WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	: Williamsburg, Rocking	Sampling Da	te: 2018-June-21		
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W	-C18-77_PFO-1	
Investigator(s): Jerer	my Hummel, Jo	be Roy	Se	ction, Township, Ra	nge:		
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local relie	ef (concave, convex,	none): Undulating	Slope (%): 0 to 1	
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P	L	at: 36.3051278	Long: -79.5881405	Datum: WGS84	
Soil Map Unit Name:	Hatboro silt	loam			NWI classificat	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,	or Hydrology s	ignificantly disturbed?	Are "Normal C	Circumstances" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology r	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?	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 w	vetland parameters are pr	resent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	<u>e is required; ch</u>	<u>eck all that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 		_ True Aquatic Plants (B14) _ Hydrogen Sulfide Odor (C1) _ Oxidized Rhizospheres on Living Ro _ Presence of Reduced Iron (C4) _ Recent Iron Reduction in Tilled Soils _ Thin Muck Surface (C7) _ Other (Explain in Remarks)	ots (C3) ; (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (500 Construction)
Field Observations:				
Surface Water Present?	Yes 🖌 No	Depth (inches):	1	
Water Table Present?	Yes 🖌 No 🔄	Depth (inches):	5	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 inspecti	ions), if a	available:
Remarks:				
The criterion for wetland hydrology	/ is met. A positiv	/e indication of wetland hydrology wa	as obser	ved (primary and secondary indicators were present).

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

Sampling Point: W-C18-77_PFO-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	3	(A)
2		Yes	FAC	Total Number of Dominant Species	3	(B)
3	·			Percent of Dominant Species That	100	(A/B)
5.	·			Are OBL, FACW, or FAC:		(, , , , , , , , , , , , , , , , , , ,
6.	·	·		Prevalence Index worksheet:	N. 4 143	D
7.	<u> </u>	·		<u>Iotal % Cover of:</u>	Multiply	<u>ву:</u>
	75	= Total Cov	er		x I =	60
50% of total cover: <u>37.5</u>	20% of to	tal cover:	15	FAC species 0	x 2 =	245
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FAC species 115	x 3 =	0
1. Alnus serrulata	60	Yes	OBL	HIPL species 0	x 4 =	0
2.				Column Totals	x 5 =	
3.					(A)	405 (B)
4.				Prevalence Index = B/A =	2.3	
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	Vegetation	1
7.				2 - Dominance Test is >50%		
8.	·			\checkmark 3 - Prevalence Index is ≤ 3.0 ¹		
9.		·		4 - Morphological Adaptations	^{s1} (Provide	supporting
	60	= Total Cov	er	data in Remarks or on a separate s	heet)	
50% of total cover: 30	20% of to	tal cover:	12	Problematic Hydrophytic Vege	etation' (Ex	(plain)
Herb Stratum (Plot size: 5)				Indicators of nydric soil and wetlan	na nyarolo;	gy must be
1. Microstegium vimineum	40	Yes	FAC	Definitions of Four Vegetation Strat		
2				Deminitions of Four vegetation strat	.d.	
3	·	·		Tree Weedy plants excluding vin	ac 2 in (7 (
	·			in diameter at breast beight (DBH)	rogardloss	o cm) or more
т. 	·	·			regartiess	s of fielgrit.
с	·			Sanling/shrub - Woody plants ave	udingvine	s loss than 3
7		<u> </u>		in DBH and greater than or equal t	to 3 28 ft (1	m) tall
/	·	<u> </u>				
o	·	<u> </u>		Herb – All herbaceous (non-woodv)) plants, reg	gardless of
9	·			size, and woody plants less than 3.	28 ft tall.	
10	·	·				
11				Moody vince All woody vince groe	starthan 7	20 ft in
	40	= lotal Cov	er	hoight		.20 11 111
50% of total cover: <u>20</u>	_ 20% of to	ital cover:	8			
woody vine Stratum (Plot size: <u>30</u>)						
1	·	<u> </u>				
2		·				_
3	·	·		Hydrophytic vegetation Present?	Yes 🗹 No L	
4.						
5	·	<u> </u>				
	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.)					

SOIL

Sampling Point: W-C18-77_PFO-1

Profile Description: (Describe to	o the dep	th needed to docume	ent the	indicator	or confirm	n the absen	ce of indicators.)	
Color (matrix	~	Color (no cist)	Featur	es Tranci	1 2		T	Demender
(inches) Color (moist)		Color (moist)		Туреч	LOC ²		lexture	Remarks
<u>0 - 18</u> 2.5Y 3/1	80	5YR 6/8	20	<u> </u>	M/PL	S	ilty Clay Loam	
				<u> </u>				
·								
·								
¹ Type: C = Concentration, D = D	epletion,	RM = Reduced Matri	x, MS =	Masked S	Sand Grair	ns. ² Locatio	on: PL = Pore Lining, M =	= Matrix.
Hydric Soil Indicators:							Indicators for Problen	natic Hydric Soils ³ :
Histosol (A1)		Dark S	Surface ((S7)				, , ,
Histic Epipedon (A2)		Polyva	alue Belo	ow Surface	e (S8) (MLR	A 147, 148)	2 cm Muck (A10) (MLRA 147)
Black Histic (A3)		Thin D	ark Sur	face (S9) (l	MLRA 147,	148)	Coast Prairie Redo	ox (A16) (MLRA 147, 148)
Hydrogen Sulfide (A4)		Loamy	y Gleyec	l Matrix (F2	2)		Piedmont Floodpl	ain Soils (F19) (MLRA 136,
Stratified Layers (A5)		_∕ Deple	ted Mat	rix (F3)			147)	
2 cm Muck (A10) (LRR N)		Redox	Dark Si	urface (F6)			Very Shallow Dark	Surface (TF12)
Depleted Below Dark Surface (/	A11)	_ Deple	ted Darl	< Surface (F/)		Other (Explain in F	Remarks)
Inick Dark Surface (A12)		Redox	Depres		· (E12) /I DE		6)	
Sandy Gleved Matrix (S4)		[147, 146] [10]-W	ic Surfac	:se Masses	II RA 136 1	22)	³ Indicators of hydropl	hytic vegetation and
Sandy Redox (S5)		Onbr	iont Flor	odplain So	ils (F19) (M	22) II RA 148)	wetland hydrology m	ust be present, unless
Stripped Matrix (S6)		Red P	arent M	aterial (F2	1) (MLRA 1	27, 147)	disturbed or problem	atic.
Restrictive Laver (if observed):								
Type:		None			Hydric Se	nil Present?		Ves 🛛 No 🗆
Denth (inches):					ingune 5	on reserie.		
Remarks:								
A positive indication of hydric s	oil was o	bserved. The criterior	ר for hy	dric soil is	s met.			
1								

Hydrology Photos



Soil Photos



US Army Corps of Engineers

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/Coun	ty: Williamsburg, Rockin	g Sampling Dat	t e: 2018-June-21		
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W	-C18-77_UPL-2	
Investigator(s): Jerei	my Hummel, J	oe Roy	S	ection, Township, Rar	nge:		
Landform (hillslope, te	rrace, etc.):	Hillslope	Local rel	ief (concave, convex,	none): Convex	Slope (%): 2 to 5	
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.3050759	Long: -79.5879687	Datum: WGS84	
Soil Map Unit Name:	Siloam sand	ly loam			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	significantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology	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?	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	e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum	<u>of two required)</u>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True . Hydro Oxidi Prese Recei Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 11)
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	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-C18-77_UPL-2

Irret_Stratum (Plot size: _30) % Cover Species? Status Number of Dominant Species That 1. Quercus alba 40 Yes FACU Are OBL, FACW, or FAC: Total Number of Dominant Species 3. Liriodendron tulipifera 30 Yes FACU Are OBL, FACW, or FAC: 4.	2 6 33.3 Multiply x 1 = x 2 = x 3 = x 4 =	(A) (B) (A/B) (A/B) (A/B) (A/B) (A/B) (A/B) (A) (A) (B) (A) (A) (B) (A) (B) (A) (B) (A) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C
1. Quercus alba 40 Yes FACU Are OBL, FACW, or FAC: 2. Fagus grandifolia 30 Yes FACU Total Number of Dominant Species 3. Liriodendron tulipifera 30 Yes FACU Percent of Dominant Species That 4.	6 33.3 Multiply x 1 = x 2 = x 3 = x 4 =	(B) (B) (A/B) (By: 0 0 330
2. Fagus grandifolia 30 Yes FACU Total Number of Dominant Species 3. Liriodendron tulipifera 30 Yes FACU Across All Strata: 4.	6 33.3 Multiply x 1 = x 2 = x 3 = x 4 =	(B) (A/B) (By: 0 0 330
3. Liriodendron tulipifera 30 Yes FACU Across All Strata: 4.	33.3 Multiply x 1 = x 2 = x 3 = x 4 =	B (A/B) (A/B) (By: 0 0 330
4.	33.3 <u>Multiply</u> x 1 = x 2 = x 3 = x 4 =	3 (A/B) 7 By: 0 0 330
5.	<u>Multiply</u> x 1 = x 2 = x 3 = x 4 =	0 0 330
6. Total % Cover of: 7. 100 = Total Cover 50% of total cover: 20 Sapling/Shrub Stratum (Plot size: 100 1. Carpinus caroliniana 70 2. Ulmus rubra 30 3. Yes 4. 30 5. 0 6. 110 7. Yes 8. Yes 9. 100 9. 100 9. 100 9. 100 9. 100 9. 100 9. 100 9. 100 9. 100 9. 1	<u>Multiply</u> x 1 = x 2 = x 3 = x 4 =	<u>89:</u> 0 0 330
7.	x 1 = x 2 = x 3 = x 4 =	0 0 330
100= Total CoverFACW species050% of total cover:50% of total cover:20FAC species110Sapling/Shrub Stratum (Plot size: _15_)70YesFACFAC upcies1901.Carpinus caroliniana70YesFACUPL species02.Ullmus rubra30YesFACColumn Totals3003	x 2 = x 3 = x 4 =	0 330
50% of total cover:	x 3 = x 4 =	330
Sapling/Shrub Stratum (Plot size: _15_) 70 Yes FAC FAC IPO 1. Carpinus caroliniana 70 Yes FAC UPL species 0 2. Ulmus rubra 30 Yes FAC OColumn Totals 300 3.	x 4 =	
1. Carpinus caroliniana 70 Yes FAC UPL species 0 2. Ulmus rubra 30 Yes FAC Column Totals 300 3.		760
2. Umus rubra 30 Yes FAC Column Totals 300 3.	x 5 =	0
3.	(A)	1090 (B)
4.	3.6	
5.		
0.	Vegetatio	n
7.	-	
o.		
3.	s¹ (Provide	supporting
	heet)	
Herb Stratum (Plot size: _5_) 1. Viola hirsutula 75 Yes FACU 2. Polystichum acrostichoides 15 No FACU 3. Athyrium asplenioides 10 No FAC 4.	etation ¹ (E	xplain)
1. Viola hirsutula 75 Yes FACU 2. Polystichum acrostichoides 15 No FACU 3. Athyrium asplenioides 10 No FAC 4.	nd hydrolo	ogy must be
2. Polystichum acrostichoides 15 No FACU 3. Athyrium asplenioides 10 No FAC 4.	ematic	<u> </u>
Athyrium asplenioides 10 No FAC 4.	a.	
4.		6 cm) or more
5.	regardles	s of height.
6. Sapling/shrub – Woody plants, excl	0	
	uding vine	es, less than 3
7. In. DBH and greater than or equal	to 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.	28 ft tall.	
11.		
100 = Total Cover Woody vines – All woody vines greater	ater than 3	3.28 ft in
50% of total cover:20% of total cover:20height.		
Woody Vine Stratum (Plot size: <u>30</u>)		
1		
2		
3 Hydrophytic Vegetation Present?	Yes 🗆 No	\checkmark
4		
5		
0 = Total Cover		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>		
Remarks: (Include photo numbers here or on a separate sheet.)		

SOIL

Sampling Point: W-C18-77_UPL-2

(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 2	10YR 4/3	100			<u>-1990</u>		Clay Loam	
2 - 18	10YR 6/6	100			·	·	Clay Loam	
2 10	101110/0				·			
		·			·			
		·			·	·		
		·					· · · · · · · · · · · · · · · · · · ·	
		·			·	·		
		·			·	·		
		·			·	<u> </u>		
T	Concentration D		DA De de ca d Mar					
Type: C =	Concentration, $D = L$	Pepletion, I	RM = Reduced Ma	trix, MS =	Masked S	and Grains. ² Loo	cation: PL = Pore Lining, M = I	
lydric Soi	I Indicators:		Der	(Curford (Indicators for Problema	itic Hydric Solls ³ :
HISTOSOI	(AT) pipedon (A2)		Dari	xalue Belo	57) w Surface	(S8) (MI RA 147 14	2 cm Muck (A10) (M	LRA 147)
Black Hi	stic (A3)		T ory Thir	Dark Surf	ace (S9) (N	(JSS) (MERO(147, 14 MLRA 147, 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
 Hydroge	en Sulfide (A4)		Loai	my Gleyed	Matrix (F2	2)	Piedmont Floodplai	n Soils (F19) (MLRA 136
_ Stratifie	d Layers (A5)		Dep	leted Matr	ix (F3)		147)	(
_ 2 cm Mu Doploto	ick (A10) (LRR N) d Rolow Dark Surface (A11)	Red	ox Dark Su lotod Dark	rface (F6)	-7)	Very Shallow Dark S	urface (TF12)
_ Depleter	ark Surface (A12)	ATT)	Dep Red	ox Depres	sions (F8)	-/)	Other (Explain in Re	marks)
_ Sandy N	lucky Mineral (S1) (LRI	R N, MLRA 1	47, 148) Iron	-Mangane	se Masses	(F12) (LRR N, MLR	A 136)	tic vocatation and
_ Sandy G	leyed Matrix (S4)		Uml	oric Surfac	e (F13) (M	LRA 136, 122)	wetland bydrology mus	t be present unless
_ Sandy R	edox (S5)		Piec	lmont Floo	dplain Soi	ls (F19) (MLRA 148) disturbed or problemat	tic
_ Strippec	l Matrix (S6)		Red	Parent Ma	iterial (F21) (MLRA 127, 147)		
Restrictive	e Layer (if observed):							
	Туре:		None			Hydric Soil Prese	ent?	Yes 🗆 No 🗹
	Depth (inches):			_				
temarks:								
he criteri	ion for hydric soil is r	iot met.						
The criter	ion for hydric soil is r	iot met.						
lhe criter	ion for hydric soil is r	iot met.						
Гhe criteri	ion for hydric soil is r	iot met.						
նիe criter	ion for hydric soil is r	iot met.						
The criteri	ion for hydric soil is r	iot met.						
The criteri	ion for hydric soil is r	iot met.						
The criteri	ion for hydric soil is r	iot met.						
The criteri	ion for hydric soil is r	iot met.						
The criteri	ion for hydric soil is r	iot met.						

Hydrology Photos



Vegetation Photos



Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

Soil 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 Sout	thgate	City/Count	y: Reidsville, Rockingha	am Sampling Da	te: 2018-May-25		
Applicant/Owner: N	extEra			State: North C	arolina Sampling Point: W	-A18-62_PSS-1	
Investigator(s): Laura	a Giese, Tony	Tredway, S	S	ection, Township, Ra	nge:		
Landform (hillslope, ter	rrace, etc.):	Flood Plain	Local rel	lief (concave, convex,	none): Concave	Slope (%): 0 to 1	
Subregion (LRR or MLR	A): MLR	A 136 of LRR P		Lat: 36.288915	Long: -79.5716658	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	significantly disturbed?	Are "Normal (Circumstances" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology	naturally 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	Is the Sampled Area within a Wetland?	Yes 🟒 No				
Remarks:							
Covertype is PSS. Area is wetland, all three wetland parameters are present.							

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of or	e is required; check all	Secondary Indicators (minimum of two required)	
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im 	True Hydr _✓ Oxidi Prese Rece Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (Ce Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) (Cayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Water-Stained Leaves (B9)			Shallow Aquitard (D3)
Aquatic Fauna (B13)			Microtopographic Relief (D4)
Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Yes No Yes _ _ _ No Yes No 	Depth (inches):	 7Wetland Hydrology Present? Yes _∠ No
(includes capillary fringe)			
Describe Recorded Data (stream g	auge, monitoring well, a	aerial photos, previous inspections	ıs), if available:
Remarks: The criterion for wetland hydrolog	y is met. 1" standing wa	ter in low spots.	

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

Sampling Point: W-A18-62_PSS-1

Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test worksheet:	
	% Cover	Species?	Status	Number of Dominant Species That	3 (A)
1.				Are OBL, FACW, or FAC:	5 (A)
2				Total Number of Dominant Species	2 (D)
2		·		Across All Strata:	3 (B)
S				Percent of Dominant Species That	
4				Are OBL, FACW, or FAC:	100 (A/B)
5				Prevalence Index worksheet:	
6					Multiply Dyr
7.					
	0	= Total Cov	er	OBL species 60	x I = 60
50% of total cover: 0	20% of to	tal cover:	0	FACW species 50	x 2 = 100
Som of total cover.	_ 20% 01 10	lai covei.	0	FAC species 5	x 3 = 15
Sapling/Shrub Stratum (Plot Size:15)		.,		FACU species 5	x 4 = 20
1. <u>Salix nigra</u>	30	Yes	OBL	UPL species 0	x 5 = 0
2. Magnolia virginiana	5	No	FACW	Column Totals 120	(A) 195 (B)
3. Sambucus nigra	5	No	FAC		(A) <u>155 (B)</u>
4.				Prevalence index = B/A =	1.6
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				4 - Morphological Adaptations	¹ (Provide supporting
9				data in Remarks or on a separate s	heet)
	40	= Total Cov	er	Broblematic Llydrophytic Ver	neet)
50% of total cover: 20	20% of to	- tal cover:	8		
Herb Stratum (Plot size: 5')				'Indicators of nydric soil and wetlan	ia nyarology must be
1 Jupeus officius	25	Vac		present, unless disturbed or proble	matic
	25	res	FACW	Definitions of Four Vegetation Strat	a:
2. <u>Scirpus atrovirens</u>	20	Yes	OBL		
3. <i>Typha latifolia</i>	10	No	OBL	Tree – Woody plants, excluding vine	es, 3 in. (7.6 cm) or mor
4. <i>Carex scoparia</i>	10	No	FACW	in diameter at breast height (DBH),	regardless of height.
5. Lonicera japonica	5	No	FACU		
6. Ludwigia alternifolia	5	No	FACW	Sapling/shrub – Woody plants, excl	uding vines, less than \Im
7 Rechmoria culindrica		No	EACW	in DBH and greater than or equal t	o 3.28 ft (1 m) tall
		NU	FACIN		
8				Harb All barbacaous (pap woody)	plants regardless of
9				nerb - All herbaceous (holl-woody)	piants, regardless of
10.				size, and woody plants less than 5.	20 IL LAII.
11.					
	80	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 ft in
E00% of total covert 40	200% of to		16	height	
	_ 20% 01 10	otal cover.	10		
Woody Vine Stratum (Plot size: <u>30'</u>)					
1					
2.					
3.				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆
4.					
5					
·		- Total Cau			
	0		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-	te sheet.) served (>50	0% of domir	ant species	indexed as OBL, FACW, or FAC).	

SOIL

Sampling Point: W-A18-62_PSS-1

Profile De	scription: (Describe to Matrix	o the dep	th needed to docume Redox	nt the i	indicator (or confirm	the absenc	e of indicators.)	
(inches)	Color (moist)	06	Color (moist)	1 catur %	Type1			Texture	Pemarks
		100		70	туре			Silt Loom	Remarks
1 12	2 EVD E/2			10					
12 10	2.518 5/2	90	7.518 5/6	20	<u> </u>			Clay Loan	
13 - 18	2.54 5/2	/0	7.5YR 4/6	20	<u> </u>			Clay	
13 - 18	10Y 6/1		10Y 6/1	10				Clay	
18 - 22	10Y 6/1	70	7.5YR 4/6	30	СС	M		Sandy Clay	
¹ Type: C =	Concentration, D = D	epletion	, RM = Reduced Matrix	k, MS =	Masked S	and Grain	s. ² Locatio	on: PL = Pore Lining, M	= Matrix.
Hydric So	il Indicators:							Indicators for Probler	natic Hydric Soils ³ :
Histoso	l (A1)		Dark S	urface ((S7)			2 cm Muck (A10)	
Histic Ep	oipedon (A2)		Polyva	lue Belo	ow Surface	(S8) (MLR/	A 147, 148)	2 CITI MUCK (ATU) (MLKA 147
Black Hi	stic (A3)		Thin D	ark Surf	face (S9) (N	/ILRA 147, ⁻	148)	Coast Prairie Redo	DX (A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)		_ Loamy	Gleyed	l Matrix (F2	2)		Piedmont Floodpl	ain Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_∕ Deplet	ed Matr	rix (F3)			147)	
2 cm Mi	uck (A10) (LRR N)		Redox	Dark Su	urface (F6)			Very Shallow Dark	s Surface (TF12)
_ Deplete	d Below Dark Surface (A11)	_ Deplet	ed Dark	< Surface (I	-7)		Other (Explain in I	Remarks)
_ I NICK Da	ark Surface (A12) Auclas Minoral (S1) (LD		Redox	Depres	SIONS (F8)	(F12) /I DD		5)	
Sandy G	loved Matrix (SA)	(IN, IVILKA	147, 140) ITOTI-W	aligalie c Surfac	(E13) (M	(FIZ) (LKK	111, IVILIKA 150 221	⁹ Indicators of hydrop	hytic vegetation and
Sandy R	edox (S5)		Onibri Piedm	ont Flor	dolain Soi	ls (F19) (M	22) I RA 148)	wetland hydrology m	ust be present, unless
Stripped	d Matrix (S6)		Red Pa	arent Ma	aterial (F21) (MLRA 12	27. 147)	disturbed or problem	natic.
Restrictive	e Layer (if observed):						, ,		
	Туре:		None			Hydric So	oil Present?		Yes 🗹 No 🗆
	Depth (inches):					-			
Remarks:									
No positiv	o indication of hydrid	coile wa	s observed. The criter	ion for	hydric soi	l is mot			
No positiv		. 50115 Wa	s observed. The chiler		liyunc soi	nis 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 Southgate	City/County: Reidsville, Rock	ingham Samp	ling Date: 2018	8-May-25				
Applicant/Owner: NextEra		State: N	North Carolina	Sampling Point: W-A	18-62_UPL-1			
Investigator(s): James Bolduc, Tony Tredway, Simon, Joe, Laura Section, Township, Range:								
Landform (hillslope, terrace, etc.):	Flood Plain Lo	al relief (concave, o	convex, none):	Undulating	Slope (%): 1 to 3			
Subregion (LRR or MLRA): MLRA 1	136 of LRR P	Lat: 36.2888	632 Long:	-79.5716163	Datum: WGS84			
Soil Map Unit Name:				NWI classificatio	n:			
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	r Hydrology significantly distu	bed? Are "N	ormal Circumsta	ances" present?	Yes 🟒 No			
Are Vegetation, Soil, or	⁻ Hydrology naturally problem	atic? (If nee	ded, explain 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 UPL. Area is upland, not all three	e wetland parameters are	present. forestry disturbance.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	Secondary Indicators (minimum	of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / 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)	 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 In Stunted or Stressed Plants (IC) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) 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 g	auge, monitoring well, a	erial photos, previous inspections), if	available:	

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

Sampling Point: W-A18-62_UPL-1

Tree Charles (Plateine 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Iree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	1	(A)
1. Acer rubrum	20	Yes	FAC	Are OBL, FACW, or FAC:		_
2				Iotal Number of Dominant Species	2	(B)
3				Percent of Dominant Species That		_
4.				Are OBL, FACW, or FAC:	50	(A/B)
5.	·			Prevalence Index worksheet:		
6.				Total % Cover of:	<u>Multiply By:</u>	
7		- Tatal Cau		OBL species 0	x 1 =	0
E0% of total covery 10	20 20% of to		er 4	FACW species 0	x 2 =	0
Sonling/Shrub Stratum (Plot size: 15)	_ 20% 01 to	car cover.	4	FAC species 40	x 3 =	120
<u>Sapiing Shi do Stratum</u> (Flot size: <u>15</u>)	80	Yes	FACU	FACU species	x 4 =	
2. Rubus allegheniensis	20	No	FACU	UPL species 0	x 5 =	0
3. Toxicodendron radicans	20	No	FAC	Column Totals	(A)	(B)
4. <i>Lonicera morrowii</i>		No	FACU	Prevalence Index = B/A =		
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	/egetation	
7.				2 - Dominance Test is > 50%		
8.				3 - Prevalence Index is $\leq 3.0^{1}$		
9.				4 - Morphological Adaptations	' (Provide sup	porting
	120	= Total Cov	er	Problematic Hydronbytic Vege	itation ¹ (Explai	n)
50% of total cover: <u>60</u>	_20% of to	tal cover:	24	Indicators of hydric soil and wetlan	d hydrology m	ust he
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	ast se
1	<u> </u>			Definitions of Four Vegetation Strat	a:	
2						
3				Tree – Woody plants, excluding vine	s, 3 in. (7.6 cm) or more
4				in diameter at breast height (DBH),	regardless of l	neight.
5						
6				Sapling/shrub – Woody plants, exclu	uding vines, les	ss than 3
7				In. DBH and greater than or equal t	o 3.28 ft (1 m)	tall.
8					مرمعه ومعروا	1
9				size and woody plants less than 3.2	piants, regard 98 ft tall	less of
10				size, and woody plants less than 3.2	.0 10 001.	
11						
	0	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 f	tin
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0	neight.		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)						
1						
2.						
3				Hydrophylic vegetation Present?	res 🗆 No 🗹	
S		- Total Cov				
E004 of total covers	0 20% of to		er o			
	_ 20% 01 10		0			
	te sheet.)					

SOIL

Sampling Point: W-A18-62_UPL-1

Profile D	escription: (Describe t Matrix	o the depi	th needed to docur Red	nent the i	indicator	or confirm	the absend	ce of indicators.)	
(inches)	Color (moist)		Color (moist)	%	Type1			Texture	Pemarks
								ilty Clay Loam	Remarks
0-0	2.51 5/3	95	7.51R 5/6		<u> </u>		3		
8 - 18	10YR 6/1	80	7.5YR 5/6	20	<u> </u>	M	5	ality Clay Loam	
		· ·							_
		· ·							
1T					Maaliad		2 2	an DI - Dava Lining M-	Antria
riype: C	= Concentration, $D = L$	Depletion,	RIVI = REDUCED MAL	.rix, ivis =	Masked S	and Grair	is. ² Locatio	on: PL = Pore Lining, M =	
Hydric So	bil Indicators:			<i>c c i</i>	(7)			Indicators for Problen	hatic Hydric Soils ³ :
Histoso) (A1) Ininadan (A2)		_ Dari	(Surface (S7)		A 1 47 1 40)	2 cm Muck (A10) (I	MLRA 147)
HISUCE	listic (A2)		_ POly	Dark Sur	JW SUITACE	(58) (IVILR	A 147, 148) 149)	Coast Prairie Redo	ox (A16) (MLRA 147, 148)
Hvdros	ren Sulfide (A4)		_ loar	nv Gleved	l Matrix (F)	vició (47,	140)	Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifi	ed Lavers (A5)		2001 ✓ Dep	leted Matr	rix (F3)	-,		147)	
2 cm N	luck (A10) (LRR N)		Red	ox Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplet	ed Below Dark Surface ((A11)	Dep	leted Dark	< Surface (F7)		Other (Explain in F	Remarks)
Thick D	ark Surface (A12)		Red	ox Depres	sions (F8)				
Sandy	Mucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron	-Mangane	ese Masses	; (F12) (LRF	R N, MLRA 13	⁶⁶⁾ Indicators of hydrop	nytic vegetation and
Sandy	Gleyed Matrix (S4)		Umb	oric Surfac	e (F13) (M	ILRA 136, 1	22)	wetland hydrology m	ust be present, unless
Sandy	Redox (S5)		Pied	mont Floo	odplain So	ils (F19) (M	LRA 148)	disturbed or problem	atic.
Strippe	d Matrix (S6)		Red	Parent Ma	aterial (F21) (MLRA 1	27, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric S	oil Present?		Yes 🛛 No 🗆
	Depth (inches):								
Remarks	:								
A positiv	e indication of hydric s	soil was ob	oserved.						

Vegetation Photos



Soil 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 Southgate City/County: Reidsville, Rockingham Sampling Date: 2018-May-25								
Applicant/Owner: NextEra			State: North Ca	rolina Sampling Point: V	V-A18-61_PEM-1			
Investigator(s): James Bolduc, Tony Tredway, Simon, Joe, Laura Section, Township, Range:								
Landform (hillslope, terrace, etc.):	Flood Plain	Local relief (c	oncave, convex, r	none): Convex	Slope (%): 0 to 1			
Subregion (LRR or MLRA): MLRA	136 of LRR P	Lat:	36.2881393	Long: -79.5718388	Datum: WGS84			
Soil Map Unit Name:				NWI classifica	ation:			
Are climatic/hydrologic conditions on	the site typical for this time of	year?	Yes 🟒 No	_ (If no, explain in Remar	ˈks.)			
Are Vegetation, Soil, o	r Hydrology significantly	disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No			
Are Vegetation, Soil, o	r Hydrology naturally pr	oblematic?	(If needed, exp	lain 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:		<u> </u>	
Covertype is PEM. Area is wetland, all three	wetland parameters are p	resent.	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of or	<u>e is required; chec</u>	Secondary Indicators (minimum of two required)	
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 		Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Roots (C Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Fhin Muck Surface (C7) Dther (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC Noutral Tact (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),	f available:
Remarks:			

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

Sampling Point: W-A18-61_PEM-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
······································	% Cover	Species?	Status	Number of Dominant Species That	5	(A)
1. Acer rubrum	30	Yes	FAC	Are OBL, FACW, or FAC:		
2.				Total Number of Dominant Species	6	(B)
3.	·			Across All Strata:		(2)
4	·			Percent of Dominant Species That	83.3	(A/B)
5	·			Are OBL, FACW, or FAC:		(//////////////////////////////////////
	·			Prevalence Index worksheet:		
6				Total % Cover of:	Multiply	<u>By:</u>
7				OBL species 30	x 1 =	30
	30	= Total Cov	er	FACW species 80	x 2 =	160
50% of total cover: <u>15</u>	_20% of to	tal cover:	6	EAC species 45	×3-	135
Sapling/Shrub Stratum (Plot size: <u>15</u>)					× J =	135
1. Acer negundo	10	Yes	FAC	FACO species 5	x 4 =	20
2.				UPL species 0	x 5 = _	0
3	·			Column Totals 160	(A)	345 (B)
	·			Prevalence Index = B/A =	2.2	
4	·			Hydrophytic Vegetation Indicators:		
5	·			1- Rapid Test for Hydrophytic	Vegetation	
6				2 - Dominance Test is >50%		
7	. <u> </u>			2 - Dominance rest is > 50%		
8.				\checkmark 3 - Frevalence index is \leq 3.0	1 (Duran dala	
9.				4 - Morphological Adaptations	;' (Provide	supporting
	10	= Total Cov	er	data in Remarks of on a separate s	neet)	
50% of total cover: 5	20% of to	tal cover	2	Problematic Hydrophytic Vege	etation' (Ex	(plain)
Herb Stratum (Plot size: 5)	_20/00110	tur cover.	<u> </u>	¹ Indicators of hydric soil and wetlar	id hydrolo	gy must be
<u>Held Stratum</u> (Flot size. <u>5</u>)	50	Vee		present, unless disturbed or proble	ematic	
	50	res	FACW	Definitions of Four Vegetation Strat	:a:	
2. <u>Cyperus acuminatus</u>	20	Yes	OBL			
3. Juncus effusus	20	Yes	FACW	Tree – Woody plants, excluding vine	es, 3 in. (7.6	5 cm) or more
4. <i>Eupatorium perfoliatum</i>	5	No	FACW	in diameter at breast height (DBH),	regardless	s of height.
5. Rumex verticillatus	5	No	OBL			
6. <i>Carex lurida</i>	5	No	OBL	Sapling/shrub – Woody plants, excl	uding vine:	s, less than 3
7. Toxicodendron radicans	5	No	FAC	in. DBH and greater than or equal t	:o 3.28 ft (1	m) tall.
8. Boehmeria cylindrica	5	No	FACW			
				Herb – All herbaceous (non-woody)) plants, reg	gardless of
10	·			size, and woody plants less than 3.2	28 ft tall.	-
11						
	115	= Total Cov	er	Woody vines – All woody vines grea	iter than 3.	.28 ft in
50% of total cover: <u>57.5</u>	_ 20% of to	tal cover:	23	height.		
Woody Vine Stratum (Plot size: <u>30</u>)						
1. Lonicera morrowii	5	Yes	FACU			
2.						
3.				Hydrophytic Vegetation Present?	Yes 🖂 No [7
4						_
4	·					
5	· <u> </u>					
	5	= Total Cov	er			
50% of total cover: <u>2.5</u>	_20% of to	tal cover:	1			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-A18-61_PEM-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix	<u> </u>	Redox	Featur	es	<u> </u>		_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туре1	Loc ²		Texture	Remarks
0 - 6	10YR 4/4	95	7.5YR 5/6	5	<u> </u>	M		Sandy Loam	
6 - 10	2.5Y 6/2	90	7.5YR 5/6	10	C	M		Loamy Sand	
10 - 18	10YR 5/1	90	7.5YR 5/6	10	С	Μ	S	ilty Clay Loam	
					·				
					·				
	= Concentration D = D		RM = Reduced Matri	v MS =	Maskad S	and Grain	ns ² l ocatio	on:Pl = Pore lining M =	Matrix
Hudric Co	- Concentration, D - L	epietion,	RIVI – Reduced Matri	x, ivis –	Maskeu 3		ISLUCALIC	Indicators for Droblem	Ividu IX.
Hydric Sc			Dark	Jurfaco ((7)			indicators for Problem	auc Hydric Solis ³ :
Histic F	ninedon (A2)		Dark : Polyva	alue Relo	57) w Surface	(S8) (MI R	A 147 148)	2 cm Muck (A10) (N	/ILRA 147)
Black H	istic (A3)		Thin D	Dark Surf	ace (S9) (N	MLRA 147.	148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
 Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	<u>2)</u>	.,	Piedmont Floodpla	iin Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		_∕ Deple	ted Matr	ix (F3)			147)	
_ 2 cm M	uck (A10) (LRR N)		Redox	Dark Su	irface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface (A11)	_ Deple	ted Dark	Surface (I	F7)		Other (Explain in R	emarks)
_ Thick D	ark Surface (A12)		Redox	Depres	sions (F8)			6)	
_ Sandy (Sloved Matrix (S4)	(N, WILKA	147, 148) Iron-N	ic Surfac	o (E13) (M	(FIZ) (LRP	(N, MILKA 13 22)	^o J ₃ Indicators of hydroph	ytic vegetation and
Sandy F	Redox (S5)		Onbr Piedm	nont Floo	dolain Soi	ils (F19) (N	22) II RA 148)	wetland hydrology mu	ist be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	terial (F21) (MLRA 1	27, 147)	disturbed or problema	atic.
Restrictiv	e Layer (if observed):								
	Type:		None			Hydric S	oil Present?		Yes 🛛 No 🗆
	Depth (inches):					,			
Pemarks									
Remarks.									
A positive	e indication of hvdric s	oil was ob	oserved.						
	, ,								

Vegetation Photos



Soil Photos



Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

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: Reidsville	, Rockingham	Sampling Date	e: 2018-May-25					
Applicant/Owner: NextEra			State: North Ca	rolina Sampling Point: W-	A18-61_UPL-1				
Investigator(s): James Bolduc, Tony Tredway, Simon, Joe, Laura Section, Township, Range:									
Landform (hillslope, terrace, etc.):	none): None	Slope (%): 0 to 1							
Subregion (LRR or MLRA): MLRA	136 of LRR P	Lat:	36.2881537	Long: -79.5716808	Datum: WGS84				
Soil Map Unit Name:	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, Soil, c	or Hydrology significantly	disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No				
Are Vegetation, Soil, o	or Hydrology naturally pro	oblematic?	(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.			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of or	e is required; check all	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True . Hydro Oxidi Prese Recen Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	Secondary indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 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):	-		
(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-A18-61_UPL-1

	Absolute	Dominant	Indicator	Dominance Test worksheet		
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	_	
1. Acer rubrum	10	Yes	FAC	Are OBL, FACW, or FAC:	2	(A)
2.				Total Number of Dominant Species	5	(B)
3.				Across All Strata:		
4.				Percent of Dominant Species That	40	(A/B)
5	<u> </u>			Prevalence Index worksheet:		
6	<u> </u>			Total % Cover of	Multinly	Bv:
7	<u> </u>			OBL species 0	x 1 =	<u></u> 0
	10	= Total Cov	er	FACW species 0	x 2 =	0
50% of total cover: <u>5</u>	_ 20% of to	otal cover:	2	FAC species 55	×3=	165
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 130	× / =	520
1. <u>Acer negundo</u>	30	Yes	FAC	LIPL species 0	× 5 =	0
2. <u>Corylus cornuta</u>	20	Yes	FACU	Column Totals	(A)	685 (B)
3. <i>Prunus serotina</i>	20	Yes	FACU	$\frac{1}{100}$	37	005 (D)
4. Quercus phellos	10	No	FAC			
5				Hydrophytic Vegetation Indicators:	Vagatation	
6	<u> </u>			1- Rapid Test for Hydrophytic	vegetation	I
7				2 - Dominance Test is > 30%		
8				$3 - Prevalence index is \leq 3.0^{\circ}$	al (Duas viela	
9.				4 - Morphological Adaptations	boot)	supporting
	80	= Total Cov	er	Problematic Hydrophytic Veg	etation1 (Ev	(nlain)
50% of total cover: <u>40</u>	20% of to	tal cover:	16	1Indicators of hydric soil and wetlan		gy must he
<u>Herb Stratum</u> (Plot size: <u>5</u>)				present, unless disturbed or proble	ematic	gymusche
1. Lonicera japonica	80	Yes	FACU	Definitions of Four Vegetation Stra	ta:	<u> </u>
2. Parthenocissus quinquefolia	10	No	FACU			
3. Smilax rotundifolia	5	No	FAC	Tree – Woody plants, excluding vin	es. 3 in. (7.(6 cm) or more
4.				in diameter at breast height (DBH),	regardless	s of height.
5.					0	0
6.				Sapling/shrub – Woody plants, excl	uding vine	s, less than 3
7.				in. DBH and greater than or equal	to 3.28 ft (1	l m) tall.
8.						
9.				Herb – All herbaceous (non-woody) plants, re	gardless of
10.				size, and woody plants less than 3.	28 ft tall.	
11	·					
····	95	= Total Cov	er	Woody vines – All woody vines grea	ater than 3	.28 ft in
50% of total cover: 47.5	20% of to	tal cover	10	height.		
Woody Vine Stratum (Plot size: 30)	_ 20 /0 01 10					
1						
2						
2.	·			Hydrophytic Vegetation Present?		7
	·			Hydrophyde vegetation resent:		<u>•</u>
4	·					
J		- Total Cav	<u></u>			
E0% of total cover:	0 20% of to		0			
	_ 20% 01 10	lai cover.	0			
Remarks: (include photo numbers here or on a separa	te sneet.)					

SOIL

Sampling Point: W-A18-61_UPL-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redox	Featur	es			_		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks	
0 - 3	10YR 3/2	100					Fir	ne Sandy Loam		
3 - 10	10YR 5/4	100						Silt Loam		
10 - 20	10YR 5/3	100						Silt Loam		
									·	
					- <u> </u>					
									·	
17 6	<u> </u>					<u> </u>	21			
¹ lype: C	= Concentration, D = L	Depletion, I	RM = Reduced Matri	x, MS =	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.	
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :	
- Histoso	ol (A1)		Dark S	urface (S7)	(60) (5		2 cm Muck (A10) (N	ILRA 147)	
Histic E	pipedon (A2)		Polyva	iue Belo	w Surface	(58) (ML	(A 147, 148)	Coast Prairie Redox (A16) (MLRA 147. 148)		
Black H	ISTIC (A3)		_ Inin D	ark Surf	ace (S9) (N	/ILRA 147,	148)	Piedmont Floodpla	in Soils (F19) (MLRA 136.	
Stratifie	ell Sullice (A4) ad Lavers (A5)		Loaniy Denlet	ed Matr	iviati ix (F2	.)		147)		
2 cm M	uck (A10) (LRR N)		Depier	Dark Su	urface (F6)			Verv Shallow Dark	Surface (TF12)	
Deplete	ed Below Dark Surface	(A11)	_ Deplet	ed Dark	Surface (F	-7)		Other (Explain in Re	emarks)	
Thick D	ark Surface (A12)		Redox	Depres	sions (F8)				sinding)	
Sandy I	Mucky Mineral (S1) (LR	R N, MLRA 1	47, 148) Iron-N	langane	se Masses	(F12) (LR	R N, MLRA 13	6) _{3Indicators of bydroph}	utic vegetation and	
Sandy (Gleyed Matrix (S4)		_ Umbri	c Surfac	e (F13) (M	LRA 136,	122)	wetland bydrology mu	st be present unless	
Sandy I	Redox (S5)		Piedm	ont Floo	odplain Soi	ls (F19) (N	/ILRA 148)	disturbed or problems	tic	
Strippe	d Matrix (S6)		Red Pa	arent Ma	aterial (F21) (MLRA 1	27, 147)	distuibed of problema		
Restrictiv	e Layer (if observed):									
	Туре:		None			Hydric S	oil Present?		Yes 🗆 No 🗹	
	Depth (inches):									
Remarks	:									
No positi	ve indication of hydrid	c soils was	observed.							
Vegetation Photos



Soil Photos



US Army Corps of Engineers

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South





Project/Site: MVP Sou	thgate	City/County	: Reidsville, Rockinghan	n Sampling Dat	e: 2018-May-25	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-	A18-57_PEM-1
Investigator(s): Laura Giese, Joe Roy Section, Township, Range:						
Landform (hillslope, te	errace, etc.):	Тое	Local relie	ef (concave, convex, i	none): Concave	Slope (%): 0 to 1
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P	L	at: 36.2827944	Long: -79.5638989	Datum: WGS84
Soil Map Unit Name:					NWI classificat	ion:
Are climatic/hydrologic	c conditions or	n 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 Ci	rcumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	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? 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 one	<u>e is required; check all t</u>	hat apply)	Secondary Indicators (minimum	<u>of two required)</u>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im. Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True A Hydro Oxidiz Preset Recen Thin N Other agery (B7)	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)	 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) C AC Neutral Test (D5) 	Surface (B8) 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), if	available:	
Remarks:				
The criterion for wetland hydrology	is met.			

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

Sampling Point: W-A18-57_PEM-1

Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test worksho	eet:		
	% Cover	Species?	Status	Number of Dominant Sp	ecies That	3	(A)
1				Are OBL, FACW, or FAC:			
2.		·		Across All Strata:	ant Species	3	(B)
4.		·		Percent of Dominant Spe	ecies That	100	(A/B)
5				Are OBL, FACW, or FAC:			(, , , , , , , , , , , , , , , , , , ,
6.				Prevalence Index works	neet:		
7.		· ·		<u>Total % Cover o</u>	<u>f:</u>	Multiply I	<u>By:</u>
···	0	= Total Cov	er	OBL species	55	x 1 =	55
50% of total cover: 0	20% of to		0	FACW species	25	x 2 =	50
Sapling/Shrub Stratum (Plot size: 15')	_ 20/00/ 00			FAC species	0	x 3 =	0
1.				FACU species	0	x 4 =	0
2				UPL species	0	x 5 =	0
3				Column Totals	80	(A)	105 (B)
з. 		·		Prevalence Ind	ex = B/A =	1.3	
4				Hydrophytic Vegetation	Indicators:		
S				1- Rapid Test for Hy	/drophytic \	/egetation	
o		·		2 - Dominance Test	is >50%	-	
/		·		3 - Prevalence Inde	x is $\leq 3.0^1$		
8		·		4 - Morphological A	daptations	¹ (Provide s	supporting
9		<u> </u>		data in Remarks or on a	separate sł	neet)	
	0	= Total Cov	er	Problematic Hydro	phytic Vege	tation ¹ (Ex	plain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	¹ Indicators of hydric soil	and wetlan	d hydrolog	gy must be
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbe	d or proble	matic	
1. <u>Eleocharis obtusa</u>	40	Yes	OBL	Definitions of Four Vege	tation Strate	a:	
2. <i>Persicaria maculosa</i>	15	Yes	FACW				
3. Bidens cernua	15	Yes	OBL	Tree – Woody plants, exc	luding vine	s, 3 in. (7.6	cm) or more
4. Juncus effusus	10	No	FACW	in diameter at breast he	ight (DBH),	regardless	of height.
5							
6				Sapling/shrub - Woody p	olants, exclu	uding vines	s, less than 3
7				in. DBH and greater thar	n 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	ess than 3.2	8 ft tall.	
11.							
	80	= Total Cov	er	Woody vines - All woody	vines grea	ter than 3.	28 ft in
50% of total cover: <u>40</u>	20% of to	tal cover:	16	height.			
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u>)							
1.							
2.							
3.				Hydrophytic Vegetation	Present?	∕es 🛛 No 🗆	
4.							
5.		·					
	0	= Total Cov	er				
50% of total cover: 0	20% of to	_ otal cover:	0				
Remarks: (Include photo numbers here or on a separa	te sheet.)						
A positive indication of hydrophytic vogstation was ab	convod (SEC	10% of domin	ant species	indexed as OPL EACIN as	EAC)		
A positive indication of hydrophytic vegetation was ob	sei veu (250		and species	Indexed as ODL, FACIV, OF			
1							

SOIL

Sampling Point: W-A18-57_PEM-1

Profile De Depth	scription: (Describe to Matrix	o the dept	th needed t	o docume Redox	ent the i Feature	ndicator (es	or confirr	n the absenc	e of indicators.)	
(inches)	Color (moist)	%	Color (n	noist)	%	Type ¹	Loc ²		Texture	Remarks
0-6	10YR 4/2	90	10YR	5/8	10	<u> </u>	M		Sandy Loam	
6 - 15	10YR 4/1	95	10YR	5/8	5	<u> </u>	M		Sandy Loam	
									2000	·
		· ·								
						·				
						·				
						·				
						·				
						·				
17	Concentration D. D		DM Dedu						Di D	N
'Type: C =	Concentration, $D = L$	pepletion,	RM = Redu	ced Matri	x, MS =	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric Sol	I Indicators:			Dark	unforce (Indicators for Problem	latic Hydric Solis":
HISTOSOI Histic Er	(AT) pipedon (A2)			_ Dark S	ilue Relo	57) w Surface	(S8) (MI F	A 147 148)	2 cm Muck (A10) (N	/ILRA 147)
Black Hi	stic (A3)			Thin D	ark Surf	ace (S9) (I	MLRA 147.	. 148)	Coast Prairie Redo:	x (A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)			Loamy	/ Gleyed	Matrix (F2	<u>2)</u>	,	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)			_ Deplet	ed Matr	ix (F3)			147)	
_ 2 cm Mu	uck (A10) (LRR N)			Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (A11)		_ Deplet	ted Dark	Surface (I	F7)		Other (Explain in R	emarks)
INICK Da	ark Surface (A12) Auchy Mineral (S1) (I PE		147 148)	Redox	Depress	SIONS (F8)	(E12) (I D		6)	
Sandy G	ileved Matrix (S4)		147, 140)	Umbri	c Surface	e (F13) (M	ILRA 136.	122)	³ Indicators of hydroph	ytic vegetation and
Sandy R	edox (S5)			Piedm	ont Floo	dplain Soi	ils (F19) (N	/LRA 148)	wetland hydrology mu	ist be present, unless
Stripped	Matrix (S6)			Red Pa	arent Ma	iterial (F21	I) (MLRA 1	27, 147)	disturbed or problema	atic.
Restrictive	e Layer (if observed):									
	Туре:		Rock				Hydric S	oil Present?		Yes 🗵 No 🗆
	Depth (inches):		15							
Remarks:										

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West





Project/Site: MVP Sour	thgate	City/County	: Reidsville, Rockinghan	n Sampling Dat	te: 2018-May-25	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: M	/-A18-57_UPL-1
Investigator(s): Laur	a Giese, Joe R	оу	Se	ction, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Back slope	Local relie	ef (concave, convex,	none): Convex	Slope (%): 5 to 10
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P	L	at: 36.2827399	Long: -79.5639716	Datum: WGS84
Soil Map Unit Name:					NWI classifica	tion:
Are climatic/hydrologic	conditions o	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 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 thr	e wetland parameters are	e present.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check a	<u>ll that apply)</u>	Secondary Indicators (minimum	of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hyd Oxio Pres Reco Thir Oth agery (B7)	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)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 1)
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-A18-57_UPL-1

	•						
Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test workshe	et:		
	% Cover	Species?	Status	Number of Dominant Spe	ecies That	0	(A)
1				Are OBL, FACW, or FAC:	nt Chasias		
2.		·		Across All Strata:	nt species	3	(B)
3				Percent of Dominant Spe	cies That		
4.		<u> </u>		Are OBL, FACW, or FAC:		0	(A/B)
5.				Prevalence Index worksh	eet:		
6.				Total % Cover of	•	<u>Multiply</u>	By:
/				OBL species	0	x 1 =	0
	0	= lotal 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:15')				FACU species	95	x 4 =	380
1				UPL species	0	x 5 =	0
2.				Column Totals	110	(A)	425 (B)
3				Prevalence Inde	ex = B/A =	3.9	
4		·		Hydrophytic Vegetation I	ndicators:		
5		<u> </u>		1- Rapid Test for Hy	drophytic \	/egetatio	h
6				2 - Dominance Test	is > 50%	-8	
7				3 - Prevalence Index	$is \leq 3.0^1$		
8				4 - Morphological A	daptations	¹ (Provide	supporting
9				data in Remarks or on a s	separate sh	neet)	
	0	= Total Cov	er	Problematic Hydrop	, hytic Vege	tation ¹ (E	xplain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	¹ Indicators of hydric soil a	and wetlan	d hydrolo	bgy must be
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbed	l or proble	matic	
1. <i>Poa pratensis</i>	55	Yes	FACU	Definitions of Four Veget	ation Strata	a:	
2. <u>Trifolium repens</u>	15	Yes	FACU				
3. <i>Solanum carolinense</i>	15	Yes	FACU	Tree – Woody plants, exc	uding vine	s, 3 in. (7.	6 cm) or more
4. <i>Solidago altissima</i>	10	No	FACU	in diameter at breast heig	ght (DBH), I	regardles	s of height.
5. <i>Juncus tenuis</i>	10	No	FAC				
6. <i>Solidago rugosa</i>	5	No	FAC	Sapling/shrub – Woody p	lants, exclu	iding vine	es, less than 3
7				in. DBH and greater than	or equal to	o 3.28 ft (1 m) tall.
8							
9				Herb – All herbaceous (no	on-woody)	plants, re	gardless of
10				size, and woody plants le	ss than 3.2	8 ft tall.	
11							
	110	= Total Cov	er	Woody vines - All woody	vines grea [.]	ter than 3	8.28 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>)							
1							
2.							
3.				Hydrophytic Vegetation	Present?	∕es 🗆 No	\square
4.							
5.							
	0	= Total Cov	er				
50% of total cover: <u>0</u>	20% of to	tal cover:	0				
	40 alianti)						
Remarks: (include photo numbers here or on a separa	te sneet.)						
No positive indication of hydrophytic vegetation was a	hsprind (~	50% of dom	inant specie	as indexed as EAC- or drive)		
	loseiveu (≥	.55% 01 0011	mant specie	LS INDEXED AS FAC OF UTIER	<i>.</i>		

SOIL

Sampling Point: W-A18-57_UPL-1

Profile D	escription: (Describe t	o the dept	n needed to docume	ent the i	ndicator	or confir	m the absence	e of indicators.)	
Depth	Matrix		Redox	Featur	es			- .	
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Туре	Loc ²		lexture	Remarks
0 - 3	10YR 3/4	100			·			andy Loam	<u></u>
3 - 12	10YR 4/6	100						Sand	
12 - 16	10YR 4/6	95	10YR 5/3	5	D	М		Sand	
16 - 22	7.5YR 5/8	100						Clay	
					·				
					·				
¹ Type: C	= Concentration, D = [Depletion, F	RM = Reduced Matrix	x. MS =	Masked S	and Gra	ins. ² Locatio	n: PL = Pore Lining, M =	Matrix.
Hydric Sc	oil Indicators:			.,=				Indicators for Problem	atic Hydric Soils ³
Histoso			Dark S	urface (57)			indicators for Froblem	adde Hydrie Solis .
Histic E	pipedon (A2)		Dark S	lue Belo	w Surface	(S8) (M L	RA 147, 148)	2 cm Muck (A10) (N	/ILRA 147)
Black H	listic (A3)		Thin D	ark Surf	ace (S9) (N	MLRA 147	7, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loamy	Gleyed	Matrix (F2	<u>2)</u>	,	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		Deplet	ed Matr	ix (F3)			147)	
_ 2 cm M	uck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface	(A11)	_ Deplet	ed Dark	Surface (I	F7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redox	Depres	sions (F8)				
Sandy	Mucky Mineral (S1) (LR	R N, MLRA 1	47, 148) Iron-M	langane	se Masses	(F12) (LF	RR N, MLRA 136	5) ₃ Indicators of hydroph	vtic vegetation and
Sandy	Gleyed Matrix (S4)		Umbri	c Surfac	e (F13) (M	LRA 136,	122)	wetland hydrology mu	ist be present, unless
Sandy	Redox (S5)		Piedm	ont Floo	dplain Soi	lls (F19) (MLRA 148)	disturbed or problema	atic
Strippe	d Matrix (S6)		Red Pa	arent Ma	iterial (F21) (MLRA	127, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks	:								
		:	- h						
NO POSITI	ve indication of hydric	c solis was	observed.						

