monitoring well, a	erial photos, previous inspections), if	available:	

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

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	0	(A)
1				Are OBL, FACW, or FAC:		(~)
2.				Total Number of Dominant Species	3	(B)
3	<u> </u>			Across All Strata: Percent of Dominant Species That		
4	. <u> </u>			Are OBL, FACW, or FAC:	0	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply B	<u>8y:</u>
7	·			OBL species 0	x 1 =	0
		= Total Cov		FACW species 0	x 2 =	0
50% of total cover: <u>0</u>	_ 20% of to	ital cover:	0	FAC species 0	x 3 =	0
Sapling/Shrub Stratum (Plot size: <u>15</u> ) 1.				FACU species 10	x 4 =	40
2				UPL species 0	x 5 =	0
2		·		Column Totals 10	(A)	40 (B)
4.	·	·		Prevalence Index = B/A =	4	
				Hydrophytic Vegetation Indicators:		
6		<u> </u>		1- Rapid Test for Hydrophytic	Vegetation	
7		•		2 - Dominance Test is > 50%		
8.		·		$3 - Prevalence Index is \le 3.0^{1}$		
9.	·			4 - Morphological Adaptations		supporting
	0	= Total Cov	er	data in Remarks or on a separate s		
50% of total cover: <u>0</u>	20% of to	tal cover:	0	Problematic Hydrophytic Vege Indicators of hydric soil and wetlar		
<u>Herb Stratum</u> (Plot size: <u>5</u> )				present, unless disturbed or proble		y must be
1. <i>Carex sp.</i>	30	Yes	NI	Definitions of Four Vegetation Strat		
2. Solidago canadensis	10	Yes	FACU			
3. <u>Poaceae</u>	10	Yes	NI	Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more
4	. <u> </u>			in diameter at breast height (DBH),	regardless	of height.
5	. <u> </u>					
6				Sapling/shrub – Woody plants, excl	-	
7				in. DBH and greater than or equal t	o 3.28 ft (1 i	m) tall.
8						<b> </b>
9	. <u> </u>	·		Herb – All herbaceous (non-woody) size, and woody plants less than 3.2		ardless of
10					.0 10 001.	
11						
		= Total Cov		Woody vines – All woody vines grea	iter than 3.2	28 ft in
50% of total cover: <u>25</u>	_20% of to	ital cover:	10	height.		
Woody Vine Stratum (Plot size: <u>30</u> )						
1	·	·				
2	·	<u> </u>		Hydrophytic Vegetation Present?		1
	·	<u> </u>		- Hydrophytic vegetation resent:		1
	·	·				
S	0	= Total Cov	er			
50% of total cover:0		-	0			
Remarks: (Include photo numbers here or on a separa	te sheet.)					
Fallow field.						

SOIL

Depth	scription: (Describe to Matrix			Feature					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Texture	Remarks
0 - 6	10YR 5/4	90	7.5YR 5/6	10	С	Μ	Fine	Sandy Loam	
6 - 15	2.5Y 5/6	80	7.5YR 5/6	20	C	M		y Clay Loam	previously disturbed fill from pond
·									
<sup>1</sup> Type: C =	Concentration, D = D	epletion.	RM = Reduced Matrix	x. MS = 1	Masked S	and Grai	ns. <sup>2</sup> Location:	PL = Pore Lining, I	M = Matrix.
	I Indicators:	epiction,		, 1013 1	viusikeu s			*	lematic Hydric Soils <sup>3</sup> :
Black Hi Hydroge Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G Sandy R	en Sulfide (A4) d Layers (A5) ick (A10) <b>(LRR N)</b> d Below Dark Surface ( <i>i</i> irk Surface (A12) lucky Mineral (S1) <b>(LRR</b> leyed Matrix (S4)	-	Thin D Loamy Deplet Redox Redox Redox 147, 148) Iron-M Umbri Piedm	ark Surfa Gleyed Eed Matri Dark Su Eed Dark Depress langanes c Surface ont Floo	ace (S9) <b>(N</b> Matrix (F2 ix (F3) rface (F6) Surface (F sions (F8) se Masses e (F13) <b>(M</b>	MLRA 147, 2) (F12) (LR LRA 136, Is (F19) (N	KA 147, 148) 148) - - - R N, MLRA 136) 122) VILRA 148) V	Piedmont Flood [ <b>47]</b> Very Shallow Da Other (Explain i Indicators of hydr	edox (A16) <b>(MLRA 147, 148)</b> dplain Soils (F19) <b>(MLRA 136,</b> ark Surface (TF12) in Remarks) ophytic vegetation and must be present, unless
	Layer (if observed):					/(	27, 147)		
	Type:		None			Hydric S	oil Present?		Yes 🗆 No 🗹
	Depth (inches):								
No positiv	e indication of hydric	soils was	observed.						

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West