Photo of Sample Plot East



Photo of Sample Plot West

Project/Site: MVP Sout	thgate	City/County	: Reidsville, Rockingham	Sampling Dat	e: 2018-May-25	
Applicant/Owner: N	extEra			State: North Ca	rolina Sampling Point: W-	A18-59_PEM-1
Investigator(s): Laura	a Giese, Joe Ro	y, Simon King	Sec	tion, Township, Rar	nge:	
Landform (hillslope, ter	rrace, etc.):	Hillslope	Local relief	f (concave, convex,	none): Concave	Slope (%): 5 to 10
Subregion (LRR or MLR	A): MLRA	A 136 of LRR P	La	t: 36.2823766	Long: -79.5639157	Datum: WGS84
Soil Map Unit Name:					NWI classificat	ion:
Are climatic/hydrologic	conditions or	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 Ci	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	aturally 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? 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>all that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tr Hy Os Pr Re Th Ot	ue Aquatic Plants (B14) vdrogen Sulfide Odor (C1) kidized Rhizospheres on Living esence of Reduced Iron (C4) ecent Iron Reduction in Tilled So in Muck Surface (C7) her (Explain in Remarks)	Roots (C3) bils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) 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 we	ll, aerial photos, previous inspe	ctions), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

Sampling Point: W-A18-59_PEM-1

Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test workshee	et:			
	% Cover	Species?	Status	Number of Dominant Spe	ecies That	3	(A)	
1				Are OBL, FACW, or FAC:				
2	<u> </u>			Across All Strata:	nt Species	3	(B)	
4.				Percent of Dominant Spec	cies That	100	(A/B)	
5.				Are OBL, FACW, or FAC:	4-			
6.				Prevalence Index workshe	eet:	N 4 14 ¹ 1 1	D	
7.				<u>Iotal % Cover of:</u>	105		<u>105</u>	
	0	= Total Cov	er		105	× I =	105	
50% of total cover: <u>0</u>	20% of to	_ otal cover:	0		25	×2= _	50	
Sapling/Shrub Stratum (Plot size: 15')				FAC species	0	x 3 =	0	
1.					0	× 4 =	0	
2.				UPL species	0	x 5 =	0	
3.					130	(A)	155 (B)	
4.				Prevalence Inde	ex = B/A =	1.2		
5.	·			Hydrophytic Vegetation In	ndicators:			
6.	·			1- Rapid Test for Hyd	drophytic \	/egetation		
7.				2 - Dominance Test i	s >50%			
8				3 - Prevalence Index	is $\leq 3.0^1$			
9				4 - Morphological Ad	daptations	¹ (Provide :	supporting	
·		- Total Cov	or	data in Remarks or on a separate sheet)				
50% of total cover: 0	20% of to		0	Problematic Hydrophytic Vegetation ¹ (Explain)			plain)	
Herb Stratum (Plot size: 5')	_ 20% 01 to		0	¹ Indicators of hydric soil a	and wetlan	d hydrolog	gy must be	
1 Eleocharis obtusa	35	Voc	OBI	present, unless disturbed	or proble	matic		
		Voc	EACW	Definitions of Four Vegeta	ation Strata	ə:		
2. Julicus ellusus	20	Voc						
S. Carex nullainaidaa		Ne		Iree – Woody plants, exclu	uding vine	s, 3 in. (7.6	o cm) or more	
	10			in diameter at breast neig	snt (DBH), I	regardiess	or neight.	
5. Scirpus autovirens	10		OBL	Sanling/shruh Woody of	ante avelu	dingving	loca than 2	
6. Persicaria sagillata	10		OBL	in DBH and greater than	or equal to	3 28 ft (1	m) tall	
7. Mimulus ringens	10	<u></u>	OBL	In. DBIT and greater than	or equal to	5 5.20 10 (1	ing tan.	
8. Murdannia keisäk	10	NO	OBL	Herb – All herbaceous (no	n-woody)	nlants reg	vardless of	
9				size, and woody plants les	ss than 3.2	8 ft tall.		
10								
11		<u> </u>					20.6.1	
	130	= Total Cov	er	Woody vines – All woody v	vines grea	ter than 3.	28 ft in	
50% of total cover: <u>65</u>	_ 20% of to	otal cover:	26	neight.				
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u>)								
1								
2								
3				Hydrophytic Vegetation F	Present?	/es ☑ No L		
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 A positive indication of hydrophytic vegetation was ob-	te sheet.) served (>50	0% of domin	ant species	indexed as OBL, FACW, or F	AC).			

SOIL

Sampling Point: W-A18-59_PEM-1

Profile De Depth	scription: (Describe t Matrix	to the dep	th needed to docume Redox	ent the Featur	indicator es	or confir	m the absen	ce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 5	10YR 4/2	90	5YR 4/6	10	<u> </u>	M/PL		Silt Loam	
5 - 14	10YR 4/2	95	10YR 5/4	5	C	М		Silt Loam	
14 - 20	10YR 4/1	100						Sandy Clay	
14 20								Sundy Cidy	
									·
		·							
· ·		·							
		·							
		·							
		·							
¹ Type: C =	Concentration, D =	Depletion,	RM = Reduced Matri	x, MS =	Masked S	Sand Gra	ns. ² Locati	on: PL = Pore Lining, M =	Matrix.
Hydric Soi	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histosol	l (A1)		_ Dark S	Surface ((S7)			2 cm Muck (A10) (N	/LRA 147)
Histic Ep	Dipedon (A2)		Polyva Thin C	lue Belo	Surface	e (S8) (ML	RA 147, 148)	Coast Prairie Redox	x (A16) (MLRA 147, 148)
Hvdroge	en Sulfide (A4)		Init L	/ Gleved	l Matrix (E	2)	, 140)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		Deple	ted Mati	rix (F3)	_,		147)	
2 cm Mu	uck (A10) (LRR N)		Redox	Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface	(A11)	_ Deple	ted Darl	< Surface (F7)		Other (Explain in R	emarks)
Thick Da	ark Surface (A12) Aucla: Minoral (S1) (LB		Redox	Depres	sions (F8)	- (512) (15			
Sandy G	Gleved Matrix (S4)	R N, WILKA	147, 140) 11011-W	iangane ic Surfac	e (F13) (N	S (F1∠) (LF 11 RA 136	172)	^{og} Indicators of hydroph	ytic vegetation and
Sandy G	edox (S5)		Onibi Piedm	iont Floo	odplain So	ils (F19) (VLRA 148)	wetland hydrology mu	st be present, unless
Stripped	d Matrix (S6)		Red Pa	arent Ma	aterial (F2	1) (MLRA	127, 147)	disturbed or problema	atic.
Restrictive	e Laver (if observed):								
	Type:		None			Hvdric 9	Soil Present?		Yes 🛛 No 🗆
	Depth (inches):								
Remarks:									
Remarks.									
		.,							
A positive	indication of hydric	soil was o	bserved.						

Photo of Sample Plot North



Photo of Sample Plot East





Photo of Sample Plot West





Project/Site: MVP Sou	thgate	City/County	Reidsville, Rockingham	Sampling Dat	e: 2018-May-25			
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	A18-59_UPL-1		
Investigator(s): Laura Giese, Joe Roy Section, Township, Range:								
Landform (hillslope, te	rrace, etc.):	Back slope	Local relief	(concave, convex,	none): Convex	Slope (%): 2 to 5		
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P	La	t: 36.2825012	Long: -79.5639158	Datum: WGS84		
Soil Map Unit Name:					NWI classificat	ion:		
Are climatic/hydrologic	c 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 wetland parameters are present.									

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check a	<u>ll that apply)</u>	Secondary Indicators (minimum	of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hyd Oxio Pres Reco Thir Oth agery (B7)	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)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 1)
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-A18-59_UPL-1

Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test worksheet:				
<u>nee stratum</u> (not size. <u></u>	% Cover	Species?	Status	Number of Dominant Species Tha	t 1	(A)		
1				Are OBL, FACW, or FAC:				
2.		·		Across All Strata:	^s 2	(B)		
3.		· ·		Percent of Dominant Species That	E0	(A /D)		
4		<u> </u>		Are OBL, FACW, or FAC:		(A/B)		
Б				Prevalence Index worksheet:				
7				Total % Cover of:	Multiply	<u>By:</u>		
· · · · · · · · · · · · · · · · · · ·	0	= Total Cov	er	OBL species 0	x 1 =	0		
50% of total cover: 0	20% of to		0	FACW species 0	x 2 =	0		
Sapling/Shrub Stratum (Plot size: 15')	_ 20/0 01 00			FAC species <u>30</u>	x 3 =	90		
1.				FACU species 40	_ x 4 =	160		
2.				UPL species 5	_ x 5 = _	25		
3.				Column Totals 75	(A)	275 (B)		
4.				Prevalence Index = B/A =	<u> </u>			
5.				Hydrophytic Vegetation Indicators	•			
6.				1- Rapid Test for Hydrophytic	: Vegetation			
7.				2 - Dominance Test is > 50%				
8		······································		$3 - Prevalence Index is \le 3.0$	I			
9		······································		4 - Morphological Adaptation	is¹ (Provide	supporting		
·	0	= Total Cov	er	data in Remarks or on a separate	sheet)			
50% of total cover: 0	20% of to		0	Problematic Hydrophytic Vegetation ¹ (Explain)				
Herb Stratum (Plot size: 5')	_ 20/0 01 10			¹ Indicators of hydric soil and wetla	nd hydrolog	gy must be		
1. Poa pratensis	30	Yes	FACU	present, unless disturbed of prob	ematic			
2. Juncus tenuis	30	Yes	FAC	Definitions of Four Vegetation Stra	ita.			
3. Potentilla simplex	5	<u>No</u>	FACU	Trop Woody plants oveluding vir	oc 2 in (7 (cm) or more		
4 Solanum carolinense	<u> </u>	No	FACU	_ Iree – woody plants, excluding vines, 3 in. (7.6 cm) or more				
5. Plantago lanceolata	5	No	UPI		, regulatess	or neight.		
6			0.12	Sapling/shrub – Woody plants, exe	luding vine:	s. less than 3		
7.				in. DBH and greater than or equal	to 3.28 ft (1	m) tall.		
8.								
9.				Herb – All herbaceous (non-wood	/) plants, reş	gardless of		
10				size, and woody plants less than 3	.28 ft tall.			
11								
····-	75	= Total Cov	er	Woody vines – All woody vines gre	ater than 3.	.28 ft in		
50% of total cover: 37.5	20% of to		15	height.				
Woody Vine Stratum (Plot size: 30')	_ 20/0 01 00							
1.								
2								
3				Hydrophytic Vegetation Present?	Yes 🗆 No 🗄	7		
4								
	0	= Total Cov	er					
50% of total cover: 0	20% of to		0					
	_ 20/00/10							
Remarks: (Include photo numbers here or on a separa	te sheet.)							
	haar in 17		incast - ·					
NO POSITIVE INDICATION OF NYDROPNYTIC VEGETATION WAS O	userved (≥	:50% of dom	iinant specie	es indexed as FAC- or drier).				

SOIL

Sampling Point: W-A18-59_UPL-1

Profile De	escription: (Describe t	o the dept	h needed to docum	ent the i	ndicator	or confir	m the absenc	e of indicators.)	
Depth	Matrix		Redox	c reature	2S T	12		T	Demonto
(inches)		<u> </u>	Color (moist)	%	Туреч	LOC ²		lexture	Remarks
0-6	5YR 4/6	60					Fir	ie Sandy Loam	
0 - 6	10YR 6/8	40							
6 - 15	10YR 6/8	90	7.5YR 4/4	5	C	M		Loam	Mn soft mass
6 - 15			10YR 5/2	5	D	М			
15 - 20	10YR 5/8	85	7.5YR 4/4	10	С	М		Clay Loam	
15 - 20			10YR 6/2	5	D	М			
		· ·							
·		· ·							
		· ·							
17	Concentration D. 1		DNA De du se d'Aletre					D. D. Lining M.	
'Type: C =	= Concentration, D = L	pepietion,	RIVI = Reduced Matri	x, ivis = i	viasked S	and Gra	Ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problen	natic Hydric Soils ³ :
Histoso	I (A1)		_ Dark S	Surface (S	57)			2 cm Muck (A10) (I	MLRA 147)
Histic E	pipedon (A2)		Polyva	alue Belo	w Surface	(S8) (ML	RA 147, 148)	Coast Prairie Redo	ox (A16) (MLRA 147, 148)
BIACK H	ISTIC (A3)			Jark Surf	ace (59) (N		, 148)	Piedmont Floodpl	ain Soils (F19) (MLRA 136 .
Hyurog	ell Sullide (A4)		_ LUalli	tod Matr	iviati ix (F2	<u>(</u>)		<u> </u>	
2 cm M			Depie	(Dark Su	rface (F6)			Very Shallow Dark	Surface (TE12)
Deplete	d Below Dark Surface	A11)	Read/	ted Dark	Surface (I	F7)		Other (Evolain in E	Pomarks)
Thick D	ark Surface (A12)	,,		Depress	sions (F8)	.,			
Sandy M	Aucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-N	/langanes	se Masses	(F12) (LF	R N, MLRA 13	5) _{212 -} 1:	
Sandy (Gleyed Matrix (S4)			ic Surface	e (F13) (M	LRA 136,	122)	³ Indicators of hydropi	hytic vegetation and
Sandy F	Redox (S5)		Piedm	nont Floo	dplain Soi	ils (F19) (, MLRA 148)	wetland hydrology mi	ust be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	terial (F21) (MLRA	127, 147)	disturbed or problem	atic.
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks:									
No positi	ve indication of hydric	soils was	observed.						

Photo of Sample Plot North



Photo of Sample Plot East

Project/Site: MVP Southgate City/County: Williamsburg, Rocking Sampling Date: 2018-June-23							
Applicant/Owner: N	lextEra			State:	North Carolina	Sampling Point: W-A	18-184_PEM-1
Investigator(s): Laura Giese, Jake Brillo, Susan Thebert Section, Township, Range:							
Landform (hillslope, te	rrace, etc.):	Back slope	Local re	lief (concave	e, convex, none):	Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.275	5936 Long	-79.5590737	Datum: WGS84
Soil Map Unit Name:	Helena Sand	ly loam (HeB) 2 to 8	percent slopes			NWI classificatio	n:
Are climatic/hydrologic	c conditions or	n the site typical for	this time of year?	Yes	🖊 No (If no	o, explain in Remarks.)	
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are '	Normal Circums	tances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If ne	eded, explain an	y 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 PEM. Area is wetland, all three	wetland parameters are p	resent.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ie is required; check al	ll that apply)	Secondary Indicators (minimum of two required)	
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) 	True Hyd Oxic Pres Reco Thir Oth	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) 		
Water-Stained Leaves (B9)	lagery (B7)		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):	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	irated. Saturated from 0-3".		

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

Sampling Point: W-A18-184_PEM-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:				
	% Cover	Species?	Status	Number of Dominant Species	3 That	3	(A)	
1				Are OBL, FACW, or FAC:	. —			
2				Total Number of Dominant S Across All Strata:	secies	3	(B)	
4				Percent of Dominant Species	That	100	(A/B)	
5	<u> </u>			Prevalence Index worksheet:				
6	<u> </u>			Total % Cover of	м	ultinly F	۹.	
7				OBL species 60) x	1 =	- j. 60	
	0	= Total Cov	ver	FACW species 25	<u> </u>	·	50	
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species	<u> </u>		0	
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species	x		0	
1				LIPL species			0	
2	<u> </u>			Column Totals	^		110 (B)	
3				Brovalance Index -	<u> </u>		110 (D)	
4					D/A	1.5		
5				Hydrophytic Vegetation Indic	ators:			
6.				1- Rapid Test for Hydrop	hytic Vege	etation		
7.				2 - Dominance lest is >	»0%			
8.				3 - Prevalence Index is s	≤ 3.0 ¹			
9.				4 - Morphological Adapt	ations ¹ (Pi	rovide s	supporting	
	0	= Total Cov	ver					
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				Problematic Hydrophytic Vegetation (Explain)				
Herb Stratum (Plot size: 5_)				nresent unless disturbed or	nrohlema	yui olog tic	y must be	
1. Symphyotrichum puniceum	20	Yes	OBL	Definitions of Four Vegetation	o Strata:	uc		
2. luncus effusus	15	Yes	FACW	Deminicions of Four Vegetation	i Su'ata.			
3. <i>Carex crinita</i>	15	Yes	OBL	Tree - Woody plants, excludi	ng vines 3	in (7.6	cm) or more	
4. Impatiens capensis	10	No	FACW	in diameter at breast height (DBH), reg	ardless	of height.	
5. Alnus serrulata	10	No	OBI		22.1/1.08		0111018110	
6 Persicaria sagittata	10	No	OBL	Sapling/shrub - Woody plant	s. excludir	ng vines	less than 3	
7 Sagittaria latifolia	5	No	OBL	in. DBH and greater than or e	equal to 3.	28 ft (1	m) tall.	
8					·			
9	·			Herb – All herbaceous (non-w	/oody) pla	nts, reg	ardless of	
10	·			size, and woody plants less th	าan 3.28 ft	tall.		
11	·							
	85	- Total Cov		Woody vines - All woody vine	s greater	than 30	28 ft in	
50% of total cover: 42.5	20% of to		17	height.	5 <u>8</u> . euter			
Woody Vine Stratum (Plot size: 30)	_ 20% 01 tt	Juli Cover.						
1								
2	·							
2	·			Hydronhytic Vegetation Pres	ent? Ves	🛛 No 🗆	1	
					che. Tes		1	
5								
J		- Total Co						
E0% of total cover:	20% of to		0					
	_ 20% 01 10	Juli Cover.	0					
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

Profile De	escription: (Describe to	o the dep	th needed to docume	ent the i	ndicator	or confir	m the absend	e of indicators.)	
Depth	Matrix		Redox	Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 3	10YR 3/2	93	10YR 4/1	5	D	М		Silt Loam	
0 - 3			10YR 4/6	2	C	Μ			
3 - 11	2.5Y 5/1	90	7.5YR 5/8	10	С	M/PL		Silt Loam	
11 - 20	N 5/	90	7.5YR 5/8	10	С	М	Sa	ndy Clay Loam	
					·				
1True et C -									N Antonio
Type: C =	= Concentration, D = D	epietion,	RIVI = Reduced Matri	x, IVIS =	Masked S	sand Gra	ins. ² Localio	on: PL = Pore Lining, M =	
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histoso	I (A1)		_ Dark S	Surface (57) 		DA 4 47 4 40)	2 cm Muck (A10) (N	ILRA 147)
HISTIC E	pipedon (AZ) istic (A3)		Polyva Thin C	alue Belo Dark Surf		e (58) (IVIL MI DA 147	RA 147, 148) 178)	Coast Prairie Redo	k (A16) (MLRA 147, 148)
Hvdrog	en Sulfide (A4)		Init Loam	v Gleved	Matrix (F)	2)	, 140)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Lavers (A5)		∠ Deple	ted Matr	ix (F3)	_,		147)	
2 cm Mi	uck (A10) (LRR N)		Redox	Dark Su	irface (F6)			Very Shallow Dark S	Surface (TF12)
_ Deplete	d Below Dark Surface (A11)	_ Deple	ted Dark	Surface (F7)		Other (Explain in Re	emarks)
Thick Da	ark Surface (A12)		Redox	Depres	sions (F8)				
Sandy N	/lucky Mineral (S1) (LRR	R N, MLRA	147, 148) Iron-M	langane	se Masses	s (F12) (LF	R N, MLRA 13	6)₃Indicators of hydroph	vtic vegetation and
Sandy G	Eleyed Matrix (S4)		_ Umbr	ic Surfac	e (F13) (N	ILRA 136,	122)	wetland hydrology mu	st be present, unless
Sandy R	Redox (S5)		Piedm	iont Floo	dplain So	ils (F19) (I	MLRA 148)	disturbed or problema	atic.
Stripped	d Matrix (S6)		Red Pa	arent Ma	iterial (F2	1) (MLRA	127, 147)		
Restrictive	e Layer (if observed):								
	Туре:		None			Hydric S	Soil Present?		Yes 🗹 No 🗆
	Depth (inches):								
Remarks:									
A nositive	indication of hydric s	oil was o	hserved						
71 positive	. Indication of flyances		bscived.						

Photo of Sample Plot North



Photo of Sample Plot East

Photo of Sample Plot South



Photo of Sample Plot West



Project/Site: MVP Southgate City/County: G		y: Gibsonville, Rocking	gha	Sampling Dat	e: 2018	June-23		
Applicant/Owner: N	lextEra			St	ate: North Ca	arolina S	Sampling Point: W-A	18-184_PFO-1
Investigator(s): Laur	a Giese, Jake B	rillo, Susan Thebert	<u> </u>	Section,	Township, Rar	nge:		
Landform (hillslope, te	rrace, etc.):	Back slope	Local re	elief (con	cave, convex,	none):	Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLRA	A 136 of LRR P		Lat: 36	.2748826	Long: -	-79.558959	Datum: WGS84
Soil Map Unit Name:	Helena Sand	y loam (HeB) 2 to 8	percent slopes				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 s	significantly disturbed?	2	Are "Normal Ci	ircumsta	ances" 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 _ 🖌 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 on	e is required; check a	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tru Hyı Ox Pre Rea Thi Oth	ie 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)	Roots (C3) bils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) 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 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: 30)	Absolute	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	Iotal Number of Dominant Species	10	(B)
3	<u> </u>			Across All Strata.		
4	<u> </u>			Are OBL_EACW or EAC	100	(A/B)
5				Brouzience Index worksheet:		
6				Total & Cover of:	Multiply	Due
7				OBL species 65	<u>wiuiupiyi</u>	-9. 65
	50	= Total Cov	er	EACW species 70	×1- ×2-	140
50% of total cover: <u>25</u>	20% of to	tal cover:	10		×2	140
Sapling/Shrub Stratum (Plot size:15)				FAC species 30	x 3 =	90
1. <i>Ilex verticillata</i>	35	Yes	FACW	FACO species 0	× 4 =	0
2. Fraxinus caroliniana	10	Yes	OBL	UPL species 0	x 5 =	0
3.	·	·		Column lotals 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%		
8	·			$▲$ 3 - Prevalence Index is $≤ 3.0^{1}$		
0	·	<u> </u>		4 - Morphological Adaptations	¹ (Provide s	supporting
^{9.}	45	- Total Cau		data in Remarks or on a separate s	heet)	
FOM a fita table as your 22 F	45		er	Problematic Hydrophytic Vege	etation ¹ (Ex	plain)
50% of total cover: <u>22.5</u>	_ 20% of to	ital cover:	9	¹ Indicators of hydric soil and wetlar	nd hydrolog	gy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. Carex crinita	10	Yes	OBL	Definitions of Four Vegetation Strat	a:	
2. Juncus effusus	10	Yes	FACW			
3. Impatiens capensis	10	Yes	FACW	Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more
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	uding vines	s, less than 3
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)	plants, reg	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: 35	20% of to	tal cover:	14	height.		
Woody Vine Stratum (Plot size: 30)	-					
1.						
2.	·					
3.		·		Hydrophytic Vegetation Present?	Yes 🗹 No 🗆]
4	·	·		, , , , , , , , , , , , , , , , , , ,		
5		<u> </u>				
···	0	= Total Cov	or			
E0% of total cover 0	20% of to		0			
	_ 20% 01 10	ital cover.	0			
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).						

SOIL

Sampling Point: W-A18-184_PFO-1

Profile D	escription: (Describe to	o the dept	h needed to docume	ent the i	indicator	or confirm	n the absend	ce of indicators.)	
Depth	Matrix		Redox	Featur	es				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 4	10YR 3/2	95	10YR 5/6	5	С	М	М	ucky Silt Loam	
4 - 18	5Y 3/1	98	2.5Y 5/1	2	D	М	М	ucky Silt Loam	
					_				
-									
¹ Type: C =	= Concentration. D = D	epletion.	RM = Reduced Matrix	x. MS =	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining. M =	Matrix.
	vil Indicators:	epiecion,		ų 110	indoned b		ior Locatio	Indicators for Problem	atic Hydric Soils3:
			Dark	urfaco ((57)				iauc Hyuric Solis".
Histic F	ninedon (A2)		Daik 3		JW Surface	(S8) (MI E	A 1/7 1/8)	2 cm Muck (A10) (N	/ILRA 147)
Black H	listic (A3)		T biyva Thin D	ark Surf	face (S9) (N	(38) (IVILI) /II RA 147	148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hvdrog	en Sulfide (A4)		Loamy	/ Gleved	Matrix (F2	2)	140)	Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		Deplet	ted Matr	rix (F3)	,		147)	
2 cm M	uck (A10) (LRR N)		Redox	Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface (A11)	_ Deplet	ted Dark	< Surface (I	-7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redox	Depres	sions (F8)				
_ Sandy I	Mucky Mineral (S1) (LRR	N, MLRA 1	47, 148) Iron-M	langane	ese Masses	(F12) (LR	R N, MLRA 13	6) ₃ Indicators of hydroph	vtic vegetation and
Sandy (Gleyed Matrix (S4)		Umbri	c Surfac	e (F13) (M	LRA 136, 1	22)	wetland hydrology mu	ust be present, unless
Sandy I	Redox (S5)		_ Piedm	ont Floc	odplain Soi	ls (F19) (N	ILRA 148)	disturbed or problema	atic.
Strippe	d Matrix (S6)		Red Pa	arent Ma	aterial (F21) (MLRA 1	27, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric S	oil Present?		Yes 🗹 No 🗆
	Depth (inches):								
Remarks									
A nositive	indication of hydric s	oil was ob	sorved						
Apositiv	e indication of flydric 3		Serveu.						

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West



Project/Site: MVP Southgate City/County: Gibsor		Gibsonville, Rocking	ha Sampling D	ate: 2018-June-23			
Applicant/Owner: N	lextEra			State: North	Carolina Sampling Point: W	-A18-184_UPL-1	
Investigator(s): Laur	ra Giese, Jake E	Brillo		Section, Township, R	ange:		
Landform (hillslope, te	errace, etc.):	Knoll	Local re	lief (concave, conve	x, none): Convex	Slope (%): 1 to 3	
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.2750484	Long: -79.5591735	Datum: WGS84	
Soil Map Unit Name:	Helena Sand	y loam (HeB) 2 to 8 p	ercent slopes		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 si	gnificantly disturbed?	Are "Normal	Circumstances" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, e	xplain 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 on	e is required; check all	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / Hydro Oxidi Prese Recer Thin I Other agery (B7)	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Sparsely Vegetated Concave Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 11)
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-A18-184_UPL-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. Liquidambar styraciflua	10	Yes	FAC	Total Number of Dominant Species		
2. <u>Ilex opaca</u>	10	Yes	FACU	Across All Strata:	9	(B)
3	·	·		Percent of Dominant Species That		(A (D)
		·		Are OBL, FACW, or FAC:		(A/B)
S	·			Prevalence Index worksheet:		
o		·		Total % Cover of:	<u>Multiply P</u>	<u>By:</u>
/		- Tatal Cau		OBL species 0	x 1 =	0
E0% of total covery 10	20 20% of to		er A	FACW species 0	x 2 =	0
Solv of total cover. <u>10</u>	_20% 01 to	car cover.	4	FAC species 20	x 3 =	60
1 //ex.op.2c2	10	Voc	FACU	FACU species 60	x 4 =	240
2 Ouercus alba	10	Vec	FACU	UPL species 0	x 5 =	0
3 Juninerus virginiana	10	Vec	FACU	Column Totals 80	(A)	300 (B)
A Carninus caroliniana	10	Vec	FAC	Prevalence Index = B/A =	3.8	
5		103	IAC	Hydrophytic Vegetation Indicators:		
о	·	·		1- Rapid Test for Hydrophytic	√egetation	
7	·	<u> </u>		2 - Dominance Test is > 50%		
/	·	<u> </u>		3 - Prevalence Index is ≤ 3.0^1		
o	·	<u> </u>		4 - Morphological Adaptations	¹ (Provide s	supporting
^{2.}	40	- Total Cov	or	data in Remarks or on a separate sl	neet)	
E0% of total cover: 20	40 20% of to		0	Problematic Hydrophytic Vege	etation ¹ (Exp	olain)
Herb Stratum (Plot size: 5.)	_ 20% 01 to	tai cover.	0	¹ Indicators of hydric soil and wetlar	id hydrolog	y must be
<u>Herb Stratum</u> (Flot size, <u>5</u>)	10	Voc	EACU	present, unless disturbed or proble	matic	
1. Quercus alba	E	Voc	FACU	Definitions of Four Vegetation Strat	a:	
2. Vitic postivalis	 	Voc	FACU			
		165	FACU	Iree – Woody plants, excluding vine	s, 3 in. (7.6	cm) or more
4	·			In diameter at breast height (DBH),	regardiess	or neight.
۶	·			Sanling/shruh - Woody plants exclu	uding vines	loss than 3
0	·	·		in DBH and greater than or equal t	o 3 28 ft (1	m) tall
/	·				0 5.20 10 (1	
8		·		Herb – All herbaceous (non-woody)	plants, reg	ardless of
9	·	·		size, and woody plants less than 3.2	28 ft tall.	
	·	·				
11				Woody vines All woody vines great	tor than 2 '	70 ft in
	20	= lotal Cov	er	height	ter triari 5.2	201111
50% of total cover: <u>10</u>	_20% of to	tal cover:	4			
Woody Vine Stratum (Plot size: <u>30</u>)						
1		·				
2.	·	·				1
3	·	·		Hydrophytic vegetation Present?]
4.	·	·				
5						
	0		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.) oserved (≥	50% of dom	iinant specie	es indexed as FAC– or drier).		

SOIL

Sampling Point: W-A18-184_UPL-1

Profile D	escription: (Describe t	o the dept	h needed to docume	ent the i	ndicator	or confir	m the absen	ce of indicators.)	
Depth (inchoo)	Matrix Calar (maint)		Color (moist)	c reatur	es Turn e1	1 2		Terreture	Demerika
(inches)		<u> </u>	Color (moist)	%	Туреч	LOC ²		lexture Ciltata and	Remarks
0-2	TUYR 3/2	100						Silt Loam	
2 - 15	5YR 4/6	100						Silt Loam	·
15 - 18	10YR 5/2	95	5YR 4/6	5	C	M		Silt Loam	
18 - 22	2.5Y 5/1	95	5YR 4/6	5	C	М		Silt Loam	
					·				
¹ Type: C	= Concentration, D = [Depletion	RM = Reduced Matri	x. MS =	Masked S	and Gra	ins. ² l ocati	on: PL = Pore Lining, M =	Matrix
Hydric Sc	vil Indicators:	septetion, i		, 1113	masicas		Locati	Indicators for Problem	atic Hydric Soils ³
Histoso			Dark	Surface (57)				latic Hyunic Solis".
Histic E	pipedon (A2)		Dark s	alue Belo	w Surface	(S8) (M L	RA 147. 148)	2 cm Muck (A10) (N	/ILRA 147)
Black H	listic (A3)		Thin D	Dark Surf	ace (S9) (N	MLRA 147	, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
 Hydrog	en Sulfide (A4)		Loamy	y Gleyed	Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		_ Deple	ted Matr	'ix (F3)			147)	
_ 2 cm M	uck (A10) (LRR N)		Redox	Dark Su	ırface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface	(A11)	_ Deple	ted Dark	Surface (l	F7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redox	Depres	sions (F8)				
Sandy	Mucky Mineral (S1) (LRI	R N, MLRA 1	47, 148) Iron-N	langane	se Masses	(F12) (LF	R N, MLRA 13	36) ₃ Indicators of hydroph	ytic vegetation and
Sandy	Gleyed Matrix (S4)		Umbri	ic Surfac	e (F13) (M	LRA 136,	122)	wetland hydrology mu	ist be present, unless
Sandy	Redox (S5)		Piedm	iont Floo	dplain Soi	ils (F19) (MLRA 148)	disturbed or problema	atic.
Strippe	d Matrix (S6)		Red P	arent Ma	aterial (F2)) (MLRA	127, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None	-		Hydric	Soil Present?	•	Yes 🗆 No 🗹
	Depth (inches):			-					
Remarks	:								
N		!!	- la - a - a - a - al						
No positi	ve indication of hydric	c soils was	observed.						

Photo of Sample Plot North



Photo of Sample Plot South

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	ıthgate	City/Coun	ty: Williamsburg, Rockin	Nilliamsburg, Rocking Sampling Date: 2018-June-01						
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	C18-20_PFO-1				
Investigator(s): Don	Lockwood, Jo	e Roy, Jeremy Hum	mel S	ection, Township, Rar	nge:					
Landform (hillslope, te	errace, etc.):	Flood Plain	Local rel	ief (concave, convex,	none): Concave	Slope (%): 5 to 10				
Subregion (LRR or ML	RA): MLF	RA 136 of LRR P		Lat: 36.2564083	Long: -79.5455072	Datum: WGS84				
Soil Map Unit Name:	Pacolet San	dy clay loam			NWI classificati	on:				
Are climatic/hydrologi	c conditions o	n the site typical fo	r this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)				
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No				
Are Vegetation,	Soil,	or Hydrology	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	ls the Sampled Area within a Wetland?	Yes _ 🖌 _ No
Remarks:			
Covertype is PFO. Area is wetland, all three v	vetland parameters are pi	resent.	

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of or	ie is required; check a	<u>ll that apply)</u>		Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hyd Oxie Pree Rec Thir Oth	e Aquatic Plants (B14) Irogen Sulfide Odor (C1) dized Rhizospheres on Living Rc sence of Reduced Iron (C4) ent Iron Reduction in Tilled Soils n Muck Surface (C7) er (Explain in Remarks)	oots (C3) s (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 		
				FAC-Neutral Test (D5)		
Field Observations:	Voc No (Dopth (inchos):				
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 inspect	ions), if	available:		
Remarks:						
A positive indication of wetland hy	drology was observed	(primary and secondary indicat	tors wer	e present).		

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

Sampling Point: W-C18-20_PFO-1

Tura Structure (Distring, 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Iree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	4	(A)
1. Acer rubrum	30	Yes	FAC	Are OBL, FACW, or FAC:	·	(/ ()
2. <i>Nyssa sylvatica</i>	20	Yes	FAC	Total Number of Dominant Species	; 4	(B)
3. <i>Carpinus caroliniana</i>	15	Yes	FAC	Across All Strata:		
4				Percent of Dominant Species That	100	(A/B)
5				Brevalence Index worksheet:		
6	. <u> </u>			Total % Cover of:	Multiply	Bv:
7	. <u> </u>			OBL species 15	x 1 =	15
	65	= Total Cove	er	FACW species 70	x2=	140
50% of total cover: <u>32.5</u>	_ 20% of to	tal cover:	13	FAC species 65	×3=	195
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 0	×4=	0
1				UPL species 0	×5=	0
2	. <u> </u>			Column Totals	· ^)	350 (B)
3				$\frac{1}{150}$	· (^) _	330 (B)
4					2.3	
5				Hydrophytic Vegetation Indicators:		
6				1- Rapid Test for Hydrophytic	Vegetation	
7.				2 - Dominance Test is >50%		
8.				\checkmark 3 - Prevalence Index Is \leq 3.0 ⁺	-1 (Dura dala	
9.				4 - Morphological Adaptation	5' (Provide :	supporting
	0	= Total Cove	er	Problematic Hydrophytic Veg	neer)	(niclay
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	Indicators of hydric soil and wetla		av must be
<u>Herb Stratum</u> (Plot size: <u>5</u>)				present, unless disturbed or proble	ematic	gy must be
1. Impatiens capensis	70	Yes	FACW	Definitions of Four Vegetation Stra	ta:	
2. Symphyotrichum elliottii	15	No	OBL			
3.			<u> </u>	Tree – Woody plants, excluding vin	es, 3 in. (7.6	5 cm) or more
4.	·			in diameter at breast height (DBH)	, regardless	of height.
5.	·					-
6.	·	·		Sapling/shrub – Woody plants, exc	luding vine:	s, less than 3
7.	·	·		in. DBH and greater than or equal	to 3.28 ft (1	m) tall.
8.	·	·				
9.	·	· ·		Herb – All herbaceous (non-woody) plants, reş	gardless of
10.				size, and woody plants less than 3.	28 ft tall.	
11.	·					
	85	= Total Cove	er	Woody vines – All woody vines grea	ater than 3.	.28 ft in
50% of total cover: 42.5	20% of to	tal cover:	17	height.		
Woody Vine Stratum (Plot size: 30)						
1.						
2.	·	· ·				
3.	·			Hydrophytic Vegetation Present?	Yes 🗹 No [
4.	·			, , , , , , , , , , , , , , , , , , ,		
5.	·					
	0	= Total Cov	-r			
50% of total cover: 0	20% of to	tal cover	0			
	e sheet,					

SOIL

Sampling Point: W-C18-20_PFO-1

Profile Des	scription: (Describe to	the dept	n needed to	docume	nt the i	ndicator	or confiri	n the absenc	e of indicators.)	
Depth	Matrix			Redox	Feature	es				
(inches)	Color (moist)	%	Color (m	oist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 18	10YR 6/2	60	7.5YR 4	/6	40	С	M/PL	Sa	ndy Clay Loam	
				<u> </u>						
				<u> </u>			·			·
	<u> </u>			<u> </u>						
¹ Type: C =	Concentration, D = De	epletion, F	RM = Reduce	ed Matrix	k, MS = I	Masked S	and Grai	ns. ² Locatio	n: PL = Pore Lining, M =	Matrix.
Hydric Soi	Indicators:								Indicators for Problem	atic Hydric Soils ³ :
Histosol	(A1)			_ Dark S	urface (S	57)			2 cm Muck (A10) (M	II RA 147)
Histic Ep	ipedon (A2)			_ Polyva	lue Belo	w Surface	(S8) (ML	RA 147, 148)	2 CITI Muck (ATO) (IV	(A16) (MI DA 147 149)
Black His	stic (A3)				ark Surfa	ace (S9) (N	MLRA 147	, 148)	Coast Fraine Reuo	(ATO) (IVILINA 147, 140)
Hydroge	n Sulfide (A4)			_ Loamy	Gleyed	Matrix (F2	2)			IN SOIIS (F19) (MILKA 136,
Stratified	d Layers (A5)			_ Deplet	ed Matri	х (F3) rfaca (ГС)			147) Vary Challow Dark (Surface (TE12)
_ 2 cm Mu	ICK (ATU) (LKK N) d Bolow Dark Surface (A	11)		_ Redox	od Dark	FTace (F6)	=7)		Very Shallow Dark :	Surface (TFTZ)
Depietet	rk Surface (A12)	(11)		_ Depiet Redox	Denress	ions (F8)	-7)		Other (Explain in Re	emarks)
Sandy M	ucky Mineral (S1) (LRR	N. MLRA 1	47, 148)	Iron-M	anganes	se Masses	(F12) (LR	R N. MLRA 13	5)	
Sandy G	leyed Matrix (S4)		, ,	 Umbrio	c Surface	e (F13) (M	LRA 136,	122)	³ Indicators of hydroph	ytic vegetation and
Sandy Re	edox (S5)			Piedmo	ont Floo	dplain Soi	ils (F19) (/ILRA 148)	wetland hydrology mu	st be present, unless
Stripped	Matrix (S6)			Red Pa	irent Ma	terial (F21) (MLRA	127, 147)	disturbed or problema	tic.
Restrictive	Layer (if observed):									
-	Type:		None				Hydric S	oil Present?		Yes 🛛 No 🗆
1	Depth (inches):									
Domarka										
Remarks.										
A positivo	indication of budric co	ail was ob	convod							
A positive	indication of figuric sc		serveu.							

Hydrology Photos



Vegetation Photos



Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

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	t y: Williamsburg, Rockir	ng Sampling Dat	t e: 2018-June-02	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	C18-20_PEM-2
Investigator(s): Don	Lockwood, Jo	e Roy, Jeremy Humr	nel S	ection, Township, Rai	nge:	
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local rel	lief (concave, convex,	none): Undulating	Slope (%): 0 to 1
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.256381	Long: -79.5451666	Datum: WGS84
Soil Map Unit Name:	Pacolet San	dy clay loam			NWI classificat	ion:
Are climatic/hydrologi	c 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	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.	

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>		Secondary Indicators (minimum of two required)		
 ✓ Surface Water (A1) High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im ✓ Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydr _✓ Oxid Pres Rece Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) ized Rhizospheres on Living Root ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (Muck Surface (C7) er (Explain in Remarks)	ts (C3) (C6)	 		
Field Observations:						
Surface Water Present?	Yes 🟒 No	Depth (inches):	3			
Water Table Present?	Yes 🟒 No	Depth (inches):	5	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 inspectio	ons), if a	available:		
Remarks:						
A positive indication of wetland hyd	irology was observed (primary and secondary indicator	rs were	e present).		

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

Sampling Point: W-C18-20_PEM-2

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	c	(4)
1.				Are OBL, FACW, or FAC:	0	(A)
2.	·	·		Total Number of Dominant Species	6	(B)
3.				Across All Strata:		(2)
4.				Percent of Dominant Species That	100	(A/B)
5.				Are OBL, FACW, or FAC:		
6.				Prevalence Index worksneet:	Multiply	D. #
7.				OBL species 75	<u>wuupy</u>	<u>py.</u> 75
	0	= Total Cov	ver	FACW species 50	× 1	100
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	FAC species 0	×2	0
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACIL species 0	× 4 =	0
1. <i>Salix nigra</i>	5	Yes	OBL	UPL species 0	× 4	0
2. <u>Alnus serrulata</u>	5	Yes	OBL	Column Totals	(A)	175 (B)
3	<u> </u>			$\frac{125}{125}$	1.4	175 (0)
4	<u> </u>				1.4	
5	. <u> </u>			Hydrophytic vegetation indicators:	Vagatation	
6	. <u> </u>			✓ 1- Rapid Test for Hydrophytic	vegetation	
7	. <u> </u>			\checkmark 2 - Dominance fest is $>30\%$		
8	. <u> </u>			J - Prevalence index is ≤ 3.0	1 (Provide	supporting
9				data in Remarks or on a separate s	heet)	Supporting
	10	= Total Cov	rer	Problematic Hydrophytic Vege	etation ¹ (Ex	plain)
50% of total cover: <u>5</u>	_ 20% of to	otal cover:	2	¹ Indicators of hydric soil and wetlar	nd hydrolo	gy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. Leersia oryzoides	30	Yes	OBL	Definitions of Four Vegetation Strat	a:	
2. <i>Impatiens capensis</i>	25	Yes	FACW			
3. <i>Solidago gigantea</i>	15	Yes	FACW	Tree – Woody plants, excluding vine	es, 3 in. (7.6	5 cm) or more
4. Sagittaria latifolia	10	No	OBL	in diameter at breast height (DBH),	regardless	of height.
5. <u>Eleocharis obtusa</u>	10	No	OBL			
6. <i>Carex lurida</i>	10	No	OBL	Sapling/shrub – Woody plants, excl	uding vines	s, less than 3
7. <u>Onoclea sensibilis</u>	5	No	FACW	In. DBH and greater than or equal t	.o 3.28 ft (1	m) tall.
8. <i>Persicaria sagittata</i>	5	No	OBL		بمراميم مرامي	
9				size and woody plants less than 3	28 ft tall	gar diess of
10	<u> </u>			size, and woody plants less than 5.2	20 11 1411.	
11						
	110	= Total Cov	rer	Woody vines – All woody vines grea	iter than 3.	28 ft in
50% of total cover: <u>55</u>	_ 20% of to	otal cover:	22	neight.		
Woody Vine Stratum (Plot size: <u>30</u>)	_					
1. <u>Mikania scandens</u>	5	Yes	FACW			
2.						_
3				Hydrophytic Vegetation Present?	Yes 🗹 No L	
4.	·					
5						
	5	= lotal Cov	er ,			
50% of total cover: <u>2.5</u>	_ 20% of to	tal cover:				
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-C18-20_PEM-2

Profile De	escription: (Describe to	o the dep	th needed to docume	ent the	indicator	or confirm	n the absen	ce of indicators.)	
Depth	Matrix		Redox	Featur	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 4	2.5Y 4/2	95	7.5YR 3/4	5	С	M/PL		Clay Loam	
4 - 18	10YR 5/2	70	7.5YR 4/6	30	С	M/PL		Clay Loam	
¹ Type: C =	Concentration, D = D	epletion,	, RM = Reduced Matri	x, MS =	Masked S	Sand Grai	ns. ² Locatio	on: PL = Pore Lining, M =	= Matrix.
Hydric So	il Indicators:							Indicators for Problem	natic Hydric Soils ³ :
_ Histoso	l (A1)		_ Dark S	Surface ((S7)			2 cm Muck (A10) (MI RA 147)
Histic Ep	pipedon (A2)		Polyva	alue Belo	ow Surface	e (S8) (MLF	RA 147, 148)	Coast Prairie Redo	(A16) (MI RA 147 148)
_ Black H	istic (A3)		Thin D	ark Sur	face (S9) (MLRA 147,	148)	Diedmont Eleadel	nin Soils (E10) (MI DA 136
Hydrog	en Sulfide (A4)		_ Loamy	/ Gleyed	Matrix (F2	2)			
_ Stratifie	d Layers (A5)		Deple	ted Mati	rix (F3) unfoice (EC)			147) Nary Shallow Dark	Surface (TE12)
_ 2 CITI IVII	uck (ATU) (LKK N) Id Bolow Dark Surface (A11)	Redux	tod Dark	v Surfaco (E7)		Very Shallow Dark	Surface (TFTZ)
Depiete	ark Surface (A12)	ATT)	Depie		sions (E8)	Γ/)		Other (Explain in F	(emarks)
Sandy M	/ucky Mineral (S1) (I RR	N. MIRA	147.148) Iron-M	langane	isions (ro) ise Masses	; (F12) (I R	R N. MI RA 13	6)	
Sandy G	Gleved Matrix (S4)		Umbr	ic Surfac	e (F13) (N	ILRA 136.	122)	³ Indicators of hydroph	nytic vegetation and
Sandy R	Redox (S5)		 ∕ Piedm	iont Floo	odplain So	ils (F19) (N	, ILRA 148)	wetland hydrology mi	ust be present, unless
Stripped	d Matrix (S6)		Red Pa	arent Ma	aterial (F2 ⁻	1) (MLRA 1	27, 147)	disturbed or problem	atic.
Restrictive	e Laver (if observed):								
	Type:		None			Hydric S	oil Present?		Yes 🛙 No 🗆
	Denth (inches):								
Deres enderes	Deptir (merico).								
Remarks:									
A positive	indication of hydric s	oil was o	bserved.						

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



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	r: Williamsburg, Rocking	g Sampling Dat	e: 2018-June-01	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-C	18-20_UPL-1
Investigator(s): Don	Lockwood, Jo	e Roy, Jeremy Humm	nel Se	ection, Township, Ran	ige:	
Landform (hillslope, te	errace, etc.):	Hillslope	Local relie	ef (concave, convex, i	none): Convex	Slope (%): 5 to 10
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P	L	at: 36.2563265	Long: -79.5457334	Datum: WGS84
Soil Map Unit Name:	Cecil Sandy	clay loam			NWI classification	on:
Are climatic/hydrologi	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 Ci	rcumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology I	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	e wetland parameters are	e present.	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	<u>e is required; check a</u>	ll that apply)	Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hyc Oxie Pree Rec Thin Oth agery (B7)	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)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
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:			
No positive indication of wetland hy	γdrology was observe	ed.	

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

Sampling Point: W-C18-20_UPL-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	3	(A)
1. <i>Liquidambar styraciflua</i>	60	Yes	FAC	Are OBL, FACW, or FAC:		
2. <i>Liriodendron tulipifera</i>	20	Yes	FACU	Iotal Number of Dominant Species	8	(B)
3				ACTOSS All Strata.		
4				Are OBL_EACW or EAC	37.5	(A/B)
5				Brevalence Index worksheet:		
6				Total % Cover of	Multiply B	r
7				OBL species	v 1 =	μ. 0
	80	= Total Cov	er	EACW species	×2=	0
50% of total cover: <u>40</u>	_20% of to	tal cover:	16	EAC species	×2- 	0
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 55	× / =	220
1. <i>Nyssa sylvatica</i>	20	Yes	FAC	LIPL species	×	0
2. Carpinus caroliniana	20	Yes	FAC		× 5	(D)
3. <i>Carya ovata</i>	10	Yes	FACU	Discussion of the second secon	(A)	(B)
4.				Prevalence Index = B/A =		
5.	·			Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	Vegetation	
7.				2 - Dominance Test is > 50%		
8	·			3 - Prevalence Index is ≤ 3.0^{1}		
9				4 - Morphological Adaptations	¹ (Provide su	upporting
·	50	- Total Cov	or	data in Remarks or on a separate sl	heet)	
50% of total cover: 25	20% of to	tal cover:	10	Problematic Hydrophytic Vege	etation ¹ (Exp	lain)
Horb Stratum (Blot cizo: E)	_ 20% 01 10	lai cover.		¹ Indicators of hydric soil and wetlar	nd hydrology	must be
1 Polystichum asrastishaidas	15	Vac	FACU	present, unless disturbed or proble	ematic	
1. Polystichum acrostichoides	- <u>15</u>	Yee	FACU	Definitions of Four Vegetation Strat	a:	
	5	res	FACU			
3				Tree – Woody plants, excluding vine	es, 3 in. (7.6 o	m) or more
4				in diameter at breast height (DBH),	regardless o	of height.
5						
6				Sapling/snrub - woody plants, exclu	uding vines,	less than 3
7					0 3.20 11 (11	n) tan.
8				Harb All barbacaque (pap woody)	plants roga	rdlocc of
9				size and woody plants less than 3.2	28 ft tall	101633 01
10				size, and woody plants less than 3.2	-0 10 001.	
11						
	20	= Total Cov	er	Woody vines – All woody vines grea	iter than 3.2	8 ft in
50% of total cover: <u>10</u>	_ 20% of to	tal cover:	4	height.		
Woody Vine Stratum (Plot size: <u>30</u>)						
1. Parthenocissus quinquefolia	5	Yes	FACU			
2. <u>Toxicodendron radicans</u>		No	FAC			
3.				Hydrophytic Vegetation Present?	Yes 🗆 No 🗹	
4.						
5.						
	5	= Total Cov	er			
50% of total cover: <u>2.5</u>	20% of to	tal cover:	1			
Demarker (Include abote numbers here or on a consta	to choot)					
Remarks: (include photo numbers here or on a separa	te sneet.)					

SOIL

Sampling Point: W-C18-20_UPL-1

Profile D	escription: (Describe to Matrix	o the deptl	h needed to docume	ent the i	ndicator o	or confirn	n the absenc	e of indicators.)	
(inchoc)	Color (moist)	04	Color (moist)		Turnol	Loc ²		Toxturo	Bomarks
		100		90	туре	LOC-	5.	ndu Claud aam	Remarks
0-2	TUTR 5/5	100		·	·		Sd		<u></u> .
2 - 18	5YR 4/6	100			·		Sa	ndy Clay Loam	
		·				·			
		·		·	·				
		·		·	·	<u> </u>			
						<u> </u>			
					. <u> </u>				
¹ Type: C	= Concentration, D = D	Depletion, I	RM = Reduced Matri	x, MS =	Masked S	and Grair	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	oil Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histoso	ol (A1)		_ Dark S	Surface (S	57)			2 cm Muck (A10) (N	AL PA 1/7)
Histic E	pipedon (A2)		Polyva	alue Belo	w Surface	(S8) (MLR	A 147, 148)	Coast Prairie Redo	(A16) (MI PA 1/7 1/8)
Black H	listic (A3)		Thin D	ark Surf	ace (S9) (N	/LRA 147,	148)	Coast i raine Redo.	in Soils (E10) (MI DA 136
Hydrog	gen Sulfide (A4)		_ Loamy	y Gleyed	Matrix (F2	2)		Fleumont Flooupla	
2 cm M	eu Layers (AS) luck (A10) (I BB NI)		Depie	Dark Su	IX (F3) Irface (F6)			Very Shallow Dark	Surface (TE12)
Deplet	ed Below Dark Surface (A11)	Redox Deple	ted Dark	Surface (F	-7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redox	Depress	sions (F8)				
Sandy	Mucky Mineral (S1) (LRF	R N, MLRA 1	47, 148) Iron-N	langanes	se Masses	(F12) (LRF	R N, MLRA 13	6) _{3Indicators of hydroph}	vtic vegetation and
Sandy	Gleyed Matrix (S4)		_ Umbr	ic Surfac	e (F13) (M	LRA 136, 1	22)	wetland hydrology mu	st be present, unless
Sandy	Redox (S5)		Piedm	iont Floo	dplain Soi	ls (F19) (N	ILRA 148)	disturbed or problema	atic.
Strippe	d Matrix (S6)		Red P	arent Ma	iterial (F21) (MLRA 1	27, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None	-		Hydric S	oil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks	:								
No posit	ve indication of hvdrid	soils was	observed.						
	j								



Vegetation Photos



Soil 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/County	: Gibsonville, Rockingh	a Sampling Dat	e: 2018-June-01	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-C	218-17_PSS-1
Investigator(s): Don	Lockwood, Jo	e Roy, Jeremy Humm	el Se	ection, Township, Rar	nge:	
Landform (hillslope, te	errace, etc.):	Depression	Local reli	ef (concave, convex,	none): Concave	Slope (%): 5 to 10
Subregion (LRR or MLF	RA): MLR	RA 136 of LRR P		at: 36.254129	Long: -79.5453164	Datum: WGS84
Soil Map Unit Name:	Pacolet San	dy clay loam			NWI classificati	on:
Are climatic/hydrologi	c conditions o	n the site typical for t	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 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	ls the Sampled Area within a Wetland?	Yes 🯒 No
Remarks:			
Covertype is PSS. Area is wetland, all three w	vetland parameters are pr	esent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	<u>e is required; check</u>	<u>call that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tr O Pr Rr Th O agery (B7)	rue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) ixidized Rhizospheres on Living Ro resence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soil: hin Muck Surface (C7) ither (Explain in Remarks)	oots (C3) s (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
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	iuge, monitoring we	ell, aerial photos, previous inspect	tions), if	available:
Remarks:				
A positive indication of wetland hyd	irology was observe	ed (primary and secondary indicat	tors wer	e present).

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

Sampling Point: W-C18-17_PSS-1

Tree Stratum (Plot size:30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	10	(A)
1. <u>Acer rubrum</u>	30	Yes	FAC	Total Number of Dominant Species		
2. Liquidambar styraciflua	20	Yes	FAC	Across All Strata:	' 11	(B)
3. <i>Platanus occidentalis</i>	20	Yes	FACW	Percent of Dominant Species That		
4.				Are OBL FACW or FAC:	90.9	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply	Bv:
7				OBL species 15	x 1 =	
	70	= Total Cov	er	FACW species 35	x 2 =	70
50% of total cover: <u>35</u>	_20% of to	tal cover:	14	FAC species 80	x 3 =	240
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 5	x 4 =	20
1. Alnus serrulata	15	Yes	OBL	UPL species 0	- x 5 =	0
2. <i>Ulmus rubra</i>	15	Yes	FAC	Column Totals 135	· (A) _	345 (B)
3				$\frac{133}{\text{Prevalence Index} = B/A}$	26	545 (6)
4					2.0	
5				Hydrophytic Vegetation Indicators:	Vagatation	
6				1- Rapid Test for Hydrophytic	vegetation	
7				\checkmark 2 - Dominance less is >50%		
8				\checkmark 3 - Prevalence index is \leq 3.0	c1 (Drovida	cupporting
9				4 - Morphological Adaptation	s' (Provide :	supporting
	30	= Total Cov	er	Problematic Hydronbytic Veg	etation ¹ (Ex	nlain)
50% of total cover: <u>15</u>	_20% of to	tal cover:	6	Indicators of hydric soil and wetla		gy must he
<u>Herb Stratum</u> (Plot size: <u>5</u>)				present, unless disturbed or proble	ematic	By must be
1. Impatiens capensis	10	Yes	FACW	Definitions of Four Vegetation Stra	ta:	
2. <i>Solidago gigantea</i>	5	Yes	FACW			
3. Eutrochium purpureum	5	Yes	FAC	Tree – Woody plants, excluding vin	es. 3 in. (7.6	5 cm) or more
4.				in diameter at breast height (DBH)	, regardless	of height.
5.					0	C
6.				Sapling/shrub – Woody plants, exc	luding vine:	s, less than 3
7.				in. DBH and greater than or equal	to 3.28 ft (1	m) tall.
8.						
9.	·			Herb – All herbaceous (non-woody) plants, reg	gardless of
10				size, and woody plants less than 3.	28 ft tall.	
11						
	20	= Total Cov	or	Woody vines – All woody vines gre	ater than 3.	28 ft in
E0% of total cover: 10	20 20% of to			height.	atter than 5.	2010111
Woody Vine Stratum (Plot size: 20.)	_ 20% 01 to	dai cover.	4			
1 Toxicodondron radicans	5	Voc	EAC			
		Voc				
2. Lonicera japonica		Vec		Hydrophytic Vogotation Procent?	Voc 🖂 No [-
		res	FAC	Hydrophytic Vegetation Present?		_
4.		·				
5						
	15	= lotal Cov	er			
50% of total cover: <u>7.5</u>	_20% of to	ital cover:	3			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-C18-17_PSS-1

Profile De	escription: (Describe to	the dep	th needed to do	ocument the	indicator	or confirm	the absend	e of indicators.)	
Depth	Matrix	<u> </u>		Redox Featur	res				
(inches)	Color (moist)	%	Color (mois	st) %	Type ¹	LOC ²		Iexture	Remarks
0 - 18	10YR 4/2	70	7.5YR 4/6	30	C	M/PL	Sa	ndy Clay Loam	
		·		·					
		·		·					
		·		·					·
¹ Type: C	= Concentration, D = D	epletion,	RM = Reduced	Matrix, MS =	Masked S	Sand Grains	s. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric Sc	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histoso	l (A1)			Dark Surface	(S7)				
 Histic E	pipedon (A2)			Polyvalue Belo	ow Surface	e (S8) (MLRA	147, 148)	2 cm Muck (A10) (N	1LRA 147)
Black H	istic (A3)		_	Thin Dark Sur	face (S9) (l	MLRA 147, 1	48)	Coast Prairie Redox	((A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		_	Loamy Gleyed	d Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		<u>_</u>	Depleted Mat	rix (F3)			147)	
_ 2 cm M	uck (A10) (LRR N)		_	Redox Dark S	urface (F6)			Very Shallow Dark !	Surface (TF12)
_ Deplete	ed Below Dark Surface (A	A11)	—	Depleted Darl	k Surface (F7)		Other (Explain in R	emarks)
_ Thick D	ark Surface (A12)		1 47 1 49)	Redox Depres	ssions (F8)			0	
_ Sandy I	VIUCKY IVIINERAL (ST) (LRR	N, MLRA	147, 148)	Iron-Mangane		5 (FIZ) (LRR	N, MLKA 13	⁶⁾ 3Indicators of hydroph	ytic vegetation and
Sandy G	Pedox (S5)		—	Piedmont Flor	ndnlain So	ilkA 130, 12 ilc (E19) (MI	22) DA 1/18)	wetland hydrology mu	st be present, unless
Strinne	d Matrix (S6)			Red Parent M	aterial (F2	1) (MI RA 12	7 147)	disturbed or problema	itic.
	- L						,,,,,,		
Restrictiv	E Layer (II observed):		Mana						
	Type:		None			Hydric So	Il Present?		Yes 🗹 No 🗆
	Depth (inches):								
Remarks:									
A positive	e indication of hydric so	oil was ol	bserved.						

Hydrology Photos



Vegetation Photos

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	thgate	City/Count	y: Gibsonville, Rockingh	na Sampling Dat	e: 2018-June-01	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	C18-17_UPL-1
Investigator(s): Don	Lockwood, Jo	e Roy, Jeremy Humr	nel S	ection, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local rel	ief (concave, convex,	none): Convex	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.2539585	Long: -79.5453318	Datum: WGS84
Soil Map Unit Name:	Cecil Sandy	clay loam			NWI classificat	ion:
Are climatic/hydrologi	c 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	naturally problematic?	(If needed, exp	lain any answers in Remarl	<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	e wetland parameters are	e present.	

HYDROLOGY

Wetland Hydrology Indicators:							
Primary Indicators (minimum of on	e is required; check all t	Secondary Indicators (minimum of two required)					
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Interactors (minimum of one is required, check an that appy) ie Water (A1) True Aquatic Plants (B14) Vater Table (A2) Hydrogen Sulfide Odor (C1) ition (A3) Oxidized Rhizospheres on Living Roots (C Marks (B1) Presence of Reduced Iron (C4) ent Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Deposits (B3) Thin Muck Surface (C7) Vat or Crust (B4) Other (Explain in Remarks) reposits (B5) ation Visible on Aerial Imagery (B7) -Stained Leaves (B9) ic Fauna (B13)			 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 			
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 hydrology was observed.							

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

Sampling Point: W-C18-17_UPL-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	0	(Δ)
1				Are OBL, FACW, or FAC:		(八)
2.				Total Number of Dominant Species	2	(B)
3				Across All Strata:		
4				Are OBL, FACW, or FAC:	0	(A/B)
5				Prevalence Index worksheet:		
6		·		Total % Cover of:	Multiply	<u> By:</u>
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	tal cover:	0	FAC species 0	x 3 =	0
Sapling/Shrub Stratum (Plot size:15)				FACU species 70	x 4 =	280
1	·	·		UPL species 0	x 5 =	0
2	·	·		Column Totals 70	(A)	280 (B)
3	·	·		Prevalence Index = B/A =	4	
ч. 	·	·		Hydrophytic Vegetation Indicators:		
5	·	·		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	¹ (Provide	e supporting
	0	= Total Cov	er	— data in Remarks or on a separate sheet)		
50% of total cover: 0	20% of to	tal cover:	0	Problematic Hydrophytic Vegetation ¹ (Explain)		xplain)
Herb Stratum (Plot size: 5)	0 / 0 0 1 00			Indicators of hydric soil and wetlar	nd hydrolo	ogy must be
1. Solidago altissima	30	Yes	FACU	Definitions of Four Vegetation Strat		
2. <i>Melilotus officinalis</i>	20	Yes	FACU	Demitions of Four Vegetation Strat	a.	
3. <i>Fragaria virginiana</i>	10	No	FACU	Tree – Woody plants, excluding vine	es, 3 in. (7	.6 cm) or more
4. Potentilla simplex	10	No	FACU	in diameter at breast height (DBH),	regardles	s of height.
5.						
6.				Sapling/shrub – Woody plants, excl	uding vine	es, less than 3
7.				in. DBH and greater than or equal t	o 3.28 ft (1 m) tall.
8	. <u> </u>					
9	. <u> </u>			Herb – All herbaceous (non-woody)	plants, re	egardless of
10	. <u> </u>			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	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	
4.						
5						
	0	= lotal Cov	er			
50% of total cover: <u> </u>	_ 20% of to	tal cover:				
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-C18-17_UPL-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
(inchoc)	Color (moist)	04	Color (moist)		Turnol	Loc ²		Toyturo	Bomarke
		100		90	туре		5-	ndy Clay Loam	Remarks
0-1	TUTR 4/5	100			·		Sd		·
1 - 10	7.5YR 5/6	100			·		Sa	ndy Clay Loam	
		·			·				
	·	·			·				
¹ Type: C	= Concentration, D = D	Depletion, F	RM = Reduced Matr	ix, MS =	Masked S	and Grain	s. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric S	oil Indicators:							Indicators for Problema	atic Hydric Soils ³ :
_ Histos	ol (A1)		_ Dark	Surface (57)			2 and Musle (A10) (M	
Histic	Epipedon (A2)		Polyv	alue Belo	w Surface	(S8) (MLRA	A 147, 148)	2 cm Muck (A10) (N	ILKA 147)
Black I	Histic (A3)		Thin	Dark Surf	ace (S9) (N	/ILRA 147, 1	48)	Coast Prairie Redox	(A16) (MLKA 147, 148)
_ Hydro	gen Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)			IN SOUS (F19) (MILKA 136,
_ Stratif	ed Layers (A5) Auck (A10) (I PP N)		_ Deple	eted Matr	IX (F3)			147) Vory Shallow Dark 9	Surface (TE12)
2 cm in Deplet	ed Below Dark Surface (A11)	Redu	ted Dark	Surface (FO)	-7)		Very Shallow Dark . Other (Explain in Pr	omarks)
Thick [Dark Surface (A12)	,,	Redo	x Depres	sions (F8)	.,			
Sandy	Mucky Mineral (S1) (LRF	R N, MLRA 1	47, 148) Iron-I	Mangane:	se Masses	(F12) (LRR	N, MLRA 13	6) _{3Indicators of bydroph}	utic vegetation and
Sandy	Gleyed Matrix (S4)		Umb	ric Surfac	e (F13) (M	LRA 136, 12	22)	wetland hydrology mu	
Sandy	Redox (S5)		Piedr	nont Floo	dplain Soi	ls (F19) (MI	_RA 148)	disturbed or problema	tic.
Strippe	ed Matrix (S6)		Red F	arent Ma	iterial (F21) (MLRA 12	27, 147)		
Restrictiv	ve Layer (if observed):								
	Туре:		Fragipan	-		Hydric So	il Present?		Yes 🗆 No 🗹
	Depth (inches):		10	-					
Remarks	ive indication of hydric	: soils was (observed.						

Hydrology Photos



Vegetation Photos

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



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County:	Gibsonville, Rockingh	a Sampling Dat	t e: 2018-June-01	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	C18-16_PEM-2
Investigator(s): Don	Lockwood, Joe	e Roy, Jeremy Humm	el Se	ection, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Depression	Local reli	ef (concave, convex,	none): Concave	Slope (%): 1 to 10
Subregion (LRR or MLF	RA): MLRA	A 136 of LRR P	I	at: 36.2485818	Long: -79.5393274	Datum: WGS84
Soil Map Unit Name:	Pocalet Sand	ly loam			NWI classificat	ion:
Are climatic/hydrologic	c conditions or	the site typical for t	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	5.)
Are Vegetation,	Soil,	or Hydrology si	gnificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, exp	blain 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 PEM. Area is wetland, all three v	vetland parameters are p	resent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check	<u>all that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tri Hy O> Pri Re Th Ot	ue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) xidized Rhizospheres on Living Ro esence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soils nin Muck Surface (C7) ther (Explain in Remarks)	ots (C3) 5 (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
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	iuge, monitoring we	ll, aerial photos, previous inspecti	ions), if a	available:
Remarks:				
A positive indication of wetland hyd	irology was observe	d (primary and secondary indicat	ors were	e present).

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

Sampling Point: W-C18-16_PEM-2

				1		
Trop Stratum (Plot cizer 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot Size. <u>50)</u>	% Cover	Species?	Status	Number of Dominant Species That	7	(A)
1.				Are OBL, FACW, or FAC:		(~)
2.	·			Total Number of Dominant Species	7	(B)
3.	·			Across All Strata:		(B)
4				Percent of Dominant Species That	100	(A/R)
	·			Are OBL, FACW, or FAC:		(A/B)
S	·			Prevalence Index worksheet:		
6				Total % Cover of:	Multiply I	<u>By:</u>
7	·			OBL species 60	x 1 =	60
	0	= Total Cov	er	FACW species 55	x 2 =	110
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0	FAC species 10	x 3 =	30
Sapling/Shrub Stratum (Plot size:15)				FACU species 0	x 4 =	0
1. <i>Sambucus nigra</i>	10	Yes	FAC	LIPL species 0	×5-	0
2. <i>Alnus serrulata</i>	10	Yes	OBL	Column Totals	× J =	200 (D)
3.					(A)	200 (B)
4.				Prevalence Index = B/A =	1.6	
5.	·			Hydrophytic Vegetation Indicators:		
6	·			1- Rapid Test for Hydrophytic	Vegetation	
7	·			2 - Dominance Test is >50%		
/			·······	$_{✓}$ 3 - Prevalence Index is ≤ 3.0 ¹		
o	·			4 - Morphological Adaptations	¹ (Provide s	supporting
9				data in Remarks or on a separate sl	neet)	
	20	= Total Cov	er	Problematic Hydrophytic Vege	etation ¹ (Ex	plain)
50% of total cover: <u>10</u>	_ 20% of to	otal cover:	4	¹ Indicators of hydric soil and wetlar	nd hydrolog	gy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. <i>Carex lurida</i>	40	Yes	OBL	Definitions of Four Vegetation Strat	a:	
2. <i>Solidago gigantea</i>	10	Yes	FACW			
3. Juncus effusus	10	Yes	FACW	Tree – Woody plants, excluding vine	es. 3 in. (7.6	cm) or more
4. Eupatorium perfoliatum	10	Yes	FACW	in diameter at breast height (DBH).	regardless	of height.
5. Impatiens capensis	5	No	FACW		0	
6 Lyconus virginicus	5	No	OBL	Sapling/shrub - Woody plants, exclu	uding vines	s less than 3
7 Opoclos sensibilis	<u> </u>	No		in. DBH and greater than or equal t	o 3.28 ft (1	m) tall.
7. Onociea serisionis		No				,
	<u> </u>	INO	UBL	Herb – All herbaceous (non-woody)	plants, reg	ardless of
9				size, and woody plants less than 3.2	28 ft tall.	
10						
11						
	90	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.	28 ft in
50% of total cover: <u>45</u>	_20% of to	tal cover:	18	height.		
Woody Vine Stratum (Plot size: <u>30</u>)						
1. <i>Mikania scandens</i>	15	Yes	FACW			
2.						
3.				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	
4.						
5.						
	15	= Total Cov	er			
50% of total cover: 75	20% of to	- tal covor:	2			
50% of total cover	_2070 01 10	tai cover.				
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-C18-16_PEM-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redo	x Featur	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Те	exture	Remarks
0 - 18	10YR 4/2	80	7.5YR 3/4	20	С	PL	Cla	y Loam	
					. <u> </u>				
					·				·
					·				·
					·				·
					·				
					·				·
	- Concentration D - D		DM - Doducod Mat			and Crains	² l acation: D	I - Doro Lipipa M -	Matrix
'Type: C	= Concentration, $D = D$	epletion,	RM = Reduced Mat	rix, IVIS =	Masked S	and Grains.	² Location: P	'L = Pore Lining, M =	Matrix.
Hydric So	oil Indicators:						Inc	licators for Problem	atic Hydric Soils ³ :
_ Histoso	ol (A1)		Dark	Surface (S7)			2 cm Muck (A10) (N	/ILRA 147)
Histic E	pipedon (A2)		Polyv	alue Belo	w Surface	(S8) (MLRA 1 4	47, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Black H	listic (A3)		Thin	Dark Surf	ace (S9) (I	MLRA 147, 148) —	Piedmont Floodola	in Soils (F19) (MI RA 136
Hydrog	en Sulfide (A4)		_ Loan	ny Gleyed	Matrix (F2	2)	14	_1 icumont noodpic	(130, 113) (MEIO(130,
_ Strating	eu Layers (AS) luck (A10) (I PP N)		Depr		IX (F3) Irfaco (E6)		14	Vory Shallow Dark	Surface (TE12)
2 CIT IV	ad Below Dark Surface (A	11)	Reut	eted Dark	Surface (FO)	E7)			surface (TFTZ)
Depict	ark Surface (A12)	(11)	Depr	x Depres	sions (F8)	/)		_Other (Explain in R	emarks)
Sandv	Mucky Mineral (S1) (LRR	N. MLRA	147. 148) Iron-	Mangane	se Masses	(F12) (LRR N.	MLRA 136)		
Sandy	Gleved Matrix (S4)		Umb	ric Surfac	e (F13) (M	LRA 136, 122)	³ In	idicators of hydroph	lytic vegetation and
Sandy	Redox (S5)		Piedi	mont Floc	dplain Soi	ils (F19) (MLRA	(148) We	etland hydrology mu	ist be present, unless
Strippe	d Matrix (S6)		Red I	Parent Ma	aterial (F21) (MLRA 127, 1	147) ^{dis}	sturbed or problema	atic.
Restrictiv	e Layer (if observed):								
	Type:		None			Hydric Soil P	Present?		Yes 🛙 No 🗆
	Depth (inches):			_		,			
Domorko				_					
Remarks	•								
A positive	e indication of hydric so	oil was ob	oserved. The criterio	on for hy	dric soil is	met.			
l									

Hydrology Photos



Vegetation Photos

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 West



Photo of Sample Plot Sketch



US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP So	uthgate	City/County	r: Gibsonville, Rockingha	Sampling Dat	e: 2018-June-01	
Applicant/Owner:	NextEra			State: North Ca	rolina Sampling Point: W-	C18-16_UPL-1
Investigator(s): Dor	n Lockwood, Joe	e Roy, Jeremy Humm	nel Section	on, Township, Ran	nge:	
Landform (hillslope, t	errace, etc.):	Hillslope	Local relief (concave, convex, i	none): Convex	Slope (%): 10 to 15
Subregion (LRR or ML	RA): MLR/	A 136 of LRR P	Lat:	36.2486492	Long: -79.5395346	Datum: WGS84
Soil Map Unit Name:					NWI classificat	ion:
Are climatic/hydrolog	ic conditions or	the site typical for t	this time of year?	Yes 🟒 No _	(If no, explain in Remarks	s.)
Are Vegetation,	Soil,	or Hydrology s	significantly disturbed?	Are "Normal Ci	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology r	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 or	<u>ie is required; check all f</u>	that apply)	Secondary Indicators (minimum	<u>of two required)</u>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True A Hydro Oxidi; Prese Recer Thin N 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 Sparsely Vegetated Conca	Surface (B8) nagery (C9) 11)
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-C18-16_UPL-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species Th	at 1	(A)
1				Are OBL, FACW, or FAC:		
2.				Total Number of Dominant Spec	es 7	(B)
3.				Across All Strata:		(_)
4.				Percent of Dominant Species Th	it 14.5	3 (A/R)
5	·			Are OBL, FACW, or FAC:		(, , , ,)
s	·			Prevalence Index worksheet:		
o	·			Total % Cover of:	<u>Multiply</u>	<u>' By:</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 10		30
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACILI species 95	- x 4 =	380
1. Juniperus virginiana	15	Yes	FACU		- ^- ·	
2.					X5=	0
3.				Column lotais 105	(A)	410 (B)
4	·			Prevalence Index = B/A	. = <u>3.9</u>	. <u> </u>
5				Hydrophytic Vegetation Indicato	rs:	
S	·			1- Rapid Test for Hydrophy	ic Vegetatio	n
6	·			2 - Dominance Test is > 509	5	
7				$3 - Prevalence Index is \leq 3$.	01	
8				4 - Morphological Adaptati	ns¹ (Provide	supporting
9				data in Remarks or on a separat	sheet)	supporting
	15	= Total Cov	er	Problematic Hydrophytic V	agetation1 (F	volain)
50% of total cover:7.5	20% of to	tal cover:	3	1 Indicators of bydric soil and wor	land bydroly	
Herb Stratum (Plot size: 5)	_			procept uplace disturbed or pro-	blomatic	bgy must be
1 Solidago canadensis	20	Ves	FACIL		Jematic	
2 Lospadaza supezta	15	Voc	EACU	Definitions of Four vegetation St	rata:	
2. Lespeueza curreata	10	Ne a	FACU			
3. Eupatorium capillifolium	10	Yes	FACU	Tree – Woody plants, excluding v	ines, 3 in. (7	.6 cm) or more
4. Ambrosia artemisiifolia	10	Yes	FACU	in diameter at breast height (DB	-I), regardles	s of height.
5. <i>Erigeron annuus</i>	10	Yes	FACU			
6. <i>Rubus alumnus</i>	5	No	FACU	Sapling/shrub – Woody plants, e	<pre><cluding pre="" vine<=""></cluding></pre>	es, less than 3
7. Allium canadense	5	No	FACU	in. DBH and greater than or equ	al to 3.28 ft (1 m) tall.
8. Senecio vulgaris	5	No	FACU			
9				Herb – All herbaceous (non-woo	յy) plants, re	egardless of
10				size, and woody plants less than	3.28 ft tall.	
'''	· <u> </u>					20.65
	80	= Total Cov	er	woody vines – All woody vines g	reater than a	3.28 TT IN
50% of total cover: <u>40</u>	_20% of to	otal cover:	16	neight.		
Woody Vine Stratum (Plot size: <u>30</u>)						
1. <i>Smilax rotundifolia</i>	10	Yes	FAC			
2.						
3.				Hydrophytic Vegetation Present	? Yes □ No	\checkmark
4				, , , , , ,		
5						
J		Tabal Car				
	10	= lotal Cov	er			
50% of total cover: <u>5</u>	_ 20% of to	otal cover:	2			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-C18-16_UPL-1

Profile D Depth	escription: (Describe t Matrix	o the dep	th needed to doo Re	ument the edox Featur	indicator es	or confirm	the absenc	e of indicators.)	
' (inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0-2	10YR 3/4	100						Clav Loam	
2 - 18	7.5YR 4/6	100						Clay Loam	
2 10	/.5/11/ 1/0							city Louin	
						<u> </u>			
		·							·
		·							
		·							
		<u> </u>							
¹Type: C	= Concentration, D = D	Depletion,	RM = Reduced N	latrix, MS =	Masked S	Sand Grain	s. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	oil Indicators:							Indicators for Problem	atic Hydric Soils ³ :
	ol (A1)		_ D	ark Surface ((S7)			2 cm Muck (A10) (A	AI DA 147)
Histic E	pipedon (A2)		P	olyvalue Belo	ow Surface	e (S8) (MLRA	A 147, 148)	Coast Prairie Redo	× (A16) (MI PA 1/7 1/8)
Black H	listic (A3)		TI	nin Dark Sur	face (S9) (l	MLRA 147, 1	148)	Coast Fraine Redu.	vin Soile (E10) (MI DA 126
Hydrog	gen Sulfide (A4)		Lo	bamy Gleyec	Matrix (F2	2)			IIII SUIIS (F19) (IVILKA 130,
_ Stratifi	ed Layers (A5)		D	epleted Mat	rix (F3) urfaco (E6)			Vory Shallow Dark	Surface (TE12)
2 CIT IV	ed Below Dark Surface ((Δ11)	_ ^K	enleted Darl	v Surface (FO)	F7)		Very Shallow Dark	Surface (TFTZ)
Depice	ark Surface (A12)	(////)	D 	edox Depres	sions (F8)	. , ,			emarks)
Sandy	Mucky Mineral (S1) (LRF	R N, MLRA	147, 148) lr	on-Mangane	se Masses	s (F12) (LRR	N, MLRA 13	5)	
Sandy	Gleyed Matrix (S4)		_ U	mbric Surfac	e (F13) (N	ILRA 136, 12	22)	undicators of hydroph	iyuc vegetation and
Sandy	Redox (S5)		Pi	edmont Floo	odplain So	ils (F19) (MI	LRA 148)	disturbed or problem:	ist be present, uniess
Strippe	ed Matrix (S6)		R	ed Parent M	aterial (F2	1) (MLRA 1 2	27, 147)	disturbed of problema	auc.
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric So	il Present?		Yes 🗆 No 🗹
	Depth (inches):					-			
Remarks	:								

Soil 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	y: Gibsonville, Alaman	ce	Sampling Dat	t e: 2018	-May-30	
Applicant/Owner: N	lextEra				State: North Ca	arolina S	ampling Point: W-A	18-83_PEM-1
investigator(s): Laura Giese, Jeff Vandeveer, Nate Renaudin Section, Township, Range:								
Landform (hillslope, te	errace, etc.):	Foot slope	Local re	elief (co	oncave, convex,	none):	Concave	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): MLRA	A 136 of LRR P		Lat:	36.2345474	Long:	79.5299544	Datum: WGS84
Soil Map Unit Name:	Frogsboro Sa	ndy loam, 2-6 perc	ent slopes (FgB)				NWI classificatio	n:
Are climatic/hydrologic	c conditions on	the site typical for	this time of year?		Yes 🟒 No _	(If no,	explain in Remarks.)	
Are Vegetation,	Soil 🟒,	or Hydrology	significantly disturbed?	?	Are "Normal C	ircumsta	nces" 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	Is the Sampled Area within a Wetland?	Vas. (No				
Remarks:							
Covertype is PEM. Area is wetland, all three wetland parameters are present.							

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of o	ne is required; check a	all that apply)	Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ir Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tru Ayı Ox Pre Thi Otl nagery (B7)	 Surface Sofi Cracks (b0) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream g	Yes No Yes No Yes No gauge, monitoring wel	Depth (inches): Depth (inches): Depth (inches): I, aerial photos, previous inspections), if	Wetland Hydrology Present? Yes No
Remarks: A positive indication of wetland hy	rdrology was observed	d (at least two secondary indicators). Hyd	frology has been influenced by historic farming

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

Sampling Point: W-A18-83_PEM-1

	-			1			
Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test worksheet:			
	% Cover	Species?	Status	Number of Dominant Species Tha	t 2	(A)	
1				Total Number of Dominant Specie	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
2		<u> </u>		Across All Strata:	2	(B)	
3		<u> </u>		Percent of Dominant Species That	: 100	(A /D)	
ч 5		·		Are OBL, FACW, or FAC:	100	(A/ B)	
6	·	·		Prevalence Index worksheet:			
7				Total % Cover of:	<u>Multiply E</u>	<u>By:</u>	
··	0	= Total Cov	er	OBL species 60	x 1 =	60	
50% of total cover: 0	20% of to		0	FACW species 45	x 2 =	90	
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	
3.				Column lotals 105	(A)	150 (B)	
4.				Prevalence Index = B/A	= <u>1.4</u>		
5.				Hydrophytic Vegetation Indicators	;:		
6.				1- Rapid Test for Hydrophyti	: Vegetation		
7.				2 - Dominance Test is >50%			
8.				3 - Prevalence Index is ≤ 3.0	1		
9.				4 - Morphological Adaptation	is' (Provide s	supporting	
	0	= Total Cov	er	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation1 (Evolution)			
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0	¹ Indicators of hydric soil and weth	and hydrolog	y must he	
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbed or prob	lematic	by mast be	
1. <i>Solidago gigantea</i>	35	Yes	FACW	Definitions of Four Vegetation Str	ata:		
2. <i>Glyceria striata</i>	30	Yes	OBL				
3. <i>Carex lurida</i>	20	No	OBL	Tree – Woody plants, excluding vir	าes, 3 in. (7.6	cm) or more	
4. <i>Carex stipata</i>	10	No	OBL	in diameter at breast height (DBH), regardless	of height.	
5. <i>Eupatorium perfoliatum</i>	10	No	FACW				
6	<u> </u>			Sapling/shrub – Woody plants, ex	cluding vines	s, less than 3	
7				in. DBH and greater than or equa	to 3.28 ft (1	m) tall.	
8				<u> </u>	х. н		
9				Herb – All herbaceous (non-wood	y) plants, reg	ardless of	
10				size, and woody plants less than 3	.20 It tall.		
11							
	105	= Total Cov	er	Woody vines – All woody vines gre	eater than 3.2	28 ft in	
50% of total cover: <u>52.5</u>	_ 20% of to	otal cover:	21	height.			
Woody Vine Stratum (Plot size: <u>30'</u>)							
1							
2							
3				Hydrophytic Vegetation Present?	Yes N	0	
4							
5							
	0	= lotal 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 ob	served (>50	0% of domin	ant species	indexed as OBL, FACW, or FAC).			

SOIL

Sampling Point: W-A18-83_PEM-1

Profile D	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
(inchos)	Color (maist)	Kedox reactives			1002		Toyturo	Bomarks	
				10				learn	Remarks
0-6	2.51 5/3	90	10YR 5/6	10	<u> </u>			Loam	·
6 - 16	2.5Y 6/2	80	10YR 5/8	20	<u> </u>	M		Clay Loam	
	= Concentration D = D		RM = Reduced Matrix	MS =	Maskad S	and Grain	s ² l ocatio	n:Pl = Pore Lining M =	Matrix
Type. C		epiecion	, KINI – Reduced Matrix	., 1013 –	IVIASKEU S		SLUCALIC	Jn. PL - POIE LIIIIng, IVI -	· Widui IX.
Hydric Sc			D - vl. C		(67)			indicators for Problem	lauc Hydric Solis ³ :
HISTOSC	DI (AT)		_ Dark S	urtace i	(3/)	(CO) (NAL DA	117 110	2 cm Muck (A10) (MLRA 147)
	.pipeuoli (A2) listic (Δ3)		_ rolyva Thin _	ark Sur	face (SO) /	(30) (IVILRA 11 PA 147 1	ר 147, 148) 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
- Hydros	ren Sulfide (A4)		I namy	Glever	Matrix (F2	() ()	140)	Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	ed Lavers (A5)		∠ Deplet	ed Mat	rix (F3)	-,		147)	
2 cm M	luck (A10) (LRR N)		Redox	Dark S	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface (/	A11)	Deplet	ed Darl	k Surface (l	-7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redox	Depres	sions (F8)			、	
Sandy	Mucky Mineral (S1) (LRR	N, MLRA	. 147, 148) Iron-M	angane	ese Masses	(F12) (LRR	N, MLRA 13	6)₃Indicators of hydrop	nytic vegetation and
Sandy	Gleyed Matrix (S4)		_ Umbrid	: Surfac	ce (F13) (M	LRA 136, 12	22)	wetland hydrology m	ist be present junless
Sandy	Redox (S5)		Piedmo	ont Floo	odplain Soi	ls (F19) (M I	LRA 148)	disturbed or problem	atic
Strippe	d Matrix (S6)		Red Pa	rent M	aterial (F21) (MLRA 12	27, 147)	disturbed of problem	
Restrictiv	e Layer (if observed):		News						
	туре:		None			Hydric So	oil Present?		Yes 🗹 No 🗆
	Depth (inches):								
Remarks	:								
A positive	e indication of hydric s	oil was o	bserved, soil likely dis	turbed	l due to la	nd use.			

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	y: Gibsonville, Alaman	ce Sampling Dat	te: 2018-May-30			
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-/	A18-83_UPL-1		
nvestigator(s): Laura Giese, Jeff Vandeveer, Nate Renaudin Section, Township, Range:								
Landform (hillslope, te	rrace, etc.):	Hillslope	Local re	lief (concave, convex,	none): Concave	Slope (%): 1 to 10		
Subregion (LRR or MLF	RA): MLRA	136 of LRR P		Lat: 36.2345176	Long: -79.5300451	Datum: WGS84		
Soil Map Unit Name:	Frogsboro Sa	ndy loam, 2-6 perc	ent slopes (FgB)		NWI classificati	on:		
Are climatic/hydrologic	c conditions on	the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)		
Are Vegetation,	Soil, c	or Hydrology :	significantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil, c	or Hydrology	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?	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 based on a	bsence of hydric soils and	wetland hydrology .	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of o	ne is required; check all f	that apply)	Secondary Indicators (minimum c	of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial In Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / 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)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D1 Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) EAC-Neutral Test (D5) 	urface (B8) agery (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 g	auge, monitoring well, a	erial photos, previous inspections), if	available:	
Remarks:				
The criterion for wetland hydrolog	y is not met.			

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

Sampling Point: W-A18-83_UPL-1

Trop Stratum (Plot cize: 201)	Absolute	Dominant	Indicator	Dominance Test worksheet	t:		
	% Cover	Species?	Status	Number of Dominant Spec	ies That	2	(A)
1	<u> </u>			Are OBL, FACW, or FAC:			
2				Total Number of Dominant Across All Strata:	t Species	3	(B)
4	·			Percent of Dominant Speci Are OBL FACW or FAC	ies That	66.7	(A/B)
5	. <u> </u>			Prevalence Index workshee	et:		
6	. <u> </u>			Total % Cover of:		Multiply	Bv:
7	. <u> </u>			OBL species	0	x 1 =	 0
	0	= Total Cov	rer	FACW species	0	x 2 =	0
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species	40	x 3 =	120
Sapling/Shrub Stratum (Plot size:15')				FACU species	60	x 4 =	240
1					15	x 5 =	75
2				Column Totals	115	(Δ) <u>–</u>	/35 (B)
3	<u> </u>			Broyalance Index	$r = R/\Lambda =$	30	433 (8)
4							
5				Hydrophytic Vegetation Inc	dicators:		
6				1- Rapid Test for Hydr	ropnytic v	egetation	1
7				2 - Dominance lest is	>50%		
8.				3 - Prevalence Index is	s ≤ 3.0'		
9.				4 - Morphological Ada	aptations'	(Provide	supporting
	0	= Total Cov	rer	data in Remarks or on a separate sheet)			
50% of total cover: <u>0</u>	20% of to	tal cover:	0	11ndicators of bydric soil an	nd wotland		my must be
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbed of	or probler	natic	gymustbe
1. Poa pratensis	40	Yes	FACU	Definitions of Four Vegetat	tion Strata		
2. Juncus tenuis	20	Yes	FAC	Deminitions of Four Vegetat			
3. Dichanthelium clandestinum	20	Yes	FAC	Tree – Woody plants, exclu	ding vines	s 3 in (7 i	5 cm) or more
4. Elymus repens	15	No	FACU	in diameter at breast heigh	nt (DBH), r	regardless	s of height.
5. Triticum aestivum	15	No	UPL			-8	
6. <i>Rosa multiflora</i>	5	No	FACU	Sapling/shrub – Woody pla	ints, exclu	iding vine	s, less than 3
7.				in. DBH and greater than o	or equal to	o 3.28 ft (1	m) tall.
8.	·						
9				Herb – All herbaceous (non	ו (woody)	plants, re	gardless of
10				size, and woody plants less	s than 3.28	8 ft tall.	
11	·						
···· <u></u>	115	= Total Cov	er	Woody vines – All woody vi	ines great	er than 3	.28 ft in
50% of total cover: 57.5	20% of to		23	height.	0		
Woody Vine Stratum (Plot size: 30')	_ 20% 01 10						
1							
2							
3	·			Hydronhytic Vegetation Pr	resent? V	/es 🖂 No i	7
	·				coeffe.		
т Б	·						
·		- Total Cov	or				
50% of total cover: 0	20% of to		0				
	_ 20% 01 tt	Juli 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 domir	ant species	indexed as OBL, FACW, or FA	AC).		
					-		

SOIL

Sampling Point: W-A18-83_UPL-1

Profile D Depth	escription: (Describe to Matrix	o the dep	th needed to docume Redox	ent the i Featur	indicator o	or confirm	the absenc	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0-6	10YR 5/3	100						Loam	
6 - 16	10YR 5/3	92	10YR 5/8	8	С	М		Loam	
				·					
		·							
		·							
		·							
		·		· <u> </u>	·				
		·		·					
		·							
		·							
17	Concentration D		DNA De du se d'Aletai				21+!-	DI Deve Lizie M	NA statut
'Type: C	= Concentration, D = L	epletion,	RM = Reduced Matri	x, MS =	Masked S	and Grair	is. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	oil Indicators:				CT)			Indicators for Problem	atic Hydric Soils ³ :
Histoso	DI (A1)		_ Dark S	ourface (S7) W Surface		A 147 149)	2 cm Muck (A10) (N	ILRA 147)
Black H	listic (A3)		Folyva Thin D	ark Surf	face (S9) (N	MI RA 147	148)	Coast Prairie Redo:	x (A16) (MLRA 147, 148)
Hydrog	gen Sulfide (A4)		Loamy	/ Gleyed	Matrix (F2	<u>2)</u>	,	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifi	ed Layers (A5)		_ Deple	ted Matr	rix (F3)			147)	
_ 2 cm N	uck (A10) (LRR N)		Redox	Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplet	ed Below Dark Surface (A11)	_ Deple	ted Dark	Surface (I	F7)		Other (Explain in R	emarks)
INICK L Sandy	ark Surface (ATZ) Mucky Mineral (S1) (LR		Redox	Depres	SIONS (F8)	(F12) (I R		6)	
Sandy	Gleved Matrix (S4)		Umbri	c Surfac	e (F13) (M	ILRA 136. 1	22)	⁰ ³ Indicators of hydroph	ytic vegetation and
Sandy	Redox (S5)		Piedm	ont Floo	dplain Soi	ils (F19) (N	LRA 148)	wetland hydrology mu	st be present, unless
Strippe	d Matrix (S6)		Red Pa	arent Ma	aterial (F21) (MLRA 1	27, 147)	disturbed or problema	atic.
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric S	oil Present?		Yes 🗆 No 🗵
	Depth (inches):								
Remarks	:								
N									
NO POSIT	ve indication of hydric	solis was	s observed.						

Photo of Sample Plot East



Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: 4, Morton, Alamance Sampling Date: 2018-May-30								
Applicant/Owner: N	Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-85_PEM-1							
Investigator(s): Laura Giese, Jeff Vandeveer, Nate Renaudin Section, Township, Range:								
Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Concave Slope (%): 1 to 3								
Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.2301606 Long: -79.5269447 Datum: WGS84								
Soil Map Unit Name:	Chewacla loa	am, 0-2 percent slope	s, frequently flooded (ChA)	NWI classifica	tion:		
Are climatic/hydrologic	conditions or	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 C	ircumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology na	aturally problematic?	(If needed, exp	olain any answers in Remar	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 on	e is required; check all	<u>that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydr Oxid Pres Rece Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) ized Rhizospheres on Living ence of Reduced Iron (C4) nt Iron Reduction in Tilled So Muck Surface (C7) rr (Explain in Remarks)	Roots (C3 bils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (FAC Neutral Tact (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, a	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-A18-85_PEM-1

	=						
Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test worksh	eet:		
	% Cover	Species?	Status	Number of Dominant Sp	pecies That	6	(A)
1				Are OBL, FACW, or FAC:			
2				Total Number of Domina Across All Strata:	ant Species	7	(B)
4	·			Percent of Dominant Sp Are OBL_EACW_or EAC	ecies That	85.7	(A/B)
5	<u> </u>			Prevalence Index works	heet		
6	<u> </u>			Total % Cover o	neet. nf	Multinly	Bv:
7	<u> </u>			OBL species	30	x 1 =	
	0	= Total Cov	ver	EACW species	40	× 2 =	80
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species	-+0	×2- -	0
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				FACLI species	10	× 1 -	40
1					0	× 4	40
2.				Column Totals	0	(4)	150 (D)
3						(A) _	Т50 (В)
4.				Prevalence inc	dex = B/A =	1.9	
5.				Hydrophytic Vegetation	Indicators:		
6.				1- Rapid Test for Hy	ydrophytic \	/egetation	
7.				2 - Dominance Test	t is >50%		
8.				3 - Prevalence Inde	ex is $\leq 3.0^1$		
9.				4 - Morphological A	Adaptations	¹ (Provide	supporting
···	0	= Total Cov	/er	data in Remarks or on a	separate sh	neet)	
50% of total cover: 0	20% of to	tal cover	0	Problematic Hydro	phytic Vege	tation ¹ (Ex	(plain)
Herb Stratum (Plot size: 5')	_ 20/0 01 10			¹ Indicators of hydric soil	and wetlan	d hydrolo	gy must be
1 luncus effusus	20	Ves	FACW	present, unless disturbe		matic	
2 Carey Jurida	10	Voc		Definitions of Four Vege	tation Strat	a:	
2. <u>Cares landa</u> 2. <u>Solidago gigantea</u>	10	Voc				o ·	
S. Solidago gigantea	10	Vec		Iree – Woody plants, exe	cluding vine	s, 3 in. (7.6	o cm) or more
4. Leersia oryzoides	10	Yes		in diameter at breast ne	ignt (DBH),	regardiess	s of neight.
	10	Yes		Sapling/shrub Woody	nlante oveli	iding vino	c locs than 2
	10	Yes		in DBH and greater that	piants, excit n or equal to	0 3 28 ft (1	m) tall
	10	res	FACU	In Don and greater that	ir or equal o	0 3.20 10 (1	ni) tan.
8				Herb – All herbaceous (r	non-woody)	plants reg	ardless of
9				size, and woody plants l	ess than 3.2	8 ft tall.	Sararess er
10				,			
11							20.6
	80	= Total Cov	/er	woody vines - All woody	y vines grea	ter than 3.	.28 ft in
50% of total cover: <u>40</u>	_ 20% of to	otal cover:	16	neight.			
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u>)							
1							
2	. <u> </u>						
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 A positive indication of hydrophytic vegetation was ob	te sheet.) served (>50	0% of domir	nant species	indexed as OBL, FACW, or	FAC).		

SOIL

Sampling Point: W-A18-85_PEM-1

Profile D	escription: (Describe to Matrix	o the dept	h needed to docum	ent the i	indicator	or confirr	n the absen	ce of indicators.)	
(inchos)	Color (moist)		Color (moist)		Tupol	Loc ²		Toxturo	Bomarke
		<u> </u>						Cilt Laart	Rellidiks
0-4	101R 4/5	95	7.51K 4/0		<u> </u>			Silt Loan	
4 - 10	2.54 5/2	85	5YR 4/6	15	<u> </u>	<u>M</u>		Silt Loam	
10 - 18	7.5YR 4/2	95	5YR 4/6	5	<u> </u>	M	5	ilty Clay Loam	
¹ Type: C	= Concentration, D = D	epletion,	RM = Reduced Matr	ix, MS =	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	oil Indicators:							Indicators for Problem	natic Hydric Soils ³ :
Histoso	ol (A1)		Dark	Surface (S7)			2 cm Muck (A10) (MI RA 147)
Histic E	pipedon (A2)		Polyv	alue Belo	w Surface	e (S8) (MLI	RA 147, 148)	Coast Prairie Redo	x (A16) (MI RA 147 148)
Black H	listic (A3)		Thin [Dark Surf	face (S9) (I	MLRA 147	, 148)	Codst i ruine riedo Piedmont Floodola	ain Soils (F19) (MI RA 136
Hydrog	gen Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)		147)	(11) Jons (11) (11) (11) (11) (11)
2 cm M	luck (A10) (LRR N)		Deple Redo	k Dark Su	IX (F3) Irface (F6)			Very Shallow Dark	Surface (TF12)
Deplete	ed Below Dark Surface (A11)	Deple	ted Dark	Surface (F7)		Other (Explain in R	(emarks)
Thick D	ark Surface (A12)		Redo	k Depres	sions (F8)				
Sandy	Mucky Mineral (S1) (LRF	R N, MLRA 1	147, 148) Iron-N	Mangane	se Masses	; (F12) (LR	R N, MLRA 13	⁶⁶⁾ Indicators of hydroph	nytic vegetation and
Sandy	Gleyed Matrix (S4)		Umbr	ic Surfac	e (F13) (M	ILRA 136,	122) 41 DA 149)	wetland hydrology mu	ust be present, unless
Sandy Strippe	Redox (SS) od Matrix (S6)		Plean Red P	10NT FIOD	apiain So aterial (E21	IIS (FI9) (N I) (MIRA '	/ILRA 148) 127 147)	disturbed or problem	atic.
	a haurix (50)						27, 147)		
Resultur			None			Lludric (oil Drocont2		
	Type. Dopth (inchos):		None	-		Hydrics	soli Present?		Yes ⊠ No □
	Deptil (illiches).			-					
Remarks	:								
A positive	e indication of hydric s	oil was ob	oserved.						
ł									

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:	4, Morton, Alamance	Sampling Dat	te: 2018-May-31			
Applicant/Owner: N	extEra	arolina Sampling Point: V	V-A18-85_PSS-1					
Investigator(s): Laura Giese, Jeff Vandeveer, Nate Renaudin Section, Township, Range:								
Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Concave Slope (%): 1 t								
Subregion (LRR or MLR	A 136 of LRR P	L	at: 36.2299735	Long: -79.527428	Datum: WGS84			
Soil Map Unit Name:	Chewacla loa	am, 0-2 percent slope	s, frequently flooded (ChA)	NWI classifica	ation:		
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 C	Circumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology na	aturally problematic?	(If needed, exp	olain 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 _ 🖌 No Yes _ 🖌 No Yes 🏑 No	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 on	Secondary Indicators (minimum of two required)			
 Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tru Hya Oxi Pre Rea Thi Oth	e Aquatic Plants (B14) drogen Sulfide Odor (C1) dized Rhizospheres on Living sence of Reduced Iron (C4) tent Iron Reduction in Tilled So n Muck Surface (C7) her (Explain in Remarks)	Roots (C3) iils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC-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 inspe	ctions), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

Sampling Point: W-A18-85_PSS-1

Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	3	(A)
1				Are OBL, FACW, or FAC:		
2				Iotal Number of Dominant Species	4	(B)
3				Percent of Dominant Species That		
4				Are OBL_EACW or EAC	75	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply	Bv:
7				OBL species 60	x 1 =	 60
	0	= Total Cov	<i>r</i> 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:15')				FACU species 40	x 4 =	160
1. <i>Salix nigra</i>	40	Yes	OBL	UPL species 0	x 5 =	0
2				Column Totals 130	(A) _	280 (B)
3				$\frac{130}{130}$	·~) _	200 (D)
4						<u> </u>
5				Hydrophytic Vegetation Indicators:	\/	
6				1- Rapid Test for Hydrophytic	Vegetation	1
7.				_ ∠ 2 - Dominance Test is >50%		
8.				3 - Prevalence Index is $\leq 3.0^{\circ}$	1 (5)	
9.				4 - Morphological Adaptations	5' (Provide	supporting
	40	= Total Cov	/er	Problematic Hydrophytic Veg	neel)	(niclay
50% of total cover: <u>20</u>	20% of to	tal cover:	8	11pdicators of bydric soil and wetlar		ay must be
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbed or proble	matic	gy must be
1. Lonicera japonica	30	Yes	FACU	Definitions of Four Vegetation Strat	a.	
2. Juncus effusus	20	Yes	FACW	Definitions of Four Vegetation State	.u.	
3. <i>Carex lurida</i>	20	Yes	OBL	Tree - Woody plants, excluding vine	es 3 in (7 i	6 cm) or more
4. Boehmeria cylindrica	10	No	FACW	in diameter at breast height (DBH).	regardles	s of height.
5. Rubus allegheniensis	10	No	FACU		8	
6.				Sapling/shrub – Woody plants, excl	uding vine	s, 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						
	90	= Total Cov	/er	Woody vines – All woody vines grea	ater than 3	.28 ft in
50% of total cover: 45	20% of to		18	height.		
Woody Vine Stratum (Plot size: 30')	_20%0110	cover.				
1						
2						
2				Hydrophytic Vegetation Present?	Ves 🛛 No 🛛	
л						
5						
J		- Total Co				
E004 of total covers	0 20% of to		0			
	_ 20% 01 tt	Juli 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 domir	nant species	indexed as OBL, FACW, or FAC).		

SOIL

Sampling Point: W-A18-85_PSS-1

Profile De	escription: (Describe to	the dep	th needed to docume	ent the i	ndicator	or confirm	n the absend	ce of indicators.)	
Depth	Matrix		Redox	Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 2	7.5YR 4/3	100						Silt Loam	
2 - 6	10YR 5/2	90	7.5YR 4/6	10	C	М		Silt Loam	
6 - 19	5YR 4/6	70	10YR 5/1	30	D	Μ	S	ilty Clay Loam	
		······································		-	·				
					·				·
									·
									·
¹ Type: C =	Concentration D = D	epletion	RM = Reduced Matri	x. MS =	Masked S	and Grai	ns. ²l ocatio	on: PL = Pore Lining, M =	Matrix
Hydric So	il Indicators:	epiccion,	nin neudeed matri	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	mashea			Indicators for Problem	atic Hydric Soils ³
Histoso			Dark	Surface (9	57)				auc riyuric solis
Histic Er	pipedon (A2)		Dalk a	ilue Belo	w Surface	(S8) (ML	RA 147, 148)	2 cm Muck (A10) (N	/LRA 147)
Black H	istic (A3)		Thin D	ark Surf	ace (S9) (I	MLRA 147	148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
 Hydroge	en Sulfide (A4)		Loamy	/ Gleyed	Matrix (F2	<u>2</u>)	-,	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_∕ Deplet	ted Matr	ix (F3)			147)	
_ 2 cm Mi	uck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (/	A11)	_ Deple	ted Dark	Surface (I	F7)		Other (Explain in R	emarks)
Thick Da	ark Surface (A12)		Redox	Depress	sions (F8)				
Sandy N	Aucky Mineral (ST) (LRR	N, MILKA	147, 148) Iron-Iv	langanes		5 (FIZ) (LR	K N, MLKA 13	⁶⁾ ³ Indicators of hydroph	ytic vegetation and
Sandy R	Pedax (S5)		Onbh Piedm	ont Floo	dolain Soi	ils (F19) (N	122) / RA 1/(8)	wetland hydrology mu	st be present, unless
Stripper	d Matrix (S6)		Red Pa	arent Ma	iterial (F21	1) (MIRA '	27. 147)	disturbed or problema	atic.
	a hatak (if observed):					., (
Restrictive			None			L budiric (oil Drocont2		
	Type.		None			Hydrics	on Present?		Yes ₪ NO 🗆
	Depth (inches):								
Remarks:									
A positive	indication of hydric s	oil was ol	oserved.						

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: 4, Morton, Alamance Sampling Date: 2018-May-30						
Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-85_UPL-1								
Investigator(s): Laura Giese, Jeff Vandeveer, Nate Renaudin Section, Township, Range:								
Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Convex Slope								
Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.2302226 Long: -79.5271716 Datum: WGS8								
Soil Map Unit Name:	Chewacla loa	am, 0-2 percent slop	oes, frequently flooded (C	hA)	NWI classificat	tion:		
Are climatic/hydrologic	conditions or	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	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	e present.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum	<u>of two required)</u>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True . Hydro Oxidi Prese Recei Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 11)
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	aerial photos, previous inspections), if	available:	
Remarks:				
The criterion for wetland hydrology	is not met.			

Sampling Point: W-A18-85_UPL-1

Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species Tha	t 0	(A)
1				Total Number of Dominant Specie		
2	·	<u> </u>		Across All Strata:	3 3	(B)
3.	·			Percent of Dominant Species That		(A (D)
4	·			Are OBL, FACW, or FAC:	0	(A/B)
	·			Prevalence Index worksheet:		
7	·			<u>Total % Cover of:</u>	<u>Multiply</u>	<u>' By:</u>
···	0	= Total Cove	er	OBL species 0	x 1 =	0
50% of total cover: 0	20% of to	tal cover:	0	FACW species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				FAC species 10	- ×3=	30
1.				FACU species 80	_ ×4=	320
2.		·		OPL species 0	_ ×5=	0
3.				Column lotais 90	- (A)	350 (B)
4.				Prevalence Index = B/A	<u> </u>	
5.				Hydrophytic Vegetation Indicators		
6.				1- Rapid Test for Hydrophyti	: Vegetatio	n
7.				2 - Dominance Test is > 50%		
8				$3 - $ Prevalence index is ≤ 3.0	' sc1 (Drowide	currenting
9	. <u> </u>			data in Remarks or on a separate	sheet)	supporting
	0	= Total Cove	er	Problematic Hydrophytic Ve	zetation ¹ (E	xplain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	¹ Indicators of hydric soil and wetla	and hydrolo	bgy must be
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbed or prob	lematic	
1. Trifolium repens	30	Yes	FACU	Definitions of Four Vegetation Str	ata:	
2. <u>Poa pratensis</u>	30	Yes	FACU			
3. Apocynum cannabinum	20	Yes	FACU	Tree – Woody plants, excluding vi	nes, 3 in. (7	.6 cm) or more
4. Rumex crispus	10	No	FAC	in diameter at breast height (DBH), regardles	s of height.
5						
6.				Sapling/shrub - Woody plants, ex	to 2 28 ft (es, less than 3
/					10 5.26 11 (i iii) tali.
8	·			Herb – All herbaceous (non-wood	/) plants, re	egardless of
9	·			size, and woody plants less than a	.28 ft tall.	
	·	· ·				
		- Total Cov		Woody vines - All woody vines are	ator than 3	2 28 ft in
E0% of total cover: 45	90		10	height.		5.20 11 11
Woody Vine Stratum (Plot size: 30')	_ 20% 01 to	lai cover.				
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 senara	te sheet)			1		
Remarks. (include photo numbers here of on a separa	le sheet.)					
No positive indication of hydrophytic vegetation was o	oserved (≥	50% of dom	inant specie	es indexed as FAC– or drier).		

SOIL

Sampling Point: W-A18-85_UPL-1

Profile De	escription: (Describe to Matrix	the dep	th needed to docume	ent the i	ndicator o	or confirm	the absence of indicators.)	
(inches)	Color (moist)	96	Color (moist)	0%	Type1	1002	Texture	Pemarks
		100			туре		Cilty Clay Loam	
0-3	2 516 4/4		2 5//0 4/2		·			
3 - 18	2.5YR 4/6	98	2.5YR 4/2				Clay Loam	
				·	·			
						<u> </u>		
					·			
¹ Type: C =	Concentration, D = D	epletion,	RM = Reduced Matri	x, MS =	Masked S	and Grain	s. ² Location: PL = Pore Linir	ng, M = Matrix.
Hydric So	il Indicators:						Indicators for Pr	oblematic Hydric Soils³:
Histoso	l (A1)		Dark S	urface (S7)		2 cm Mindel (A 10) (MI DA 147)
Histic E	pipedon (A2)		Polyva	lue Belo	w Surface	(S8) (MLR	A 147, 148) <u> </u>	ATU) (MILKA 147)
Black H	istic (A3)		Thin D	ark Surf	ace (S9) (N	/ILRA 147,	148) <u> </u>	Redox (A16) (MLRA 147, 148)
_ Hydrog	en Sulfide (A4)		Loamy	/ Gleyed	Matrix (F2	.)	Piedmont Flo	oodplain Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_ Deple	ted Matr	ix (F3)		147)	
_ 2 cm M	uck (A10) (LRR N)		Redox	Dark Su	irface (F6)		Very Shallow	/ Dark Surface (TF12)
Deplete	d Below Dark Surface (/	A11)	_ Deple	ted Dark	Surface (I	7)	Other (Expla	in in Remarks)
_ Thick D	ark Surface (A12)		Redox	Depres	sions (F8)	(510) (100		
_ Sandy r	NUCKY WINEFAL(ST) (LKK	N, WILKA	147, 148) Iron-Iv	angane c Surfac		(FIZ) (LKK	IN, MILRA 130, 3Indicators of hy	/drophytic vegetation and
Sandy C	Dodox (S5)		Umbri Biodm		e (F13) (IVI Idolain Soi	LKA 130, I Ic (E10) (M	wetland hydrold	ogy must be present, unless
Strippe	d Matrix (S6)		Fleuin Ped P:	ont Flou	torial (E21) (MIDA 1	disturbed or pro	oblematic.
					101101 (1 2 1		., 14/)	
Restrictiv	e Layer (if observed):							
	Type:	·	None			Hydric So	oil Present?	Yes 🗆 No 🗹
	Depth (inches):							
Remarks:								
No positi	ve indication of hydric	soils was	observed. The criter	ion for l	hydric soi	l is not me	t.	

Photo of Sample Plot North



Photo of Sample Plot West

Project/Site: MVP Sou	thgate	City/County:	Gibsonville, Alaman	ce Sampling Da	ate: 2018-June-11	
Applicant/Owner: N	lextEra			State: North C	Carolina Sampling Point: W	/-C18-67_PFO-1
Investigator(s): Don Lockwood, Tony Tredway, Jeremy Hummel Section, Township, Range:						
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local re	lief (concave, convex	, none): Concave	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): MLRA	A 136 of LRR P		Lat: 36.221339	Long: -79.5216198	Datum: WGS84
Soil Map Unit Name:	Frogsboro				NWI classifica	tion: PFO
Are climatic/hydrologic	conditions or	the site typical for th	is time of year?	Yes 🟒 No _	(If no, explain in Remark	<s.)< td=""></s.)<>
Are Vegetation,	Soil,	or Hydrology sig	gnificantly disturbed?	Are "Normal	Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	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?	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 or	ne is required; cheo	<u>k all that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im 	 nagery (B7)	True Aquatic Plants (B' Hydrogen Sulfide Odo Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7 Other (Explain in Rema	14) r (C1) s on Living Roots (C3) ron (C4) in Tilled Soils (C6)) arks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Water-Stained Leaves (B9)				Shallow Aquitard (D3)
Aquatic Fauna (B13)				Microtopographic Relief (D4)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes _✔_ No Yes _✔_ No Yes _✔_ No	_ Depth (inche _ Depth (inche _ Depth (inche	es): 2 es): 6 es): 0	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream g	auge, monitoring v	vell, aerial photos, prev	vious inspections), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met. A positive	indication of wetland	hydrology was obser	ved (primary and secondary indicators were present).

Sampling Point: W-C18-67_PFO-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:	
	% Cover	Species?	Status	Number of Dominant Species That	6 (A)
1. <u>Acer rubrum</u>	90	Yes	FAC	Are OBL, FACW, or FAC:	
2. Liquidambar styraciflua	10	No	FAC	Iotal Number of Dominant Species	7 (B)
3				Across All Strata.	
4				Are OBL_FACW_or_FAC	85.7 (A/B)
5				Prevalence Index worksheet:	
6				Total % Cover of:	Multiply By:
7				OBL species 0	x1= 0
	100	= Total Cov	rer	FACW species 55	$x^{2} = 110$
50% of total cover: <u>50</u>	_20% of to	otal cover:	20	FAC species 300	x 3 = 900
Sapling/Shrub Stratum (Plot size:15)				FACU species 45	x 4 = 180
1. <i>Carpinus caroliniana</i>	70	Yes	FAC	UPL species 0	x = 0
2. Ligustrum sinense	15	No	FACU	Column Totals 400	(A) 1190 (B)
3. <i>Fraxinus pennsylvanica</i>	15	No	FACW	Prevalence Index = B/A =	3
4					
5				1 Bapid Test for Hydrophytic)	lagatation
6				1- Rapid Test for Hydrophytic V	regetation
7	. <u> </u>			\checkmark 2 - Dominance rest is >50%	
8	<u> </u>			▲ Morphological Adaptations	1 (Provide supporting
9	<u> </u>			data in Remarks or on a separate st	neet)
	100	= Total Cov	rer	Problematic Hydrophytic Vege	tation ¹ (Explain)
50% of total cover: <u>50</u>	_20% of to	otal cover:	20	¹ Indicators of hydric soil and wetlan	d hydrology must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic
1. Microstegium vimineum	60	Yes	FAC	Definitions of Four Vegetation Strat	a:
2. <u>Boehmeria cylindrica</u>	20	Yes	FACW	_	
3. <i>Onoclea sensibilis</i>	20	Yes	FACW	Tree – Woody plants, excluding vine	s, 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 m) tall.
8					
9.				Herb – All herbaceous (non-woody)	plants, regardless of
10.				size, and woody plants less than 3.2	8 ft tall.
11.					
	100	= Total Cov	rer	Woody vines – All woody vines grea	ter than 3.28 ft in
50% of total cover: <u>50</u>	_20% of to	tal cover:	20	height.	
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)					
1. Toxicodendron radicans	70	Yes	FAC		
2. Rosa multiflora	20	Yes	FACU		
3. Parthenocissus quinquefolia	10	No	FACU	Hydrophytic Vegetation Present?	íes 🗵 No 🗆
4.					
5.					
	100	= Total Cov	rer		
50% of total cover: <u>50</u>	20% of to	tal cover:	20		
Remarks: (Include photo numbers here or on a separa	te sheet.)				

SOIL

Sampling Point: W-C18-67_PFO-1

Profile De	escription: (Describe to	the dep	oth needed to docum	nent the i	indicator	or confirm	the absend	ce of indicators.)	
Deptn	Matrix		Redo	x Featur	es				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type	Loc ²		lexture	Remarks
0 - 18	10YR 4/2	80	7.5YR 5/6	20	C	M/PL		Clay Loam	
				_					
			-						· · · · · · · · · · · · · · · · · · ·
									·
¹ Type: C =	Concentration, D = D	epletion,	, RM = Reduced Mat	rix, MS =	Masked S	and Grain	s. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:		-					Indicators for Problem	natic Hydric Soils ³ :
Histoso	l (A1)		Dark	Surface ((57)				
Histic E	pipedon (A2)		Polv	alue Belo	ow Surface	(S8) (MLR/	A 147. 148)	2 cm Muck (A10) (N	MLRA 147)
Black H	istic (A3)		Thin	Dark Sur	face (S9) (MLRA 147, 1	148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loan	ny Gleyed	Matrix (F2	2)		Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		_∕ Depl	eted Mati	rix (F3)			147)	
_ 2 cm M	uck (A10) (LRR N)		Redo	x Dark Sı	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (A	A11)	_ Depl	eted Dark	< Surface (I	F7)		Other (Explain in R	lemarks)
Thick D	ark Surface (A12)		Redo	x Depres	sions (F8)	(54.0) (1.00		0	
_ Sandy M	Aucky Mineral (S1) (LRR	N, MLRA	(147,148) Iron-	Mangane	ese Masses	5 (F12) (LRR	N, MLRA 13	6) ₃ Indicators of hydroph	nytic vegetation and
Sandy C	Jeyed Matrix (S4)		Umb Piedu	ric Surfac	e (FT3) (M dolaio Soi	ILKA 136, 1. ile (E19) (M I	22) I DA 1781	wetland hydrology mu	ust be present, unless
Strippe	d Matrix (S6)		Red	Parent Ma	aterial (F21	IIS (F19) (IVI I) (MI RA 12	27 147)	disturbed or problem	atic.
	- Lawar (6 - Laward)			urene m			.,,,,,		
Restrictiv	-								
	Type:		None	-		Hydric So	oil Present?		Yes 🗹 No 🗆
	Depth (inches):			_					
Remarks:									

Hydrology Photos



Soil Photos



Photo of Sample Plot North



Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

Photo of Sample Plot South



Photo of Sample Plot West

Photo of Sample Plot Sketch



Project/Site: MVP Sou	thgate	City/Count	ty: Gibsonville, Alamar	nce Sar	npling Date:	2018-	June-11		
Applicant/Owner: N	lextEra			State:	North Caroli	ina S a	ampling Point: W-C1	8-67_UPL-1	
Investigator(s): Don	Lockwood, To	ny Tredway, Jeremy	/ Hummel	Section, Tow	nship, Range:				
Landform (hillslope, te	rrace, etc.):	Hillslope	Local r	elief (concav	e, convex, nor	ne):	onvex	Slope (%):	1 to 10
Subregion (LRR or MLR	RA): MLR/	A 136 of LRR P		Lat: 36.22	13967 Lo	on <u>g:</u> -7	79.5214112	Datum: W	GS84
Soil Map Unit Name:	Enon clay loa	am					NWI classification	n:	
Are climatic/hydrologic	c conditions or	n the site typical for	r this time of year?	Yes	🖌 No (I	lf no, e	explain in Remarks.)		
Are Vegetation,	Soil,	or Hydrology	significantly disturbed	? Are	'Normal Circu	ımstar	nces" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology	naturally problematic	e (lf ne	eeded, explair	n any a	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 one is required; check al	Secondary Indicators (minimum of two required)		
Surface Water (A1) True High Water Table (A2) Hyd Saturation (A3) Oxic Water Marks (B1) Press Sediment Deposits (B2) Rece Drift Deposits (B3) Thin Algal Mat or Crust (B4) Othe Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	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) n Muck Surface (C7) er (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D²) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	iurface (B8) nagery (C9) 1)
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 gauge, monitoring well,	aerial photos, previous inspections), if	available:	

Sampling Point: W-C18-67_UPL-1

Tree Stratum (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Are OBL FACW or FAC	5	(A)
1. Acer rubrum	/0	Yes	FAC	Total Number of Dominant Species		
2. Liquidambar styraciflua	20	Yes	FAC	Across All Strata:	10	(B)
3. <u>Ulmus rubra</u>	10	NO	FAC	Percent of Dominant Species That		
4.	- <u> </u>			Are OBL, FACW, or FAC:	50	(A/B)
5.	<u> </u>			Prevalence Index worksheet:		
6.			<u> </u>	Total % Cover of:	Multiply	By:
7		Tabal Car		OBL species 0	x 1 =	0
FOW of the table services FO	100	= lotal Cov	er 20	FACW species 0	x 2 =	0
50% of total cover: <u>50</u>	_ 20% of to	otal cover:	20	FAC species 250	x 3 =	750
Sapling/Shrub Stratum (Plot size:15)	60	Vac	FAC	FACU species 150	x 4 =	600
	40	Vec		UPL species 0	x 5 =	0
2. juniperus virginiana	40	res	FACU	Column Totals 400	(A)	1350 (B)
3.	·			Prevalence Index = B/A =	3.4	
4	·			Hydrophytic Vegetation Indicators:		
۶	·			1- Rapid Test for Hydrophytic V	/egetatior	า
o	·		<u> </u>	2 - Dominance Test is > 50%		
/	·			<u>3</u> - Prevalence Index is $\leq 3.0^{1}$		
8	·		<u> </u>	4 - Morphological Adaptations	¹ (Provide	supporting
9	100	- Total Car		data in Remarks or on a separate sh	neet)	
	100		er 20	Problematic Hydrophytic Vege	tation ¹ (E	xplain)
50% of total cover: <u>50</u>	_20% 01 to	otal cover:	20	¹ Indicators of hydric soil and wetlan	d hydrolc	ogy must be
<u>Herb Stratum</u> (Plot Size. <u>5</u>)	70	Voc	EAC	present, unless disturbed or proble	matic	<u> </u>
Asplonium platunguran	20	Voc		Definitions of Four Vegetation Strat	a:	
		Tes	FACU			
3			·	Iree – Woody plants, excluding vine	s, 3 in. (7.	6 cm) or more
ч. 	<u> </u>				regardies	s of neight.
5	·			Sanling/shrub - Woody plants exclu	iding vine	s less than 3
7	·			in. DBH and greater than or equal to	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	8 ft tall.	-
11	<u> </u>					
····	100	- Total Cov	or	Woody vines – All woody vines grea	ter than 3	28 ft in
50% of total cover: 50	20% of to		20	height.		
Woody Vine Stratum (Plot size: 30)	_20%0110	tai cover.	20			
1 Parthenocissus quinquefolia	40	Yes	FACU			
2 Toxicodendron radicans	20	Yes	FAC			
3 Rosa multiflora	20	Yes	FACU	Hydrophytic Vegetation Present?	Yes 🗆 No	2
4 Lonicera ianonica	20	Yes	FACU			
5		105	1/100			
	100	= Total Cov	er.			
50% of total cover: 50	20% of to	tal cover:	20			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-C18-67_UPL-1

Profile D Depth	escription: (Describe t Matrix	o the dept	h needed to docu Re	iment the i dox Featur	indicator es	or confirm	the absenc	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 3	10YR 4/3	100						Clay Loam	
3 - 18	10YR 6/6	100						Clay Loam	
5 10		100						city Louin	
		· ·							·
		· ·							·
		· ·							
		·							
¹Type: C	= Concentration, D = D	Depletion,	RM = Reduced Ma	atrix, MS =	Masked S	Sand Grains	s. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	oil Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histoso	ol (A1)		Da	rk Surface (S7)			2 cm Muck (A10) (A	/I RA 147)
Histic E	pipedon (A2)		Po	lyvalue Belo	ow Surface	e (S8) (MLRA	A 147, 148)	Coast Prairie Redo	x (A16) (MI RA 147 148)
Black H	listic (A3)		Thi	n Dark Sur	face (S9) (I	MLRA 147, 1	48)	Piedmont Floodpla	in Soils (F19) (MI RA 136
Hydrog	gen Sulfide (A4)		L0;	amy Gleyed plotod Mate	i Matrix (F2	2)		147)	(19) (MENT 190,
2 cm M	luck (A10) (I RR N)		De	dox Dark Si	urface (F6)			Very Shallow Dark	Surface (TF12)
Deplet	ed Below Dark Surface ((A11)	De	pleted Dark	Surface (F7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Re	dox Depres	sions (F8)				,
Sandy	Mucky Mineral (S1) (LRF	R N, MLRA [·]	147, 148) Iro	n-Mangane	se Masses	s (F12) (LRR	N, MLRA 13	6)₃Indicators of hydroph	vtic vegetation and
Sandy	Gleyed Matrix (S4)		Un	hbric Surfac	e (F13) (M	ILRA 136, 12	22)	wetland hydrology mu	ist be present, unless
Sandy	Redox (S5) od Matrix (S6)		Pie	dmont Floo d Parant M	odpiain So	IIS (F19) (ML 1) (MI DA 13	_RA 148)	disturbed or problema	atic.
					ateriai (FZ		.7, 147)	•	
Restrictiv	e Layer (if observed):								
	Type:		None			Hydric So	il Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks	:								

Hydrology Photos



Soil Photos

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

Project/Site: MVP Southgate City/County: Gibso	nville, Alamance Sampling Date: 2018-June-09
Applicant/Owner: NextEra	State: North Carolina Sampling Point: W-C18-65_PSS-1
Investigator(s): Don Lockwood, Joe Roy, Jeremy Hummel, Dore	en Section, Township, Range:
Donovan	
Landform (hillslope, terrace, etc.): Flood Plain	Local relief (concave, convex, none): Concave Slope (%): 1 to 3
Subregion (LRR or MLRA): MLRA 136 of LRR P	Lat: 36.2199276 Long: -79.5214548 Datum: WGS84
Soil Map Unit Name: Chewacla	NWI classification: PSS
Are climatic/hydrologic conditions on the site typical for this time	e of year? Yes 🧹 No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "Normal Circumstances" present? Yes 🟒 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing 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 PSS. Area is wetland, all three wetland parameters are present.								

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; check all th	at apply)	Secondary Indicators (minimum of two required	<u>d)</u>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) 	True Ac Hydrog Oxidize Presen Recent Thin M Other (quatic Plants (B14) gen Sulfide Odor (C1) ed Rhizospheres on Living Roots (ce of Reduced Iron (C4) Iron Reduction in Tilled Soils (C6 uck Surface (C7) Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) 	
Inundation Visible on Aerial Im	nagery (B7)		Geomorphic Position (D2)	
_ ∕_ Water-Stained Leaves (B9)			Shallow Aquitard (D3)	
🗹 Aquatic Fauna (B13)			Microtopographic Relief (D4)	
			/ FAC-Neutral Test (D5)	
		Death (inches):		
Surface water Present?	Yes NO	Depth (inches): 6		
Water Table Present?	Yes 🟒 No	Depth (inches): 5	Wetland Hydrology Present? Yes 🗸 No	
Saturation Present?	Yes 🟒 No	Depth (inches): 0	1	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring well, ae	rial photos, previous inspections)), if available:	
Remarks:				
The criterion for wetland hydrolog	y is met. A positive indicat	tion of wetland hydrology was ob	bserved (primary and secondary indicators were pre	sent).

Sampling Point: W-C18-65_PSS-1

Trac Christian (Dist 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	14	(A)
1				Are OBL, FACW, or FAC:		
2	<u> </u>			Total Number of Dominant Species	15	(B)
3				Across All Strata:		
4	<u> </u>			Are OBL EACW or EAC	93.3	(A/B)
5				Brevalence Index worksheet:		
6				Total % Cover of	Multiply	Bv:
7				OBL species 90	<u>v 1 =</u>	<u>an</u>
	0	= Total Cov	er	EACW species 50	× 2 -	100
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	FAC species 80	×3-	240
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 10	× 4 -	40
1. Acer rubrum	30	Yes	FAC		× 4	40
2. Alnus serrulata	25	Yes	OBL	Column Totals	× >	U 470 (D)
3. Sambucus nigra	25	Yes	FAC		(A) _	470 (B)
4. Salix nigra	20	Yes	OBL	Prevalence Index = B/A =	2	
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	Vegetation	
7.				2 - Dominance Test is >50%		
8.			·······	$_{\checkmark}$ 3 - Prevalence Index is ≤ 3.0 ¹		
9.				4 - Morphological Adaptations	¹ (Provide	supporting
	100	= Total Cov	er	data in Remarks or on a separate s	heet)	
50% of total cover: 50	20% of to	tal cover:	20	Problematic Hydrophytic Vege	etation ¹ (Ex	plain)
Herb Stratum (Plot size: 5)	_ 20/0 01 00			¹ Indicators of hydric soil and wetlar	nd hydrolog	gy must be
1 Alternanthera philoxeroides	20	Yes	OBI	present, unless disturbed or proble	ematic	
2 Leersia orvzoides	15	Yes	OBL	Definitions of Four vegetation strat	a.	
3 Microstegium vimineum	15	Ves	FAC	Tree Manager algebra avaluation via	- 2 in (7 (
A Boehmeria cylindrica	10	Voc	EACW/	in diameter at breast beight (DBH)	rogardloss	of boight
5 Carey alata	10	Voc			regardiess	or neight.
6 Eupstorium perfeliatum	10	Voc		Sanling/shrub - Woody plants, excl	uding vine	s less than 3
	10	Voc		in. DBH and greater than or equal t	o 3.28 ft (1	m) tall.
7. junicus enusus	10	Vec			0012010(1	
	10	res	FACW	Herb – All herbaceous (non-woody)	plants, reg	ardless of
9		<u> </u>		size, and woody plants less than 3.2	28 ft tall.	J
	·					
11	·					20.6
	100	= Total Cov	er	woody vines – All woody vines grea	iter than 3.	28 ft in
50% of total cover: <u>50</u>	_20% of to	otal cover:	20			
Woody Vine Stratum (Plot size: <u>30</u>)	10		54 614			
1. Mikania scandens	10	Yes	FACW			
2. Toxicodendron radicans	10	Yes	FAC			_
3. Lonicera japonica	10	Yes	FACU	Hydrophytic Vegetation Present?	Yes 🗹 No L	
4						
5						
	30	= Total Cov	er			
50% of total cover: <u>15</u>	_20% of to	otal cover:	6			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

(inches)								
	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 5	10YR 5/2	90	7.5YR 6/6	10	C	M/PL	Clay Loam	
5 - 18	10YR 3/1	100					Clay Loam	
<u> </u>		· ·						
<u> </u>		· ·						
		· ·			·			
		· ·						
					. <u> </u>			
<u> </u>								
		. <u> </u>						
		. <u> </u>						
Type: C =	Concentration, D = l	Depletion,	RM = Reduced Mat	rix, MS =	Masked S	and Grains. ²	Location: PL = Pore Lining, M	= Matrix.
lydric Soi	l Indicators:						Indicators for Proble	matic Hydric Soils ³ :
_ Histosol	(A1)		_ Dark	Surface (S7)		2 cm Muck (A10)	(MLRA 147)
_ Histic Ep	ipedon (A2)		Poly	alue Belo	w Surface	e (S8) (MLRA 147	7, 148) Coast Prairie Red	ox (A16) (MLRA 147, 148)
BIACK HIS Hydroge	stic (A3) en Sulfide (A4)		_ Inin Loar	Dark Suri av Gleved	Matrix (F)	VILKA 147, 148)	Piedmont Floodp	lain Soils (F19) (MLRA 136
_ Stratified	d Layers (A5)		Loui _∕ Depl	eted Matr	rix (F3)	-,	147)	
_ 2 cm Mu	ick (A10) (LRR N)		Redo	ox Dark Su	urface (F6)		Very Shallow Dar	k Surface (TF12)
_ Depleted	d Below Dark Surface	(A11)	Depl	eted Dark	Surface (F7)	Other (Explain in	Remarks)
Thick Da	irk Surface (A12) lucky Mineral (S1) (LP		Redo	x Depres Mangane	sions (F8)	(E12) (I DD N M	II PA 136)	
Sandy G	leved Matrix (S4)		Umb	ric Surfac	e (F13) (N	ILRA 136. 122)	Indicators of hydrop	phytic vegetation and
_ Sandy Re	edox (S5)		Pied	mont Floc	dplain So	ils (F19) (MLRA 1	148) wetland hydrology m	nust be present, unless
_ Stripped	Matrix (S6)		Red	Parent Ma	aterial (F2) (MLRA 127, 1 4	 disturbed or problem 	natic.
Restrictive	Layer (if observed):							
٦	Гуре:		None			Hydric Soil Pro	esent?	Yes 🗵 No 🗆
I	Depth (inches):			_		-		
Remarks:				-				
Remarks:				_				
Remarks:				_		1		
Remarks:				_		1		
Remarks:				-				
Remarks:				<u>-</u>				
emarks:						1		
Remarks:				-		1		
Remarks:						1		
Remarks:								
temarks:						1		
Remarks:						1		
Remarks:						1		
Remarks:						1		
Remarks:						1		
Remarks:						1		
Remarks:						1		
Remarks:						1		
Remarks:						1		
Remarks:						1		
Remarks:								

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



Project/Site: MVP S	outhgate	City/County: Gil	bsonville, Alamance	Sampling Date	e: 2018-June-09	
Applicant/Owner:	NextEra			State: North Ca	rolina Sampling Point: W-	C18-65_UPL-1
Investigator(s): D	on Lockwood, Jo onovan	e Roy, Jeremy Hummel, D	oreen Secti	on, Township, Ran	ge:	
Landform (hillslope,	terrace, etc.):	Hillslope	Local relief (concave, convex, i	n one): Convex	Slope (%): 1 to 10
Subregion (LRR or M	ILRA): MLR	A 136 of LRR P	Lat:	36.2199778	Long: -79.5212272	Datum: WGS84
Soil Map Unit Name	: Enon clay lo	am			NWI classificati	on:
Are climatic/hydrolc	gic conditions o	n the site typical for this t	ime of year?	Yes 🟒 No _	_ (If no, explain in Remarks	i.)
Are Vegetation,	Soil,	or Hydrology signif	icantly disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology natur	ally 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.			

e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum of two required)
True Hydr Oxid Prese Rece Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) ized Rhizospheres on Living Roots (C3) ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) ır (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
		FAC-Neutral Test (D5)
Yes No 🟒	Depth (inches):	_
Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Yes No
Yes No 🟒	Depth (inches):	
auge, monitoring well, a	aerial photos, previous inspections), if	available:
	e is required; check all True Hydr Oxid Preso Rece Thin Othe agery (B7) Yes No✓ Yes No✓ Yes No✓ Yes No✓ auge, monitoring well, a	e is required; check all that apply)

Sampling Point: W-C18-65_UPL-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	6	(A)
1. Acer rubrum	30	Yes	FAC	Are OBL, FACW, or FAC:		
2. Liriodendron tulipifera	25	Yes	FACU	Total Number of Dominant Species	12	(B)
3. <i>Pinus taeda</i>	25	Yes	FAC	Across All Strata:		
4. Liquidambar styraciflua	20	Yes	FAC	Percent of Dominant Species That	50	(A/B)
5.				Are OBL, FACW, of FAC:		
6.				Prevalence Index Worksheet:	N. 4 142 1	D
7.				<u>Iotal % Cover ol:</u>	<u>Multiply</u>	<u>By:</u>
	100	= Total Cov	er		× I = _	0
50% of total cover: 50	20% of to	tal cover:	20	FACW species 0	× 2 = _	0
Sapling/Shrub Stratum (Plot size: 15)				FAC species 115	x 3 = _	345
1. Liriodendron tulipifera	15	Yes	FACU	FACU species <u>80</u>	x 4 = _	320
2. Juniperus virginiana	10	Yes	FACU	UPL species 0	x 5 = _	0
3 Liquidambar styraciflua	10	Yes	FAC	Column Totals 195	(A) _	665 (B)
A Acer ruhrum	10	Vos	FAC	Prevalence Index = B/A =	3.4	
5		103	TAC	Hydrophytic Vegetation Indicators:		
с				1- Rapid Test for Hydrophytic	Vegetatior	ı
o				2 - Dominance Test is > 50%		
/				3 - Prevalence Index is $\leq 3.0^1$		
8				4 - Morphological Adaptations	s ¹ (Provide	supporting
9				data in Remarks or on a separate s	heet)	
	45	= Total Cov	er	Problematic Hydrophytic Vege	etation ¹ (E>	kplain)
50% of total cover: <u>22.5</u>	20% of to	otal cover:	9	¹ Indicators of hydric soil and wetlar	าd hydrolo	gy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. Microstegium vimineum	20	Yes	FAC	Definitions of Four Vegetation Strat	a:	
2						
3				Tree – Woody plants, excluding vine	es, 3 in. (7.0	6 cm) or more
4.				in diameter at breast height (DBH),	regardless	s of height.
5						
6.				Sapling/shrub - Woody plants, excl	uding vine	s, less than 3
7.				in. DBH and greater than or equal t	o 3.28 ft (1	l 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						
	20	= Total Cov	or	Woody vines - All woody vines grea	ater than 3	.28 ft in
50% of total cover: 10	20% of to		4	height.		201011
Weedy Vine Stratum (Plot size: 20.)	_ 20% 01 10	ital cover.	4			
<u>woody vine stratum</u> (Flot size. <u></u>)	10	Voc	EACU			
1. Loncera japonica	10	Vee				
2. Partnenocissus quinqueiolia	10	Yes	FACU			
3. Kosa multifiora	10	Yes	FACU	Hydrophylic vegetation Present?		4
4						
5						
	30	= Total Cov	er			
50% of total cover: <u>15</u>	_ 20% of to	otal cover:	6			
Remarks: (Include photo numbers here or on a separa	ite sheet.)					

SOIL

Sampling Point: W-C18-65_UPL-1

Profile De	escription: (Describe to Matrix	o the dep	th needed t	o docume Redox	nt the i Feature	ndicator (or confirr	n the absenc	e of indicators.)		
(inches)	Color (moist)	%	Color (r	noist)	%	Type ¹	Loc ²		Texture	Remarks	
0 - 18	10YR 5/4	100							Clav Loam		
						·					
						·					
						·					
						·					
						·					
						·					
						·					
					·						
						·					
	$\frac{1}{1}$		RM = Redu	od Matrix	/ MS =	Maskad S	and Grai	ns ² locatio	n: PI = Pore Lining M =	Matrix	
Hudric Co	- Concentration, D - L	epietion,	Kivi – Keuu		(, 1015 – 1	Maskeu 3			Indicators for Broblem	atic Hydric Soile3	
Histoso				Dark S	urface (57)				aue rigurie 20115°.	
Histic E	pipedon (A2)			Polyva	lue Belo	w Surface	(S8) (MLF	RA 147, 148)	2 cm Muck (A10) (M	1LRA 147)	
Black H	istic (A3)			Thin D	ark Surf	ace (S9) (MLRA 147,	148)	Coast Prairie Redo	(A16) (MLRA 147, 148)	
Hydrog	en Sulfide (A4)			_ Loamy	Gleyed	Matrix (F2	2)		Piedmont Floodplain Soils (F19) (MLRA 136,		
Stratifie	ed Layers (A5)			_ Deplet	ed Matr	ix (F3) urfaco (E6)			14/) Vory Shallow Dark 9	Surface (TE12)	
2 cm w	ed Below Dark Surface (A11)		Redux	ed Dark	Surface (F6)	F7)		Other (Explain in Remarks)		
Thick D	ark Surface (A12)	,		Redox	Depress	sions (F8)	.,				
Sandy I	Mucky Mineral (S1) (LRF	R N, MLRA	147, 148)	_ Iron-M	anganes	se Masses	(F12) (LR	R N, MLRA 130	5) _{3Indicators of hydroph}	vtic vegetation and	
Sandy (Gleyed Matrix (S4)			_ Umbrid	c Surfac	e (F13) (M	LRA 136,	122)	wetland hydrology mu	st be present, unless	
Sandy I	(edox (SS) d Matrix (S6)			Pleamo	ont Floo irent Ma	apiain Sol terial (E21	IIS (F19) (N I) (MIRA 1	/ILRA 148) 27 147)	disturbed or problema	itic.	
 Postrictiv	a lavor (if obconvod):							27, 147)			
Resultur			None				Lhudric C	oil Drocont2			
	Denth (inches)		None				nyuric s	on Present?			
	Deptil (inches).										
Remarks											



Soil Photos

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

Project/Site: MVP Southgate		City/County:	bibsonville, Alamanc	e Sampling Da	te: 2018-June-09		
Applicant/Owner: NextEra State: North Carolina Sampling Point: M					V-C18-59_PFO-1		
Investigator(s):	Don Lockwood, Joe	e Roy, Jeremy Hemmell,	Doreen Se	n Section, Township, Range:			
	Donovan						
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1 to						Slope (%): 1 to 3	
Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.2134246 Long: -79.51735 Datum: WGS84						Datum: WGS84	
Soil Map Unit Name: Frogsboro sandy loam NWI classification:							
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 sign	ificantly disturbed?	Are "Normal C	Circumstances" present?	Yes 🟒 No	
Are Vegetation, Soil, or Hydrology naturally problematic? (If need					olain 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?	Yes 🖌 No Yes 🖌 No						
Wetland Hydrology Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No				
Remarks:							
Covertype is PFO. Ditches/drain tiles observed. Circumstances are not normal due to agricultural activities.							

Wetland Hydrology Indicators:							
Primary Indicators (minimum of o	<u>ne is required; check all t</u>	Secondary Indicators (minimum of two required)					
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) 	True A Hydro; Oxidiz Preser Recen Thin M Other	quatic Plants (B14) gen Sulfide Odor (C1) ed Rhizospheres on Living Roots (C3 nce of Reduced Iron (C4) t Iron Reduction in Tilled Soils (C6) 1uck Surface (C7) (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) 				
 ✓ Iron Deposits (B5) Inundation Visible on Aerial Ir ✓ Water-Stained Leaves (B9) Aquatic Fauna (B13) 	nagery (B7)		 Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 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): 2					
(includes capillary fringe)							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks: The criterion for wetland hydrolog	y is met.						
US Army Corps of Engineers			Eastern Mountains and Piedmont Version 2.0 Adapted by TRC				

Sampling Point: W-C18-59_PFO-1

<u>Tree Stratum</u> (Plot size: <u>30)</u>	Absolute % Cover Dominant Species?		Indicator Status	Dominance Test worksheet: Number of Dominant Species That				
1. Acer rubrum	95	Yes	FAC	Are OBL, FACW, or FAC:	5	(A)		
2. Platanus occidentalis	5	No	FACW	Total Number of Dominant Species	; 3	(B)		
3. Liquidambar styraciflua	2	No	FAC	Across All Strata:		(8)		
4.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)		
5				Prevalence Index worksheet:				
6				Total % Cover of:	Multiply	<u>By:</u>		
7				OBL species 1	x 1 =	1		
	102	= Total Cover		FACW species 99	x 2 =	198		
50% of total cover: <u>51</u>	20% of to	tal cover:	20.4	FAC species 124	x 3 =	372		
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 1	x 4 =	4		
1. <i>Ulmus rubra</i>	10	Yes	FAC	UPL species 0	x 5 =	0		
		Percent cover		Column Totals 225	· (A)	575 (B)		
2. Liquidambar styraciflua	15	cannot be greater	FAC	$\frac{225}{\text{Prevalence Index} = B/A = 1}$	26	575 (B)		
, ,		than a previous			2.0			
		species		Hydrophytic Vegetation Indicators:				
3. <u>Ilex opaca</u>	1	No	FACU	1- Rapid Test for Hydrophytic	Vegetation			
4.				2 - Dominance Test is >50%				
5				3 - Prevalence Index is $\leq 3.0^{1}$				
6				4 - Morphological Adaptation	s ¹ (Provide :	supporting		
7				data in Remarks or on a separate s	sheet)			
8				Problematic Hydrophytic Veg	etation' (Ex	plain)		
9				'Indicators of hydric soil and wetla	nd hydrolog	gy must be		
	26	= Total Cover		present, unless disturbed or proble	emauc			
50% of total cover: <u>13</u>	20% of to	tal cover:	5.2	Definitions of Four Vegetation Stra	ta:			
Herb Stratum (Plot size: <u>5</u>)				The subscription of the second sector second sector				
1. Onoclea sensibilis	85	Yes	FACW	in diameter at breast beight (DBH) regardless of beight				
2. Impatiens capensis	5	No	FACW	in diameter at breast height (DBH),	, regartiess	or neight.		
3. Boehmeria cylindrica	2	No	FACW	Sanling/shruh - Woody plants exc	luding vines	loss than 3		
4. Commelina virginica	2	No	FACW	in DBH and greater than or equal	to 3 28 ft (1	m) tall		
5. <i>Toxicodendron radicans</i>	2	No	FAC		10 0120 11(1			
6. Dichanthelium erectifolium	1	No	OBL	Herb – All herbaceous (non-woody) plants, reg	ardless of		
7.				size, and woody plants less than 3.	28 ft tall.			
8								
9				Woody vines – All woody vines grea	ater than 3.	28 ft in		
10				neight.				
11								
	97	= Total Cover						
50% of total cover: <u>48.5</u>	_ 20% of total cover:		19.4					
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆			
1								
2								
3.								
4.								
5.								
	0	= Total Cover						
50% of total cover: 0	20% of to	tal cover:	0					
Remarks: (Include photo numbers here or o	on a separat	e sheet.)						
SOIL

Sampling Point: W-C18-59_PFO-1

(inches)	Color (moist)	%	Color (m	oist)	% Тур	e ¹ Loc ²		Texture	Remarks
0 - 6	10YR 3/2	100							
6 - 18	2.5Y 5/1	70	7.5YR 4	1/6	30 D	M/PL	S	ilty Clay Loam	
				<u> </u>					
Turn et C -			DM - Deduc	ad Matuix A				n DI - Deve Lining M -	Matuix
Hydric So	Concentration, D = I	Depletion,	RM = Reduc	ed Matrix, N	/IS = Maske	d Sand Gra	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Histoso	(A1)			Dark Surf	ace (S7)				
Histic Ep	pipedon (A2)			Polyvalue	Below Surf	ace (S8) (Ml	.RA 147, 148)	2 cm Muck (ATU) (M Coast Prairie Redox	ILKA 147) (A16) (MI RA 147 148)
Black Hi	stic (A3) on Sulfide (A4)			Thin Dark	Surface (S eved Matrix	9) (MLRA 14]	7, 148)	Piedmont Floodplai	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)			Depleted	Matrix (F3)	((<i>L</i>)		147)	
2 cm Mi	uck (A10) (LRR N)			Redox Da	rk Surface (F6)		Very Shallow Dark S	Surface (TF12)
_ Deplete	d Below Dark Surface	(A11)		_ Depleted	Dark Surfa	ce (F7)		Other (Explain in Re	emarks)
Sandy N	lucky Mineral (S1) (LR	R N. MLRA	147, 148)	Iron-Man	ganese Mas	-8) ses (F12) (L l	RR N. MLRA 13	6)	
Sandy G	ileyed Matrix (S4)	•	, ,	Umbric Si	urface (F13)	(MLRA 136,	122)	³ Indicators of hydrophy	ytic vegetation and
<u>√</u> Sandy R	edox (S5)			_ Piedmont	Floodplain	Soils (F19)	MLRA 148)	disturbed or problema	tic
Stripped	d Matrix (S6)			Red Parer	nt Material	F21) (MLRA	127, 147)		
Restrictive	e Layer (if observed):		None						V
	Type. Depth (inches):		None			Hydric	Soli Present?		Yes ⊠ No 🗆
Domorka	Depth (inches).								
Kernarks.									

Hydrology 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 Southgate City/County: Gibsonville,	Alamance Sampling Date: 2018-June-09					
Applicant/Owner: NextEra	State: North Carolina Sampling Point: W-C18-59_UPL-1					
Investigator(s): Don Lockwood, Joe Roy, Jeremy Hemmell, Doreen	Section, Township, Range:					
Donovan						
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: 36.213422 Long: -79.5172437 Datum: WGS84					
Soil Map Unit Name: Pacelot sandy loam	NWI classification:					
Are climatic/hydrologic conditions on the site typical for this time of ye	ar? Yes 🟒 No (If no, explain in Remarks.)					
Are Vegetation, Soil, or Hydrology significantly di	sturbed? Are "Normal Circumstances" present? Yes 🟒 No					
Are Vegetation, Soil, or Hydrology naturally prob	ematic? (If needed, explain 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.			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydr Oxid Preso Rece Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) ized Rhizospheres on Living Roots (C3) ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) er (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 		
			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):			
(includes capillary fringe)					
Describe Recorded Data (stream ga	auge, monitoring well, a	aerial photos, previous inspections), if	available:		
Remarks:					

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

Sampling Point: W-C18-59_UPL-1

		Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tr</u>	ee Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	2	(A)
1.	Liriodendron tulipifera	70	Yes	FACU	Are OBL, FACW, or FAC:		(A)
2.	Carya cordiformis	15	No	FACU	Total Number of Dominant Species	5	(B)
3.	Quercus alba	10	No	FACU	Across All Strata:		
4.					- Are OBL_EACW or EAC	60	(A/B)
5.					Prevalence Index worksheet:		
6.			·		- <u>Total % Cover of:</u>	Multiply	<u>By:</u>
7.					- OBL species 0	x 1 =	0
		95	_= Total Cov	er	FACW species 0	x 2 =	0
C -	50% of total cover: <u>47.5</u>	_ 20% of to	otal cover:		FAC species 40	x 3 =	120
<u>3d</u>	<u>piing/stirub stratum</u> (Piot size. <u>15</u>)	20	Voc	FACU	FACU species 119	x 4 =	476
1. 2	Liquidambar styraciflua	15	Yes	FAC	UPL species 8	x 5 =	40
3	Oxvdendrum arboreum	8	No	UPI	Column Totals 167	(A)	636 (B)
4.	Liriodendron tulipifera	4	No	FACU	Prevalence Index = B/A =	3.8	
5.		·			Hydrophytic Vegetation Indicators:		
6.		·			1- Rapid Test for Hydrophytic	Vegetatior	ו
7.		- <u> </u>			2 - Dominance Test is >50%		
8.		·			$3 - Prevalence Index is \le 3.0^{1}$		
9.			·		- 4 - Morphological Adaptations	¹ (Provide	supporting
		47	= Total Cov	er	Problematic Hydrophytic Vere	neet) station1 (Ex	(aiclay
	50% of total cover: <u>23.5</u>	20% of to	tal cover:	9.4	Indicators of hydric soil and wetlar		vpiairi) iov must he
He	<u>erb Stratum</u> (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	by must be
1.	Campsis radicans	15	Yes	FAC	Definitions of Four Vegetation Strat	a:	
2.	Vitis rotundifolia	10	Yes	FAC			
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	uding vine	s, less than 3
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)	plants, re	gardless of
10					- size, and woody plants less than 3.2	28 It tall.	
11					_		
		25	= Total Cov	er	Woody vines – All woody vines grea	iter than 3	.28 ft in
	50% of total cover: <u>12.5</u>	_20% of to	otal cover:	5	height.		
W	oody Vine Stratum (Plot size: <u>30</u>)						
1.					-		
2.					-		
3.					Hydrophytic Vegetation Present?	Yes 🗹 No	
4.		<u> </u>			-		
5.		·			-		
		0	= lotal Cov	er			
	50% of total cover: <u>0</u>	_20% of to	otal cover:	0			
Re	50% of total cover: <u>0</u> marks: (Include photo numbers here or on a separa	_ 20% of to	otal cover:				

SOIL

Sampling Point: W-C18-59_UPL-1

Profile De Depth	escription: (Describe to Matrix	the dep	th needed to	o docume Redox	ent the in Feature	ndicator o	or confiri	n the absenc	e of indicators.)	
(inches)	Color (moist)	%	Color (n	noist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 15	10YR 3/3	95	10YR	5/6	5	<u> </u>	 M		Clay Loam	
15 - 19	10YR 3/4	100							Clay Loam	
13 15	1011(3)1	100				·	<u> </u>			
						·				
						·				
						·	<u> </u>			
						·				
						·				
					. <u> </u>	·	<u> </u>			
						· <u> </u>				
						· <u> </u>	<u> </u>			
¹ Type: C =	= Concentration, D = D	epletion,	RM = Reduc	ed Matri	x, MS = I	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:								Indicators for Problem	atic Hydric Soils ³ :
Histoso	l (A1)			_ Dark S	Surface (S	57)	(60) (1		2 cm Muck (A10) (N	ILRA 147)
HISTIC E	pipedon (A2) istic (A3)			_ Polyva	iue Belo	w Surface	(58) (ML)	(A 147, 148) 178)	Coast Prairie Redox	« (A16) (MLRA 147, 148)
Hvdrog	en Sulfide (A4)			Loamy	/ Gleved	Matrix (F2)	, 140)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)			_ Deplet	ted Matr	ix (F3)	,		147)	
_ 2 cm M	uck (A10) (LRR N)			Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface (/	411)		_ Deplet	ed Dark	Surface (F	7)		Other (Explain in Re	emarks)
Thick D	ark Surface (A12)		4 47 4 40)	Redox	Depress	sions (F8)	(F12) (I B		0	
_ Sandy r	VIUCKY MINERAI (ST) (LKK Sloved Matrix (S4)	N, MLRA	147, 148)	_ Iron-Iv	anganes c Surface	se Masses	(FIZ) (LR I DA 136	R N, MILKA 130 122)	⁹ Indicators of hydroph	ytic vegetation and
Sandy F	Redox (S5)			Onibin Piedm	ont Floo	dplain Soi	ls (F19) (/LRA 148)	wetland hydrology mu	st be present, unless
Strippe	d Matrix (S6)			Red Pa	arent Ma	terial (F21) (MLRA	27, 147)	disturbed or problema	atic.
Restrictiv	e Laver (if observed):									
	Type:		None				Hydric 9	Soil Present?		Yes 🗆 No 🖓
	Depth (inches):						i iyane .	on resent.		
Domorko										
Remarks.										

Soil 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 Sout	City/County	r: Gibsonville, Alaman	ice Sampling Da	te: 2018-June-11				
Applicant/Owner: N	extEra			State: North C	arolina Sampling Point: V	V-C18-69_PFO-1		
Investigator(s): Don Lockwood, Tony Tredway, Jeremy Hummel Section, Township, Range:								
Landform (hillslope, ter	rrace, etc.):	Flood Plain	Local re	Local relief (concave, convex, none): Undulating Slope (%): 0 to 1				
Subregion (LRR or MLR	A): MLRA	136 of LRR P		Lat: 36.2092808	Long: -79.516662	Datum: WGS84		
Soil Map Unit Name:	Chewacla				NWI classifica	ation: PFO		
Are climatic/hydrologic	conditions on	the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remar	ks.)		
Are Vegetation,	Soil,	or Hydrology s	significantly disturbed	? Are "Normal O	Circumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology r	naturally 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 pi	resent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; check all	that apply)		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydr _✓ Oxid Preso Rece Thin Othe	Aquatic Plants (B14) rogen Sulfide Odor (C1) ized Rhizospheres on Living ence of Reduced Iron (C4) nt Iron Reduction in Tilled So Muck Surface (C7) er (Explain in Remarks)	Roots (C3)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) ✓ FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	1	_
Water Table Present?	Yes 🟒 No	Depth (inches):	4	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 inspe	ctions), if	available:
incline incline.				

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

Sampling Point: W-C18-69_PFO-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	7	(A)
1. Acer rubrum	60	Yes	FAC	Are OBL, FACW, or FAC:		
2. Liquidambar styraciflua	40	Yes	FAC	Iotal Number of Dominant Species	7	(B)
3				Percent of Dominant Species That		
4	·			Are OBL FACW or FAC	100	(A/B)
5	. <u></u>			Prevalence Index worksheet:		
6	. <u></u>			Total % Cover of:	Multiply	Bv:
7				OBL species 10	x 1 =	10
	100	= Total Cov	rer	FACW species 30	x 2 =	60
50% of total cover: <u>50</u>	_20% of to	tal cover:	20	FAC species 260	x 3 =	780
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 0	× 4 =	0
1. <i>Carpinus caroliniana</i>	60	Yes	FAC	IIPI species 0	× 5 =	0
2. <u>Liquidambar styraciflua</u>	20	Yes	FAC	Column Totals 300	(^)	850 (B)
3. Acer rubrum	20	Yes	FAC	$\frac{1}{2}$	(~) _	630 (B)
4				Prevalence index – B/A –	2.0	
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	Vegetation	
7.				2 - Dominance Test is >50%		
8.				3 - Prevalence Index is $\leq 3.0^{1}$		
9.				4 - Morphological Adaptations	³¹ (Provide :	supporting
	100	= Total Cov	rer	data in Remarks or on a separate s	neet)	(مامام)
50% of total cover: 50	20% of to	- tal cover:	20	Problematic Hydrophytic Vege	station' (Ex	piain)
Herb Stratum (Plot size: 5)	-			present unless disturbed or proble	na nyarolog matic	gy must be
1. Microstegium vimineum	50	Yes	FAC	Definitions of Four Vegetation Strat		
2. Arisaema triphvllum	20	Yes	FACW	Deminitions of Four Vegetation Strat	.d.	
3. Onoclea sensibilis	10	No	FACW	Trap Woody plants excluding ving	oc 2 in /7 (cm) or more
4 Osmunda spectabilis	10	No	OBL	in diameter at breast height (DBH)	regardless	of height
5 Athyrium asplenioides	10	No	FAC		i egui uless	or neight.
6			1/10	Sanling/shrub - Woody plants, excl	uding vine	s less than 3
7	·			in DBH and greater than or equal t	to 3.28 ft (1	m) tall.
/	·					,
0	·			Herb – All herbaceous (non-woody)) plants, reg	gardless of
^{3.}	·			size, and woody plants less than 3.	28 ft tall.	
10	·	<u> </u>				
11		Tabal Car		Woody vines All woody vines great	ator than 2	20 ft in
	100	= lotal Cov	er an	height	iter triair 5.	.20 IT III
50% of total cover: <u>50</u>	_20% of to	otal cover:	20			
Woody Vine Stratum (Plot size: <u>30</u>)						
1	·					
2.	·					_
3				Hydrophytic Vegetation Present?	Yes 🗹 No L	_
4						
5	·					
	0	= Total Cov	er			
50% of total cover:0	_ 20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separa	e sheet.)					

SOIL

Sampling Point: W-C18-69_PFO-1

Profile De	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Deptn	Matrix		Redo	x Featur	es	<u> </u>		_ .	
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc ²		lexture	Remarks
0 - 18	10YR 5/1	80	7.5YR 6/6	20	C	M/PL		Clay Loam	·
				_					
				_					
									·
¹ Type: C =	Concentration, D = D	epletion,	, RM = Reduced Mat	rix, MS =	Masked S	and Grain	s. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
_ Histoso	I (A1)		Dark	Surface (S7)	(66)		2 cm Muck (A10) (/ILRA 147)
Histic E	pipedon (A2)		Poly	alue Belo	ow Surface	(S8) (MLR/	A 147, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Black H	ISTIC (A3) en Sulfide (A4)		_ Inin loan	Dark Suri	face (S9) (f Matrix (E	VILKA 147,	148)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	ed Lavers (A5)		Loan	eted Mat	rix (F3)	-)		147)	
2 cm M	uck (A10) (LRR N)		Redo	x Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (A	A11)	_ Depl	eted Dark	surface (F7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redo	x Depres	sions (F8)				
Sandy M	Mucky Mineral (S1) (LRR	N, MLRA	147, 148) Iron-	Mangane	se Masses	(F12) (LRR	N, MLRA 13	6) ₃ Indicators of hydroph	ytic vegetation and
Sandy C	Gleyed Matrix (S4)		Umb	ric Surfac	e (F13) (M	LRA 136, 1	22) LDA 140)	wetland hydrology mu	ist be present, unless
Sdriuy F	d Matrix (S6)		Pieul	Done Fior	oupiain So atorial (E21	IIS (FI9) (IVI I) (MI DA 1'	LKA 148) 27 1/17)	disturbed or problem	atic.
					ateriai (i z		27, 147)		
Restrictiv	e Layer (if observed):		News						
	Type:		None	-		Hydric So	oil Present?		Yes 🗹 No 🗆
	Depth (inches):			-					
Remarks:									

Hydrology Photos



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



Surveyors! JUR/DD/JDH Pole! Tract! Rescuris W-cif-69 (1-18) I statement 19 End contect (19) W-C18-69 PFO 0

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sout	City/County:	Gibsonville, Alamano	e Sampling Da	te: 2018-June-11		
Applicant/Owner: N	extEra			State: North C	arolina Sampling Point: V	V-C18-69_UPL-1
Investigator(s): Don	Lockwood, Tor	ny Tredway, Jeremy H	lummel S	ection, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local rel	ief (concave, convex,	none): Convex	Slope (%): 1 to 10
Subregion (LRR or MLR	A): MLRA	136 of LRR P		Lat: 36.2094059	Long: -79.5165709	Datum: WGS84
Soil Map Unit Name:	Cullen clay lo	am			NWI classifica	ation:
Are climatic/hydrologic	conditions on	the site typical for th	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remar	ks.)
Are Vegetation,	Soil, 0	or Hydrology si	gnificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology na	aturally problematic?	(If needed, ex	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. Area is upland, not all thr	ee wetland parameters a	are present.	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check al	<u>l that apply)</u>	Secondary Indicators (minimum o	of two required)
Surface Water (A1) True High Water Table (A2) Hyd Saturation (A3) Oxic Water Marks (B1) Press Sediment Deposits (B2) Rece Drift Deposits (B3) Thin Algal Mat or Crust (B4) Othe Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	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) n Muck Surface (C7) er (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D²) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	iurface (B8) nagery (C9) 1)
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 gauge, monitoring well,	aerial photos, previous inspections), if	available:	

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

Sampling Point: W-C18-69_UPL-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	-	(1)
1. Liriodendron tulipifera	35	Yes	FACU	Are OBL, FACW, or FAC:	2	(A)
2. Liquidambar styraciflua	25	Yes	FAC	Total Number of Dominant Species	6	(B)
3. Prunus serotina	20	Yes	FACU	Across All Strata:		(8)
4. Carya glabra	20	Yes	FACU	Percent of Dominant Species That	33.3	(A/B)
5.	·	·		Are OBL, FACW, or FAC:		
6.				Prevalence Index worksheet:		D
7.				OBL species		<u>ву:</u> о
	100	= Total Cov	er	EACW species	× 1	0
50% of total cover: <u>50</u>	_20% of to	tal cover:	20	FAC species 45	×2- -	135
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 85	× / =	340
1				LIPL species 0	× 5 =	0+0
2				Column Totals	(Δ)	475 (B)
3				$\frac{1}{1}$	37	473 (D)
4						
5	. <u> </u>			1 Papid Test for Hydrophytic	Vegetation	
6				2 - Dominance Test is > 50%	vegetation	
7				3 - Prevalence Index is < 3.01		
8	·			4 - Morphological Adaptations	s ¹ (Provide	supporting
9		·		data in Remarks or on a separate s	heet)	
	0	= Total Cov	er	Problematic Hydrophytic Vege	etation ¹ (Ex	plain)
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	¹ Indicators of hydric soil and wetlar	nd hydrolog	gy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1	·	<u> </u>		Definitions of Four Vegetation Strat	a:	
2	·	·				
3	·	·		Tree – Woody plants, excluding vine	es, 3 in. (7.6	5 cm) or more
4		·		in diameter at breast height (DBH),	regardless	of height.
5.	·			Can line (alonglo - Microsola alonglo - canal		
6.	·	<u> </u>		in DBH and greater than or equal t	Using vines -2.28 ft (1	s, less than 3
/	·	<u> </u>			0 5.20 10 (1	iii) taii.
8	·	·		Herb – All herbaceous (non-woody)	plants, reg	ardless of
9	·	·		size, and woody plants less than 3.2	28 ft tall.	5
10	·	·				
11		- Total Cov	or	Woody vines - All woody vines grea	ater than 3	28 ft in
E0% of total cover:	0 20% of to		0	height.	iter than 5.	2010111
Woody Vine Stratum (Plot size: 30)	_ 20% 01 to	car cover.				
1. Vitis rotundifolia	20	Yes	FAC			
2. Parthenocissus quinquefolia	10	Yes	FACU			
3.				Hvdrophytic Vegetation Present?	Yes 🗆 No 🖸	7
4.	·					
5.	·					
	30	= Total Cov	er			
50% of total cover:15	20% of to	tal cover:	6			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-C18-69_UPL-1

Profile Depth	escription: (Describe t Matrix	o the dept	h needed to docu Re	ument the i dox Featur	indicator	or confirm the ab	sence of indicators.)	
(inches)	Color (moist)	%	Color (moist)	<u>40x1cata</u> %	Type ¹	Loc ²	Texture	Remarks
0 - 2	10YR 3/3	100					Clav Loam	
2 - 18	10YR 5/4	100					Clav Loam	
		· <u> </u>						
		·				·		
		- <u> </u>						
		·						
		· ·						
		·						
		· ·						
		·						
	= Concentration D = [RM = Reduced M	atrix MS =	Maskad	and Grains 21 o	cation: PL = Pore Lining M =	Matrix
Hydric Sc	- Concentration, D - L	Jepletion,	Rivi – Reduced Wi	ati ix, ivi3 –	IVIASKEU L		Indicators for Problem	atic Hydric Soile3:
Histoso			Da	rk Surface (57)			auc Hyunc Solis".
Histic E	pipedon (A2)		Po	lyvalue Belo	ow Surface	e (S8) (MLRA 147, 14	48) 2 cm Muck (A10) (N	/LRA 147)
Black H	istic (A3)		Th	in Dark Surl	face (S9) (l	MLRA 147, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Lo	amy Gleyed	Matrix (F2	2)	Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		De	pleted Mati	rix (F3) urfaco (E6)		147) Very Shallow Dark	Surface (TE12)
Deplete	ed Below Dark Surface ((A11)	Ne	pleted Dark	Surface (FO)	F7)		emarks)
Thick D	ark Surface (A12)	. ,	Re	dox Depres	sions (F8)	,		cinancij
Sandy	Mucky Mineral (S1) (LRI	R N, MLRA	1 47, 148) _ Iro	n-Mangane	se Masses	; (F12) (LRR N, MLR	A 136) ₃ Indicators of hydroph	vtic vegetation and
Sandy	Gleyed Matrix (S4)		_ Un	nbric Surfac	e (F13) (N	ILRA 136, 122)	wetland hydrology mu	ist be present, unless
Sanuy Strippe	d Matrix (S6)		PIE	d Parent Ma	oupiain So aterial (E2	IIS (F19) (IVILKA 148 1) (MIRA 127 147)	disturbed or problem	atic.
	a haunik (50)							
Restrictiv	Type		None			Hudric Soil Brock	ant?	
	Denth (inches)		Home			riyune son riese	211C:	
Demonstra								
Remarks								

Hydrology Photos



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



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	Gibsonville, Alamano	ce Sampling Dat	e: 2018-May-30	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: W-E	318-60_PSS-1
Investigator(s): Will	Buetow, Simon	King, Susie Gifford	S	Section, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Stream	Local re	lief (concave, convex,	none): Convex	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): MLRA	136 of LRR P		Lat: 36.2083112	Long: -79.5153673	Datum: WGS84
Soil Map Unit Name:	CnD2				NWI classificati	on: PSS
Are climatic/hydrologic	conditions on	the site typical for t	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)
Are Vegetation,	Soil,	or Hydrology si	ignificantly disturbed?	Are "Normal Ci	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	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 PSS. Area is wetland, all three w	etland parameters are pr	esent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	e is required; cheo	<u>k all that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 		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)	Roots (C3) ils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) < EAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	4	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring v	vell, aerial photos, previous inspe	ctions), if	available:
Remarks:				

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

Sampling Point: W-B18-60_PSS-1

Tree Stratum (Plot size:30) 4 1. Liriodendron tulipifera 9 2. Fraxinus pennsylvanica 9	hsolute						
1. Liriodendron tulipifera 9 2. Fraxinus pennsylvanica	boonate	Dominant	Indicator	Dominance Test worksh	eet:		
1. Liriodendron tulipifera 2. Fraxinus pennsylvanica	6 Cover	Species?	Status	Number of Dominant Sp	pecies That	5	(A)
2. Fraxinus pennsylvanica	10	Yes	FACU	Are OBL, FACW, or FAC:	ant Chasias		
	5	Yes	FACW	Across All Strata	ant species	7	(B)
3. <u>Acer rubrum</u>	5	Yes	FAC	Percent of Dominant Sp	ecies That		
4				Are OBL, FACW, or FAC:		71.4	(A/B)
5				Prevalence Index works	heet:		
6				Total % Cover of	of:	<u>Multiply</u>	<u>By:</u>
7				OBL species	5	x 1 =	5
-	20	= Total Cov	er	FACW species	40	x 2 =	80
50% of total cover: <u>10</u> 20	0% of to	tal cover:	4	FAC species	120	x 3 =	360
Sapling/Shrub Stratum (Plot size:15)	50		54.6	FACU species	30	x 4 =	120
1. Lindera benzoin	50	Yes	FAC	- UPL species	0	x 5 =	0
2. Vaccinium corymbosum	20	Yes	FACW	- Column Totals	195	(A)	565 (B)
3. Ilex opaca	15	NO	FACU	Prevalence Inc	dex = B/A =	2.9	
4				Hydrophytic Vegetation	Indicators:		
5				1- Rapid Test for H	ydrophytic V	Vegetation	I
0				2 - Dominance Tes	t is >50%		
/				3 - Prevalence Inde	ex is $\leq 3.0^1$		
8				4 - Morphological A	Adaptations	¹ (Provide	supporting
9				- data in Remarks or on a	separate sl	neet)	
	85	= lotal Cov	er	Problematic Hydro	phytic Vege	etation ¹ (Ex	(plain)
50% of total cover: <u>42.5</u> 20	0% of to	tal cover:	1/	¹ Indicators of hydric soil	and wetlar	d hydrolo	gy must be
Herb Stratum (Plot size: <u>5</u>)	60	Vee	FAC	present, unless disturbe	d or proble	matic	
	60	Yes	FAC	Definitions of Four Vege	tation Strat	a:	
2. Carex sp.	10			-			
3. Arisaema urphylium	<u> </u>		FACW	Tree – Woody plants, ex	cluding vine	es, 3 in. (7.6	5 cm) or more
4. Unocied sensibilis	5		FACW	In diameter at breast ne	ight (DBH),	regardiess	s of neight.
5. Similar rolundiolla	5		FAC	Sapling/shrub Woody	nlants ovel	uding vino	c locs than 3
	5	INU	UBL	in DBH and greater that	n or equal t	o 3 28 ft (1	m) tall
/				-	ir or equare	0 5.20 10 (1	
o				Herb – All herbaceous (r	non-woodv)	plants, re	eardless of
9				size, and woody plants l	ess than 3.2	28 ft tall.	J
				- Mooduvines Allwood	wines gree	tar than 7	20 ft in
	95		er	height	y villes gied		.20 11 11
50% of total cover: <u>47.5</u> 20	U% of to	tal cover:					
woody vine stratum (Plot size:)	-	Vac	FACU				
	5	165	FACU	-			
2				- Hydrophytic Vogotation	Drocont?		7
					i Fiesent:		_
4				-			
5.	E	- Total Cov	or	-			
	J DM4 of to		1				
E0% of total cover: 2.5 2	0% 01 10	lai cover.					

SOIL

Sampling Point: W-B18-60_PSS-1

Profile De	escription: (Describe to Matrix	o the dept	h needed to docum	ent the i	ndicator (or confir	m the absen	ce of indicators.)	
(inches)	Color (moist)		Color (moist)	06	Type1			Toxturo	Pemarks
		100		90	туре	LOC-		Candy Learn	Remarks
0-2	2.51 5/1				·				
2-8	2.5Y 2.5/1	90	2.54 5/2	10	D			Loamy Sand	
8 - 18	2.5Y 5/1	100			·			Loamy Sand	
¹ Type: C =	- Concentration, D = D	epletion,	RM = Reduced Matr	ix, MS =	Masked S	and Gra	ins. ² Locati	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	natic Hydric Soils ³ :
_ Histoso	l (A1)		Dark	Surface (57)			2 cm Much (A10)	- ALDA 147)
Histic E	pipedon (A2)		Polyv	alue Belo	w Surface	(S8) (ML	RA 147, 148)	2 cm Muck (ATU) (r	VILKA 147)
Black H	istic (A3)		Thin	Dark Surf	ace (S9) (N	/LRA 147	, 148)	Coast Prairie Redo	x (A16) (MLKA 147, 148)
_ Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	!)		Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_ Deple	eted Matr	ix (F3)			147)	
_ 2 cm M	uck (A10) (LRR N) I Dalaw Dark Curfered (A 1 1 \	Redo	x Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Depiete	ed Below Dark Surface (ark Surface (A12)	ATT)	_ Depie	v Dopros	Surface (F	-7)		Other (Explain in R	lemarks)
_ Trick D	Aucky Mineral (S1) (I RE		Keuu 147 148) Iron-l	Mangane	sions (Fo) se Masses	(F12) (I F	RN MIRA 13	36)	
Sandy (Gleved Matrix (S4)		Umb	ic Surfac	e (F13) (M	LRA 136.	122)	³ Indicators of hydroph	nytic vegetation and
Sandy F	Redox (S5)		Piedr	nont Floo	dplain Soi	ls (F19) (, MLRA 148)	wetland hydrology mu	ust be present, unless
_∕ Strippe	d Matrix (S6)		Red F	arent Ma	iterial (F21) (MLRA	127, 147)	disturbed or problem	atic.
Restrictiv	e Layer (if observed):								
	Туре:		None	_		Hydric	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 Photo of Sample Plot Sketch

B 18 60 B 18 59 weitwo fly 1 Stut 101 112 102 endipe undergun 103 stateles plat Ð 104 11 13 X plat 1/22 1) ofer 60 4101

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	Gibsonville, Alamance	. Sampling Date	: 2018-May-30	
Applicant/Owner: N	lextEra			State: North Car	olina Sampling Point: W-B	18-60_UPL-1
Investigator(s): Will	Buetow, Simo	n King, Susie Gifford	Sect	ion, Township, Ran	ge:	
Landform (hillslope, te	errace, etc.):	Terrace	Local relief	(concave, convex, n	one): Undulating	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P	Lat	36.2087359	Long: -79.5156918	Datum: WGS84
Soil Map Unit Name:	Cnd2				NWI classificatio	n: None
Are climatic/hydrologi	c conditions o	n 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 Cir	cumstances" 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 UPL.			

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	<u>ie is required; check all f</u>	that apply)	Secondary Indicators (minimum	<u>of two required)</u>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True A Hydro Oxidi; Prese Recer Thin N 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 Sparsely Vegetated Conca	Surface (B8) nagery (C9) 11)
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-B18-60_UPL-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	_	<i>(</i> 1)
1. Liriodendron tulipifera	40	Yes	FACU	Are OBL, FACW, or FAC:	3	(A)
2. Liquidambar styraciflua	35	Yes	FAC	Total Number of Dominant Species	8	(B)
3. <i>Quercus rubra</i>	10	No	FACU	Across All Strata:		(8)
4. Acer rubrum	5	No	FAC	Percent of Dominant Species That	37.5	(A/B)
5.	·			Are OBL, FACW, or FAC:		
6.		·		Prevalence Index worksheet:	N. 4 14 ¹ 1	D
7.				<u>Iotal % Cover of:</u>		<u>ву:</u>
	90	= Total Cov	er		x I =	0
50% of total cover: <u>45</u>	20% of to	tal cover:	18	EAC species 0	× 2	190
Sapling/Shrub Stratum (Plot size: <u>15</u>)				EACLI species 77	×	200
1. Oxydendrum arboreum	10	Yes	UPL	I IPI species 10	× 4	506
2. Liquidambar styraciflua	10	Yes	FAC	Column Totals	(4)	50 (D)
3. Liriodendron tulipifera	10	Yes	FACU	$\frac{147}{147}$	(A)	330 (D)
4						
5	. <u></u>			Hydrophytic Vegetation Indicators:		
6	. <u></u>			\sim 1- Rapid Test for Hydrophylic Vegetation		
7	. <u></u>			2 - Dominance lest is > 50%		
8	. <u></u>			$\frac{3}{4}$ Morphological Adaptations	1 (Provide	supporting
9	. <u></u>			data in Remarks or on a separate s	heet)	supporting
	30	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)		
50% of total cover: <u>15</u>	_20% of to	tal cover:	6	¹ Indicators of hydric soil and wetland hydrology must be		
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	ematic	0)
1. <i>Polystichum acrostichoides</i>	10	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2. <i>Lonicera japonica</i>	5	Yes	FACU			
3. <u>Ilex opaca</u>	2	No	FACU	Tree – Woody plants, excluding vine	es, 3 in. (7.6	5 cm) or more
4	. <u></u>			in diameter at breast height (DBH),	regardless	s of height.
5						
6	. <u></u>			Sapling/shrub – Woody plants, excl	uding vines	s, less than 3
7	. <u></u>			in. DBH and greater than or equal t	o 3.28 ft (1	m) tall.
8	. <u></u>					
9	. <u></u>			Herb – All herbaceous (non-woody)	plants, reg	gardless of
10				size, and woody plants less than 3	28 ft tall.	
11						
	17	= Total Cov	er	Woody vines – All woody vines grea	iter than 3.	.28 ft in
50% of total cover: <u>8.5</u>	_20% of to	tal cover:	3.4	height.		
Woody Vine Stratum (Plot size: <u>30</u>)						
1. <i>Vitis rotundifolia</i>	10	Yes	FAC			
2						
3	. <u></u>			Hydrophytic Vegetation Present?	Yes 🗆 No 🛛	
4	. <u></u>					
5	. <u></u>					
	10	= Total Cov	er			
50% of total cover: <u>5</u>	_20% of to	tal cover:	2			
Remarks: (Include photo numbers here or on a separa	e sheet.)					
Sampling Point: W-B18-60_UPL-1

Profile Depth	escription: (Describe t Matrix	o the dep	th needed to docum Redo	ient the i	ndicator es	or confirm the ab	sence of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 2	10YR 3/3	100					Sandy Loam	
2 - 18	10YR 4/4	100				· ·	Sandy Loam	
		·						
		·						
		·						
		- <u> </u>						
	- Concontration D - [PM - Roducod Mat	iv MC -	Mackad S	and Grains 21 o	ecation: DL - Doro Lining M-	Matrix
Hydric C	- Concentration, D - L	Jepletion,	Rivi – Reduced Mati	1, 113 -	IVIASKEU 3		Indicators for Droblom	niau IX.
Histose			Dark	Surface (57)			auc Hyuric Solis ³ .
Histic E	pipedon (A2)		Daix Polvy	alue Belo	w Surface	(S8) (MLRA 147. 1	48) 2 cm Muck (A10) (N	ILRA 147)
Black H	istic (A3)		Thin	Dark Surf	ace (S9) (MLRA 147, 148)	Coast Prairie Redo	(A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loan	ny Gleyed	Matrix (F2	2)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		_ Depl	eted Matr	ix (F3)		147) Marry Challeyy Darity	Curfe en (TE12)
_ 2 cm IV	uck (ATU) (LRR N) ad Below Dark Surface ((Δ11)	Read	x Dark Su ated Dark	rface (F6) Surface (I	E7)	Very Shallow Dark	Surface (TFTZ)
Depice	ark Surface (A12)	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Bepr Redo	x Depres	sions (F8)	,,		eniarks)
Sandy	Mucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-	Mangane	se Masses	; (F12) (LRR N, MLF	A 136)_{3Indicators of hydronh}	vtic vegetation and
Sandy	Gleyed Matrix (S4)		Umb	ric Surfac	e (F13) (M	ILRA 136, 122)		st be present, unless
Sandy	Redox (S5)		Piedi	nont Floo	dplain Soi	ils (F19) (MLRA 14 8	disturbed or problema	itic.
					atenai (FZ)	(MEKA 127, 147)		
Restrictiv	Tunou		Nono					V
	Type.		NOTE	_		Hydric Soli Pres	ent?	Yes ⊔ No ⊠
_	Depth (inches).			_				
Remarks								



Photo of Sample Plot South

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	City/Count	y: 4, Morton, Alamanc	e Sampling Dat	e: 2018-May-30					
Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-61_PEM									
Investigator(s): Will Buetow, Simon King, Susie Gifford Section, Township, Range:									
Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 1 to 2									
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.2086409	Long: -79.5122956	Datum: WGS84			
Soil Map Unit Name:	HeC				NWI classificati	on: PEM			
Are climatic/hydrologi	c conditions o	n the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)			
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 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 v	wetland parameters are p	resent.								

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of or	e is required; che	eck all that apply)		Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	Roots (C3) oils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC-Neutral Test (D5) 		
Field Observations:						
Surface Water Present?	Yes 🟒 No _	Depth (inches):	1			
Water Table Present?	Yes 🟒 No _	Depth (inches):	8	- Wetland Hydrology Present? Yes 🟒 No		
Saturation Present?	Yes 🟒 No _	Depth (inches):	4	-		
(includes capillary fringe)						
Describe Recorded Data (stream g	auge, monitoring	well, aerial photos, previous insp	ections), if	available:		
Remarks:						

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

Sampling Point: W-B18-61_PEM-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
	% Cover	Species?	Status	Number of Dominant	Species That	4	(A)
1				Are OBL, FACW, or FAC			
2				Across All Strata:	nant Species	4	(B)
3				Across All Strata.	nacias That		
4				Are OBL, FACW, or FAC		100	(A/B)
5				Prevalence Index work	sheet:		
6				Total % Cover	<u>of:</u>	Multiply I	<u>By:</u>
7				OBL species	40	x 1 =	40
	0	= Total Cov	/er	FACW species	40	x 2 =	80
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species	25	x 3 =	75
Sapling/Shrub Stratum (Plot size:15)				FACU species	5	x 4 =	20
1				UPL species	0	x 5 =	0
2.				Column Totals	110	(A)	215 (B)
3.				Prevalence li	ndex = B/A =	2	
4.				Hydrophytic Vegetatio	n Indicators:		
5				1- Rapid Test for	Hydrophytic \	Vegetation	
o				2 - Dominance Te	est is >50%		
/				3 - Prevalence Inc	dex is $\leq 3.0^1$		
o				4 - Morphologica	l Adaptations	¹ (Provide	supporting
9		- Total Co		data in Remarks or on	a separate sł	neet)	
E0% of total covery 0	0 20% of to		/er	Problematic Hyd	rophytic Vege	etation ¹ (Ex	plain)
S0% Of total cover	_ 20% 01 to	cover.		¹ Indicators of hydric so	oil and wetlan	id hydrolog	gy must be
<u>herb Stratum</u> (Flot Size. <u>5</u>)	30	Voc		present, unless disturt	bed or proble	matic	
Carex lurida	20	Vos		Definitions of Four Veg	getation Strat	a:	
3 Persicaria sagittata	15	Voc		Turne Marchards a		- 2 - (7 (
A Vernonia fasciculata	15	Vos		Iree – Woody plants, e	xcluding vine	s, 3 in. (7.6 rogardloss	of beight
4. <u>Vernonia lasticulata</u> 5. Sambucus nigra	10	No			leight (DBH),	regardiess	or neight.
6 Bidens frondosa	10	No		Sanling/shrub - Wood	v nlants exclu	Iding vines	s less than 3
7 Carex lunulina	5	No		in. DBH and greater th	an or equal t	o 3.28 ft (1	m) tall.
8 Solidago canadensis		No				(.	,
		110	170	Herb – All herbaceous	(non-woody)	plants, reg	ardless of
10				size, and woody plants	less than 3.2	28 ft tall.	
11							
····	110	= Total Cov		Woody vines - All woo	dy vines grea	ter than 3.	28 ft in
50% of total cover: 55	20% of to		22	height.	a) 11100 8.00		201111
Woody Vine Stratum (Plot size: 30)	_ 20/0 01 10						
1.							
2.							
3.				Hydrophytic Vegetatio	on Present?	Yes 🛛 No 🗆	
4							
5.							
		= Total Cov	/er				
50% of total cover: 0	20% of to	tal cover:	0				
	_ 20/0 01 10						
Remarks: (Include photo numbers here or on a separa	te sheet.)						

Sampling Point: W-B18-61_PEM-1

Profile De	escription: (Describe t	o the dep	th needed to docum	ent the i	indicator	or confirr	n the absen	ce of indicators.)	
Depth	Matrix		Redo:	x Feature	es Tranci	1 2		T	Demonster
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type'	LOC ²		lexture	Remarks
0 - 5	2.5Y 3/2	90	7.5YR 3/4	10	<u> </u>			Sandy Loam	
5 - 8	10YR 4/2	95	7.5YR 3/4	5	C			Sandy Loam	·
8 - 18	10YR 5/4	98	7.5YR 3/4	2	C			Loamy Sand	
		· ·							
		· ·							·
		· ·							
¹ Type: C	= Concentration D = [Penletion	RM = Reduced Matr	ix MS =	Masked 9	and Grai	ns ² l ocati	on:Pl = Pore Lining M =	Matrix
Hydric So	il Indicators:	repletion,	Nill – Neddced Mati	1, 1015 -	WIDSKEU 2		is. Locati	Indicators for Broblem	atic Hudric Soils3:
			Dark	Surfaco ((7)				auc Hyuric Solis ³ .
HISLOSO	ninedon (A2)		Dark	Suriace (alua Balc	57) W Surface	(S8) (MI E	A 1/7 1/8	2 cm Muck (A10) (N	/ILRA 147)
Black H	listic (A3)		Thin [Dark Surf	face (S9) (I	MI RA 147	148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
- Hvdrog	en Sulfide (A4)		Loam	v Gleved	Matrix (F2	2)	1-10)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		Deple	ted Matr	rix (F3)			147)	
2 cm M	uck (A10) (LRR N)		Redox	k Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface ((A11)	_ Deple	ted Dark	Surface (F7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redo	k Depres	sions (F8)				
Sandy I	Mucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-N	Mangane	se Masses	(F12) (LR	R N, MLRA 13	3 6)₃Indicators of hydroph	ytic vegetation and
Sandy (Gleyed Matrix (S4)		Umbr	ic Surfac	e (F13) (M	ILRA 136, 1	22)	wetland hydrology mu	ist be present, unless
_ Sandy H	Redox (SS) d Matrix (S6)		_ Plean		opiain So	IIS (FI9) (N	1LRA 148) 27 147)	disturbed or problema	atic.
					ateriai (FZ		27, 147)		
Restrictiv	e Layer (if observed):								
	Type:		None	-		Hydric S	oil Present?		Yes 🛛 No 🗆
	Depth (inches):			-					
Remarks									



Photo of Sample Plot East



Photo of Sample Plot Sketch



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/			4, Morton, Alamance	Sampling Dat	e: 2018-May-30				
Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-61_UF									
Investigator(s): Will Buetow, Simon King, Susie Gifford Section, Township, Range:									
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 1 to 3									
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P	L	at: 36.208641	Long: -79.5121709	Datum: WGS84			
Soil Map Unit Name:	HeC, Helena	l			NWI classificat	ion: None			
Are climatic/hydrologi	c conditions o	n the site typical for th	is time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	5.)			
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 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 all t	hat apply)	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / Hydro Oxidi: Prese Recer Thin M Other	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 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):	-		
(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-B18-61_UPL-1

Tara Chuchana (Distribute 20)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
<u>Iree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant S	Species That	1	(A)
1				Are OBL, FACW, or FAC	:		
2				Iotal Number of Domir	hant Species	4	(B)
3				Percent of Dominant Si	necies That		
4				Are OBL, FACW, or FAC	:	25	(A/B)
5	·			Prevalence Index works	sheet:		
6.				Total % Cover	<u>of:</u>	<u>Multiply</u>	<u>' By:</u>
/		Tabal Ca		OBL species	0	x 1 =	0
E0% of total covery 0	$\frac{0}{20\% \text{ of tr}}$	= lotal Cov	er	FACW species	5	x 2 =	10
Soling/Shrub Stratum (Plot size: 15.)	_ 20% 01 tt	otal cover.		FAC species	15	x 3 =	45
1.				FACU species	70	x 4 =	280
2.	·			UPL species	0	x 5 =	0
3.	·			Column Totals	90	(A)	335 (B)
4.	·			Prevalence In	dex = B/A =	3.7	
5.	·			Hydrophytic Vegetation	n Indicators:		
6.	·			1- Rapid Test for H	-Iydrophytic \	/egetatio	n
7.				2 - Dominance Te	st is > 50%		
8.				3 - Prevalence Ind	$ \text{ex} _{S} \leq 3.0^{\circ}$	1 (Durau viala	
9.				data in Remarks or on	Adaptations	' (Provide leet)	supporting
	0	= Total Cov	er	Problematic Hvdr	tation ¹ (E	xplain)	
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	¹ Indicators of hydric so	il and wetlan	d hydrold	bgy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturb	ed or proble	matic	0,
1. Solidago canadensis	40	Yes	FACU	Definitions of Four Veg	etation Strat	a:	
2. <u>Elymus canadensis</u>	20	Yes	FACU				
3. <i>Solidago rugosa</i>	10	No	FAC	Tree – Woody plants, ex	xcluding vine	s, 3 in. (7.	.6 cm) or more
4. <u>Bidens frondosa</u>	5	No	FACW	in diameter at breast h	eight (DBH),	regardles	s of height.
5. <i>Rubus allegheniensis</i>	5	No	FACU				
6.				Sapling/shrub – Woody	/ plants, exclu	iding vine	es, less than 3
/	·			III. DBH and greater tha	an or equal u	J J.20 II (i iii) tali.
8	·			Herb – All herbaceous ((non-woody)	plants, re	egardless of
9	·	<u> </u>		size, and woody plants	less than 3.2	8 ft tall.	Bar aress of
10	·						
11	80	- Total Cov	or	Woody vines - All wood	dy vines grea	ter than 3	8 28 ft in
50% of total cover: 40	20% of to		16	height.	ay vines grea		
Woody Vine Stratum (Plot size: 30)	_20%0110		10				
1. Smilax rotundifolia	5	Yes	FAC				
2. Lonicera japonica	5	Yes	FACU				
3.				Hydrophytic Vegetatio	n Present?	res □ No	\checkmark
4.							
5.							
	10	= Total Cov	er				
50% of total cover: <u>5</u>	_20% of to	otal cover:	2				
Remarks: (Include photo numbers here or on a separa	te sheet.)						

Sampling Point: W-B18-61_UPL-1

Profile Description: (Describe t Depth Matrix	o the dep	th needed to docume Redox	ent the i Featur	ndicator (es	or confirm the	e absence	e of indicators.)	
(inches) Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 4 10YR 4/3	100		·			S	andy Loam	
4 - 14 10YR 5/4	100		· <u> </u>	·		S	andy Loam	
·			· <u> </u>	·				
· ·	·		· <u> </u>	·				
·			·					
·			·					
					<u> </u>			
					<u> </u>			
					<u> </u>			
1 Type: C = Concentration D = I	Depletion	RM = Reduced Matri	x MS =	Masked S	and Grains	² l ocatio	n·PI = Pore Lining M =	Matrix
Hydric Soil Indicators:	Septetion,		λ, ΝΙΟ	Musice 2		Location	Indicators for Problem	atic Hydric Soils ³
Histosol (A1)		Dark S	Surface (S7)				
Histic Epipedon (A2)		Polyva	lue Belo	w Surface	e (S8) (MLRA 1 4	47, 148)	2 cm Muck (A10) (M	ILRA 147)
Black Histic (A3)		Thin D	ark Surf	ace (S9) (N	MLRA 147, 148	3)	Coast Prairie Redox	(A16) (MLRA 147, 148)
Hydrogen Sulfide (A4)		_ Loamy	/ Gleyed	Matrix (F2	2)			IN SOUS (F19) (MILKA 136,
_ Stratified Layers (A5)		Deplei	Dark Si	IX (F3) Irface (F6)			Very Shallow Dark 9	Surface (TE12)
Depleted Below Dark Surface	(A11)	Deplei	ted Dark	Surface (I	F7)		Other (Explain in Re	emarks)
Thick Dark Surface (A12)		Redox	Depres	sions (F8)				
Sandy Mucky Mineral (S1) (LR	R N, MLRA	147, 148) Iron-M	langane	se Masses	(F12) (LRR N, I	MLRA 136) ₃ Indicators of hydroph	ytic vegetation and
Sandy Gleyed Matrix (S4)		Umbri Piedm	c Surfac	e (F13) (M Idolain Soi	ILRA 136, 122) ils (E19) (MI DA	A 1/R)	wetland hydrology mu	st be present, unless
Stripped Matrix (S6)		Red Pa	arent Ma	aterial (F21	I) (MLRA 127. 1	147)	disturbed or problema	tic.
Restrictive Laver (if observed):		_						
Type:		None			Hydric Soil P	Present?		
Depth (inches):					i iyane son i	Tesent.		
Pemarks:								
Nemarks.								



Photo of Sample Plot South

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Elor			Elon, Alamance Cour	nty Sampling Dat	e: 2018-June-18				
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-	A18-163_PFO-1			
Investigator(s): Laura Giese, Jake Brillo Section, Township, Range:									
Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Concave Slope (%): 2 to 5									
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.2083914	Long: -79.5110151	Datum: WGS84			
Soil Map Unit Name:	Helena Sano	dy loam (HeC) 6 to 10	percent slopes		NWI classificat	on:			
Are climatic/hydrologi	c conditions o	n the site typical for t	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	i.)			
Are Vegetation,	Soil,	or Hydrology si	gnificantly disturbed?	Are "Normal Ci	ircumstances" present?	Yes 🟒 No			
Are Vegetation,	Soil,	or Hydrology n	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? 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 wetland parameters are present.								

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check a	<u>ll that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tru- Hyc Oxi Pre Rec Thin Oth	e Aquatic Plants (B14) drogen Sulfide Odor (C1) dized Rhizospheres on Living I sence of Reduced Iron (C4) tent Iron Reduction in Tilled So n Muck Surface (C7) ter (Explain in Remarks)	Roots (C3) ils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) < EAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	9	- 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 inspe	ctions), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

Sampling Point: W-A18-163_PFO-1

Tree Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	
1. Acer rubrum	10	Yes	FAC	Are OBL, FACW, or FAC:	3 (A)
2				Total Number of Dominant Species Across All Strata:	3 (B)
4.	·			Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
5				Prevalence Index worksheet:	
6				Total % Cover of	Multiply By:
7				OBL species 25	<u>v 1 – 25</u>
	10	= Total Cov	er		x 1 = <u>25</u>
50% of total cover: <u>5</u>	20% of to	tal cover:	2	FACTOR Species 3	x 2 - 10
Sapling/Shrub Stratum (Plot size: 15)				FAC species 75	x 3 = <u>225</u>
1.				FACU species 5	x 4 = 20
2	·			UPL species 0	x 5 = 0
3		<u> </u>		Column Totals 110	(A) 280 (B)
		<u> </u>		Prevalence Index = B/A =	2.5
4		·		Hydrophytic Vegetation Indicators:	
5.	·			1- Rapid Test for Hydrophytic	Vegetation
6				2 - Dominance Test is >50%	0
7				$\sqrt{3}$ - Prevalence Index is < 3.01	
8	<u> </u>			4 Morphological Adaptation	1 (Provide supporting
9				4 - Morphological Adaptations	heat)
	0	= Total Cov	er	Broblematic Hydrophytic Veg	neet)
50% of total cover: 0	20% of to		0	Indicators of hydric soil and wetla	ad budralagy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	ematic
1. Microstegium vimineum	65	Yes	FAC	Definitions of Four Vegetation Strat	a:
2. Viburnum nudum	25	Yes	OBL		
3. <i>Vitis riparia</i>	5	No	FACW	Tree – Woody plants, excluding vine	es, 3 in. (7.6 cm) or more
4. <u>Rosa multiflora</u>	5	No	FACU	in diameter at breast height (DBH),	regardless of height.
S		<u> </u>		- Sapling/shrub Woody plants avel	uding vines less than 3
o	·			in DBH and greater than or equal t	$r_0 3 28 \text{ ft} (1 \text{ m}) \text{ tall}$
/		<u> </u>		-	0.5.20 10 (1.11) tall.
8	. <u> </u>			Horb All borbaccours (pop woody)	plants regardless of
9				size and woody plants less than 3	28 ft tall
10	<u> </u>				
11					
	100	= Total Cov	er	Woody vines – All woody vines grea	iter than 3.28 ft in
50% of total cover: <u>50</u>	20% of to	tal cover:	20	height.	
Woody Vine Stratum (Plot size: 30)					
1.					
2	·			-	
3		<u> </u>		- Hydronbytic Vegetation Present?	Ves 🛙 No 🗆
	·	<u> </u>			
4	·				
5	· <u> </u>				
	0	= lotal Cov	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	t e sheet.) served (>50	0% of domin	ant species	indexed as OBL, FACW, or FAC).	

Sampling Point: W-A18-163_PFO-1

Profile De	escription: (Describe t	o the dept	h needed to docum	ent the i	ndicator	or confir	m the absen	ce of indicators.)	
Depth	Matrix		Redo	x Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 5	10YR 4/2	90	10YR 5/1	10	D	Μ		Sandy Loam	
5 - 9	10YR 5/1	95	10YR 5/8	5	С	Μ		Loamy Sand	
9 - 21	2.5Y 6/1	90	10YR 5/8	10	С	Μ		Loamy Sand	
					·				<u></u>
	$Concentration D = \Gamma$		RM = Reduced Matr	iv MS =	Maskad S	and Gra	ins 21 ocati	on:Pl = Pore Lining M =	Matrix
Ludric Co	il Indicators	epietion,	Rivi – Reduced Mati	IX, IVI3 – I	ividskeu 2			Indicators for Droblem	votic Ludric Coile3
Hydric So			Dark	Surface ((7)			indicators for Problem	lauc Hydric Solis ³ .
Histic F	ninedon (A2)			alue Belo	w Surface	(S8) (MI	RA 147, 148)	2 cm Muck (A10) (N	/ILRA 147)
Black H	istic (A3)		Thin [Dark Surf	ace (S9) (MLRA 147	. 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_∕ Deple	ted Matr	ix (F3)			147)	
2 cm M	uck (A10) (LRR N)		Redo	k Dark Su	irface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (A11)	_ Deple	ted Dark	Surface (I	F7)		Other (Explain in R	emarks)
_ Trick D	ark Surface (ATZ) Aucky Mineral (S1) (I B F		Redu: 147 148) Iron-N	Aangane	SIONS (F8) se Masses	(F12) (F	RN MIRA 13	6)	
Sandy C	Gleved Matrix (S4)		Umbr	ic Surfac	e (F13) (M	ILRA 136,	122)	³ Indicators of hydroph	ytic vegetation and
Sandy F	Redox (S5)		Piedn	nont Floo	dplain Soi	ils (F19) (I	, MLRA 148)	wetland hydrology mu	ist be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	aterial (F21) (MLRA	127, 147)	disturbed or problema	atic.
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes 🗹 No 🗆
	Depth (inches):			-					
Remarks:				-					
A positive	indication of hydric s	soil was ob	oserved.						



Photo of Sample Plot East



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	: Elon, Alamance Count	ty Sampli	ng Date: 201	8-June-18	
Applicant/Owner: N	lextEra			State: No	orth Carolina	Sampling Point: W	/-A18-163_UPL-1
Investigator(s): Lau	ra Giese, Jake l	Brillo	Se	ction, Townsh	iip, Range:		
Landform (hillslope, te	errace, etc.):	Back slope	Local relie	ef (concave, co	onvex, none):	Convex	Slope (%): 2 to 5
Subregion (LRR or ML	RA): MLR	A 136 of LRR P	L	at: 36.208272	21 Long	-79.5112165	Datum: WGS84
Soil Map Unit Name:	Helena Sano	dy loam (HeC), 6 to 1	0 percent slopes			NWI classifica	tion:
Are climatic/hydrologi	c conditions o	n the site typical for	this time of year?	Yes 🖌	No (If no	o, explain in Remarl	<s.)< td=""></s.)<>
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Noi	rmal Circumst	tances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology I	naturally problematic?	(If neede	ed, explain an	y 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 based on a	bsence of hydric soils and	wetland hydrology .	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of o	ne is required; check all f	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial In Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / 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)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D1 Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) EAC-Neutral Test (D5) 	urface (B8) agery (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 g	auge, monitoring well, a	erial photos, previous inspections), if	available:	
Remarks:				
The criterion for wetland hydrolog	y is not met.			

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

Sampling Point: W-A18-163_UPL-1

	-					
Tree Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	_	
1. Acer rubrum	10	Yes	FAC	Are OBL, FACW, or FAC:	3	(A)
2.				Total Number of Dominant Species	3	(B)
3 4	·	·		Percent of Dominant Species That	100	(A/B)
5				- Prevalence Index worksheet:		
6				- Total % Cover of:	Multiply B	sv:
7				- OBL species 0	x 1 =	0
	10	= Total Cov	er	FACW species 0	x 2 =	0
50% of total cover: <u>5</u>	_ 20% of to	otal cover:	2	FAC species 100	x 3 =	300
Sapling/Shrub Stratum (Plot size:15)				FACU species 5	x 4 =	20
1				UPI species 0	x 5 =	0
2	·			Column Totals	(A)	320 (B)
3				$\frac{105}{105}$	· · · · · · · · · · · · · · · · · · ·	520 (D)
4					<u>_</u>	
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 Adaptations	יי (Provide s א א א א	supporting
	0	= Total Cov	er	- data in Remarks of on a separate s	neel) station1 (Evr	alain)
50% of total cover: 0	20% of to	_ otal cover:	0	Indicators of hydric soil and wetler	d budrolog	Jidili)
Herb Stratum (Plot size: <u>5</u>)	_			present, unless disturbed or proble	ematic	y must be
1. Parathelypteris noveboracensis	60	Yes	FAC	Definitions of Four Vegetation Strat	a:	
2. Microstegium vimineum	25	Yes	FAC			
3. Parthenocissus quinquefolia	5	No	FACU	Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more
4. Sambucus nigra	5	No	FAC	in diameter at breast height (DBH),	regardless	of height.
6		<u> </u>		- 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) tall.
/	·	·		-		
0	·	·		Herb – All herbaceous (non-woody)	plants, reg	ardless of
10	·	·		size, and woody plants less than 3.2	28 ft tall.	
	·			-		
· · · ·		Tabal Car			tor than 2 "	00 ft in
	95		er 10	height		201111
50% of total cover: <u>47.5</u>	_ 20% of to	otal cover:				
woody vine Stratum (Plot size: <u>30</u>)						
	·	·		-		
2.	·	<u> </u>		- Ukudara kutis Masatati ng Darawata 1		,
3	·	<u> </u>		- Hydrophylic Vegetation Present?	res ⊠ no ⊔]
4.		·		-		
5	·			-		
	0	= lotal Cov	er			
50% of total cover:0	_ 20% of to	otal cover:	0			
Remarks: (Include photo numbers here or on a separate of the s	te sheet.) Served (>50	0% of domin	ant species	indexed as OBL, FACW, or FAC).		

Sampling Point: W-A18-163_UPL-1

Profile Description: (Describe to Depth Matrix	o the dep	th needed to docume Redox	ent the i Geatur	ndicator o es	or confir	n the absence of indicators.)	
(inches) Color (moist)	%	Color (moist)	%	Type ¹	L oc²	Texture	Remarks
0-4 10VR 4/3	100			Турс	200	Silt Loam	
4 - 15 10YR 6/6	60	5VP 5/8	5		M	Loamy Sand	
4 15		10VP 5//	25	<u> </u>	101	Loaniy Sand	
15 20 2 5V 6//	85	2 5V 5/2	10		N4		
15-20 2.31 0/4	- 65	2.31 3/2		<u> </u>		Loaniy Sanu	
13-20		7.516 5/6		<u> </u>	IVI		
			·	·			·
			·		·		
				·			
					. <u> </u>		
¹ Type: C = Concentration, D = D	epletion,	RM = Reduced Matri	x, MS =	Masked S	and Gra	ns. ² Location: PL = Pore Lining,	M = Matrix.
Hydric Soil Indicators:						Indicators for Prob	lematic Hydric Soils ³ :
Histosol (A1)		_ Dark S	Surface (S7)		2 cm Muck (A1	0) (MLRA 147)
Histic Epipedon (A2)		Polyva	alue Belo	w Surface	(S8) (ML	RA 147, 148) Coast Prairie R	edox (A16) (MLRA 147, 148)
BIACK HISUC (A3) Hydrogen Sulfide (A4)		Loam	v Gleved	Matrix (F2	/ILKA 147	, 148) Piedmont Floo	dplain Soils (F19) (MLRA 136,
Stratified Lavers (A5)		Louin	ted Matr	ix (F3)	.)	147)	
2 cm Muck (A10) (LRR N)		Redox	Dark Su	irface (F6)		Very Shallow D	ark Surface (TF12)
Depleted Below Dark Surface (/	A11)	_ Deple	ted Dark	Surface (F	7)	Other (Explain	in Remarks)
Thick Dark Surface (A12)		Redox	Depres	sions (F8)	(510) (15		
Sandy Mucky Mineral (S1) (LRR Sandy Gleved Matrix (S4)	N, WILKA	147, 148) Iron-w	ic Surfac	e (F13) (M	(FIZ) (LH I RA 136	122)	ophytic vegetation and
Sandy Redox (S5)		Onbr Piedm	iont Floo	dplain Soi	ls (F19) (WETA 148) wetland hydrology	must be present, unless
Stripped Matrix (S6)		Red Pa	arent Ma	, terial (F21) (MLRA	127, 147) disturbed or probl	ematic.
Restrictive Layer (if observed):							
Type:		None			Hydric	Soil Present?	Yes 🗆 No 🗹
Depth (inches):					-		
Remarks:							
No positive indication of hydric	soils was	s observed.					



Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Elon, Al	amance County Sampling	g Date: 2018-June-18	
Applicant/Owner: NextEra		State: Nor	th Carolina Sampling Point: \	W-A18-165_PFO-1
Investigator(s): Laura Giese, Jal	ke Brillo	Section, Township	, Range:	
Landform (hillslope, terrace, etc.)	: Depression	Local relief (concave, con	vex, none): Concave	Slope (%): 1 to 3
Subregion (LRR or MLRA):	ILRA 136 of LRR P	Lat: 36.2056003	Long: -79.5073828	Datum: WGS84
Soil Map Unit Name: Louisburg	g coarse Sandy loam (LoE) 15 to 4	15 percent slopes	NWI classific	ation:
Are climatic/hydrologic condition	s on the site typical for this time o	of year? Yes 🟒 No	o (If no, explain in Rema	rks.)
Are Vegetation, Soil,	or Hydrology significant	ly disturbed? Are "Norm	nal Circumstances" present?	Yes 🟒 No
Are Vegetation, Soil,	or Hydrology naturally p	problematic? (If needed	, explain 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 _ 🖌 No Yes _ 🖌 No Yes _ 🖌 No	ls the Sampled Area within a Wetland?	Yes _ 🖌 No					
Remarks:								
Covertype is PFO. Area is wetland, all three wetland parameters are present.								

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check a	<u>ll that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tru Hyc Oxi Pre Rec Thin Oth	e Aquatic Plants (B14) drogen Sulfide Odor (C1) dized Rhizospheres on Living F sence of Reduced Iron (C4) tent Iron Reduction in Tilled So n Muck Surface (C7) ter (Explain in Remarks)	Roots (C3) ils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	11	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	9	
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring well	, aerial photos, previous inspe	ctions), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

Sampling Point: W-A18-165_PFO-1

Tree Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksh Number of Dominant S	n eet: pecies That				
1 Acor rubrum	20	Voc	EAC	Are OBL, FACW, or FAC:		4	(A)		
2.			FAC	Total Number of Domin	ant Species	4	(B)		
3				Percent of Dominant Sr	pecies That				
4				Are OBL, FACW, or FAC:		100	(A/B)		
5.				Prevalence Index works	sheet:				
6.				- Total % Cover	of:	Multiply I	<u>By:</u>		
7				- OBL species	15	x 1 =	15		
	20	= Total Cove	er	FACW species	0	x 2 =	0		
50% of total cover: <u>10</u>	_20% of to	otal cover:	4	FAC species	75	x 3 =	225		
Sapling/Shrub Stratum (Plot size:15)				FACU species	0	x 4 =	0		
1	·			- UPL species	0	x 5 =	0		
2				- Column Totals	90	(A)	240 (B)		
3				Prevalence In	dex = B/A =	2.7			
4					Indicators:				
5				1- Rapid Test for H	lydrophytic \	/egetation			
6				2 - Dominance Tes	st is >50%				
7	·			✓ 3 - Prevalence Ind	ex is $\leq 3.0^1$				
8				4 - Morphological	Adaptations	¹ (Provide :	supporting		
9				- data in Remarks or on a	a separate sh	neet)			
	0	= Total Cove	er	Problematic Hydro	, ophytic Vege	tation ¹ (Ex	plain)		
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	¹ Indicators of hydric soi	il and wetlan	d hydrolog	gy must be		
Herb Stratum (Plot size: <u>5</u>)				present, unless disturb	ed or proble	matic			
1. Microstegium vimineum	35	Yes	FAC	Definitions of Four Vege	etation Strat	a:			
2. Viburnum nudum	15	Yes	OBL	_					
3. <u>Viola sororia</u>	15	Yes	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more					
4. <i>Euonymus americanus</i>	5	No	FAC	in diameter at breast he	eight (DBH),	regardless	of height.		
5				_					
6				Sapling/shrub – Woody	plants, exclu	uding vines	s, less than 3		
7				in. DBH and greater tha	an or equal to	o 3.28 ft (1	m) tall.		
8	. <u> </u>			<u> </u>					
9				Herb – All herbaceous (non-woody)	plants, reg	gardless of		
10				size, and woody plants	less than 3.2	8 It tall.			
11				_					
	70	= Total Cove	er	Woody vines – All wood	ly vines grea	ter 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	<u> </u>			_					
3	<u> </u>			Hydrophytic Vegetation	n Present?	∕es 🛛 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	te sheet.)								
A positive indication of hydrophytic vegetation was obs	served (>50	0% of domina	ant species	indexed as OBL, FACW, o	r FAC).				

Sampling Point: W-A18-165_PFO-1

Profile D	escription: (Describe to	o the dept	h needed to docume	ent the i	ndicator	or confirm	the absenc	e of indicators.)	
Depth	Matrix	·	Redox	Featur	es				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 4	10YR 4/2	85	7.5YR 5/6	10	C	M		Silt Loam	
0 - 4			10YR 5/1	5	D	М			
4 - 17	2.5Y 5/1	95	7.5YR 5/6	5	С	М	fir	ne Sandy Loam	
17 - 21	2.5Y 5/1	98	10YR 5/8	2	С	Μ	Fir	ne Sandy Loam	
					·	·			
¹ Type: C	- Concentration. D = D	epletion.	RM = Reduced Matri	x. MS =	Masked S	and Grair	is. ² Locatio	on: PL = Pore Lining. M =	Matrix.
Hydric Sc	il Indicators:	epicción,		, 110	musicus		is. Locatio	Indicators for Problem	natic Hydric Soils ³
Histoso Histoso Histic E Black H Hydrog 2 cm M Deplete Thick D Sandy Sandy Sandy Sandy	l (A1) pipedon (A2) istic (A3) ed Layers (A5) uck (A10) (LRR N) ed Below Dark Surface (ark Surface (A12) Mucky Mineral (S1) (LRR Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	A11) : N, MLRA	Dark S Polyva Thin D Loamy Deple Redox Deple Redox 147, 148) Iron-M Umbr Piedm Red P.	Surface (alue Belo)ark Surf y Gleyed ted Matr Dark Su ted Dark Copress Manganes ic Surfac iont Floo arent Ma	57) w Surface ace (S9) (M Matrix (F2 ix (F3) urface (F6) Surface (F sions (F8) se Masses e (F13) (M dplain Soi tterial (F21	(S8) (MLR /LRA 147,) 77) (F12) (LRF LRA 136, 1 Is (F19) (M) (MLRA 1	A 147, 148) 148) 2. N, MLRA 13 22) LRA 148) 27, 147)	 2 cm Muck (A10) (N Coast Prairie Redo Piedmont Floodpla 147) Very Shallow Dark Other (Explain in R 6)₃Indicators of hydroph wetland hydrology mudisturbed or problema 	MLRA 147) x (A16) (MLRA 147, 148) ain Soils (F19) (MLRA 136, Surface (TF12) temarks) hytic vegetation and ust be present, unless atic.
Restrictiv	e Laver (if observed):								
	Type:		None			Hydric Se	nil Present?		Yes 🛛 No 🗆
	Denth (inches)					i iyane s	Sin reserie.		
Development of	Deptil (menes).								
A positiv	e indication of hydric s	oil was ob	oserved.						



Photo of Sample Plot East



Photo of Sample Plot West Photo of Sample Plot Sketch



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	City/Coun	ity: Elon, Alamance County	Sampling [Date: 2018-June-18		
Applicant/Owner: N	lextEra			State: North	Carolina Sampling Point: W-A	18-165_UPL-1
Investigator(s): Laur	a Giese, Jake E	Brillo	Secti	on, Township, I	Range:	
Landform (hillslope, te	rrace, etc.):	Back slope	Local relief (concave, conve	ex, none): Convex	Slope (%): 30 to 35
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P	Lat:	36.2056346	Long: -79.5073596	Datum: WGS84
Soil Map Unit Name:	Louisburg co	oarse Sandy loam (LoE), 15 to 45 percent slopes	5	NWI classification	on:
Are climatic/hydrologic	c conditions or	n the site typical fo	r this time of year?	Yes 🟒 No	(If no, explain in Remarks.)
Are Vegetation,	Soil,	or Hydrology	_significantly disturbed?	Are "Norma	l Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	_naturally problematic?	(If needed, e	explain 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 🟒 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	e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum o	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / Hydro Oxidi Prese Recer Thin I Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Si Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D1 Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	urface (B8) agery (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	auge, monitoring well, a	erial photos, previous inspections), if	available:			
Remarks:						
The criterion for wetland hydrology	y is not met.					

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

Sampling Point: W-A18-165_UPL-1

Tree Stratum (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:				
	% Cover	Species?	Status	Are OBL FACW or FAC:	1	(A)		
1. Quercus montana	20	Ves		Total Number of Dominant Species		(D)		
3 Acer ruhrum	15	Yes	FAC	Across All Strata:	6	(B)		
4.			inc	Percent of Dominant Species That	16.7	(A/B)		
5.	·			Are OBL, FACW, or FAC:		(, , , , , , , , , , , , , , , , , , ,		
6.	·			Prevalence Index worksheet:				
7.	·			Iotal % Cover of:	Multiply By	Ľ.		
	55	= Total Cov	er		x I =	0		
50% of total cover: <u>27.5</u>	20% of to	tal cover:	11	EAC species 0	×2- ×2-	45		
Sapling/Shrub Stratum (Plot size: <u>15</u>)				EACLI species	× 4 -	45		
1				LIPL species 5	× 4	20		
2				Column Totals 70	x 5	20U		
3					(A)	515 (D)		
4					4.5	<u> </u>		
5				Hydrophytic Vegetation Indicators:				
6				1- Rapid Test for Hydrophytic	vegetation			
7				2 - Dominance Test IS > 50%				
8				$3 - Prevalence index is \leq 3.0^{\circ}$	1 (Drovido cu	nnorting		
9				4 - Morphological Adaptations	heet)	ipporting		
	0	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)				
50% of total cover: <u>0</u>	_20% of to	otal cover:	0	¹ Indicators of hydric soil and wetlar	nd hvdrologv	must be		
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	ematic			
1. <i>Carya glabra</i>	5	Yes	FACU	Definitions of Four Vegetation Strat	a:			
2. <i>Quercus montana</i>	5	Yes	UPL					
3. <i>Oxydendrum arboreum</i>	5	Yes	UPL	Tree – Woody plants, excluding vine	es, 3 in. (7.6 c	m) or more		
4				in diameter at breast height (DBH),	regardless o	of height.		
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 n	n) tall.		
8								
9				Herb – All herbaceous (hon-woody)	piants, rega 28 ft tall	raless of		
10					20 11 1411.			
11								
	15	= Total Cov	er	Woody vines – All woody vines grea	iter than 3.28	8 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								
2		<u> </u>						
3				Hydrophytic Vegetation Present?	Yes 🗆 No 🗹			
4.		·						
5								
	0	= Total Cov	er					
50% of total cover:0	_ 20% of to	otal cover:	0					
Remarks: (Include photo numbers here or on a separate sheet.) No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).								

Sampling Point: W-A18-165_UPL-1

Profile Descr Depth	iption: (Describe t Matrix	o the dept	h needed to docume Redox	ent the i Featur	indicator o	or confiri	n the absen	ce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0-3	10YR 4/3	100	. ,					Loam	
3 - 12	10YR 6/8	100			- <u></u>			Sandy Loam	
12 - 16	7.5YR 5/8	98	10YR 5/2	2		M		Sandy Loam	
	7.511(5)0		1011(3)2					Sundy Louin	
		· ·							
		· ·							
				· <u> </u>	<u> </u>				
		·			·				
		·							
		·				<u> </u>			
1 Type: C = Co	D		RM = Reduced Matri	x MS =	Masked S	and Grai	ns ² l ocati	on:Pl = Pore Lining M =	Matrix
Hydric Soil Ir	dicators:	repletion,		x, IVI3 -	IVIASKEU J			Indicators for Problem	atic Hydric Soile3:
Histosol (A	1)		Dark	Surface (57)				auc Hyuric Solis ⁶ .
Histic Epipe	edon (A2)			lue Belo	ow Surface	(S8) (ML	RA 147, 148)	2 cm Muck (A10) (ILRA 147)
Black Histic	: (A3)		Thin D	ark Surf	face (S9) (N	MLRA 147	, 148)	Coast Prairie Redo>	(A16) (MLRA 147, 148)
Hydrogen S	Sulfide (A4)		Loamy	/ Gleyed	Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratified L	ayers (A5)		_ Deple	ted Matr	rix (F3)			147)	
_ 2 cm Muck	(A10) (LRR N) Volow Dark Surface (A11)	Redox	Dark Su	Irface (F6) Surface (I	=7)		Very Shallow Dark :	Surface (TFTZ)
Thick Dark	Surface (A12)	<u>AU</u>	Depie	Depres	sions (F8)	/)		Other (Explain in Re	emarks)
Sandy Muc	ky Mineral (S1) (LRI	R N, MLRA 1	147, 148) Iron-M	langane	se Masses	(F12) (LR	R N, MLRA 13	6)	tic vogstation and
Sandy Gley	ed Matrix (S4)		Umbri	c Surfac	e (F13) (M	LRA 136,	122)	wetland bydrology mu	st be present unless
Sandy Red	ox (S5)		Piedm	ont Floc	odplain Soi	ls (F19) (/ILRA 148)	disturbed or problema	tic
Stripped M	atrix (S6)		Red Pa	arent Ma	aterial (F21) (MLRA [·]	127, 147)		
Restrictive La	ayer (if observed):								
Ту	pe:		None			Hydric S	Soil Present?		Yes 🗆 No 🗹
De	pth (inches):	-							
Remarks:									
No positive i	ndication of hydrid	soils was	observed.						
1									



Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Elon, Alamance County Sampling Date: 2018-June-19									
Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-167_PFO-1									
Investigator(s): Laur	a Giese, Jake E	Brillo, Susan Theber	t Sec	tion, Township, Rar	nge:				
Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Concave Slope (%): 2 to 5									
Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.2010827 Long: -79.5018489 Datum: WGS84									
Soil Map Unit Name:	Chewacla loa	am (ChA) 0 to 2 per	cent slopes, frequently floo	oded	NWI classificati	on:			
Are climatic/hydrologi	c conditions or	n the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)			
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 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:	_	<u>.</u> .	
Covertype is PFO. Area is wetland, all three v	vetland parameters are pi	resent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	<u>ie is required; check</u>	all that apply)		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tr O Pr Re Th O nagery (B7)	rue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) xidized Rhizospheres on Living resence of Reduced Iron (C4) ecent Iron Reduction in Tilled So nin Muck Surface (C7) ther (Explain in Remarks)	Roots (C3) vils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🖌 No	Depth (inches):	11	- Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes 🟒 No	Depth (inches):	11	-
(includes capillary fringe)				-
Describe Recorded Data (stream g	auge, monitoring we	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-A18-167_PFO-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test works	heet:			
	% Cover	Species?	Status	Number of Dominant	Species That	8	(A)	
1. Nyssa sylvatica	25	Yes	FAC	Total Number of Domi	nant Snecies			
2. <u>Liriodendron tulipifera</u>	15	Yes	FACU	Across All Strata:	nune species	9	(B)	
3.				Percent of Dominant S	pecies That	000	(A /D)	
4. 				Are OBL, FACW, or FAC	•		(A/B)	
5				Prevalence Index work	sheet:			
7				Total % Cover	of:	<u>Multiply</u>	<u>By:</u>	
···	40	= Total Cov	er	OBL species	80	x 1 =	80	
50% of total cover: 20	20% of to	tal cover:	8	FACW species	15	x 2 =	30	
Sapling/Shrub Stratum (Plot size: 15_)				FAC species	40	x 3 =	120	
1. Alnus serrulata	35	Yes	OBL	FACU species	15	× 4 =	60	
2. Viburnum nudum	10	Yes	OBL	UPL species	0	x 5 =	0	
3.					150	(A) _	290 (B)	
4.				Prevalence Ir	1 dex = B/A =	1.9		
5.				Hydrophytic Vegetatio	n Indicators:			
6.				1- Rapid Test for	Hydrophytic \	/egetation		
7.				2 - Dominance Te	st is >50%			
8.				3 - Prevalence Inc	dex is $\leq 3.0^{\circ}$	1 (Durau dala		
9.				4 - Morphologica	Adaptations	' (Provide	supporting	
	45	= Total Cov	rer	Gala in Remarks of on a separate sneet) Problematic Hydrophytic Vegetation1 (Explain)				
50% of total cover: <u>22.5</u>	20% of to	tal cover:	9	¹ Indicators of hydric so	oil and wetlan	d hvdrolo	ev must be	
Herb Stratum (Plot size: <u>5</u>)				present, unless disturb	ed or proble	matic	5)	
1. <i>Glyceria striata</i>	25	Yes	OBL	Definitions of Four Veg	etation Strat	a:		
2. Boehmeria cylindrica	10	Yes	FACW	-				
3. Viburnum nudum	10	Yes	OBL	Tree – Woody plants, e	xcluding vine	s, 3 in. (7.6	5 cm) or more	
4. <i>Toxicodendron radicans</i>	5	No	FAC	in diameter at breast h	eight (DBH),	regardless	of height.	
5								
6				Sapling/shrub - Woody	/ 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					(C	
9				size and woody plants	(non-woody)	piants, reg 98 ft tall	gardiess of	
10				size, and woody plants	1633 (11011 3.2	.0 11 1011.		
11								
	50	= Total Cov	rer	Woody vines – All woo	dy vines grea	ter than 3.	.28 ft in	
50% of total cover: <u>25</u>	_ 20% of to	otal cover:	10	neight.				
Woody Vine Stratum (Plot size: <u>30</u>)								
1. Smilax rotundifolia	10	Yes	FAC					
2. Vitis riparia	5	Yes	FACW				-	
3.		<u> </u>	<u> </u>		in Present?			
4		<u> </u>	<u> </u>					
э. 	15	- Total Cov						
EQ% of total covor: 7 E	15 20% of to		2					
50% 01 total cover	_ 20% 01 10	lai cover.						
Remarks: (Include photo numbers here or on a separa	te sheet.)							
A second test of the state of the set		04 - E I - :						
A positive indication of hydrophytic vegetation was ob	served (>50	J% of domir	ant species	indexed as OBL, FACW, o	or FAC).			

Sampling Point: W-A18-167_PFO-1

Profile De	escription: (Describe to	o the dept	h needed to docum	ent the i	indicator	or confir	m the absend	ce of indicators.)	
Depth	Matrix	<u> </u>	Redo	< Featur	es			_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 4	10YR 3/1	95	10YR 4/6	5	C	M		Silt Loam	
4 - 13	10YR 4/1	95	7.5YR 5/6	5	C	Μ		Silt Loam	
13 - 16	10YR 5/1	98	7.5YR 4/6	2	С	Μ		Silt Loam	
16 - 20	2.5Y 5/2	98	10YR 5/8	2	С	М		Sand	
									·
									·
1True et C -								n DI - Dava Lining M -	
'Type: C =	= Concentration, D = L	epletion,	RIVI = Reduced Matri	x, IVIS =	Masked S	and Gra	ins. ² Locatio	Dn: PL = Pore Lining, M =	Matrix.
Hydric So	Indicators:							Indicators for Problem	hatic Hydric Soils ³ :
Histoso	l (A1) ninadan (A2)		Dark S	Surface (S/)		DA 147 140)	2 cm Muck (A10) (I	VILRA 147)
	pipedon (AZ)		POlyva Thin [alue Belo Dark Surf		(58) (IVIL	KA 147, 148)	Coast Prairie Redo	ox (A16) (MLRA 147, 148)
Black II Hydrog	en Sulfide (A4)		loam	v Gleved	Matrix (F2	//LKA 14/	, 140)	Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	ed Lavers (A5)		∠ Deple	ted Matr	rix (F3)	-)		147)	
2 cm M	uck (A10) (LRR N)		Redox	Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
Deplete	ed Below Dark Surface (A11)	Deple	ted Dark	Surface (I	-7)		Other (Explain in F	Remarks)
Thick D	ark Surface (A12)		Redox	Depres	sions (F8)				,
Sandy M	Mucky Mineral (S1) (LRF	R N, MLRA 1	147, 148) Iron-N	langane	se Masses	(F12) (LF	R N, MLRA 13	6) _{3Indicators of hydroph}	ovtic vegetation and
Sandy (Gleyed Matrix (S4)		_ Umbr	ic Surfac	e (F13) (M	LRA 136,	122)	wetland hydrology m	ist he present linless
Sandy F	Redox (S5)		Piedm	iont Floo	odplain Soi	ls (F19) (I	MLRA 148)	disturbed or problem	atic
Strippe	d Matrix (S6)		Red P	arent Ma	aterial (F21) (MLRA	127, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None	-		Hydric	Soil Present?		Yes 🗹 No 🗆
	Depth (inches):								
Remarks:									
A positive	e indication of hydric s	oil was ob	served.						
1									



Photo of Sample Plot East
Photo of Sample Plot South



Photo of Sample Plot West





Project/Site: MVP Sou	thgate	City/County	Elon, Alamance Cou	nty San	pling Date: 201	8-June-19	
Applicant/Owner: N	lextEra			State:	North Carolina	Sampling Point: W-A	18-167_PEM-1
Investigator(s): Laur	a Giese, Jake B	rillo, Susan Thebert	<u>c</u>	Section, Tow	nship, Range:		
Landform (hillslope, te	rrace, etc.):	Foot slope	Local re	lief (concave	, convex, none):	Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLRA	A 136 of LRR P		Lat: 36.201	0199 Long	:-79.5017985	Datum: WGS84
Soil Map Unit Name:	Helena Sand	y loam, (HeC) 6 to 10) percent slopes			NWI classificatio	n:
Are climatic/hydrologic	c conditions on	the site typical for t	his time of year?	Yes	🖊 No (If no	, explain in Remarks.)	
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "	Normal Circums	ances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(lf ne	eded, explain an	y 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.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True 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 S Muck Surface (C7) r (Explain in Remarks)	g Roots (C3 Soils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) <!-- (50C Noutral Tost (D5)</li-->
Field Observations:				
Surface Water Present?	Yes No .	Depth (inches):		
Water Table Present?		Depth (inches):		- Wetland Hydrology Present? Ves / No
Caturation Present?		Depth (inches).		
(includes expillent frings)	tes NO	Depth (inches).	0	_
(Includes capillary Iringe)				
	auge, monitoring well, a	aeriai priotos, previous insp	ections), ii	avanable:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

Sampling Point: W-A18-167_PEM-1

	-					
Tree Stratum (Plot size: 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	1	(A)
1	. <u> </u>			Are OBL, FACW, or FAC:		
2				Iotal Number of Dominant Species	1	(B)
3				Across All Strata.		
4				Are OBL FACW or FAC:	100	(A/B)
5	<u> </u>			Prevalence Index worksheet:		
6	<u> </u>			Total % Cover of:	Multiply I	Bv:
7				OBL species 80	x 1 =	- <u>-</u> - 80
	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 10	x 3 =	30
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 0	x 4 =	0
1				UPL species 0	x 5 =	0
2				Column Totals 90	(A)	110 (B)
3				Prevalence Index = B/A =	1.2	
4				Hydrophytic Vegetation Indicators:		
5				1- Rapid Test for Hydrophytic	Vegetation	
6	<u> </u>			2 - Dominance Test is >50%	vegetation	
7	<u> </u>			\checkmark 3 - Prevalence Index is < 3.01		
8				4 - Morphological Adaptation	s ¹ (Provide (sunnorting
9				data in Remarks or on a separate s	sheet)	Supporting
	0	= Total Cove	er	Problematic Hydrophytic Veg	etation ¹ (Ex	plain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	¹ Indicators of hydric soil and wetla	nd hydrolog	y must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	ematic	
1. <i>Carex lurida</i>	75	Yes	OBL	Definitions of Four Vegetation Stra	ta:	
2. Dichanthelium clandestinum	10	No	FAC			
3. <i>Scirpus atrovirens</i>	5	No	OBL	Tree – Woody plants, excluding vin	es, 3 in. (7.6	cm) or more
4				in diameter at breast height (DBH),	regardless	of height.
5						
6				Sapling/shrub – Woody plants, excl	uding vines	s, less than 3
7				in. DBH and greater than or equal	to 3.28 ft (1	m) tall.
8	<u> </u>					
9	. <u> </u>			Herb – All herbaceous (non-woody) plants, reg	ardless of
10				size, and woody plants less than 3.	28 ft tall.	
11						
	90	= Total Cove	er	Woody vines – All woody vines grea	ater than 3.	28 ft in
50% of total cover: <u>45</u>	_20% of to	otal cover:	18	height.		
Woody Vine Stratum (Plot size: <u>30</u>)						
1	<u> </u>					
2		<u> </u>				
3		<u> </u>		Hydrophytic Vegetation Present?	Yes 🗹 No 🗆]
4		<u> </u>				
5		<u> </u>				
	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	te sheet)			•		
Remarks. (melade photo numbers here of on a separa	ie sneedy					
A positive indication of hydrophytic vegetation was ob-	served (>50)% of domin	ant species	indexed as OBL. FACW. or FAC)		

SOIL

Sampling Point: W-A18-167_PEM-1

Profile De Depth	escription: (Describe t Matrix	o the dept	h needed to docume Redox	ent the i	ndicator (or confirm the	absence of i	indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Тех	ture	Remarks
0 - 2	10YR 3/2	100					Silt	Loam	
2 - 10	10YR 4/1	100			·		Silt	Loam	
10 - 17	10YR 5/1	93	10VR 5/1	5			Silt	Loam	
10 - 17	1011(3/1		7 5VR 4/6	2	<u> </u>		Sile	Louin	
10 17			7.511(4/0						
				·	·	<u> </u>			
<u> </u>				·		<u> </u>			
					·	<u> </u>			
				·	·				
<u> </u>						<u> </u>			
		· · · · · ·							
¹ Type: C =	Concentration, D = L	Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Grains.	² Location: PL	= Pore Lining, M =	Matrix.
Hydric So	il Indicators:				c=)		Indi	icators for Problem	atic Hydric Soils ³ :
HISTOSO	r (AT) ninedon (A2)		_ Dark S	ourrace (!	57) W Surface	(S8) (MI RA 14	7 148)	2 cm Muck (A10) (N	ILRA 147)
Black Hi	istic (A3)		T biyve	ark Surf	ace (S9) (N	MLRA 147. 148)	, 140) 	Coast Prairie Redo	(A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy	Gleyed	Matrix (F2	<u>2)</u>		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_∕ Deplet	ted Matr	ix (F3)		147	')	
2 cm Mu	uck (A10) (LRR N)	(Redox	Dark Su	irface (F6)			Very Shallow Dark	Surface (TF12)
Deplete	d Below Dark Surface ((A11)	_ Deplet	Dopros	Surface (F	-/)		Other (Explain in Re	emarks)
Sandy M	/ucky Mineral (S1) (LRI	R N. MLRA	147. 148) Iron-M	langane:	se Masses	(F12) (LRR N. I	MLRA 136)		
Sandy G	Gleyed Matrix (S4)		Umbri	ic Surfac	e (F13) (M	LRA 136, 122)	³ Inc	dicators of hydroph	ytic vegetation and
Sandy R	Redox (S5)		Piedm	ont Floo	dplain Soi	ils (F19) (MLRA	148) Wet	land hydrology mu	st be present, unless
Stripped	d Matrix (S6)		Red Pa	arent Ma	terial (F21) (MLRA 127, 1	47) ^{dist}	urbed or problema	шс.
Restrictive	e Layer (if observed):								
	Туре:		None			Hydric Soil P	resent?		Yes 🗵 No 🗆
	Depth (inches):			-					
Remarks:									
A	in dia stissa of baselation								
A positive		SOII WAS OL	Jserveu.						

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



۲L-1
6): 15 to 20
WGS84
0

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	_ No _ No _ No	∠ ∠ ∠	Is the Sampled Area within a Wetland?	Yes	No⁄_
Remarks:						
Covertype is UPL. Area is upland, not all three	wetland p	barame	ters are p	resent. Area has been harvested recently .		

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all	l that apply)	Secondary Indicators (minimum	of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydr Oxid Pres Rece Thin Othe agery (B7)	e Aquatic Plants (B14) rogen Sulfide Odor (C1) lized Rhizospheres on Living Roots (C3 sence of Reduced Iron (C4) ent Iron Reduction in Tilled Soils (C6) Muck Surface (C7) er (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 1)
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,	aerial photos, previous inspections), if	favailable:	
Remarks:				
The criterion for wetland hydrology	is not met.			

Sampling Point: W-A18-167_UPL-1

	-					
Tree Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant	Indicator Status	Dominance Test worksheet:		
1 Quercus alba	30	Ves	FACIL	Are OBL, FACW, or FAC:	1	(A)
2.			TACO	Total Number of Dominant Species Across All Strata:	4	(B)
3 4.	·			Percent of Dominant Species That	25	(A/B)
5.				Are OBL, FACW, or FAC:		
6.					Multiply	Dv <i>r</i>
7.				OBL species		<u> </u>
	30	= Total Cov	er	EACW species	× 2 -	0
50% of total cover: <u>15</u>	20% of to	tal cover:	6	EAC species 0	×2- ×2-	60
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FAC species 20	x 3 =	60
1. Juniperus virginiana	5	Yes	FACU	FACO species 40	x 4 =	160
2.				UPL species 0	x 5 =	0
3.		·		Column lotals 60	(A)	220 (B)
4.				Prevalence Index = B/A =	3.7	
5.	·			Hydrophytic Vegetation Indicators:		
6.		· ·		1- Rapid Test for Hydrophytic	√egetation	
7				2 - Dominance Test is > 50%		
2 · · · · · · · · · · · · · · · · · · ·	·	·		$_$ 3 - Prevalence Index is $\le 3.0^1$		
o		<u> </u>		4 - Morphological Adaptations	¹ (Provide s	supporting
9.	·	Tatal Car		data in Remarks or on a separate sl	neet)	
	5	= lotal Cov	er	Problematic Hydrophytic Vege	tation ¹ (Exp	plain)
50% of total cover: <u>2.5</u>	_20% of to	otal cover:	1	¹ Indicators of hydric soil and wetlar	ıd hydrolog	gy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. <u>Smilax rotundifolia</u>	20	Yes	FAC	Definitions of Four Vegetation Strat	a:	
2. <i>Quercus alba</i>	5	Yes	FACU			
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	s, 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, reg	ardless of
10.				size, and woody plants less than 3.2	28 ft tall.	
11.						
	25	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.2	28 ft in
50% of total cover: <u>12.5</u>	20% of to	tal cover:	5	height.		
Woody Vine Stratum (Plot size: 30)						
1.						
2.						
3.		·		Hydrophytic Vegetation Present?	Yes 🗆 No 🗹	1
4.						
5.	·					
	0	= Total Cov	er			
50% of total cover: 0	20% of to	tal cover:	0			
			<u> </u>			
No positive indication of hydrophytic vegetation was of	hserved (>	50% of dom	inant specie	as indexed as EAC- or drier)		
The positive indication of hydrophytic vegetation was of	JJC1 VCU (≥	5070 OT UUIT	mant specie	is indexed as the for differ).		

SOIL

Sampling Point: W-A18-167_UPL-1

Profile D	escription: (Describe t	o the deptł	n needed to docum	ent the i	ndicator o	or confirm	the absend	e of indicators.)	
(inchos)	Color (moist)	04	Color (moist)		Turnel			Touturo	Domorka
(incres)		<u> </u>	Color (moist)		Туре	LOC ²		Cilt Loore	Remarks
0-6	10YR 4/4	100						Silt Loam	
6 - 16	10YR 5/8	100			·			Silt Loam	
		·							
					·				
		·			·				
¹ Type: C	= Concentration, D = F	Depletion, F	M = Reduced Matr	x. MS =	Masked S	and Grain	is. ² l ocatio	on: PL = Pore Lining, M =	Matrix
Hydric Se	nil Indicators:			, 1113	musicus		is. Locatio	Indicators for Problem	atic Hydric Soils ³
Histos			Dark	Surface (57)				ade rigarie Solis .
Histic F	pipedon (A2)		Dark	alue Belo	w Surface	(S8) (MLR	A 147, 148)	2 cm Muck (A10) (N	ILRA 147)
Black H	listic (A3)		Thin [Dark Surf	ace (S9) (N	(38) (IMEN /ILRA 147.	148)	Coast Prairie Redox	k (A16) (MLRA 147, 148)
Hydrog	gen Sulfide (A4)		 Loam	y Gleyed	Matrix (F2	.) .)	-7	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifi	ed Layers (A5)		Deple	ted Matr	ix (F3)			147)	
2 cm M	luck (A10) (LRR N)		Redox	d Dark Su	irface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplet	ed Below Dark Surface (A11)	_ Deple	ted Dark	Surface (F	-7)		Other (Explain in R	emarks)
Thick D	Oark Surface (A12)		Redox	Depres	sions (F8)				
Sandy	Mucky Mineral (S1) (LRF	R N, MLRA 1	47, 148) Iron-N	/langane	se Masses	(F12) (LRF	N, MLRA 13	6) ₃ Indicators of hydroph	ytic vegetation and
Sandy	Gleyed Matrix (S4)		_ Umbr	ic Surfac	e (F13) (M	LRA 136, 1	22)	wetland hydrology mu	st be present, unless
Sandy	Redox (SS)		Pleam	IONT FIOD	apiain Sol	IS (FI9) (IVI	LRA 148)	disturbed or problema	itic.
suppe			Keu P		iteriai (FZ I		27, 147)	•	
Restrictiv	e Layer (if observed):		News						
	Type:		None	-		Hydric So	oil Present?		Yes 🗆 No 🗹
	Depth (inches):			-					
Remarks	:								
No posit	ive indication of hydric	soils was o	observed.						

Photo of Sample Plot North



Photo of Sample Plot South

Project/Site: MVP Southgate	City/County: Elon, A	lamance County Sampling Date	2018-June-05					
Applicant/Owner: NextEra		State: North Car	olina Sampling Point: W-/	A18-119_PFO-1				
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:								
Landform (hillslope, terrace, etc	.): Foot slope	Local relief (concave, convex, n	one): Concave	Slope (%): 1 to 3				
Subregion (LRR or MLRA):	MLRA 136 of LRR P	Lat: 36.1999034	Long: -79.5008216	Datum: WGS84				
Soil Map Unit Name:			NWI classificati	on:				
Are climatic/hydrologic conditio	ns on the site typical for this time	of year? Yes 🖌 No	(If no, explain in Remarks	.)				
Are Vegetation, Soil,	or Hydrology significan	tly disturbed? Are "Normal Cire	cumstances" present?	Yes 🟒 No				
Are Vegetation, Soil,	or Hydrology naturally	problematic? (If needed, expla	in 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 PFO. Area is wetland, all three v	vetland parameters are pr	resent.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	T F F T C nagery (B7)	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) Other (Explain in Remarks)	Roots (C3) bils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC-Neutral Test (D5)
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 inspe	ections), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met.			

Sampling Point: W-A18-119_PFO-1

	-				
Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	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	5 (B)
3	<u> </u>			Percent of Dominant Species That	
4				- Are OBL FACW or FAC:	100 (A/B)
5	. <u> </u>			Prevalence Index worksheet:	
6				Total % Cover of	Multiply By
7	<u> </u>			- OBL species 0	x 1 = 0
	65	= Total Cov	er	FACW species 30	x ? = 60
50% of total cover: <u>32.5</u>	_20% of to	otal cover:	13	EAC species 120	x 2
Sapling/Shrub Stratum (Plot size: <u>15</u>)					× 4 = 0
1. Liquidambar styraciflua	5	Yes	FAC		x4- 0
2. Nyssa sylvatica	5	Yes	FAC		x = 0
3.				Column lotais 150	(A) <u>420 (B)</u>
4.	- <u> </u>			Prevalence Index = B/A =	2.8
5	·			Hydrophytic Vegetation Indicators:	
6	·			1- Rapid Test for Hydrophytic	/egetation
7	·	<u> </u>		2 - Dominance Test is >50%	
/	·			\checkmark 3 - Prevalence Index is $\leq 3.0^{1}$	
o				4 - Morphological Adaptations	¹ (Provide supporting
9				data in Remarks or on a separate s	ieet)
	10	= lotal Cov	er	Problematic Hydrophytic Vege	tation ¹ (Explain)
50% of total cover: <u>5</u>	_ 20% of to	otal cover:	2	¹ Indicators of hydric soil and wetlar	d hydrology must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic
1. Microstegium vimineum	45	Yes	FAC	Definitions of Four Vegetation Strat	a:
2. <u>Ilex verticillata</u>	15	Yes	FACW	-	
3. <i>Carex tribuloides</i>	10	No	FACW	Tree – Woody plants, excluding vine	s, 3 in. (7.6 cm) or mo
4. Arisaema triphyllum	5	No	FACW	in diameter at breast height (DBH),	regardless of height.
5				_	
6				Sapling/shrub – Woody plants, excl	uding vines, less than
7.				in. DBH and greater than or equal t	o 3.28 ft (1 m) tall.
8.					
9.				Herb – All herbaceous (non-woody)	plants, regardless of
10.	- <u> </u>			size, and woody plants less than 3.2	.8 ft tall.
11				-	
···· <u> </u>	75	= Total Cov	or	- Woody vines – All woody vines grea	ter than 3.28 ft in
E0% of total cover: 27 E	7.5 20% of to		15	height.	
Solv of total cover. <u>S7.5</u>	_ 20% 01 10	Juli Cover.			
1					
1	·			-	
2	·			- Usedee a bustice Managerta tioner Development 200	
3				- Hydrophytic vegetation Present?	/es ⊠ No L
4					
5	<u> </u>			-	
	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 ob	served (>50	0% of domir	ant species	indexed as OBL, FACW, or FAC).	

SOIL

Sampling Point: W-A18-119_PFO-1

Profile De	escription: (Describe to	o the dept	h needed to docum	ent the ii	ndicator	or confir	n the absend	ce of indicators.)	
Depth	Matrix		Redox	k Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 7	10YR 4/2	95	10YR 5/8	5	C	Μ		Silt Loam	
7 - 13	10YR 5/2	70	10YR 5/8	10	C	Μ		Silt Loam	
7 - 13			2.5Y 6/1	20	D	Μ			
13 - 20	10YR 6/1	90	7.5YR 5/8	10	С	Μ		Sandy Loam	
				·					
				·					
¹ Type: C =	= Concentration, D = D	epletion,	RM = Reduced Matri	x, MS = I	Masked S	and Gra	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	natic Hydric Soils ³ :
_ Histoso	l (A1)		_ Dark S	Surface (S	57)			2 cm Muck (A10) (MI RA 147)
Histic E	pipedon (A2)		Polyva	alue Belo	w Surface	(S8) (ML	RA 147, 148)	Coast Prairie Redo	VIENT (A16) (MI PA 1/7 1/8)
Black H	istic (A3)		Thin [Dark Surfa	ace (S9) (N	/LRA 147	, 148)		ain Soile (F10) (MIDA 126
Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)			ani Sons (F19) (Ivilka 130,
Stratifie	ed Layers (A5)		_∕ Deple	ted Matri	ix (F3)			147) Mary Challeys Dark	Curferer (TE12)
_ 2 cm M	UCK (ATU) (LKK N) od Bolow Dark Surface (A 1 1 \	Redox	Dark Su	Frace (F6)	-7)			Surface (TFTZ)
Depiete	ark Surface (A12)	ATT)	_ Depie		Surface (r	-/)		Other (Explain in R	(emarks)
_ Trick D	Mucky Mineral (S1) (I RE		147 148) Iron-N	/anganes	se Masses	(F12) (I F	RN MIRA 13	6)	
Sandy (Gleved Matrix (S4)	,	Umbr	ic Surface	e (F13) (M	LRA 136.	122)	³ Indicators of hydroph	nytic vegetation and
Sandy F	Redox (S5)		Piedm	nont Floo	dplain Soi	ls (F19) (vilra 148)	wetland hydrology mu	ust be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	terial (F21) (MLRA	127, 147)	disturbed or problem	atic.
Restrictiv	e Laver (if observed):								
	Type:		None			Hydric	Soil Present?		Ves 🛛 No 🗆
	Denth (inches):			•		i iyune .	Join Tresent:		
	Deptil (inches).			•					
Remarks:									
A positive	e indication of hydric s	oil was ob	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



Project/Site: MVP Southgate	City/County: Elon, Alamance Cou	nty Sampling Date:	2018-June-05				
Applicant/Owner: NextEra		State: North Caro	lina Sampling Point: W-A1	8-119_PEM-1			
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:							
Landform (hillslope, terrace, etc.):	Foot slope Local re	lief (concave, convex, no	ne): Concave	Slope (%): 2 to 5			
Subregion (LRR or MLRA): MLRA 13	36 of LRR P	Lat: 36.1994578	_ong: -79.5010307	Datum: WGS84			
Soil Map Unit Name:			NWI classification	n:			
Are climatic/hydrologic conditions on th	e site typical for this time of year?	Yes 🟒 No	(If no, explain in Remarks.)				
Are Vegetation, Soil, or I	Hydrology significantly disturbed?	Are "Normal Circ	umstances" present?	Yes 🟒 No			
Are Vegetation, Soil, or I	Hydrology naturally 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. Area is wetland, all three v	wetland parameters are pi	resent.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydi Oxic 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 So Muck Surface (C7) er (Explain in Remarks)	Roots (C3 bils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (FAC Neutral Test (DE)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	12	- Wetland Hydrology Present? Yes №
Saturation Present?	Yes 🟒 No	Depth (inches):	12	
(includes capillary fringe)				-
Describe Recorded Data (stream g	auge, monitoring well,	aerial photos, previous inspe	ections), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met.			

Sampling Point: W-A18-119_PEM-1

Tree Stratum (Plot size: 30)	Absolute	e Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species Tha	t 3	(A)
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Specie Across All Strata:	s 3	(B)
4				Percent of Dominant Species That	100	(A/B)
5				Brevalence Index worksheet:		
6				Total % Cover of:	Multiply	Bur
7				OBL species 40	<u>wuuupiy</u>	<u>by.</u> 40
	0	= Total Cov	er	EACW species 25	- <u> </u>	70
50% of total cover: <u>0</u>	20% of to	otal cover:	0	EAC species 10	_ X Z = _	70
Sapling/Shrub Stratum (Plot size: <u>15</u>)					_ X 3	
1.				PACO species 0	_ ×4= _	0
2.	_			UPL species 0	_ x5= _	0
3.				Column lotals 85	(A)	140 (B)
4.				Prevalence Index = B/A =	=1.6	
5.				Hydrophytic Vegetation Indicators	:	
6				1- Rapid Test for Hydrophytic	: Vegetatior	ı
7				∠ 2 - Dominance Test is >50%		
, 8				4 3 - Prevalence Index is ≤ 3.0	I	
o				4 - Morphological Adaptation	ns¹ (Provide	supporting
9		- Total Cau	- 4	data in Remarks or on a separate	sheet)	
500/ 51 / 1	0		er	Problematic Hydrophytic Veg	getation ¹ (E>	(plain)
	20% of to	otal cover:	0	¹ Indicators of hydric soil and wetla	and hydrolo	gy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or prob	ematic	
1. Bidens frondosa	20	Yes	FACW	Definitions of Four Vegetation Stra	ata:	
2. <u>Carex bebbii</u>	20	Yes	OBL			
3. <i>Persicaria sagittata</i>	20	Yes	OBL	Tree – Woody plants, excluding vir	nes, 3 in. (7.	6 cm) or more
4. Dichanthelium clandestinum	10	No	FAC	in diameter at breast height (DBH), regardless	s of height.
5. <i>Rubus hispidus</i>	10	No	FACW			
6. <i>Spiraea tomentosa</i>	5	No	FACW	Sapling/shrub – Woody plants, exe	luding vine	s, less than 3
7				in. DBH and greater than or equal	to 3.28 ft (1	l m) tall.
8						
9				Herb – All herbaceous (non-wood	/) plants, re	gardless of
10.				size, and woody plants less than 3	.28 ft tall.	
11.						
	85	= Total Cov	er	Woody vines - All woody vines gre	ater 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: <u>30</u>)						
1.						
2.						
3.				Hydrophytic Vegetation Present?	Yes 🗹 No 🛛	
4.						
5.						
	0	= Total Cov	er			
50% of total cover: 0	20% of to		0			
Remarks: (Include photo numbers here or on a separa	ate sheet.)					
A positive indication of hydrophytic vegetation was ob	served (>50	0% of domin	ant species	indexed as OBL, FACW. or FAC).		
			species			

SOIL

Sampling Point: W-A18-119_PEM-1

Profile De	escription: (Describe t	o the dep	th needed to docum	ent the i	ndicator	or confir	n the absend	ce of indicators.)	
Depth	Matrix		Redox	k Feature	es				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 5	2.5Y 4/2	95	7.5YR 5/8	5	C	PL		Sandy Loam	
5 - 14	2.5Y 5/1	85	7.5YR 5/8	15	C	M	Sa	ndy Clay Loam	
14 - 20	2.5Y 6/3	70	10YR 5/8	20	C	Μ		Sand	
14 - 20			2.5Y 6/1	10	D	М			
		·							
					·				
·				·	·				
		· ·			·				
		·			·				
1True et C -							- 21	DI - Dava Lining M -	Matuix
'Type: C =	= Concentration, $D = L$	Depletion,	RM = Reduced Matri	x, IVIS = I	vlasked S	sand Gra	ns. ² Locatio	on: PL = Pore Lining, M =	
Hydric So	oil Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histoso	ol (A1) ninadan (A2)		_ Dark S	Surface (S	s/)		DA 147 140)	2 cm Muck (A10) (N	/LRA 147)
HISUCE	pipedon (AZ)		_ POlyva Thin F	alue Belo Dark Surf		(58) (IVIL) MI DA 1/17	1/18)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Black II Hvdrog	en Sulfide (A4)		Loam	v Gleved	Matrix (F2	2)	, 140)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		 ∕ Deple	ted Matr	ix (F3)	,		147)	
2 cm M	uck (A10) (LRR N)		Redo>	d Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface ((A11)	_ Deple	ted Dark	Surface (F7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redo>	Depress	sions (F8)				
Sandy M	Mucky Mineral (S1) (LR	R N, MLRA	147, 148) Iron-N	/langanes	se Masses	s (F12) (LF	R N, MLRA 13	6) ₃ Indicators of hydroph	vtic vegetation and
Sandy (Gleyed Matrix (S4)		Umbr	ic Surface	e (F13) (M	ILRA 136,	122)	wetland hydrology mu	st be present, unless
_ Sandy H	Redox (S5)		Piedm	iont Floo	dplain So	ils (F19) (I	VILRA 148)	disturbed or problema	atic.
Strippe	d Matrix (S6)		Red P	arent Ma	terial (F2)	I) (MLRA	127, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes 🗵 No 🗆
	Depth (inches):								
Remarks:									
A positive	e indication of hydric s	soil was ol	oserved.						
	,								

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South







Project/Site: MVP Southgate	City/County: Elon, A	lamance County Sampling Da	ate: 2018-June-05	
Applicant/Owner: NextEra		State: North C	arolina Sampling Point: V	/-A18-119_UPL-1
Investigator(s): Laura Giese, J	eff Vandeveer , Nate Renaudin	Section, Township, Ra	inge:	
Landform (hillslope, terrace, etc	.): Foot slope	Local relief (concave, convex	, none): Convex	Slope (%): 1 to 3
Subregion (LRR or MLRA):	MLRA 136 of LRR P	Lat: 36.1999594	Long: -79.5008666	Datum: WGS84
Soil Map Unit Name:			NWI classifica	ation:
Are climatic/hydrologic conditio	ns on the site typical for this time	of year? Yes 🖌 No	(If no, explain in Remar	ks.)
Are Vegetation, Soil,	or Hydrology significan	tly disturbed? Are "Normal	Circumstances" present?	Yes 🟒 No
Are Vegetation, Soil,	or Hydrology naturally	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?	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 one	e is required; check all	Secondary Indicators (minimum	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydr Oxid Preso Rece Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) ized Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) er (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 1)	
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	aerial photos, previous inspections), i	f available:		
Remarks:					
The criterion for wetland hydrology	is not met. Saturation	at 17 inches.			

Sampling Point: W-A18-119_UPL-1

				1		
Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u></u>	% Cover	Species?	Status	Number of Dominant Species That	2	(A)
1. Acer rubrum	20	Yes	FAC	Are OBL, FACW, or FAC:		
2. <u>Liriodendron tulipifera</u>	10	Yes	FACU	Across All Strata:	5	(B)
3.				Percent of Dominant Species That	40	(4 (D)
4	·			Are OBL, FACW, or FAC:	40	(A/B)
5	·			Prevalence Index worksheet:		
7	·			<u>Total % Cover of:</u>	<u>Multiply I</u>	<u>By:</u>
···	30	= Total Cov	er	OBL species 0	x 1 =	0
50% of total cover: 15	20% of to	tal cover:	6	FACW species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size: 15_)				FAC species 40	x 3 =	120
1. Prunus pensylvanica	25	Yes	FACU	FACU species 55	× 4 =	220
2. Quercus phellos	5	No	FAC	UPL species 0	x 5 =	0
3.	·			Column lotals 95	(A)	340 (B)
4.				Prevalence Index = B/A =	3.6	
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	√egetation	
7.			<u> </u>	2 - Dominance Test is > 50%		
8.				3 - Prevalence Index is $\leq 3.0^{\circ}$	1 (Duran dala	
9.				4 - Morphological Adaptations	(Provide :	supporting
	30	= Total Cov	er	Problematic Hydronbytic Vege	tation ¹ (Ex	nlain)
50% of total cover: <u>15</u>	_20% of to	tal cover:	6	¹ Indicators of hydric soil and wetlan	nd hvdrolog	zv must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. Parthenocissus quinquefolia	20	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2. Microstegium vimineum	15	Yes	FAC	_		
3				Tree – Woody plants, excluding vine	es, 3 in. (7.6	5 cm) or more
4				in diameter at breast height (DBH),	regardless	of height.
5						
6				Sapling/shrub – Woody plants, exclu	uding vines	s, less than 3
7				in. DBH and greater than or equal t	o 3.28 ft (1	m) tall.
8						
9				size and woody plants less than 3.2	piants, reg 28 ft tall	gar diess of
10				size, and woody plants less than 3.2	.o re tan.	
11						
	35	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.	28 ft in
50% of total cover: <u>17.5</u>	_20% of to	tal cover:	7	height.		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)						
1						
2.			<u> </u>			7
3	·			Hydrophylic Vegetation Present?	res ∟ no ⊾	4
4.	·					
э. 		- Total Cov				
E0% of total cover:	0 20% of to		0			
	_ 20% 01 10	ital cover.				
Remarks: (Include photo numbers here or on a separat	te sheet.)					
No positive indication of hydrophytic vegetation was o	oserved (≥	50% of dom	inant specie	es indexed as FAC– or drier).		
,				·····,		

SOIL

Sampling Point: W-A18-119_UPL-1

Profile De	scription: (Describe t	o the dep	th needed to docume	ent the i	ndicator	or confir	m the absen	ce of indicators.)	
		~ ~ ~	Redox	Feature	es			- .	
(incnes)	Color (moist)		Color (moist)	%	Туреч	LOC ²		Texture	Remarks
0-3	7.5YR 4/3	100			·			Silt Loam	
3 - 17	7.5YR 5/6	70	10YR 5/2	10	D	M		Clay Loam	
3 - 17			5YR 4/6	20	C	M			
17 - 22	10YR 5/2	95	7.5YR 5/8	5	C	M		Sandy Loam	
					<u> </u>				
					- <u> </u>				
¹ Type: C =	Concentration, D = [Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Gra	ins. ² Locati	on: PL = Pore Lining, M =	Matrix.
Hvdric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histoso	l (A1)		Dark	Surface (S7)				
Histic Er	pipedon (A2)		Polvva	alue Belo	- · , w Surface	(S8) (ML	RA 147, 148)	2 cm Muck (A10) (N	ILRA 147)
Black H	istic (A3)		Thin D	Dark Surf	ace (S9) (VLRA 147	7, 148)	Coast Prairie Redo>	(A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loamy	y Gleyed	Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_ Deple	ted Matr	'ix (F3)			147)	
_ 2 cm Mi	uck (A10) (LRR N)		Redox	Dark Su	irface (F6)			Very Shallow Dark S	Surface (TF12)
_ Deplete	d Below Dark Surface ((A11)	_ Deple	ted Dark	Surface (l	F7)		Other (Explain in Re	emarks)
Thick Da	ark Surface (A12)		Redox	Depres	sions (F8)				
_ Sandy N	/lucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-N	langane:	se Masses	(F12) (LF	422)	³⁶⁾ ₃ Indicators of hydroph	ytic vegetation and
_ Sandy G	bleyed Matrix (S4)		Umbr	ic Surfac	e (F13) (M delais Sei	LRA 136,	122) MIDA 149)	wetland hydrology mu	st be present, unless
Strinner	4 Matrix (S6)			arent Ma	aterial (F21	IS (FI9) (127 147)	disturbed or problema	tic.
	e Layer (if observed):						127, 147)		
	Type:		None			Hydric	Soil Present?		Yes 🗆 No 🖓
	Depth (inches):					, a.i.e			
Damaarikas									
Remarks:									

Photo of Sample Plot North



Photo of Sample Plot East

Project/Site: MVP Sou	thgate	City/County:	Elon, Alamance County	Sampling Dat	e: 2018-May-30		
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-E	318-64_PSS-1	
Investigator(s): Will Buetow, Simon King, Susie Gifford Section, Township, Range:							
Landform (hillslope, te	rrace, etc.):	Depression	Local relief	(concave, convex,	none): Concave	Slope (%): 0 to 1	
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P	Lat	36.199439	Long: -79.5026181	Datum: WGS84	
Soil Map Unit Name:	HeC				NWI classificati	on: PSS	
Are climatic/hydrologi	c conditions or	n 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 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? Wetland Hydrology Present?	Yes _ 🖌 No Yes _ 🖌 No Yes _ 🏑 No	Is the Sampled Area within a Wetland?	Yes 🖌 No						
Remarks:		<u></u>							
Covertype is PSS. Area is wetland, all three wetland parameters are present.									

Wetland Hydrology Indicators:							
Primary Indicators (minimum of or	Secondary Indicators (minimum of two required)						
Yimary 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) Drift 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) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 			
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, aerial photos, previous inspe	ctions), if	available:			
incinding.							

Sampling Point: W-B18-64_PSS-1

Tree Churchurg (Dict sizes 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Iree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	5	(A)
1. Acer rubrum	10	Yes	FAC	Are OBL, FACW, or FAC:		
2				Total Number of Dominant Species	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:	<u>Multiply</u>	<u>By:</u>
7		- Total Ca		OBL species 50	x 1 =	50
E0% of total covery E	10 20% of to	= lotal Cov	er 2	FACW species 20	x 2 =	40
Soling/Shrub Stratum (Plot size: 15)	_ 20% 01 to	lai cover.	Z	FAC species 70	x 3 =	210
1. Viburnum nudum	50	Yes	OBL	FACU species 0	x 4 =	0
2.				UPL species 0	x 5 = _	0
3.				Column Totals 140	(A)	300 (B)
4.				Prevalence Index = B/A =	2.1	
5.				Hydrophytic Vegetation Indicators:		
6.	- <u> </u>			1- Rapid Test for Hydrophytic	Vegetation	1
7.				2 - Dominance Test is >50%		
8.				\checkmark 3 - Prevalence Index is \leq 3.0 ¹	1 (Duouido	
9				data in Remarks or on a separate s	heet)	supporting
	50	= Total Cov	er	Problematic Hydrophytic Vege	etation ¹ (E)	(plain)
50% of total cover: <u>25</u>	_ 20% of to	otal cover:	10	¹ Indicators of hydric soil and wetlar	nd hydrolo	gy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. Boehmeria cylindrica	20	Yes	FACW	Definitions of Four Vegetation Strat	a:	
2						
3				Tree – Woody plants, excluding vine	es, 3 in. (7.6	6 cm) or more
4				in diameter at breast height (DBH),	regardless	s of height.
5						
6.				Sapling/shrub – Woody plants, excl	Jding vine	s, less than 3
/	·				0 5.20 It (1	III) tall.
8	·			Herb – All herbaceous (non-woody)	nlants re	gardless of
9				size, and woody plants less than 3.2	28 ft tall.	Baraicss of
10		<u> </u>				
11	20			Woody vines - All woody vines great	tor than 3	28 ft in
E0% of total cover: 10	20 20% of to	- Total Cov	er A	height.		.2010111
Woody Vine Stratum (Plot size: 30)	_ 20% 01 to	lai cover.	4			
1. Smilax rotundifolia	30	Yes	FAC			
2. Vitis rotundifolia	30	Yes	FAC			
3.				Hydrophytic Vegetation Present?	Yes 🗹 No 🛛	
4.						
5.						
	60	= Total Cov	er			
50% of total cover: <u>30</u>	_20% of to	tal cover:	12			
Remarks: (Include photo numbers here or on a separa	te sheet.)			ı		
	te sheet.y					

SOIL

Sampling Point: W-B18-64_PSS-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features										
(inches)	Color (moist)	06	Color (m	neuox	0%	Type1			Texture	Pemarks
	10/0 2/1	100				туре			Silt Loom	
0-5	101R 3/1					·	<u> </u>			
5 - 18	10YR 3/1	95	7.5YR.	3/3					ine Silt Loam	
					·					
¹ Type: C =	Concentration, D = D	epletion,	RM = Reduc	ed Matrix	k, MS = I	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:								Indicators for Problem	natic Hydric Soils ³ :
_ Histoso	l (A1)			_ Dark S	urface (S	57)			2 cm Muck (A10) (ALDA 147)
Histic E	pipedon (A2)			Polyva	lue Belo	w Surface	(S8) (MLF	RA 147, 148)	2 ciri Muck (ATO) (i	(147)
Black H	istic (A3)			Thin D	ark Surfa	ace (S9) (N	/LRA 147,	148)	Coast Fraine Reuo	x (A10) (IVILRA 147, 140)
Hydrog	en Sulfide (A4)			Loamy	Gleyed	Matrix (F2	.)			ain Solis (F19) (Milka 136,
Stratifie	ed Layers (A5)			_ Deplet	ed Matri	ix (F3)			147) Varu Challaus Dark	$C_{\rm eff} = c_{\rm eff} (T \Gamma 1 2)$
_ 2 cm M	uck (ATU) (LRK N) od Rolow Dark Surfaco (A 1 1)		Redox	od Dark	FTACE (F6)	7)		Very Shallow Dark	Surface (TFTZ)
Depiete Thick D	ark Surface (A12)	511)		Depiet	Denress	surface (F	7)		Other (Explain in F	(emarks)
Sandy M	Aucky Mineral (S1) (LRR	N. MLRA	147, 148)	Iron-M	anganes	se Masses	(F12) (LR	R N. MLRA 13	5)	
Sandy (Gleved Matrix (S4)		,	Umbrid	c Surface	e (F13) (M	LRA 136. 1	122)	³ Indicators of hydroph	nytic vegetation and
Sandy F	Redox (S5)			Piedmo	ont Floo	dplain Soi	ls (F19) (N	, ILRA 148)	wetland hydrology mu	ust be present, unless
Strippe	d Matrix (S6)			Red Pa	irent Ma	terial (F21) (MLRA 1	27, 147)	disturbed or problem	atic.
Restrictiv	e Layer (if observed):									
	Туре:		None				Hydric S	oil 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 Photo of Sample Plot Sketch



Project/Site: MVP Sou	thgate	City/County:	Elon, Alamance County	Sampling Date:	2018-May-30	
Applicant/Owner: N	lextEra			State: North Caro	lina Sampling Point: W-B1	8-64_UPL-1
Investigator(s): Will	Buetow, Simo	n King, Susie Gifford	Sectio	on, Township, Range	2:	
Landform (hillslope, te	errace, etc.):	Hillslope	Local relief (o	oncave, convex, no	ne): None	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P	Lat:	36.1994488 I	_ong: -79.5025896	Datum: WGS84
Soil Map Unit Name:	HeC				NWI classification	n: None
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	gnificantly disturbed?	Are "Normal Circ	umstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	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?	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	Secondary Indicators (minimum of two required)				
rimary Indicators (minimum of one is required; check all that apply)			Secondary indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) EAC Neutral Tact (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):			
(includes capillary fringe)			-		
Describe Recorded Data (stream g	auge, monitoring well, a	erial photos, previous inspections), if	available:		

Sampling Point: W-B18-64_UPL-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:				
		Species?	Status	Number of Dominant Species T	nat	1	(A)	
1. <i>Quercus alba</i>	70	Yes	FACU	Are OBL, FACW, or FAC:				
2. Liriodendron tulipifera	20	Yes	FACU	Across All Strata	les	5	(B)	
3	·			Percent of Dominant Species Th				
4				Are OBL, FACW, or FAC:	ac	20	(A/B)	
5				Prevalence Index worksheet:				
6				Total % Cover of:	M	Iultiply	<u>By:</u>	
7				OBL species 0	х	1 =	0	
	90	= Total Cov	er	FACW species 0	x	2 =	0	
50% of total cover: <u>45</u>	_ 20% of to	otal cover:	18	FAC species 20	x	3 =	60	
<u>Sapiing/Shrub Stratum</u> (Plot Size: <u>15</u>)	70	Voc	EACU	FACU species 175	x	4 =	700	
2 Avidendrum arboreum	5	No		UPL species 5	x	5 =	25	
2. University of the second se	5	No		Column Totals 200	((A)	785 (B)	
3. <u>nex opaca</u>		110	FACO	Prevalence Index = B/	4 =	3.9		
т. 	·	<u> </u>		Hydrophytic Vegetation Indicate	ors:			
5	·	<u> </u>		1- Rapid Test for Hydroph	tic Veg	getation		
7				2 - Dominance Test is > 50	%			
8	·			$_$ 3 - Prevalence Index is \leq 3	.01			
9	·			4 - Morphological Adaptat	ons¹ (P	Provide	supporting	
	80	= Total Cov	er	data in Remarks or on a separate sheet)				
50% of total cover: 40	20% of to	tal cover:	16	Problematic Hydrophytic	egetat	ion ¹ (Ex	plain)	
Herb Stratum (Plot size: 5)				indicators of hydric soil and we	tiand n	iyarolog itic	gy must be	
1. Vaccinium angustifolium	10	Yes	FACU	Definitions of Four Vegetation S	trata			
2.				Definitions of Four Vegetation 2	li ala.			
3.	·			Tree - Woody plants, excluding	vines. ?	3 in. (7.6	5 cm) or more	
4.	·			in diameter at breast height (DE	H), reg	gardless	of height.	
5.							Ū.	
6.				Sapling/shrub – Woody plants,	excludir	ng vines	s, less than 3	
7.				in. DBH and greater than or equ	al to 3.	.28 ft (1	m) tall.	
8.								
9.				Herb – All herbaceous (non-woo	idy) pla	ants, reg	gardless of	
10				size, and woody plants less that	i 3.28 fi	t tall.		
11								
	10	= Total Cov	rer	Woody vines – All woody vines	reater	than 3.	.28 ft in	
50% of total cover: <u>5</u>	_20% of to	tal cover:	2	height.				
Woody Vine Stratum (Plot size: <u>30</u>)								
1. <i>Smilax rotundifolia</i>	20	Yes	FAC					
2								
3				Hydrophytic Vegetation Preser	t? Yes	🗆 No 🛙	7	
4								
5								
	20	= Total Cov	er					
50% of total cover:10	_ 20% of to	otal cover:	4					
Remarks: (Include photo numbers here or on a separa	te sheet.)							
SOIL

Sampling Point: W-B18-64_UPL-1

Profile Depth	escription: (Describe t Matrix	o the dept	th needed to docum Redo	ent the i x Featur	ndicator (es	or confirm the	e absence	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 3	10YR 3/2	100					5	andy Loam	
3 - 8	10YR 4/3	100			·		S	andy Loam	
					·		-		
		· ·							
		· ·			·				
		· ·			·				
		· ·			·	<u> </u>			
		·							
		- <u> </u>				<u> </u>			
		· ·				<u> </u>			
¹ Type [•] C	Concentration D = [RM = Reduced Matr	ix MS =	Masked S	and Grains	² l ocatio	n:Pl = Pore Lining M =	Matrix
Hydric Sc	vil Indicators:	pepietion,		17, 1915	Musice 2		Locatio	Indicators for Problem	atic Hydric Soils ³
Histoso	ol (A1)		Dark	Surface (57)			indicators for inobient	ade riguite Solis .
Histic E	pipedon (A2)		Polyv	alue Belo	w Surface	e (S8) (MLRA 14	47, 148)	2 cm Muck (A10) (N	ILRA 147)
Black ⊢	listic (A3)		Thin I	Dark Surf	ace (S9) (N	VLRA 147, 148)	5)	Coast Prairie Redox	(A16) (MLRA 147, 148)
_ Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)		Pleamont Floodpla	IN SOIIS (F19) (MLRA 136,
Stratifie	ed Layers (A5) luck (A10) (LPP N)		_ Deple	eted Matr	ix (F3) Irfaco (E6)			147) Vory Shallow Dark 9	Surface (TE12)
Deplete	ed Below Dark Surface	(A11)	Redu Deple	ted Dark	Surface (10)	F7)		Other (Explain in Re	emarks)
Thick D	ark Surface (A12)	. ,	Redo	k Depres	sions (F8)	,			
Sandy	Mucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-1	Mangane	se Masses	; (F12) (LRR N, I	MLRA 136	³ Indicators of hydroph	vtic vegetation and
Sandy	Gleyed Matrix (S4)		Umbr	ic Surfac	e (F13) (M	ILRA 136, 122)	1.40	wetland hydrology mu	st be present, unless
Sandy	d Matrix (S6)		Plean Red P	arent Ma	opiain Sol aterial (E21	IIS (F19) (MLRA I) (MI RA 127-1	4 148) 147)	disturbed or problema	itic.
	e Laver (if observed):						,		
Resultur	Type:		None			Lludric Coil D)rocont7		
	Denth (inches):		None	-			resent		
Dense ales	Deptil (inches).			-					
Remarks									

Photo of Sample Plot North



Photo of Sample Plot South

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	y: Elon, Alamance Cou	inty	Sampling Dat	e: 2018-June-06					
Applicant/Owner: N	lextEra			Sta	ate: North Ca	arolina Sampling Point: W	-A18-127_PFO-1		
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:									
Landform (hillslope, te	rrace, etc.):	Foot slope	Local re	elief (cond	cave, convex,	none): Concave	Slope (%): 1 to 3		
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.	1974043	Long: -79.4979207	Datum: WGS84		
Soil Map Unit Name:	Helena Sand	ly loam (HeB), 2 to 6	percent slopes			NWI classifica	tion:		
Are climatic/hydrologic	c conditions or	n the site typical for	this time of year?	Ye	s 🟒 No _	(If no, explain in Remark	s.)		
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	? A	re "Normal C	ircumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(1	f needed, exp	lain 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	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 one	e is required; check all t	<u>hat apply)</u>	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True A 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)	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 In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (SAC Neutral Tast (D5)	Surface (B8) 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-A18-127_PFO-1

				Densin and Testandalah est			
Tree Stratum (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance lest worksneet:			
	% Cover	Species?	Status	Are OBL_EACW or EAC	7 (A)		
1. Acer rubrum	30	Yes	FAC	Total Number of Dominant Species			
2. Liquidambar styraciflua	25	Yes	FAC	Across All Strata	7 (B)		
3. <u>Liriodendron tulipifera</u>	10	No	FACU	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 40	x 1 = 40		
	65	= Total Cov	er	EACW species 25	x 2 = 50		
50% of total cover: <u>32.5</u>	_ 20% of to	tal cover:	13	EAC species 120	x 2 - 360		
Sapling/Shrub Stratum (Plot size:15)					x 3 - <u> </u>		
1. <i>Nyssa sylvatica</i>	20	Yes	FAC	FACO species 10	x 4 = <u>40</u>		
2. Acer rubrum	10	Yes	FAC	UPL species 0	x 5 = 0		
3.		·		Column Totals 195	(A) <u>490 (B)</u>		
4	·			Prevalence Index = B/A =	2.5		
5				Hydrophytic Vegetation Indicators:			
s	·	·		1- Rapid Test for Hydrophytic	Vegetation		
7		······································		2 - Dominance Test is >50%			
/		<u> </u>		\checkmark 3 - Prevalence Index is ≤ 3.0 ¹			
8				4 - Morphological Adaptations	¹ (Provide supporting		
9		·		data in Remarks or on a separate sl	neet)		
	30	= Total Cov	er	Problematic Hydrophytic Vege	etation ¹ (Explain)		
50% of total cover: <u>15</u>	_ 20% of to	tal cover:	6	¹ Indicators of hydric soil and wetlar	ıd hydrology must be		
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic		
1. Osmunda spectabilis	30	Yes	OBL	Definitions of Four Vegetation Strat	a:		
2. Onoclea sensibilis	25	Yes	FACW				
3. Microstegium vimineum	25	Yes	FAC	Tree – Woody plants, excluding vine	es, 3 in. (7.6 cm) or more		
4. Viburnum nudum	10	No	OBL	in diameter at breast height (DBH),	regardless of height.		
5. Eutrochium purpureum	5	No	FAC		5 5		
6. <i>Smilax rotundifolia</i>	5	No	FAC	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) tall.		
8							
0		······································		Herb – All herbaceous (non-woody)	plants, regardless of		
3	·			size, and woody plants less than 3.2	28 ft tall.		
11		·					
	100	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 ft in		
50% of total cover: <u>50</u>	_20% of to	tal cover:	20	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: 0	20% of to	tal cover:	0				
	_ 20/0 01 10		0				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).							

SOIL

Sampling Point: W-A18-127_PFO-1

Profile De	scription: (Describe t	o the dept	h needed to docume	ent the i	ndicator	or confiri	n the absend	ce of indicators.)	
	Matrix	<u> </u>	Redox	Feature	2S			- .	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туреч	LOC ²		lexture	Remarks
0 - 5	10YR 3/1	100						Silt Loam	
5 - 9	2.5Y 5/1	90	10YR 5/8	10	C	M		Loamy Sand	
9 - 17	5Y 6/1	85	10YR 5/8	15	C	M		Sand	
		·			·				
		·			. <u> </u>				
		·							
¹ Type: C =	Concentration, D = [Depletion,	RM = Reduced Matri	x, MS = I	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	natic Hydric Soils ³ :
Histoso	l (A1)		Dark S	Surface (S	57)			2 cm Muck (A10) (ALDA 147)
Histic Ep	oipedon (A2)		Polyva	lue Belo	w Surface	(S8) (ML	RA 147, 148)	Coast Prairie Redo	VILINA 147) V (A16) (MI PA 147 148)
Black H	istic (A3)		Thin D	ark Surf	ace (S9) (N	/LRA 147	, 148)	Coast Fraine Redo	nin Soile (E10) (MI DA 136
Hydroge	en Sulfide (A4)		_ Loamy	/ Gleyed	Matrix (F2	<u>')</u>		147)	
2 cm Mi	uck (A10) (I RR N)		Deple Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TE12)
Deplete	d Below Dark Surface	(A11)	_ Deplet	ted Dark	Surface (F	-7)		Other (Explain in R	emarks)
Thick Da	ark Surface (A12)		Redox	Depress	sions (F8)				,
Sandy N	lucky Mineral (S1) (LRI	R N, MLRA 1	147, 148) Iron-M	langanes	se Masses	(F12) (LR	R N, MLRA 13	6) ₃ Indicators of hydroph	nytic vegetation and
Sandy G	Gleyed Matrix (S4)		Umbri	c Surface	e (F13) (M delais Cai	LRA 136,	122)	wetland hydrology mu	ust be present, unless
Sandy R	edox (SS) H Matrix (S6)		Pleam Red Pi	iont Floo arent Ma	apiain Soi terial (E21	IS (FI9) (F	VILKA 148) 127 147)	disturbed or problem	atic.
	a Matrix (50)) (27, 147)		
Resulting			None			l lu relation d	ail Duanaut2		
	Dopth (inchos):		None			Hydrics	soll Present?		res ⊠ no ∟
	Depth (inches).								
Remarks:									
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 Photo of Sample Plot Sketch



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Elon, A			y: Elon, Alamance Cou	nty Samplin	g Date: 2018	8-June-06		
Applicant/Owner: N	lextEra			State: Nor	rth Carolina	Sampling Point: W-A	18-127_UPL-1	
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:								
Landform (hillslope, te	rrace, etc.):	Back slope	Local re	lief (concave, cor	nvex, none):	Convex	Slope (%): 5 to 10	
Subregion (LRR or MLF	RA): MLRA	136 of LRR P		Lat: 36.1973058	B Long:	-79.4978384	Datum: WGS84	
Soil Map Unit Name:	Helena Sand	y loam (HeB), 2 to 6	percent slopes			NWI classificatio	on:	
Are climatic/hydrologic	c conditions on	the site typical for	this time of year?	Yes 🟒 N	lo (lf no	, explain in Remarks.)	
Are Vegetation,	Soil,	or Hydrology :	significantly disturbed?	Y Are "Norr	mal Circumst	ances" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If needed	d, explain 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 based on a	bsence of hydric soils and	wetland hydrology .	

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True . Hydro Oxidi Prese Recei Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 11)	
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	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-A18-127_UPL-1

. ,	•							
Tree Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	_			
1. Liriodendron tulipifera	30	Yes	FACU	Are OBL, FACW, or FAC:	4	(A)		
2. Liquidambar styraciflua	30	Yes	FAC	Total Number of Dominant Species	6	(B)		
3. Acer rubrum	25	Yes	FAC	Across All Strata:		(D)		
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 B</u>	iy:		
	85	= Total Cov	er	OBL species 0	x 1 =	0		
50% of total cover: 42.5	20% of to	tal cover:	17	FACW species 0	x 2 =	0		
Sapling/Shrub Stratum (Plot size: 15)				FAC species 95	x 3 =	285		
1. <i>Juniperus virginiana</i>	10	Yes	FACU	FACU species <u>60</u>	x 4 =	240		
2.				UPL species 0	x 5 =	0		
3				Column Totals 155	(A)	525 (B)		
4				Prevalence Index = B/A =	3.4			
5				Hydrophytic Vegetation Indicators:				
s				1- Rapid Test for Hydrophytic	Vegetation			
7				2 - Dominance Test is >50%				
7	·			$3 - Prevalence Index is \le 3.0^{1}$				
o				4 - Morphological Adaptations	¹ (Provide s	upporting		
9		Tabal Car		- data in Remarks or on a separate sl	heet)			
	10		er	Problematic Hydrophytic Vege	etation ¹ (Exp	olain)		
50% of total cover: <u>5</u>	_ 20% of to	otal cover:	2	¹ Indicators of hydric soil and wetlar	nd hydrolog	y must be		
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic			
1. Euonymus americanus	25	Yes	FAC	Definitions of Four Vegetation Strat	a:			
2. <u>Smilax rotundifolia</u>	15	Yes	FAC	-				
3. <u>Vitis aestivalis</u>	10	No	FACU	Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more		
4. Lonicera japonica	10	No	FACU	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 t	o 3.28 ft (1 i	m) tall.		
8								
9				Herb – All herbaceous (non-woody)	piants, rega	ardless of		
10					20 IT tall.			
11				_				
	60	= Total Cov	er	Woody vines – All woody vines grea	ter 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				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 separate 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-A18-127_UPL-1

Profile De Depth	scription: (Describe t Matrix	o the dep	th needed to docume Redox	ent the i	ndicator	or confiri	m the absen	ce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 2	2.5Y 3/2	100						Silt Loam	
2 - 7	10YR 4/2	100			·			Sandy Loam	
7 - 16	2 5Y 6/1	100			·			Sand	
16 - 21	2.57.6/2	70	2.57.6/6	30		M		Sandy Clay	
10 21	2.51 0/2		2.51 0/0		<u> </u>			Sundy Cidy	
·					·				
		· ·			·	<u> </u>			
		· ·				<u> </u>			
		· ·			·				
<u> </u>		· ·							
¹ Type: C =	Concentration, D = I	Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Grai	ins. ² Locati	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histoso	l (A1)		Dark S	Surface (S7)		DA 147 140)	2 cm Muck (A10) (N	ILRA 147)
HISUC Ep Black Hi	istic (A3)		ΡΟΙΥνα Thin Γ	alue Belo Dark Surf	ace (SQ) ((58) (IVIL) MI RA 147	KA 147, 148) ' 148)	Coast Prairie Redo	(A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)	, 140)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		Deple	ted Matr	ix (F3)			147)	
_ 2 cm Mi	uck (A10) (LRR N)		Redox	Dark Su	irface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface	(A11)	_ Deple	ted Dark	Surface (F7)		Other (Explain in R	emarks)
_ INICK Da	ark Surface (A12) Auchy Mineral (S1) (I P I		Kedox	(Depres:	SIONS (F8) SA Massas	(E12) (P		86)	
Sandy G	Gleved Matrix (S4)		Umbri	ic Surfac	e (F13) (M	ILRA 136.	122)	³ Indicators of hydroph	ytic vegetation and
Sandy R	edox (S5)		Piedm	nont Floo	dplain So	ils (F19) (I	MLRA 148)	wetland hydrology mu	st be present, unless
Stripped	d Matrix (S6)		Red Pa	arent Ma	terial (F21) (MLRA	127, 147)	disturbed or problema	itic.
Restrictive	e Layer (if observed):								
	Туре:		None			Hydric S	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks:									
	un in diantin a filmudui	:							
NO POSILIN	re indication of hydri	c solis was	observed.						

Photo of Sample Plot North





WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sout	City/Count	y: Elon, Alamance Cou	nty Samplir	ng Date: 2018-June-07					
Applicant/Owner: N	extEra			State: No	rth Carolina Sampling Point: W	-A18-130_PFO-1			
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:									
Landform (hillslope, ter	rrace, etc.):	Back slope	Local re	lief (concave, co	nvex, none): Concave	Slope (%): 1 to 3			
Subregion (LRR or MLR	A): MLRA	136 of LRR P		Lat: 36.193973	3 Long: -79.4984487	Datum: WGS84			
Soil Map Unit Name:	Frogsboro Sa	ndy loam (FgB) 2 to	o 6 percent slopes		NWI classificat	tion:			
Are climatic/hydrologic	conditions on	the site typical for	this time of year?	Yes 🟒 N	lo (If no, explain in Remark	s.)			
Are Vegetation,	Soil, o	or Hydrology	significantly disturbed?	Are "Nor	mal Circumstances" present?	Yes 🟒 No			
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If neede	d, 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	ls the Sampled Area within a Wetland?	Yes No
Remarks:			
Covertype is PFO. Area is wetland, all three v	vetland parameters are pi	resent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check	<u>all that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tr H O Pr R TI O	rue 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)	Roots (C3)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
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 ga	auge, monitoring we	ell, aerial photos, previous inspec	ctions), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

Sampling Point: W-A18-130_PFO-1

				1	
Tree Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant	Indicator	Dominance Test worksheet:	
1 Acer rubrum	40	Vos	FAC	Are OBL, FACW, or FAC:	6 (A)
2. Liquidambar styraciflua	20	Yes	FAC	Total Number of Dominant Species	7 (B)
3	. <u> </u>			ACross All Strata:	
4				Are OBL, FACW, or FAC:	85.7 (A/B)
5	<u> </u>			Prevalence Index worksheet:	
6.	·			Total % Cover of:	Multiply By:
/		- Total Cau		OBL species 5	x 1 = 5
E0% of total covery 20	00 20% of to		er 12	FACW species 10	x 2 = 20
Sanling/Shrub Stratum (Plot size: 15)	_ 20% 01 10	lai cover.	12	FAC species 85	x 3 = 255
1. Ulmus rubra	10	Yes	FAC	FACU species 10	x 4 =40
2. Nyssa sylvatica	5	Yes	FAC	UPL species 0	x 5 = 0
3. Prunus virginiana	5	Yes	FACU	Column Totals 110	(A) <u>320 (B)</u>
4.	·			Prevalence Index = B/A =	2.9
5.	·			Hydrophytic Vegetation Indicators:	
6.				1- Rapid Test for Hydrophytic	/egetation
7.				2 - Dominance Test is >50%	
8.				3 - Prevalence Index is $\leq 3.0^{\circ}$	1 (Duran i da anna a stia a
9.				4 - Morphological Adaptations	' (Provide supporting
	20	= Total Cov	er	Problematic Hydrophytic Vege	tation ¹ (Explain)
50% of total cover: <u>10</u>	_20% of to	otal cover:	4	¹ Indicators of hydric soil and wetlan	id hydrology must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic
1. Juncus effusus	10	Yes	FACW	Definitions of Four Vegetation Strat	a:
2. <i>Toxicodendron radicans</i>	10	Yes	FAC	_	
3. Lycopus virginicus	5	No	OBL	Tree – Woody plants, excluding vine	s, 3 in. (7.6 cm) or more.
4. Parthenocissus quinquefolia	5	No	FACU	in diameter at breast height (DBH),	regardless of height.
5					
6				Sapling/shrub – Woody plants, exclu	Jding vines, less than 3
7				- In DBH and greater than or equal t	5 5.26 It (1 III) tall.
8				Herb – All berbaceous (non-woody)	nlants regardless of
9				size, and woody plants less than 3.2	28 ft tall.
				-	
^{11.}		Tabal Car		Woody vines All woody vines great	tor than 2 28 ft in
	30		er	height	
50% of total cover: <u>15</u>	_ 20% 01 to	otal cover:	0		
1					
2	·			-	
3				- Hydrophytic Vegetation Present?	Yes 🖓 No 🖓
4					
5.	·				
	0	= Total Cov	er	-	
50% of total cover:0	20% of to	tal cover:	0		
	-				
Remarks: (include photo numbers here or on a separa	te sneet.)				
A positive indication of hydrophytic vegetation was ob-	served (>50)% of domin	ant species	indexed as OBL. FACW. or FAC).	

SOIL

Sampling Point: W-A18-130_PFO-1

Profile De	escription: (Describe t	o the dept	h needed to docum	ent the i	ndicator	or confir	m the absend	ce of indicators.)	
	Matrix		Redox	C Feature	2S				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туреч	LOC ²		lexture	Remarks
0-3	10YR 3/2	100			·			Silt Loam	
3 - 7	2.5Y 6/3	80	10YR 5/8	10	C	M		Loamy Sand	
3 - 7			2.5Y 6/1	10	D	M			
7 - 18	2.5Y 5/1	95	7.5YR 4/6	5	С	М		Silt Loam	
		· ·		· - <u></u>					
		· ·		·	·				
		· ·		· - <u></u>	· <u> </u>				
		· ·		·	·				·
		· <u> </u>		·	· <u> </u>				
¹ Type: C =	Concentration, D = [Depletion,	RM = Reduced Matri	x, MS = I	Masked S	and Gra	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	natic Hydric Soils ³ :
_ Histoso	l (A1)		_ Dark S	Surface (S	57)			2 cm Muck (A10) (N	/ILRA 147)
Histic Ep	pipedon (A2)		Polyva	alue Belo	w Surface	(S8) (ML	RA 147, 148)	Coast Prairie Redo	x (A16) (MI RA 147, 148)
Black H	istic (A3)			Dark Surf	ace (S9) (N	/LRA 147	, 148)	Piedmont Floodola	ain Soils (F19) (MI RA 136
Hydroge	en Sulfide (A4)		_ Loam	y Gleyed	Matrix (F2	()		147)	(MEIV(150,
_ Stratine	u Layers (AS)		Depie		IX (F3) rfaco (E6)			Vory Shallow Dark	Surface (TE12)
2 cm with	d Below Dark Surface	(A11)	Redux	ted Dark	Surface (F	-7)		Very Shahow Dark	omarka)
Thick Da	ark Surface (A12)	(,(,,,)	Beple Redox	Depress	sions (F8)	,,			erriarks)
Sandy N	/lucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-N	langanes	se Masses	(F12) (LF	R N, MLRA 13	6) ₃₁₂ - 1:	
Sandy G	Gleyed Matrix (S4)			ic Surface	e (F13) (M	LRA 136,	122)	³ Indicators of hydropr	lytic vegetation and
Sandy R	Redox (S5)		Piedm	nont Floo	dplain Soi	ls (F19) (MLRA 148)	wetland hydrology mu	ist be present, unless
Stripped	d Matrix (S6)		Red P	arent Ma	terial (F21) (MLRA	127, 147)	disturbed or problema	atic.
Restrictive	e Layer (if observed):								
	Type:		None			Hvdric	Soil Present?		Yes 🛛 No 🗆
	Depth (inches):					,			
Domorker				·					
Remarks.									
A positive	indication of hydric s	soil was ob	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



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Elon, Alam	nance County	Sampling Date	: 2018-June-07		
Applicant/Owner: NextEra			State: North Car	olina Sampling Point: W-A	18-130_PEM-2	
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:						
Landform (hillslope, terrace, etc.):	Foot slope	Local relief (c	oncave, convex, n	one): Concave	Slope (%): 1 to 3	
Subregion (LRR or MLRA): MLRA	136 of LRR P	Lat:	36.1934138	Long: -79.4971066	Datum: WGS84	
Soil Map Unit Name:				NWI classificatio	n:	
Are climatic/hydrologic conditions on	the site typical for this time of y	year?	Yes 🟒 No	_ (If no, explain in Remarks.)		
Are Vegetation, Soil, o	r Hydrology significantly o	disturbed?	Are "Normal Cir	cumstances" present?	Yes 🟒 No	
Are Vegetation, Soil, o	r Hydrology naturally pro	blematic?	(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 v	wetland 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)
 Surface Water (A1) High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) 	— Tr — H O — Pr — Ra — Th — O	rue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) xidized Rhizospheres on Living Roots (C3) resence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soils (C6) nin Muck Surface (C7) ther (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)
Aquatic Fauna (B13)			Microtopographic Relief (D4)
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): 0	_
(includes capillary fringe)			
Describe Recorded Data (stream g	auge, monitoring we	ell, aerial photos, previous inspections), if	available:
Remarks:			
The criterion for wetland hydrolog	y is met. Soil is episa	iturated. Saturated from 0 to 4 inches.	

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

Sampling Point: W-A18-130_PEM-2

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksh	eet:		
	% Cover	Species?	Status	Number of Dominant Sp	pecies That	4	(A)
1		<u> </u>		Total Number of Domin	ant Spacias		
2		<u> </u>		Across All Strata:	and species	4	(B)
3.		·		Percent of Dominant Sp	ecies That	100	(A (D)
+		·		Are OBL, FACW, or FAC:		100	(A/B)
6		·		Prevalence Index works	heet:		
7				Total % Cover of	<u>of:</u>	Multiply I	<u>By:</u>
···	0	= Total Cov	er	OBL species	30	x 1 =	30
50% of total cover: 0	20% of to		0	FACW species	40	x 2 =	80
Sapling/Shrub Stratum (Plot size: 15)	_ 20/0 01 00			FAC species	15	x 3 =	45
1.				FACU species	5	x 4 =	20
2.				UPL species	0	x 5 =	0
3.				Column Totals	90	(A)	175 (B)
4.		·		Prevalence Inc	dex = B/A =	1.9	
5.		·		Hydrophytic Vegetation	Indicators:		
6				1- Rapid Test for H	ydrophytic \	/egetation	
7		<u> </u>		2 - Dominance Test	t is >50%		
8		<u> </u>		3 - Prevalence Inde	ex is $\leq 3.0^1$		
9		<u> </u>		4 - Morphological A	Adaptations	¹ (Provide :	supporting
·	0	= Total Cov	er	data in Remarks or on a	separate sh	neet)	
50% of total cover: 0	20% of to		0	Problematic Hydro	phytic Vege	tation ¹ (Ex	plain)
Herb Stratum (Plot size: 5)	_ 20/0 01 10			Indicators of hydric soil	and wetlan	d hydrolog	gy must be
1. Juncus effusus	25	Yes	FACW	Definitions of Four Vege	tation Strat		
2. Carex lurida	20	Yes	OBL	Demnitions of Four Vege		d.	
3. <i>Iuncus tenuis</i>	15	Yes	FAC	Tree - Woody plants ex	cluding vine	s 3 in (7 6	cm) or more
4. Leersia virginica	15	Yes	FACW	in diameter at breast he	ight (DBH).	regardless	of height.
5 Cephalanthus occidentalis	5	No	OBI			. 6841 41655	0111018110
6 Scirpus atrovirens	5	No	OBL	Sapling/shrub - Woody	plants, exclu	uding vines	s. less than 3
7. Lonicera japonica	5	No	FACU	in. DBH and greater that	n or equal to	o 3.28 ft (1	m) tall.
8							
9.		·		Herb – All herbaceous (r	non-woody)	plants, reg	gardless of
10				size, and woody plants l	ess than 3.2	8 ft tall.	
11							
···· <u></u>	90	= Total Cov	er	Woody vines – All woody	v vines grea	ter than 3.	28 ft in
50% of total cover: 45	20% of to		18	height.	,		
Woody Vine Stratum (Plot size: 30)	_ 20 /0 01 10						
1.							
2							
3				Hydrophytic Vegetation	Present?	Yes 🖓 No 🛙	7
4							
5							
···		= Total Cov	er.				
50% of total cover: 0	20% of to		0				
	_ 20/00/10						
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-A18-130_PEM-2

Profile De	escription: (Describe to	the dep	th needed to docume	ent the i	ndicator	or confiri	n the absen	ce of indicators.)	
Depth _	Matrix		Redox	Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 1	10YR 3/2	100						Silt Loam	
1 - 5	2.5Y 5/1	95	7.5YR 4/6	5	C	Μ		Silt Loam	<u> </u>
5 - 16	2.5Y 5/2	90	7.5YR 4/6	10	С	М		Clay Loam	
·					·				
·					·	<u> </u>			
					·	<u> </u>			
¹ Type: C =	Concentration D = D	enletion	RM = Reduced Matri	x MS =	Masked 9	and Grai	ns ² l ocati	on: PL = Pore Lining M =	Matrix
Hydric So	il Indicators:	epiction,		λ, ΝΙΟ	Musice s		IIS. LOCALIN	Indicators for Problem	natic Hydric Soils ³ :
Histoso	π παιτατοί 5. Ι (Δ1)		Dark	Surface (57)			indicators for Proplett	iauc myuric soliss.
Histic Fr	pipedon (A2)		Dark S Polyva	lue Belo	w Surface	(S8) (MI)	RA 147, 148)	2 cm Muck (A10) (MLRA 147)
Black Hi	istic (A3)			ark Surf	ace (S9) (I	MLRA 147	, 148)	Coast Prairie Redo	ox (A16) (MLRA 147, 148)
 Hydroge	en Sulfide (A4)		Loamy	/ Gleyed	Matrix (F2	<u>2)</u>		Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_ Deplet	ted Matr	ix (F3)			147)	
_ 2 cm Mi	uck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (/	A11)	_ Deplet	ted Dark	Surface (I	F7)		Other (Explain in R	Remarks)
Thick Da	ark Surface (A12)		Redox	Depress	sions (F8)				
Sandy N	Aucky Mineral (ST) (LRR	N, MILKA	147, 148) Iron-Iv	langanes		(FIZ) (LR	K N, MLKA 13 122)	⁶⁾ ³ Indicators of hydroph	nytic vegetation and
Sandy R	Pedax (S5)		UIIDII Piedm	ont Floo	dolain Soi	LKA 130, ils (F19) (1	122) AIRA 148)	wetland hydrology mu	ust be present, unless
Stripper	d Matrix (S6)		Red Pa	arent Ma	iterial (F21	(MIRA)	127, 147)	disturbed or problem	atic.
 Postrictive	a haver (if observed):								
Restrictiv	Type		None			Ludric 9	Coil Drocont?		
	Dopth (inchos):		None			Hyunc :	Soli Fresent:		
	Depth (inches).								
Remarks:									
A positive	indication of hydric s	oil was o	bserved.						

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West



Sketch

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sout	thgate	City/County: E	Elon, Alamance County	Sampling Dat	e: 2018-June-07	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: W-	A18-130_UPL-1
Investigator(s): Laura	a Giese, Jeff Vanc	deveer , Nate Renauc	din Sec	tion, Township, Rar	nge:	
Landform (hillslope, ter	rrace, etc.):	Back slope	Local relief	(concave, convex,	none): Convex	Slope (%): 1 to 3
Subregion (LRR or MLR	A): MLRA 1	36 of LRR P	La	t: 36.1943236	Long: -79.4975977	Datum: WGS84
Soil Map Unit Name:	Frogsboro Sanc	dy loam (FgB), 2 to 6	percent slopes		NWI classificat	ion:
Are climatic/hydrologic	conditions on th	ne site typical for this	s time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	5.)
Are Vegetation,	Soil, or	Hydrology sign	ificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil, or	Hydrology nati	urally 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 based on a	bsence of hydric soils and	wetland hydrology .	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	<u>ne is required; check all t</u>	that apply)	Secondary Indicators (minimum	of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True A Hydro Oxidi; Prese Recer Thin N 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 (IC) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Tast (D5) 	Surface (B8) 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-A18-130_UPL-1

	•			-		
Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	9	(A)
1. Liquidambar styraciflua	30	Yes	FAC	Total Number of Dominant Species		
2. Acer rubrum	15	Yes	FAC	Across All Strata:	10	(B)
3. Quercus phellos	15	Yes	FAC	Percent of Dominant Species That		
4. Nyssa sylvatica	15	Yes	FAC	Are OBL, FACW, or FAC:	90	(A/B)
5.				Prevalence Index worksheet:		
6.				Total % Cover of:	Multiply	<u>By:</u>
7	·			OBL species 0	x 1 =	0
	75	= Total Cov	er	FACW species 0	x 2 =	0
50% of total cover: <u>37.5</u>	_ 20% of to	otal cover:	15	FAC species 120	x 3 =	360
Sapling/Shrub Stratum (Plot size:15)				FACU species 5	x 4 =	20
1. Liquidambar styraciflua	10	Yes	FAC	UPL species 0	x 5 =	0
2. <u>Nyssa sylvatica</u>	5	Yes	FAC	Column Totals 125	(A)	380 (B)
3				Prevalence Index = B/A =	3	. , _
4				Hydrophytic Vegetation Indicators:		
5	<u> </u>			1- Rapid Test for Hydrophytic \	legetation	
6				1 Rapid Test for Hydrophytic (regetation	
7				\sim 2 - Dominance resctis > 50%		
8				4 - Morphological Adaptations	1 (Provide	supporting
9	<u> </u>			data in Remarks or on a separate st	leet)	supporting
	15	= Total Cov	er	Problematic Hydrophytic Vege	tation ¹ (Ex	(plain)
50% of total cover: <u>7.5</u>	_20% of to	tal cover:	3	¹ Indicators of hydric soil and wetlan	d hydrolog	gy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	0)
1. Parthenocissus quinquefolia	5	Yes	FACU	Definitions of Four Vegetation Strate	a:	
2. <i>Nyssa sylvatica</i>	5	Yes	FAC	.		
3. <i>Smilax rotundifolia</i>	5	Yes	FAC	Tree – Woody plants, excluding vine	s, 3 in. (7.6	5 cm) or more
4.				in diameter at breast height (DBH),	regardless	of height.
5.						
6.				Sapling/shrub – Woody plants, exclu	uding vines	s, less than 3
7.				in. DBH and greater than or equal to	o 3.28 ft (1	m) tall.
8.						
9.				Herb – All herbaceous (non-woody)	plants, reg	gardless of
10.				size, and woody plants less than 3.2	8 ft tall.	
11.				-		
	15	= Total Cov	er	- Woody vines – All woody vines grea	ter than 3.	.28 ft in
50% of total cover: 7.5	20% of to	- tal cover:	3	height.		
Woody Vine Stratum (Plot size: 30)						
1. Smilax rotundifolia	20	Yes	FAC			
2.				-		
3.				- Hydrophytic Vegetation Present?	Yes 🗹 No 🛙	
4.						
				-		
	20	= Total Cov	er	-		
50% of total cover: 10	20% of to	tal cover:	4			
	_2070 01 10					
Remarks: (Include photo numbers here or on a separa	te sheet.)					
		0/ = E - L		indexed on ODL FACING SAC		
A positive indication of hydrophytic vegetation was ob-	served (>50	J‰ of domin	ant species	INDEXED AS OBL, FACW, OF FAC).		

SOIL

Sampling Point: W-A18-130_UPL-1

Profile Descri	ption: (Describe to	o the dept	h needed to docum	ent the i	ndicator o	or confir	m the absen	ce of indicators.)	
(inches)	MidUIX	04	Color (moist)		-15 Turne1			Touturo	Domorka
		<u> </u>	Color (moist)	90	туре.	100-		Gibleer	Remarks
0-1	101R 5/2							Silt Loam	
1 - 11	10YR 5/3	98	7.5YR 5/8	2	<u> </u>			Silt Loam	
11 - 15	2.5Y 5/3	90	7.5YR 5/8	10	C	M		Silt Loam	
15 - 20	2.5Y 5/2	95	7.5YR 4/6	5	C	M		Silt Loam	
					·				
				. <u> </u>					
¹ Type: C = Cor	ncentration, D = D	epletion,	RM = Reduced Matri	x, MS =	Masked S	and Gra	ins. ² Locati	on: PL = Pore Lining, M =	Matrix.
Hvdric Soil Inc	dicators:							Indicators for Problem	atic Hvdric Soils ³ :
Histosol (A1))		Dark	Surface (57)				
	don (A2)		Polyva	alue Belo	w Surface	(S8) (ML	.RA 147, 148)	2 cm Muck (A10) (N	(LRA 147)
Black Histic	(A3)		Thin [Dark Surf	ace (S9) (N	MLRA 147	7, 148)	Coast Prairie Redo	(A16) (MLRA 147, 148)
Hydrogen Sı	ulfide (A4)		Loam	y Gleyed	Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratified La	yers (A5)		Deple	ted Matr	ix (F3)			147)	
2 cm Muck (A10) (LRR N)		Redo>	Cork Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Depleted Be	low Dark Surface (A11)	_ Deple	ted Dark	Surface (I	F7)		Other (Explain in R	emarks)
Thick Dark S	urface (A12)		Redo>	C Depres	sions (F8)	(54.2) (1.1			
_ Sandy Muck	y Mineral (S1) (LRF	(N, MLRA 1	47, 148) Iron-N	/langane:	se Masses	(F12) (LI	422)	³⁶⁾ ₃ Indicators of hydroph	ytic vegetation and
Sandy Gleye	0 Matrix (S4)		Umbr Bioda	IC SUITAC	e (FT3) (M dolaio Soi	LKA 130,	122) MIDA 149)	wetland hydrology mu	st be present, unless
Sanuy Redu.	trix (S6)		Pieuri Red P	arent Ma	terial (F21	IS (FI9) (127 147)	disturbed or problema	itic.
Restrictive Lay	/er (if observed):						127, 147)		
Тур	e:		None			Hydric	Soil Present?		Yes 🗆 No 🖂
Dep	th (inches):								
Domarkei									
Remarks: No positive in	dication of hydric	: soils was	observed.						

Photo of Sample Plot North



Photo of Sample Plot East

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/Count	ty: Elon, Alamance Cou	nty Sampling I	Date: 2018-June-07				
Applicant/Owner: N	lextEra			State: North	Carolina Sampling Point: \	N-A18-133_PFO-2			
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:									
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local re	lief (concave, conve	ex, none): Concave	Slope (%): 0 to 1			
Subregion (LRR or MLF	RA): MLRA	136 of LRR P		Lat: 36.1910963	Long: -79.496551	Datum: WGS84			
Soil Map Unit Name:	Chewacla loa	m (ChA) 0 to 2 per	cent slopes		NWI classific	ation:			
Are climatic/hydrologic	c conditions on	the site typical for	r this time of year?	Yes 🟒 No	(If no, explain in Remar	rks.)			
Are Vegetation,	Soil, o	or Hydrology	significantly disturbed?	Y Are "Norma	l Circumstances" present?	Yes 🟒 No			
Are Vegetation,	Soil, o	or Hydrology	naturally problematic?	(If needed, e	explain 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 🖌 No Yes 🖌 No Yes 🗸 No	Is the Sampled Area within a Wetland?	Ves / No
Remarks:			
Covertype is PFO. Area is wetland, all three v	vetland parameters are p	resent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Ti H O P R Ti O	rue Aquatic Plants (B14) lydrogen Sulfide Odor (C1) ixidized Rhizospheres on Living l resence of Reduced Iron (C4) ecent Iron Reduction in Tilled So hin Muck Surface (C7) ither (Explain in Remarks)	Roots (C3) ils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) EAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	19	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	11	
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring we	ell, aerial photos, previous inspe	ctions), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

Sampling Point: W-A18-133_PFO-2

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	5	(A)
1. <u>Acer rubrum</u>	20	Yes	FAC	Are OBL, FACW, or FAC:		
2. Quercus phellos	20	Yes	FAC	Across All Strata:	5	(B)
3. Liquidambar styraciflua	15	Yes	FAC	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>
/				OBL species 0	x 1 =	0
	55	= lotal Cov	er	FACW species 5	x 2 =	10
50% of total cover: <u>27.5</u>	_20% of to	tal cover:	11	FAC species 125	x 3 =	375
Sapling/Shrub Stratum (Plot size:15)				FACU species 5	x 4 =	20
	·	·		UPL species 0	x 5 =	0
2	·	<u> </u>		Column Totals 135	(A)	405 (B)
3	·	<u> </u>		Prevalence Index = B/A =	3	
4.	·	<u> </u>		Hydrophytic Vegetation Indicators:		
5	·	·		1- Rapid Test for Hydrophytic	Vegetation	
6.				2 - Dominance Test is >50%	0	
/				\checkmark 3 - Prevalence Index is $\leq 3.0^{1}$		
8	·	·		4 - Morphological Adaptations	s ¹ (Provide s	supporting
9				data in Remarks or on a separate s	heet)	
	0	= lotal Cov	er	Problematic Hydrophytic Vege	etation ¹ (Exp	plain)
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	¹ Indicators of hydric soil and wetlar	nd hydrolog	gy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. Microstegium vimineum	35	Yes	FAC	Definitions of Four Vegetation Strat	a:	
2. Toxicodendron radicans	30	Yes	FAC	-		
3. Prunella vulgaris		No	FACU	Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more
4. Juncus effusus	5	No	FACW	in diameter at breast height (DBH),	regardless	of height.
5. <u>Smilax rotundifolia</u>	5	No	FAC			
6	·	·		Sapling/shrub - Woody plants, excl	uding vines	, less than 3
7		·		-	0 5.26 IL (1	III) ldll.
8		·		Herb - All berbaceous (non-woody)	nlants rog	ardless of
9	·	·		size, and woody plants less than 3.2	28 ft tall.	
10				-	10 10 101	
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	tal cover:	16	neight.		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)						
1	·	·		-		
2	·	<u> </u>		-		_
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 A positive indication of hydrophytic vegetation was obs	te sheet.) served (>50	1% of domin	ant species	indexed as OBL, FACW, or FAC).		

SOIL

Sampling Point: W-A18-133_PFO-2

Profile De Depth	scription: (Describe t Matrix	o the dep	th needed to docume Redox	ent the i Feature	ndicator o	or confir	rm the absence of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	5
0 - 1	10YR 3/2	100					Silt Loam	<u> </u>
1 - 9	2 57 5/3	80	10VR 5/8	15		М	Silt Loam	
1 0	2.51 5/5		2 EV E/2		·			
0 10	2 5 / 5 / 2		2.31 3/2	10			Cile Loom	
9-18	2.51 5/2	90	7.5YR 4/6	10	<u> </u>	IVI	Sill Loam	
¹ Type: C =	Concentration, D = D	Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Gra	ains. ² Location: PL = Pore Lining, M = Matrix.	
Hydric Soi	il Indicators:	1		, -			Indicators for Problematic Hydric Soils ³	
 Histosof Histosof Black Hii Hydroge Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G Sandy R Stripped 	(A)) pipedon (A2) stic (A3) en Sulfide (A4) d Layers (A5) Juck (A10) (LRR N) d Below Dark Surface (ark Surface (A12) Mucky Mineral (S1) (LRF jelyed Matrix (S4) edox (S5) d Matrix (S6)	(A11) R N, MLRA	Daik Polyva Thin E Loam Deple Redoy 147, 148) Iron-N Umbr Piedm Red P.	alue Belo Dark Surf y Gleyed ted Matr Cark Su ted Dark Copress Manganes ic Surfacton nont Floo arent Ma	ow Surface Face (S9) (I Matrix (F2 ix (F3) urface (F6) surface (I sions (F8) se Masses e (F13) (M odplain Soi aterial (F21	e (S8) (ML MLRA 147 2) F7) i (F12) (LF ILRA 136, ils (F19) (1) (MLRA	LRA 147, 148) 2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, Piedmont Floodplain Soils (F19) (MLR 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) RR N, MLRA 136) Indicators of hydrophytic vegetation and wetland hydrology must be present, unled disturbed or problematic.	, 148) & 136, d ess
					ateriai (FZ I		(12/, 14/)	
Restrictive	E Layer (if observed):		News					
	Type:		None			Hydric	Soil Present? Yes 🗹 No 🗆	
	Depth (inches):							
A positive	indication of hydric s	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



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/Count	y: Elon, Alamance Cou	unty S	ampling Date:	: 2018	-June-07		
Applicant/Owner: N	extEra			Sta	te: North Car	olina S	ampling Point: W-A1	8-133_PEM-1	
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:									
Landform (hillslope, te	rrace, etc.):	Swale	Local r	elief (conc	ave, convex, n	one): (Concave	Slope (%): 0 to 1	
Subregion (LRR or MLR	RA): MLRA	136 of LRR P		Lat: 36.	190523	Long: -	79.4967755	Datum: WGS84	
Soil Map Unit Name:	Chewacla loa	m (ChA) 0 to 2 per	cent slopes				NWI classification	n:	
Are climatic/hydrologic	conditions on	the site typical for	this time of year?	Yes	_ √_ No	(If no,	explain in Remarks.)		
Are Vegetation,	Soil, c	or Hydrology	significantly disturbed	? Ar	e "Normal Ciro	cumsta	nces" present?	Yes 🟒 No	
Are Vegetation,	Soil, c	or Hydrology	naturally problematic	? (If	needed, expla	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	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	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydr _✓ 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)	Roots (C3 oils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (FAC Neutral Tact (DE)
Field Observations:				
Surface Water Present?	Yes No /	Denth (inches):		
Water Table Present?		Dopth (inches):		- Wetland Hudrology Present? Vos / No
Contraction Dresent?		Depth (inches).		
Saturation Present?	res 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-A18-133_PEM-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species Tha	^t 2	(A)
1				Are OBL, FACW, or FAC:		
2	<u> </u>	·		Across All Strata:	^s 2	(B)
3		·		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 I	<u>By:</u>
7	·			OBL species 85	x 1 =	85
	0	= Total Cov	er	FACW species 20	x 2 =	40
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 5	x 4 =	20
1	·	·		UPL species 0	x 5 =	0
2	<u> </u>	<u> </u>		Column Totals 110	- (A) -	145 (B)
3		·		Prevalence Index = B/A =	- 1.3	
4	·			Hydrophytic Vegetation Indicators	<u>. </u>	
5	·			1- Rapid Test for Hydrophytic	· Vegetation	
6				2 - Dominance Test is >50%	regetation	
7	<u> </u>			\sim 2 Prevalence Index is < 3.0	í.	
8				4 - Morphological Adaptation	s ¹ (Provide	supporting
9				data in Remarks or on a separate	sheet)	Supporting
	0	= Total Cov	er	Problematic Hydrophytic Veg	etation ¹ (Ex	plain)
50% of total cover: <u>0</u>	_20% of to	otal cover:	0	¹ Indicators of hydric soil and wetla	nd hvdrolor	zv must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or prob	ematic	
1. Symphyotrichum puniceum	30	Yes	OBL	Definitions of Four Vegetation Stra	ita:	
2. <i>Carex lurida</i>	30	Yes	OBL			
3. <i>Impatiens capensis</i>	20	No	FACW	Tree – Woody plants, excluding vir	ies, 3 in. (7.6	i cm) or more
4. <i>Carex bebbii</i>	10	No	OBL	in diameter at breast height (DBH	, regardless	of height.
5. Persicaria sagittata	10	No	OBL			
6. Erigeron annuus	5	No	FACU	Sapling/shrub – Woody plants, exc	luding vines	s, less than 3
7. Cicuta maculata	5	No	OBL	in. DBH and greater than or equal	to 3.28 ft (1	m) tall.
8.						
9.				Herb – All herbaceous (non-wood)	/) plants, reg	ardless of
10.	·	· ·		size, and woody plants less than 3	.28 ft tall.	
11.	- <u> </u>					
	110	= Total Cov	er	Woody vines – All woody vines gre	ater than 3.	28 ft in
50% of total cover: 55	20% of to	_ tal cover:	22	height.		
Woody Vine Stratum (Plot size: 30)	-					
1.						
2.	·	· ·				
3.	·	· ·		Hydrophytic Vegetation Present?	Yes 🗹 No 🕻	
4.	·	······································				
5.	- <u> </u>					
	0	= Total Cov	er	•		
50% of total cover: 0	20% of to	_ tal cover:	0			
Remarks: (Include photo numbers here or on a separa	te sheet.)					
A positive indication of hydrothytic constantion was also	an ad the	04 of domestic	ont on a sir -	indexed as OPL FACING as FAC		
A positive indication of hydrophytic vegetation was obs	servea (>5(07 aomin	ant species	indexed as OBL, FACW, or FAC).		
Sampling Point: W-A18-133_PEM-1

Profile De	escription: (Describe to	o the dep	th needed to docum	ent the i	ndicator	or confirn	n the absend	e of indicators.)	
Depth	Matrix		Redo	x Featur	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 11	10Y 5/1	85	7.5YR 5/8	15	C	M/PL		Silt Loam	
11 - 20	N 5/	80	7.5YR 5/8	20	C	M/PL	S	ilty Clay Loam	
					·				-
	<u> </u>	<u> </u>			·				
¹ Type: C =	Concentration, D = D	epletion,	, RM = Reduced Matr	ix, MS =	Masked S	Sand Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
_ Histoso	l (A1)		_ Dark	Surface (S7)			2 cm Muck (A10) (N	/I RA 147)
Histic Ep	oipedon (A2)		Polyv	alue Belo	w Surface	e (S8) (MLF	RA 147, 148)	Coast Prairie Redo	x (A16) (MI RA 147 148)
Black Hi	istic (A3)		Thin I	Dark Surf	ace (S9) (I	MLRA 147,	148)	Eledmont Floodola	hin Soils (F19) (MI PA 136
Hydrog	en Sulfide (A4)		_⁄ Loam	y Gleyed	Matrix (F2	2)		1 reamont nooupla	
Stratifie	d Layers (A5)		_ Depie	eted Matr	IX (F3) Infaco (E6)			Von Challow Dark	Surface (TE12)
	d Below Dark Surface (Δ11)	Reuo	tod Dark	Surface (FO)	E7)			
Depicte Thick Da	ark Surface (A12)	(11)	Depic Redo	x Depres	sions (F8)	,			emarks)
Sandy N	/lucky Mineral (S1) (LRR	N, MLRA	147, 148) Iron-I	Mangane	se Masses	s (F12) (LR	R N, MLRA 13	6),	
Sandy G	leyed Matrix (S4)			ric Surfac	e (F13) (M	ILRA 136, ⁻	122)	³ Indicators of hydroph	lytic vegetation and
Sandy R	edox (S5)		Piedr	nont Floo	dplain So	ils (F19) (N	ILRA 148)	wetland hydrology mu	ist be present, unless
Stripped	d Matrix (S6)		Red F	arent Ma	aterial (F21	1) (MLRA 1	27, 147)	disturbed or problema	atic.
Restrictive	e Layer (if observed):								
	Type:		None			Hvdric S	oil Present?		Yes 🗹 No 🗆
	Depth (inches):			-					
Bomarke:	().			-					
Nettial KS.									
A	indiantian of buddie o								
A positive	indication of hydric s	on was o	bserved.						

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 Sout	City/Coun	ty: Elon, Alamance Cou	nty Sampli	ng Date: 2018-June-07					
Applicant/Owner: No	extEra			State: N	orth Carolina Sampling Point: W	/-A18-133_UPL-1			
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:									
Landform (hillslope, ter	rrace, etc.):	Foot slope	Local re	lief (concave, co	onvex, none): Convex	Slope (%): 1 to 3			
Subregion (LRR or MLR	A): MLRA	136 of LRR P		Lat: 36.19112	26 Long: -79.4965029	Datum: WGS84			
Soil Map Unit Name:	Chewacla loa	m (ChA) 0 to 2 per	cent slopes		NWI classifica	tion:			
Are climatic/hydrologic	conditions on	the site typical for	r this time of year?	Yes 🟒	No (If no, explain in Remark	<s.)< td=""></s.)<>			
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "No	rmal Circumstances" present?	Yes 🟒 No			
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If need	ed, explain 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 based on al	osence of hydric soils and	wetland 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)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil: Thin Muck Surface (C7) Other (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No _	Depth (inches):	Wetland Hydrology Present? Yes №
Saturation Present?	Yes 🖌 No	 Depth (inches):	19
(includes capillary fringe)		-	
Describe Recorded Data (stream ga	auge, monitoring w	vell, aerial photos, previous inspect	ctions), if available:
Remarks:			
The criterion for wetland hydrolog	y is not met.		

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

Sampling Point: W-A18-133_UPL-1

Tree Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant	Indicator	Dominance Test worksheet:		
1 Liquidambar styraciflua	20	Voc		Are OBL, FACW, or FAC:	3	(A)
2. Ulmus rubra	10	Yes	FAC	Total Number of Dominant Species	4	(B)
3				Percent of Dominant Species That		
4	·			Are OBL, FACW, or FAC:	75	(A/B)
5.	·	<u> </u>		Prevalence Index worksheet:		
o	·			Total % Cover of:	<u>Multiply</u>	<u>By:</u>
7	20	- Total Cov		OBL species 0	x 1 =	0
E004 of total covery 15	30 20% of to		er c	FACW species 15	x 2 =	30
Sonling/Shrub Stratum (Plot size: 15)	_ 20% 01 10	ital cover.	0	FAC species 70	x 3 =	210
<u>Japing Shub Stratum</u> (Fiot Size: <u>15</u>)	10	Ves	FACU	FACU species 20	x 4 =	80
2		103	TACO	UPL species 0	x 5 =	0
2	·			Column Totals 105	(A)	320 (B)
л	·			Prevalence Index = B/A =	3	
5	·			Hydrophytic Vegetation Indicators:		
с	·			1- Rapid Test for Hydrophytic	Vegetation	
7	·			2 - Dominance Test is >50%		
7	· <u></u>			\checkmark 3 - Prevalence Index is ≤ 3.0 ¹		
o	·			4 - Morphological Adaptations	¹ (Provide	supporting
9		Tatal Car		data in Remarks or on a separate s	heet)	
	10	= lotal Cov	er	Problematic Hydrophytic Vege	etation ¹ (Ex	plain)
50% of total cover: <u>5</u>	_ 20% of to	ital cover:		¹ Indicators of hydric soil and wetlar	nd hydrolog	gy must be
Herb Stratum (Plot size:)	25		FAC	present, unless disturbed or proble	matic	
		Yes	FAC	Definitions of Four Vegetation Strat	a:	
2. Parthenocissus quinquefolia	10	NO	FACU			
3. Fraxinus pennsylvanica	10	No	FACW	Tree – Woody plants, excluding vine	es, 3 in. (7.6	5 cm) or more
4. Onoclea sensibilis	5	No	FACW	in diameter at breast height (DBH),	regardless	s of height.
5. Solidago rugosa	5	No	FAC			
6.				Sapling/shrub - Woody plants, excl	uding vines	s, less than 3
/	·				0 5.20 IL (1	iii) tali.
8.	·			Herb - All berbaceous (non-woody)	nlants re	tardless of
9	·			size, and woody plants less than 3.2	28 ft tall.	
10					20 10 101.	
11						
	65	= Total Cov	er	Woody vines – All woody vines grea	iter than 3.	.28 ft in
50% of total cover: <u>32.5</u>	_20% of to	tal cover:	13	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	tal cover:	0			
Remarks: (Include photo numbers here or on a separa	e sheet.)					
A positive indication of hydrophytic vegetation was obs	erved (>50)% of domin	ant species	indexed as OBL, FACW, or FAC).		

Sampling Point: W-A18-133_UPL-1

Profile De	scription: (Describe t	o the dept	h needed to docume	ent the i	ndicator o	or confir	rm the absend	ce of indicators.)	
Deptn _	Maurix	·	Colon (monist)	reature	2S T	12		Terretories	Demonster
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Туреч	LOC ²		lexture	Remarks
0-2	10YR 3/2	100			·			Silt Loam	
2-9	10YR 5/4	100			·		·	Silt Loam	
9 - 19	2.5Y 5/3	80	7.5YR 5/6	15	C	M	·	Silt Loam	
9 - 19			2.5Y 5/2	5	D	M			
19 - 23	2.5Y 5/1	95	10YR 5/6	5	C	М	<u></u>	Loamy Sand	
·		· ·							;
·		· ·			·				
¹ Type: C =	Concentration, D = I	Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Gra	ains. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric Soi	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histosol	(A1)		Dark S	urface (S	57)				
Histic Ep	bipedon (A2)		Polyva	lue Belo	w Surface	(S8) (ML	LRA 147, 148)	2 cm Muck (A10) (N	ILRA 147)
Black Hi	stic (A3)		Thin D	ark Surf	ace (S9) (N	/LRA 147	7, 148)	Coast Prairie Redo>	((A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)		_ Loamy	/ Gleyed	Matrix (F2	<u>!</u>)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_ Deplet	ted Matr	ix (F3)			147)	
2 cm Mu	uck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark S	Surface (TF12)
_ Deplete	d Below Dark Surface	(A11)	_ Deplet	ted Dark	Surface (H	-/)		Other (Explain in Re	emarks)
Sandy M	Ark Suriace (ATZ) Auchy Mineral (S1) (LP			Depress	Masses	(E12) (]		6)	
Sandy G	ileved Matrix (S4)		Umbri	c Surfaci	e (F13) (M	(112)(LI I RA 136	122)	⁰ ³ Indicators of hydroph	ytic vegetation and
Sandy R	edox (S5)		Olimbri Piedm	ont Floo	dplain Soi	ls (F19) ((MLRA 148)	wetland hydrology mu	st be present, unless
Stripped	Matrix (S6)		Red Pa	arent Ma	terial (F21) (MLRA	127, 147)	disturbed or problema	tic.
Restrictive	e Layer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks:									
No positiv	e indication of hydri	c soils was	observed.						
-									

Photo of Sample Plot North



Photo of Sample Plot East

Project/Site: MVP Sout	City/Coun	ty:_ Elon, Alamance Cou	unty	Sampling Dat	e: 2018-June-07				
Applicant/Owner: N	extEra			Sta	ate: North Ca	arolina Sampling Point: W	-A18-135_PFO-2		
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:									
Landform (hillslope, ter	rrace, etc.):	Foot slope	Local re	elief (cond	ave, convex,	none): Concave	Slope (%): 1 to 3		
Subregion (LRR or MLR	A): MLRA	A 136 of LRR P		Lat: 36.	1896664	Long: -79.4962006	Datum: WGS84		
Soil Map Unit Name:	Chewacla loa	am (ChA) 0 to 2 per	rcent slopes			NWI classificat	tion:		
Are climatic/hydrologic	conditions on	the site typical for	r this time of year?	Yes	s 🟒 No _	(If no, explain in Remark	s.)		
Are Vegetation,	Soil,	or Hydrology	significantly disturbed	? A	re "Normal Ci	ircumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(1	f 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? Wetland Hydrology Present?	Yes 🖌 No Yes 🖌 No Yes 🗸 No	Is the Sampled Area within a Wetland?	Ves / No
Remarks:			
Covertype is PFO. Area is wetland, all three v	vetland parameters are p	resent.	

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	e is required; chec	<u>k all that apply)</u>	Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	 agery (B7)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7) Other (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) S (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) (Cayfish Burrows (C8) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (E4C.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 ga	auge, monitoring w	vell, aerial photos, previous inspection	s), if available:
Remarks:			
The criterion for wetland hydrolog	/ is met.		

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

Sampling Point: W-A18-135_PFO-2

Tree Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	
1. Liquidambar styraciflua	25	Yes	FAC	Are OBL, FACW, or FAC:	6 (A)
2. Quercus phellos	25	Yes	FAC	Total Number of Dominant Species	6 (B)
3. Acer rubrum	10	No	FAC	Across All Strata:	
4.				Percent of Dominant Species That	100 (A/B)
5.				Are OBL, FACW, of FAC:	
6.				Total % Cover of:	Multiply By:
7.					$\times 1 = 0$
	60	= Total Cov	er	FACW species 10	x 2 = 20
50% of total cover: <u>30</u>	_20% of to	otal cover:	12	FAC species 105	x 3 = 315
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species	× 4 = 0
1. <i>Liquidambar styraciflua</i>	15	Yes	FAC	UPL species	x 4 - 0
2				Column Totals	(A) 335 (B)
3					(A) <u>333 (B)</u>
4					2.9
5				Hydrophytic Vegetation Indicators:	(
6				1- Rapid Test for Hydrophytic	regetation
7				2 - Dominance Test is >50%	
8.				3 - Prevalence Index Is $\leq 3.0^{\circ}$	1 (Describe source softing
9.				4 - Morphological Adaptations	' (Provide supporting
	15	= Total Cov	er	Problematic Hydrophytic Vege	itet)
50% of total cover: <u>7.5</u>	_20% of to	tal cover:	3	1Indicators of hydric soil and wetlar	
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic
1. Smilax rotundifolia	15	Yes	FAC	Definitions of Four Vegetation Strat	a:
2. Juncus effusus	10	Yes	FACW		
3. Dichanthelium dichotomum	10	Yes	FAC	Tree – Woody plants, excluding vine	es. 3 in. (7.6 cm) or mo
4. Campsis radicans	5	No	FAC	in diameter at breast height (DBH),	regardless of height.
5.		·			
6.				Sapling/shrub – Woody plants, exclu	uding vines, less than
7.				in. DBH and greater than or equal t	o 3.28 ft (1 m) tall.
8.	·			-	
9.	·			Herb – All herbaceous (non-woody)	plants, regardless of
10.	·			size, and woody plants less than 3.2	8 ft tall.
11	·	<u> </u>		•	
	40	= Total Cov	≏r	- Woody vines – All woody vines grea	ter than 3.28 ft in
50% of total cover: 20	20% of to		8	height.	
Woody Vine Stratum (Plot size: 30)	_2070 01 10				
1					
2				-	
2	·	·		- Hydrophytic Vegetation Present?	
	·	•			
	·	•		-	
J		- Total Cav	~~		
E004 of total covers	0 20% of to		0		
	_ 20% 01 to	cal cover.	0		
A positive indication of hydrophytic vegetation was ob	erved (>50	0% of domin	ant species	indexed as OBL, FACW, or FAC).	

Sampling Point: W-A18-135_PFO-2

Profile De	escription: (Describe to	o the dept	h needed to docum	ent the i	ndicator	or confiri	n the absend	ce of indicators.)	
Depth	Matrix	· .	Redo	<pre>K Feature</pre>	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 4	10YR 3/1	95	7.5YR 4/6	5	C	М		Silt Loam	
4 - 12	2.5Y 5/1	95	7.5YR 5/8	5	С	М		Loamy Sand	
12 - 16	2.5Y 7/1	95	10YR 5/8	5	С	PL		Sand	<u> </u>
¹ Type: C =	Concentration, D = D	epletion,	RM = Reduced Matri	x, MS =	Masked S	Sand Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:	•						Indicators for Problem	natic Hydric Soils ³ :
Histoso	l (A1)		Dark S	Surface (S7)			2 cm Muck (A10) (
Histic E	pipedon (A2)		Polyva	alue Belo	w Surface	e (S8) (ML	RA 147, 148)	2 CHI MUCK (ATU) (r	VILKA 147)
Black H	istic (A3)		Thin [Dark Surf	ace (S9) (MLRA 147	, 148)	Coast Fraine Reuo	ain Soile (E10) (MIDA 126
Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)		Fleathont Floodpia	ani 30115 (F19) (IVILKA 130,
_ Stratifie	uck (A10) (I RR N)		Depie	r Dark Su	IX (F3) Irface (F6)			Very Shallow Dark	Surface (TE12)
Deplete	d Below Dark Surface (A11)	Deple	ted Dark	Surface (F7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redo>	Depres	sions (F8)	-			
Sandy N	/lucky Mineral (S1) (LRF	R N, MLRA	147, 148) Iron-N	langane	se Masses	s (F12) (LR	R N, MLRA 13	6) _{3Indicators of hydroph}	nytic vegetation and
Sandy C	Gleyed Matrix (S4)		Umbr	ic Surfac	e (F13) (M	ILRA 136,	122)	wetland hydrology mu	ust be present, unless
_ Sandy F	(edox (S5) d Matrix (S6)		Piedm	IONT FIOO	apiain So	IIS (F19) (I 1) (MIDA	VILRA 148) 127 147)	disturbed or problem	atic.
	a Wattik (50)				ateriai (i z		127, 147)		
Resultur			Pock/root			ا منعام ا	Call Ducaset2		
	Type.		16			Hydric	son Present?		res ₪ No 🗆
	Depth (inches).		10	•					
Remarks:									
A positive	indication of hydric s	soil was ob	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



Project/Site: MVP Southga	ite	City/County	: Elon, Alamance Cou	Alamance County Sampling Date: 2018-June-07					
Applicant/Owner: NextE	ra			State: N	orth Carolina	Sampling Point: W-	A18-135_PEM-1		
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:									
Landform (hillslope, terrac	e, etc.):	Foot slope	Local re	Local relief (concave, convex, none): Concave Slope (%): 1 to					
Subregion (LRR or MLRA):	MLRA	136 of LRR P		Lat: 36.18962	87 Long:	-79.4964313	Datum: WGS84		
Soil Map Unit Name:						NWI classificat	ion:		
Are climatic/hydrologic cor	nditions on t	he site typical for	this time of year?	Yes 🟒	No (If no,	, explain in Remarks	5.)		
Are Vegetation, Soil	, 01	r Hydrology s	significantly disturbed?	Are "No	rmal Circumsta	ances" present?	Yes 🟒 No		
Are Vegetation, Soil	, 01	⁻ Hydrology r	naturally problematic?	(If need	ed, explain 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? 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.	

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tr Hy Oy Pr Re Th Ot	ue Aquatic Plants (B14) /drogen Sulfide Odor (C1) <idized (c3<br="" living="" on="" rhizospheres="" roots="">esence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soils (C6) in Muck Surface (C7) ther (Explain in Remarks)</idized>	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) C 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 ga	auge, monitoring we	ll, aerial photos, previous inspections), il	available:
Remarks:			
The criterion for wetland hydrology	/ is met.		

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

Sampling Point: W-A18-135_PEM-1

	-					
Tree Stratum (Plot size: 30)	Absolute	e 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 Across All Strata:	, 	(B)
4.				Percent of Dominant Species That	100	(A/B)
5.				Are OBL, FACW, of FAC:		
6.				Total % Cover of:	Multiply F	D. #
7.						<u>- 7</u> 5
	0	= Total Cov	er		· × 2 -	75
50% of total cover: <u>0</u>	20% of to	otal cover:	0	FACTOr species 0	. x 2	0
Sapling/Shrub Stratum (Plot size:15)				FAC species 15		45
1.				FACO species 5	- x 4 =	20
2.					- x5=	0
3.				Column lotais 95	(A)	140 (B)
4.				Prevalence Index = B/A =	1.5	
5.				Hydrophytic Vegetation Indicators		
6.				1- Rapid Test for Hydrophytic	Vegetation	
7				2 - Dominance Test is >50%		
8				\checkmark 3 - Prevalence Index is $\leq 3.0^{1}$		
0				4 - Morphological Adaptation	s¹ (Provide s	supporting
^{9.}		- Total Cau		- data in Remarks or on a separate s	;heet)	
	2004 - 5 to		er	Problematic Hydrophytic Veg	etation ¹ (Exp	plain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	¹ Indicators of hydric soil and wetla	nd hydrolog	gy must be
Herb Stratum (Plot size: <u>5</u>)	60			present, unless disturbed or probl	ematic	
1. Carex Iurida	60	Yes	OBL	Definitions of Four Vegetation Stra	ta:	
2. Galium palustre	15	No	OBL	-		
3. <u>Dichanthelium clandestinum</u>	10	No	FAC	Tree – Woody plants, excluding vin	es, 3 in. (7.6	cm) or more
4. Erigeron annuus	5	No	FACU	in diameter at breast height (DBH)	, regardless	of height.
5. <i>Eutrochium purpureum</i>	5	No	FAC	-		
6				Sapling/shrub – Woody plants, exc	luding vines	, less than 3
7				In. DBH and greater than or equal	to 3.28 ft (1	m) tall.
8				<u> </u>		u c
9				Herb – All herbaceous (non-woody) plants, reg	ardless of
10					Zo It tall.	
11				_		
	95	= Total Cov	er	Woody vines – All woody vines gree	ater than 3.2	28 ft in
50% of total cover: <u>47.5</u>	_ 20% of to	otal cover:	19	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 senare	to choot)					
Remarks. (include photo numbers here of on a separa	te sneet.)					
A positive indication of hydrophytic vegetation was ab	social (SE	006 of dow:-	ant chasics	indexed as OPL EACING as EACI		
A positive indication of hydrophytic vegetation was ob-	served (>50	u% oi domir	iant species	indexed as OBL, FACW, OF FAC).		

Sampling Point: W-A18-135_PEM-1

Profile De	escription: (Describe to	o the dep	th needed to docume	ent the i	ndicator	or confirr	n the absen	ce of indicators.)	
Depth	Matrix		Redox	Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 5	10Y 4/1	90	7.5YR 4/6	10	С	M/PL		Silt Loam	
5 - 17	2.5Y 5/1	85	7.5YR 5/8	15	С	Μ		Silt Loam	
·									
17			DNA De du se d'Aletre				21 + :	Di Di Lining M	N a tuit
'Type: C =	Concentration, D = L	epletion	, RM = Reduced Matri	x, MS =	Masked	sand Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histoso	I (A1)		_ Dark S	Surface (57) 57		A 4 47 4 40	2 cm Muck (A10) (N	ILRA 147)
HISTIC E	pipedon (AZ) istic (A3)		Polyva Thin C	alue Belo Dark Surf	w Surtace	2 (58) (IVILI MI DA 177	(A 147, 148) 178)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hvdrog	en Sulfide (A4)		Loam	v Gleved	Matrix (F2	2)	, 140)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		Deple	ted Matr	ix (F3)	_,		147)	
2 cm Mi	uck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (A11)	_ Deple	ted Dark	Surface (F7)		Other (Explain in R	emarks)
Thick Da	ark Surface (A12)		Redox	Depres	sions (F8)	(540) (1 5			
_ Sandy N	Aucky Mineral (S1) (LRF	K N, MLRA	. 147, 148) Iron-N	langane:	se Masses	5 (F12) (LR	R N, MLRA 13 122)	⁶⁾ 3Indicators of hydroph	ytic vegetation and
Sandy B	Redox (S5)		Unbr Piedm	nont Floo	dolain So	ils (F19) (N	122) /I RA 148)	wetland hydrology mu	st be present, unless
Stripped	d Matrix (S6)		Red P	arent Ma	iterial (F2	1) (MLRA [·]	127, 147)	disturbed or problema	atic.
Restrictive	e Laver (if observed):								
	Type:		None			Hydric S	oil Present?		Yes 🛛 No 🗆
	Denth (inches)					inguite a	on resent.		
Domorker									
Remarks.									
A positive	indication of hydric s	oil was o	bserved.						
	-								

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 Southg	gate	City/County:	Elon, Alamance County	/ Sampling Dat	e: 2018-June-07	
Applicant/Owner: Next	tEra			State: North Ca	rolina Sampling Point: W-/	A18-135_UPL-1
Investigator(s): Laura G	Giese, Jeff Vand	eveer , Nate Rena	udin Sec	tion, Township, Ran	ige:	
Landform (hillslope, terra	ice, etc.): F	oot slope	Local relie	f (concave, convex, i	none): Convex	Slope (%): 2 to 5
Subregion (LRR or MLRA):	MLRA 13	86 of LRR P	La	t: 36.1896533	Long: -79.4961765	Datum: WGS84
Soil Map Unit Name:					NWI classificati	on:
Are climatic/hydrologic co	onditions on the	e site typical for th	nis time of year?	Yes 🟒 No 🔄	_ (If no, explain in Remarks	.)
Are Vegetation, So	oil, or H	Hydrology sig	gnificantly disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No
Are Vegetation, So	oil, or H	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 based on al	osence of hydric soils and	wetland hydrology .	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	Secondary Indicators (minimum c	of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / Hydro Oxidi; Prese Recer Thin M Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C nce of Reduced Iron (C4) it Iron Reduction in Tilled Soils (C6) Auck Surface (C7) · (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D1 Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	urface (B8) agery (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	auge, monitoring well, a	erial photos, previous inspections), i	if available:	
Remarks:				
The criterion for wetland hydrolog	/ is not met.			

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

Sampling Point: W-A18-135_UPL-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	7	(A)
1. Liquidambar styraciflua	30	Yes	FAC	Are OBL, FACW, or FAC:		
2. Quercus phellos	20	Yes	FAC	Across All Strata:	8	(B)
3. <i>Pinus virginiana</i>	10	No	UPL	Percent of Dominant Species That		
4. Juniperus virginiana	10	No	FACU	- Are OBL, FACW, or FAC:	87.5	(A/B)
5				Prevalence Index worksheet:		
6	. <u> </u>			- Total % Cover of:	Multiply E	Bv:
7				- OBL species 0	x 1 =	0
	70	= Total Cov	er	FACW species 10	x 2 =	20
50% of total cover: <u>35</u>	_20% of to	tal cover:	14	FAC species 100	x 3 =	300
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 20	x 4 =	80
1. Liquidambar styraciflua	10	Yes	FAC	- UPL species 10	x 5 =	50
2. <u>Ulmus rubra</u>	10	Yes	FAC	- Column Totals 140	(A)	450 (B)
3. <i>Quercus phellos</i>	10	Yes	FAC	Prevalence Index = B/A =	32	130 (B)
4. <i>Prunus pensylvanica</i>	10	Yes	FACU			
5	<u> </u>			Hydrophytic Vegetation Indicators:	(
6				- 1- Rapid Test for Hydrophylic	vegetation	
7				2 - Dominance Test is >50%		
8.				$3 - \text{Prevalence Index Is} \le 3.0^{\circ}$	1 (Dura i da a	
9.				data in Remarks or on a separate s	boot)	upporting
	40	= Total Cov	er	Problematic Hydrophytic Vege	neer) station1 (Evr	alain)
50% of total cover: <u>20</u>	_20% of to	tal cover:	8	Indicators of bydric soil and wetlar		y must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	y must be
1. Liquidambar styraciflua	15	Yes	FAC	Definitions of Four Vegetation Strat	a.	
2. Vaccinium corymbosum	10	Yes	FACW			
3. Rubus idaeus	5	No	FAC	- Tree – Woody plants, excluding vine	es. 3 in. (7.6	cm) or more
4.		·		in diameter at breast height (DBH),	regardless	of height.
5.					0	0
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)	plants, reg	ardless of
10	·	· ·		size, and woody plants less than 3.2	28 ft tall.	
11		<u> </u>		-		
····-	30	- Total Cov	or	- Woody vines - All woody vines grea	iter than 3.2	28 ft in
E0% of total covor: 15	20% of to		6	height.		
Woody Vine Stratum (Plot cize: 20.)	_ 20% 01 10	ital cover.	0			
1						
2	·	·		-		
2	·			- Hydrophytic Vegetation Present?	Vec 🛛 No 🗆	1
	·					1
4		<u> </u>		-		
S		- Total Cau		-		
	0		er o			
50% of total cover: <u>0</u>	_ 20% 01 to	ital cover:	0			
A positive indication of hydrophytic vegetation was obs	served (>50	0% of domin	ant species	indexed as OBL, FACW, or FAC).		

Sampling Point: W-A18-135_UPL-1

Profile De	escription: (Describe t	o the dep	th needed to docum	ent the i	ndicator	or confir	m the absend	e of indicators.)	
Depth (inches)	Matrix		Color (moint)		es Trene1	1		Terretorie	Dementer
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Туреч	LOC ²		lexture	Remarks
0-6	10YR 4/3	100			·			Loamy Sand	
6 - 13	10YR 4/3	60						Sand	
6 - 13	10YR 6/3	40							
13 - 16	2.5Y 5/3	80	7.5YR 5/8	15	C	Μ		Clay	
13 - 16			2.5Y 6/1	5	D	М			
		· ·							
¹ Type: C	Concentration D = [RM = Reduced Matr	ix MS = I	Masked 9	Sand Gra	ins ² l ocatio	n:Pl = Pore Lining M =	Matrix
Hudric Co	il Indicators:	Jepletion,	Nill – Neddced Mat	1, 1015 - 1	Maskeu 2			Indicators for Broblen	atic Hydric Coilc3:
Histoso			Dark	Surface (9	57)				auc nyunc sons".
Histic F	ninedon (A2)		Dark Polyv	alue Belo	w Surface	• (S8) (MI	RA 147, 148)	2 cm Muck (A10) (I	MLRA 147)
Black H	istic (A3)		Thin I	Dark Surf	ace (S9) (I	MLRA 147	7, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
 Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)		Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		_ Deple	ted Matr	ix (F3)			147)	
_ 2 cm M	uck (A10) (LRR N)		Redo	k Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface ((A11)	_ Deple	ted Dark	Surface (F7)		Other (Explain in F	Remarks)
Thick D	ark Surface (A12)		Redo:	k Depress	sions (F8)	(54.0) (1.5		0	
_ Sandy M	Aucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-f	Manganes	se Masses	5 (F12) (L F	RR N, MLRA 13	⁶⁾ ₃ Indicators of hydropl	nytic vegetation and
Sandy C	Deved Matrix (S4)		Umbr Biodra		e (F13) (M dolaio So	ILKA 136, ile (E10) (122) MIDA 149)	wetland hydrology m	ust be present, unless
Strippe	d Matrix (S6)		Pleun Red P	arent Ma	terial (F21	115 (F19) (1) (MIRA	127 140)	disturbed or problem	atic.
	a laver (if abcarved)						127, 147)		
Resultuv			Donso clav			1.1	C .: I		
	Type.			-		Hyaric	Soll Present?		Yes ∟ No ⊠
	Depth (Inches):		16	-					
Remarks:									
N		11	le						
No positi	ve indication of hydric	c soils was	s observed.						

Photo of Sample Plot North



Photo of Sample Plot East

Project/Site: MVP Sout	thgate	City/Coun	ty: Elon, Alamance Co	unty	Sampling Da	te: 2018-June-07	
Applicant/Owner: N	extEra				State: North C	arolina Sampling Point:	W-A18-138_PEM-1
Investigator(s): Laur	a Giese, Jeff Va	andeveer , Nate Re	naudin	Sectio	on, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Back slope	Local	relief (d	oncave, convex,	none): Concave	Slope (%): 0 to 1
Subregion (LRR or MLR	A): MLRA	A 136 of LRR P		Lat:	36.188329	Long: -79.4959789	Datum: WGS84
Soil Map Unit Name:	Frogsboro Sa	andy loam (FgB) 2 t	o 6 percent slopes			NWI classif	fication:
Are climatic/hydrologic	conditions or	the site typical for	r this time of year?		Yes 🟒 No 🔄	(If no, explain in Rem	arks.)
Are Vegetation,	Soil,	or Hydrology	significantly disturbed	d?	Are "Normal O	Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally problemation	?	(If needed, ex	plain any answers in Rer	marks.)

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 v	wetland parameters are p	resent.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	T F F T C nagery (B7)	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) Other (Explain in Remarks)	Roots (C3) bils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) < FAC-Neutral Test (D5)
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):	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	y is met.			

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

Sampling Point: W-A18-138_PEM-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksh	eet:		
	% Cover	Species?	Status	Number of Dominant Sp	pecies That	4	(A)
1				Are OBL, FACW, or FAC:			
2.	<u> </u>	·		Across All Strata:	ant Species	4	(B)
3		·		Percent of Dominant Sp	ecies That		
4.	·	<u> </u>		Are OBL, FACW, or FAC:		100	(A/B)
5.	·	·		Prevalence Index works	heet:		
0	- <u> </u>	<u> </u>		Total % Cover of	<u>of:</u>	Multiply I	<u>By:</u>
/		- Tatal Cau		OBL species	85	x 1 =	85
	0		er	FACW species	10	x 2 =	20
Soling/Shrub Stratum (Plot cizo: 15)	_ 20% 01 to	lai cover.	0	FAC species	20	x 3 =	60
1				FACU species	5	x 4 =	20
2	·	·		UPL species	0	x 5 =	0
2	·	·		Column Totals	120	(A)	185 (B)
	·	·		Prevalence Inc	lex = B/A =	1.5	
т. Б				Hydrophytic Vegetation	Indicators:		
с. 				1- Rapid Test for H	ydrophytic \	/egetation	
7				🟒 2 - Dominance Test	t is >50%		
8				3 - Prevalence Inde	ex is $\leq 3.0^{1}$		
9				4 - Morphological A	Adaptations	¹ (Provide :	supporting
·	0	= Total Cov	er	data in Remarks or on a	separate sh	neet)	
50% of total cover: 0	20% of to	tal cover	0	Problematic Hydro	phytic Vege	tation ¹ (Ex	plain)
Herb Stratum (Plot size: 5)	_ 20% 01 10			¹ Indicators of hydric soil	and wetlan	d hydrolog	gy must be
1. luncus acuminatus	20	Yes	OBL	Definitions of Four Vege	tation Strat		
2. Carex bebbii	20	Yes	OBL	Deminicions of Four Vege		d.	
3. Carex lurida	20	Yes	OBL	Tree - Woody plants ex	cluding vine	s 3 in (7 6	cm) or more
4. Eleocharis obtusa	20	Yes	OBL	in diameter at breast he	ight (DBH).	regardless	of height.
5. Juncus effusus	10	No	FACW		.8(2.2)/		or rieigner
6. <i>Dichanthelium clandestinum</i>	10	No	FAC	Sapling/shrub - Woody	plants, exclu	uding vines	s, less than 3
7. Campsis radicans	10	No	FAC	in. DBH and greater that	n or equal to	o 3.28 ft (1	m) tall.
8. <i>Scirpus atrovirens</i>	5	No	OBL				
9. Rubus allegheniensis	5	No	FACU	Herb – All herbaceous (r	non-woody)	plants, reg	gardless of
10.				size, and woody plants l	ess than 3.2	8 ft tall.	
11.							
	120	= Total Cov	er	Woody vines - All woody	y vines grea	ter than 3.	28 ft in
50% of total cover: 60	20% of to	- tal cover:	24	height.	-		
Woody Vine Stratum (Plot size: <u>30</u>)	-						
1.							
2.							
3.				Hydrophytic Vegetation	Present?	res 🗹 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	te sheet.)			I			
······································	,						
A positive indication of hydrophytic vegetation was ob-	served (>50)% of domin	ant species	indexed as OBL, FACW, or	FAC).		

Sampling Point: W-A18-138_PEM-1

Profile De	escription: (Describe t	o the dep	th needed to docum Redo	ent the i	ndicator	or confirm the abs	sence of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹		Texture	Remarks
0 - 2	2 57 4/2	100			Турс		Silt Loam	Kemarks
2-5	2.51 4/2	90	7 5VR 1/6	10			Silt Loam	
 	2.51 4/2	90	7.5TR 4/0	10	<u> </u>		Silty Clay Loam	
<u> </u>	2.51 5/2		7.518 5/6	10	<u> </u>			
12-19	2.51 0/1	90	7.518 5/8		<u> </u>		SIIL LOATI	
					·			
				<u> </u>				
1Turno: C -		Doplotion	PM - Poducod Matr		Mackod	and Grains 21 or	sation: DL - Doro Lining M - I	Aatrix
Hydric So	il Indicators:	Jepletion,	RM – Reduced Matr	IX, IVIS –	Maskeu 3		Indicators for Problema	tic Hydric Soils ³
Histoso			Dark	Surface (57)			ue riyune sons
Histic Ep	pipedon (A2)		Polyv	alue Belc	w Surface	e (S8) (MLRA 147, 1 4	48) 2 cm Muck (A10) (MI	LRA 147)
Black Hi	istic (A3)			Dark Surf	ace (S9) (MLRA 147, 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)		_ Loam	iy Gleyed	Matrix (F2	2)	Piedmont Floodplai	n Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_∕ Deple	eted Matr	ix (F3)		147)	
2 cm Mi	uck (A10) (LRR N)		Redo	x Dark Su	Irface (F6)		Very Shallow Dark S	urface (TF12)
_ Deplete	d Below Dark Surface	(A11)	_ Deple	eted Dark	Surface (F7)	Other (Explain in Re	marks)
_ Thick Da	ark Surface (ATZ) Auchy Minoral (S1) (LP		Redo	x Depres	SIONS (F8)		126)	
Sandy G	Sleved Matrix (S4)		147, 140) [1011-1	ric Surfac	د (F13) (N	(FTZ) (ERK N, MERZ	³ Indicators of hydrophy	tic vegetation and
Sandy R	Redox (S5)		On B	nont Floc	dolain So	ils (F19) (MLRA 148)	wetland hydrology mus	t be present, unless
Stripped	d Matrix (S6)		Red F	arent Ma	aterial (F2	1) (MLRA 127, 147)	disturbed or problemat	ic.
Restrictive	e Layer (if observed):					1		
	Type:		None			Hvdric Soil Prese	nt?	Yes 🗹 No 🗆
	Depth (inches):			-				
Remarks:				-				
Remarks.								
The criter	ion for hydric soil is r	met						
The criter	ion for hydric soil is r	net.						
The criter	ion for hydric soil is r	net.						
The criter	ion for hydric soil is r	net.						
The criter	ion for hydric soil is r	net.						
The criter	ion for hydric soil is r	net.						
The criter	ion for hydric soil is r	net.						
The criter	ion for hydric soil is r	net.						
The criter	ion for hydric soil is r	net.						
The criter	ion for hydric soil is r	net.						
The criter	ion for hydric soil is r	net.						

Photo of Sample Plot North





Photo of Sample Plot South



Photo of Sample Plot West Photo of Sample Plot Sketch



Project/Site: MVP Sout	thgate	City/County: Elon, A	lamance County	Sampling Dat	te: 2018-June-07	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: <u>N</u>	N-A18-138_UPL-1
Investigator(s): Nathan Renaudin, Jeff Vandeveer , Laura Giese Section, Township, Range:						
Landform (hillslope, te	rrace, etc.):	Terrace	Local relief (d	concave, convex,	none): None	Slope (%): 0 to 1
Subregion (LRR or MLR	A): MLRA	A 136 of LRR P	Lat:	36.1883497	Long: -79.4958085	Datum: WGS84
Soil Map Unit Name:	Helena Sand	y Loam			NWI classific	ation:
Are climatic/hydrologic	conditions or	the site typical for this time	of year?	Yes 🟒 No 🔄	(If no, explain in Remar	rks.)
Are Vegetation,	Soil,	or Hydrology significant	ly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology naturally p	problematic?	(If needed, exp	olain 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?	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. Electric Right of Way found 70 feet west of sample point.							

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	<u>ne is required; check</u>	Secondary Indicators (minimum of two required)		
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Tr Hy O: Pr Re Th	ue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) xidized Rhizospheres on Living Roots (C3) resence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soils (C6) nin Muck Surface (C7)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) 	
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial In Water-Stained Leaves (B9) Aquatic Fauna (B13)	O	ther (Explain in Remarks)	 Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 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):	-	
(includes capillary fringe)			-	
Describe Recorded Data (stream g	auge, monitoring we	ell, aerial photos, previous inspections), if a	available:	
Remarks: No positive indication of wetland h	nydrology was observ	ved.		

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

Sampling Point: W-A18-138_UPL-1

	-					
Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	3	(A)
1. Pinus virginiana	50	Yes	UPL	Total Number of Dominant Species		
2. Quercus phellos	20	Yes	FAC	Across All Strata:	4	(B)
3. Liquidambar styracifiua	10	NO	FAC	Percent of Dominant Species That		
4		·		Are OBL, FACW, or FAC:	/5	(A/B)
5		·		Prevalence Index worksheet:		
o		·		Total % Cover of:	Multiply	<u>By:</u>
7		- Total Cav	or	OBL species 0	x 1 =	0
E0% of total covers 40	00 20% of to		16	FACW species 0	x 2 =	0
Sanling/Shrub Stratum (Plot size: 15)	_ 20% 01 10	lai cover.		FAC species 55	x 3 =	165
<u>Saping Shi ub Stratum</u> (Fiot Size. <u>15</u>)	15	Ves	FAC	FACU species 0	x 4 =	0
2 Ouercus phellos	10	Yes	FAC	UPL species 50	x 5 = _	250
3		105	inc	Column Totals 105	(A)	415 (B)
а. Д				Prevalence Index = B/A =	4	
т. 				Hydrophytic Vegetation Indicators:		
6				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	¹ (Provide	supporting
	25	= Total Cov	er	data in Remarks or on a separate s	neet)	
50% of total cover: 12.5	20% of to	tal cover:	5	Problematic Hydrophytic Vege	tation ¹ (Ex	plain)
Herb Stratum (Plot size: 5)	_ 20/0 01 00			¹ Indicators of hydric soil and wetlar	d hydrolog	gy must be
1.				present, unless disturbed or proble	matic	
2		·		Definitions of Four vegetation strat	a.	
3.		·		Trop Woody plants oveluding vine	c 2 in (7 (cm) or more
4.		·		in diameter at breast height (DBH)	regardless	s of height
5.		· ·			r egui aress	0111018110
6.		·		Sapling/shrub – Woody plants, exclu	uding vine:	s, 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, reg	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.	.28 ft in
50% of total cover: 0	20% of to	tal cover:	0	height.		
Woody Vine Stratum (Plot size: 30)	_ 20/0 01 10					
1.						
2.		· ·				
3.		·		Hydrophytic Vegetation Present?	Yes 🗹 No [1
4.		·				
	0	= Total Cov	er			
50% of total cover: 0	20% of to	tal cover:	0			
	_ 20/00/10					
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).		

Sampling Point: W-A18-138_UPL-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)						
(inches) Color (maint) % Color (maint) % Type1 Loc2 Texture Pa	narks					
<u>2-13</u> <u>10YR 4/4</u> <u>100</u> <u>Sill</u> <u>Sill</u>						
13 - 20 10YR 5/3 95 10YR 6/8 5 C M Silt						
¹ Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix.						
Hydric Soil Indicators:	oils ³					
Histosol (A1) Dark Surface (S7)	0115 .					
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) 2 cm Muck (A10) (MLRA 147)						
Black Histic (A3) Coast Prairie Redox (A16) (MLRA 147, 148) Coast Prairie Redox (A16) (MLR	A 147, 148)					
_ Hydrogen Sulfide (A4) _ Loamy Gleyed Matrix (F2) _ Piedmont Floodplain Soils (F19	(MLRA 136,					
_ Stratified Layers (A5) _ Depleted Matrix (F3) 147)						
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF1	2)					
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) ₃ Indicators of hydrophytic vegetati	on and					
Sandy Gleyed Matrix (S4)Umbric Surface (F13) (MLRA 136, 122)wetland hydrology must be preser	t, unless					
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) disturbed or problematic.						
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147)						
Restrictive Layer (if observed):						
Type: None Hydric Soil Present? Yes 🗆 No 🛛]					
Depth (inches):						
Remarks:						
No positive 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

Project/Site: MVP Sou	thgate	City/Count	ty: Burlington, Alamano	ce	Sampling Dat	te: 2018-June-08	
Applicant/Owner: N	lextEra				State: North Ca	arolina Sampling Point: M	/-A18-139_PSS-1
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:							
Landform (hillslope, te	rrace, etc.):	Back slope	Local re	elief (co	oncave, convex,	none): Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLR/	A 136 of LRR P		Lat: 3	36.1852105	Long: -79.4943172	Datum: WGS84
Soil Map Unit Name:	Helena Sand	y loam (HeC) 6 to 1	0 percent slopes			NWI classifica	ition:
Are climatic/hydrologic	c conditions or	n the site typical for	r this time of year?	`	Yes 🟒 No 🔄	(If no, explain in Remarl	<s.)< td=""></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	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? 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 wetland parameters are present.							

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydi Oxic 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)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream ga	Yes No _∠ Yes No _∠ Yes No _∠ uge, monitoring well,	Depth (inches): Depth (inches): Depth (inches): aerial photos, previous inspections), if	Wetland Hydrology Present? Yes No
Remarks: The criterion for wetland hydrology	is met. Soil is episatu	rated. Saturated from 0 to 4 inches .	
VEGETATION (Four Strata) -- Use scientific names of plants.

Sampling Point: W-A18-139_PSS-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:			
<u>Tree Stratum</u> (Plot Size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	З	(Δ)	
1.				Are OBL, FACW, or FAC:		(~)	
2.				Total Number of Dominant Species Across All Strata:	; З	(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> 3y:</u>	
7				OBL species 75	x 1 =	75	
	0	= Total Cov	/er	FACW species 15	x 2 =	30	
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species 30	x 3 =	90	
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 10	x 4 =	40	
1. <i>Salix nigra</i>	45	Yes	OBL	UPL species 0	x 5 =	0	
2. <i>Fraxinus pennsylvanica</i>	10	No	FACW	Column Totals 130	(A)	235 (B)	
3				$\frac{130}{130}$. <u>, , , , , , , , , , , , , , , , , , ,</u>	233 (8)	
4							
5				Hydrophytic Vegetation Indicators:	Vezetetien		
6				I- Rapid Test for Hydrophytic	vegetation		
7				∠ 2 - Dominance Test Is >50%			
8.				3 - Prevalence Index Is $\leq 3.0^{\circ}$	1 (5)		
9.				4 - Morphological Adaptation	5' (Provide s	supporting	
	55	= Total Cov	/er	Droblomatic Hydrophytic Vog	neet) atation1 (Evi	olain)	
50% of total cover:27.5	20% of to	tal cover:	11	Indicators of hydric coil and wotha		umust bo	
Herb Stratum (Plot size: 5_)				present unless disturbed or proble	ematic	y must be	
1. Microstegium vimineum	30	Yes	FAC	Definitions of Four Vegetation Stra	ta		
2. <i>Glvceria striata</i>	25	Yes	OBL	Deminitions of Four Vegetation Stra	la.		
3. Parthenocissus quinquefolia	10	No	FACU	Tree Woody plants excluding vin	os 3 in (76	cm) or more	
4 Typha latifolia	5	No	OBI	in diameter at breast height (DBH)	regardless	of height	
5 Fupatorium perfoliatum	5	No	FACW		regulatess	or neight.	
6				Sapling/shrub – Woody plants, excl	uding vines	less than 3	
7	·			in. DBH and greater than or equal	to 3.28 ft (1	m) tall.	
8	·				·		
o	·	·		Herb – All herbaceous (non-woody) plants, reg	ardless of	
10	·			size, and woody plants less than 3.	28 ft tall.		
	·						
11	75	- Total Car		Woody vines All woody vines are	ator than 3 '	28 ft in	
	75		/er	height		2010111	
50% of total cover: <u>37.5</u>	_ 20% of to	tal cover:	15				
<u>woody vine Stratum</u> (Plot size: <u>30</u>)							
1	·						
2	·	<u> </u>					
3	·	<u> </u>		Hydrophytic vegetation Present?	res ⊡ no ∟]	
4.							
5	·						
	0	= lotal Cov	/er				
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 obs	served (>50	0% of domir	nant species	indexed as OBL, FACW, or FAC).			

SOIL

Sampling Point: W-A18-139_PSS-1

Profile De	escription: (Describe to	o the dep	th needed to docume	ent the ii	ndicator	or confir	m the absend	ce of indicators.)	
Depth	Matrix		Redox	<pre>< Feature</pre>	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 5	2.5Y 5/2	90	7.5YR 5/8	10	C	Μ		Sandy Loam	
5 - 14	2.5Y 5/3	70	7.5YR 5/8	20	С	Μ		Clay Loam	
5 - 14			2.5Y 5/2	10	D	М			
14 - 20	2.5Y 5/2	70	7.5YR 4/6	30	С	М		Sandy Clay	
				·					
				·					·
				·					
				·					·
¹ Type: C =	Concentration, D = D	epletion,	RM = Reduced Matri	x, MS = I	Masked S	and Gra	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	natic Hydric Soils ³ :
Histoso	l (A1)		_ Dark S	Surface (S	57) 57		DA 4 47 4 40)	2 cm Muck (A10) (I	MLRA 147)
HISTIC E	pipedon (A2)		_ Polyva Thin C	alue Belo Dark Surf	w Surface	(58) (ML	RA 147, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hvdrog	en Sulfide (A4)			v Gleved	Matrix (F2	VILKA 147 2)	, 140)	Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		Deple	ted Matri	ix (F3)	-,		147)	
2 cm M	uck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (A11)	_ Deple	ted Dark	Surface (I	F7)		Other (Explain in R	lemarks)
Thick D	ark Surface (A12)		Redox	Depress	sions (F8)				
_ Sandy M	Aucky Mineral (S1) (LRR	R N, MLRA	147, 148) Iron-N	langanes	se Masses	(F12) (LR	R N, MLRA 13	6) ₃ Indicators of hydroph	nytic vegetation and
Sandy G	Pedox (S5)		Unbri Piedm	ic Surface	dolain Soi	ILKA 130, ils (F19) (1	122) MIRA 148)	wetland hydrology mu	ust be present, unless
Strippe	d Matrix (S6)		Red Pa	arent Ma	terial (F21) (MLRA	127. 147)	disturbed or problem	atic.
Restrictiv	e Laver (if observed):								
	Type:		None			Hydric	Soil Present?		Yes 🛛 No 🗆
	Depth (inches):								
Nettiai KS.									
A positive	indication of hydric s	oil was o	bserved.						
	,								

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: Burlington, Alamance Sampling Date: 2018-June-08									
Applicant/Owner: N	lextEra			State: North	Carolina Sampling Point: W-,	A18-139_UPL-1			
Investigator(s): Laur	Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:								
Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Convex Slope (%): 1 to									
Subregion (LRR or MLF	RA): MLR/	A 136 of LRR P		Lat: 36.1850708	Long: -79.4940994	Datum: WGS84			
Soil Map Unit Name:	Helena Sand	y loam (HeC) 6 to 1	0 percent slopes		NWI classificati	on:			
Are climatic/hydrologic	c conditions or	the site typical for	r this time of year?	Yes 🟒 No _	(If no, explain in Remarks	i.)			
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Normal	Circumstances" present?	Yes 🟒 No			
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If needed, e	kplain 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 thre	e wetland parameters are	e present.	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of or	ne is required; cheo	<u>:k all that apply)</u>	Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 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):	17
(includes capillary fringe)		—	
Describe Recorded Data (stream g	auge, monitoring v	vell, aerial photos, previous inspectio	ons), if available:
Remarks:			
The criterion for wetland hydrolog	v is not met.		
The encentrion we during hydrolog.	, is not met.		

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

Sampling Point: W-A18-139_UPL-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	З (/	A)
1. Acer rubrum	20	Yes	FAC	Total Number of Dominant Species		
2. Juniperus virginiana	10	Yes	FACU	Across All Strata:	9 (1	B)
3. <u>Ulmus rubra</u>	10	Yes	FAC	Percent of Dominant Species That		
4				Are OBL, FACW, or FAC:	33.3 (/	A/B)
5.				Prevalence Index worksheet:		
6.				Total % Cover of:	Multiply By:	
7				OBL species 0	x 1 =)
50% (, ,)	40	= lotal Cov	er	FACW species 0	x 2 =)
50% of total cover: <u>20</u>	_20% of to	tal cover:	8	FAC species 35	x 3 =10)5
<u>Sapiing/Shrub Stratum</u> (Piot Size: <u>15</u>)	E	Voc	EACU	FACU species 65	x 4 =	50
1. juniperus virginiana	 	Vec	FACU	UPL species 0	x 5 =)
2. Lindera benzoin	<u> </u>	Yes	FAC	Column Totals 100	(A) 365	(B)
3. Ligustrum sinense		res	FACU	Prevalence Index = B/A =	3.7	
				Hydrophytic Vegetation Indicators:		
S				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	¹ (Provide suppo	orting
9				data in Remarks or on a separate sl	ieet)	
	15	= lotal Cov	er	Problematic Hydrophytic Vege	tation ¹ (Explain)	
50% of total cover: <u>7.5</u>	_20% of to	tal cover:	3	¹ Indicators of hydric soil and wetlar	d hydrology mu	st be
Herb Stratum (Plot size: <u>5</u>)	25		FACU	present, unless disturbed or proble	matic	
1. Parthenocissus quinquefolia	25	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2. Potentilla simplex	10	Yes	FACU			
3. Lonicera japonica	10	Yes	FACU	Tree – Woody plants, excluding vine	s, 3 in. (7.6 cm) o	or more
4				in diameter at breast height (DBH),	regardless of he	ight.
5						
6				Sapling/shrub – Woody plants, exclusion	Iding vines, less	than 3
7				In. DBH and greater than or equal t	3 3.26 IL (1 III) la	
8				Horb All borbassous (pop woody)	plants regardle	cc of
9				size and woody plants less than 3.2	Plants, regardie 98 ft tall	55 01
10				size, and woody plants less than 5.2	o re tall.	
11						
	45	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 ft i	n
50% of total cover: <u>22.5</u>	_20% of to	tal cover:	9	height.		
Woody Vine Stratum (Plot size: <u>30</u>)						
1						
2						
3				Hydrophytic Vegetation Present?	íes 🗆 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	e sheet.) oserved (≥	50% of dom	iinant specie	es indexed as FAC– or drier).		

SOIL

Sampling Point: W-A18-139_UPL-1

Profile De Depth	scription: (Describe t Matrix	o the dep	th needed to docume Redox	ent the ii	ndicator	or confir	m the absend	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²		Texture	Remarks
0 - 1	10YR 3/2	100						Silt Loam	
1 - 4	10YR 5/4	100						Silt Loam	
4 - 17	10YR 5/4	95	10YR 5/8	5		M		Loam	manganese soft masses
17 - 21	2 57 5/2	90	5VR 4/4	10		 M		Loamy Sand	mangariese sole masses
	2.31 372		511(1/1					Louny Sund	
									·
		·							
		·							
		·							
1Turpet C =	Concontration D - D		DM - Doducod Matri			and Cra		n D - Doro Lining M -	Matrix
Hype: C =	Concentration, D = L	pepietion,	RM = Reduced Matri	x, ivis = i	viasked s	and Gra	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So			Dark	Surfaco (S	57)			Indicators for Problem	latic Hydric Solis ³ :
Histic Er	pipedon (A2)		Dark 3	alue Belo	w Surface	(S8) (M L	RA 147. 148)	2 cm Muck (A10) (N	/ILRA 147)
Black Hi	stic (A3)		Thin D	Dark Surfa	ace (S9) (I	MLRA 147	', 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy	y Gleyed	Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		Deple	ted Matri	ix (F3)			147)	
_ 2 cm Mu	Jck (A10) (LRR N) d Bolow Dark Surface ((A 1 1)	Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Depiete Thick Da	ark Surface (A12)	ATT)	Depie Redox	Depress	sions (F8)	F7)		Other (Explain in R	emarks)
Sandy M	lucky Mineral (S1) (LRF	R N, MLRA	147, 148) Iron-M	langanes	se Masses	5 (F12) (LF	R N, MLRA 13	6)	wtic variation and
Sandy G	ileyed Matrix (S4)		Umbri	ic Surface	e (F13) (M	ILRA 136,	122)	wetland bydrology m	ist be present unless
Sandy R	edox (S5)		Piedm	ont Floo	dplain So	ils (F19) (MLRA 148)	disturbed or problem:	atic
Stripped	d Matrix (S6)		Red Pa	arent Ma	terial (F21	I) (MLRA	127, 147)		
Restrictive	e Layer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks: The criter	ion for hydric soil is r	not met.				· · · · · · · · · · · · · · · · · · ·			

Photo of Sample Plot East



Photo of Sample Plot South

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: 4, Morton, Alamance Sampling Date: 2018-May-30								
Applicant/Owner: N	lextEra			State: North	Carolina S	ampling Point: W-C	18-03_PEM-1	
Investigator(s): Don Lockwood, Joe Roy, Jeremy Hummel Section, Township, Range:								
Landform (hillslope, te	rrace, etc.):	Depression	Local re	lief (concave, conve	x, none): (Concave	Slope (%): 1 to 10	
Subregion (LRR or MLF	RA): MLRA	136 of LRR P		Lat: 36.1807616	Long: -	79.4946087	Datum: WGS84	
Soil Map Unit Name:	Chewacla loa	m				NWI classificatio	on: None	
Are climatic/hydrologic	c conditions on	the site typical for	r this time of year?	Yes 🟒 No _	(If no,	explain in Remarks.)	
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Norma	l Circumsta	inces" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If needed, e	explain 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 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 or	ie is required; check	<u>call that apply)</u>		Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	— Ti — H — O — P — R — T — C	rue Aquatic Plants (B14) lydrogen Sulfide Odor (C1) ixidized Rhizospheres on Living Roo resence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soils hin Muck Surface (C7) other (Explain in Remarks)	ots (C3) (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
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 we	ell, aerial photos, previous inspecti	ons), if	available:		
Remarks:						
A positive indication of wetland hy	drology was observe	ed (primary and secondary indicato	ors wer	e present).		

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

Sampling Point: W-C18-03_PEM-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	7	(A)
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Species	9	(B)
3	<u> </u>			Percent of Dominant Species That		
4	<u> </u>			Are OBL, FACW, or FAC:	77.8	(A/B)
5				Prevalence Index worksheet:	-	
6				Total % Cover of:	Multiply I	B <u>y:</u>
7				OBL species 0	x 1 =	0
	0	= Total Cov	er	FACW species 35	x 2 =	70
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	FAC species 60	x 3 =	180
Sapling/Shrub Stratum (Plot size:15)	F		FAC	FACU species 10	x 4 =	40
	<u> </u>	Yes	FAC	UPL species 0	x 5 =	0
2. Liquidambar styracinua	<u> </u>	Yes	FAC	Column Totals 105	(A)	290 (B)
5. Ullius rubra	 	Vec		Prevalence Index = B/A =	2.8	
4. Lindendron tunpilera	 	Voc	FACU	Hydrophytic Vegetation Indicators:		
		Tes	FACU	1- Rapid Test for Hydrophytic	Vegetation	
7				2 - Dominance Test is >50%		
/	<u> </u>			$_$ 3 - Prevalence Index is ≤ 3.0 ¹		
o	·			4 - Morphological Adaptations	s¹ (Provide s	supporting
·	25	= Total Cov	er	data in Remarks or on a separate s	heet)	
50% of total cover: 12.5	20% of to		5	Problematic Hydrophytic Veg	etation ¹ (Ex	plain)
Herb Stratum (Plot size: 5)	_20% 01 to			¹ Indicators of hydric soil and wetlan	ាd hydrolog matic	gy must be
1. Microstegium vimineum	30	Yes	FAC	present, unless disturbed of proble		
2. Impatiens capensis	10	Yes	FACW	Definitions of Four vegetation strat	.d.	
3. Eutrochium purpureum	5	No	FAC	Tree - Woody plants, excluding vin	es 3 in <i>(</i> 7 f	cm) or more
4. Boehmeria cylindrica	5	No	FACW	in diameter at breast height (DBH).	regardless	of height.
5. <i>Solidago gigantea</i>	5	No	FACW		0	
6. <i>Ludwigia alternifolia</i>	5	No	FACW	Sapling/shrub – Woody plants, excl	uding vines	s, less than 3
7.	. <u> </u>			in. DBH and greater than or equal	:o 3.28 ft (1	m) tall.
8.						
9.				Herb – All herbaceous (non-woody	plants, reg	gardless of
10.				size, and woody plants less than 3.	28 ft tall.	
11						
	60	= Total Cov	er	Woody vines – All woody vines grea	ater than 3.	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. <i>Toxicodendron radicans</i>	10	Yes	FAC			
2. <u>Mikania scandens</u>	10	Yes	FACW			
3				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	
4						
5	<u> </u>					
	20	_= Total Cov	er			
50% of total cover: <u>10</u>	_20% of to	otal cover:	4			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-C18-03_PEM-1

Profile D	escription: (Describe to	o the dep	th needed to docume	ent the i	ndicator	or confirn	the absen	ce of indicators.)	
Depth	Matrix		Redox	Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 4	10YR 3/2	90	7.5YR 4/6	10	С	М		Sandy Loam	
4 - 18	10YR 5/2	80	7.5YR 4/6	20	C	Μ		Sandy Loam	
					·				
					·				
				·	·				· · · · · · · · · · · · · · · · · · ·
				· <u> </u>	·				
				· - <u></u>	·	·			
				·	·				
¹ Type: C	= Concentration, D = D	epletion,	RM = Reduced Matri	x, MS =	Masked S	Sand Graii	ns. ² Locati	on: PL = Pore Lining, M =	Matrix.
Hydric So	oil Indicators:							Indicators for Problem	natic Hydric Soils ³ :
Histoso	ol (A1)		_ Dark S	Surface (S	57)			2 cm Muck (A10) (I	MI RA 147)
Histic E	pipedon (A2)		Polyva	alue Belo	w Surface	e (S8) (MLF	A 147, 148)	Coast Prairie Redo	(A16) (MI RA 147 148)
Black H	listic (A3)		Thin D	Dark Surf	ace (S9) (I	MLRA 147,	148)	Codst i ruine riedo	ain Soils (E10) (MI DA 136
Hydrog	gen Sulfide (A4)		_ Loamy	y Gleyed	Matrix (F2	2)		Fleamont Floodpia	
Stratifie	ed Layers (A5)			ted Matr	IX (F3) Irfaco (E6)			Von Challow Dark	Surface (TE12)
2 CIT IV	ad Below Dark Surface (Δ11)	Redux	ted Dark	Surface (F7)			Surface (TFTZ)
Depict	ark Surface (A12)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Depic Redox	Depress	sions (F8)	,,,			(endrks)
Sandy	Mucky Mineral (S1) (LRF	N, MLRA	147, 148) Iron-M	langane	se Masses	s (F12) (LRI	R N, MLRA 13	36) _{312 1} :	
Sandy	Gleyed Matrix (S4)		Umbr	ic Surfac	e (F13) (M	ILRA 136, 1	22)	sindicators of hydropr	hytic vegetation and
Sandy	Redox (S5)		Piedm	nont Floo	dplain So	ils (F19) (N	ILRA 148)	wetland hydrology mu	ust be present, unless
Strippe	d Matrix (S6)		Red Pa	arent Ma	iterial (F21	1) (MLRA 1	27, 147)	disturbed or problem	atic.
Restrictiv	e Layer (if observed):								
	Type:		None			Hydric S	oil Present?		Yes 🗵 No 🗆
	Depth (inches):					5			
Pomarks									
Remarks	•								
A	a indiantian of hundring		h a a va va al						
A positive	e indication of hydric s	on was o	userved.						

Hydrology Photos



Vegetation Photos



Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

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	thgate	City/Count	y: 4, Morton, Alamance	e Sampling Da	te: 2018-May-30	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	C18-03_PFO-2
Investigator(s): Don	Lockwood, Joe	e Roy, Jeremy Humn	nel S	Section, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Depression	Local rel	lief (concave, convex,	none): Concave	Slope (%): 1 to 10
Subregion (LRR or MLF	RA): MLR/	A 136 of LRR P		Lat: 36.1807271	Long: -79.4944786	Datum: WGS84
Soil Map Unit Name:	Chewacla loa	am			NWI classificat	ion: None
Are climatic/hydrologic	c conditions or	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	naturally problematic?	(If needed, exp	plain 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	is the Compled Area within a Wetland?	
Remarks:	res No	is the sampled Area within a wettand?	
Covertype is PFO. Area is wetland, all three v	vetland parameters are pr	resent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	<u>e is required; che</u>	<u>ck all that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	 nagery (B7)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	g Roots (C3 Goils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes 🟒 No	_ Depth (inches):	1	
Water Table Present?	Yes 🟒 No	_ Depth (inches):	16	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	_ Depth (inches):	0	_
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring v	well, aerial photos, previous insp	ections), if	available:
Remarks:				
A positive indication of wetland hyd	drology was obser	ved (primary and secondary ind	icators wer	e present).

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

Sampling Point: W-C18-03_PFO-2

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	Species?	Status	Number of Dominant Species That	7	(A)
1. Acer rubrum	60	Yes	FAC	Are OBL, FACW, or FAC:	/	(A)
2. Platanus occidentalis	15	No	FACW	Total Number of Dominant Species	10	(B)
3. Liriodendron tulipifera	10	No	FACU	Across All Strata:		(8)
4.				Percent of Dominant Species That	70	(A/B)
5.				Are OBL, FACW, or FAC:		
6.	- <u> </u>			Prevalence Index worksheet:		_
7.				Total % Cover of:	Multiply	<u>By:</u>
	85	= Total Cov	er	OBL species 10	x 1 =	10
50% of total cover: 42.5	20% of to	tal cover:	17	FACW species 55	x 2 =	110
Sapling/Shrub Stratum (Plot size: 15)				FAC species 85	x 3 =	255
1. Celtis laevigata	20	Yes	FACW	FACU species 40	x 4 =	160
2. Ilex opaca	10	Yes	FACU	UPL species 0	x 5 =	0
3. Juniperus virginiana	10	Yes	FACU	Column Totals 190	(A)	535 (B)
4 Liquidambar styraciflua	10	Yes	FAC	Prevalence Index = B/A =	2.8	
5		105	1710	Hydrophytic Vegetation Indicators:		
5	·			1- Rapid Test for Hydrophytic	Vegetation	ו
7	- <u> </u>			_✔_ 2 - Dominance Test is >50%		
/				\checkmark 3 - Prevalence Index is ≤ 3.0 ¹		
o	·			4 - Morphological Adaptations	s ¹ (Provide	supporting
9		- Total Car		data in Remarks or on a separate s	heet)	
	50	= lotal Cov	er	Problematic Hydrophytic Veg	etation ¹ (E	xplain)
50% of total cover: <u>25</u>	_ 20% of to	otal cover:	10	¹ Indicators of hydric soil and wetla	nd hydrolo	gy must be
Herb Stratum (Plot size: <u>5</u>)	10		54.614	present, unless disturbed or proble	ematic	
1. Impatiens pallida	10	Yes	FACW	Definitions of Four Vegetation Strat	ta:	
2. Boehmeria cylindrica	10	Yes	FACW			
3. Lycopus americanus	10	Yes	OBL	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	uding vine	s, less than 3
7	. <u> </u>			In. DBH and greater than or equal t	to 3.28 ft (1 m) tall.
8						
9				Herb – All herbaceous (non-woody) plants, re	gardless of
10				size, and woody plants less than 5.	20 IT (dii.	
11						
	30	= Total Cov	er	Woody vines – All woody vines grea	ater than 3	.28 ft in
50% of total cover: <u>15</u>	_20% of to	tal cover:	6	height.		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)						
1. Toxicodendron radicans	15	Yes	FAC			
2. Parthenocissus quinquefolia	10	Yes	FACU			
3.				Hydrophytic Vegetation Present?	Yes 🗹 No	
4.						
5.						
	25	= Total Cov	er			
50% of total cover: 12.5	20% of to	- tal cover:	5			
	ie sneet.y					

SOIL

Sampling Point: W-C18-03_PFO-2

Profile D	escription: (Describe to	o the dept	h needed to docum	ent the i	ndicator	or confiri	m the absen	ce of indicators.)	
(inchoc)	Color (maist)	04	Color (moist)		Turn o1	1.0.02		Touturo	Domorka
(incries)				<u> </u>				Candulace	Remarks
0-4	10YR 4/2	90	7.5YR 4/6	10	<u> </u>			Sandy Loam	
4 - 18	10YR 5/2		7.5YR 4/6	30	<u> </u>	M		Sandy Loam	
				. <u> </u>					
				· · · · · · · · · · · · · · · · · · ·					
				·					
				·					<u> </u>
				·					
¹ Type: C	= Concentration, D = D	epletion,	RM = Reduced Matri	x, MS =	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M	= Matrix.
Hydric So	oil Indicators:							Indicators for Probler	matic Hydric Soils ³ :
Histoso	ol (A1)		_ Dark S	Surface (S	S7)			2 cm Muck (A10) (MI RA 147)
Histic E	pipedon (A2)		_ Polyva	alue Belo	w Surface	e (S8) (ML	RA 147, 148)	Coast Prairie Red	ox (A16) (MI RA 147 148)
Black H	listic (A3)		Thin [Dark Surf	ace (S9) (MLRA 147	, 148)	Coast Fraine Red	ain Soile (E10) (MI DA 126
Hydrog	gen Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)			
Stratifie	ed Layers (A5)		_∕ Deple	ted Matr	IX (F3)			147) Nary Challow Darl	(Surface (TE12)
_ 2 CITI IV	uck (ATU) (LRR N) ad Balaw Dark Surface (A11)	Redux	tod Dark	Filace (Fo)	57)		Very Shallow Dark	Courace (TFTZ)
Depieu	ark Surface (A12)	ATT)	_ Depie		sions (E8)	F7)		Other (Explain in	Remarks)
Sandv	Mucky Mineral (S1) (I RE		147, 148) Iron-M	langane	se Masses	(F12) (I R	R N. MI RA 13	6)	
Sandy	Gleved Matrix (S4)	,	Umbr	ic Surfac	e (F13) (M	ILRA 136.	122)	³ Indicators of hydrop	hytic vegetation and
Sandy	Redox (S5)		Piedm	nont Floo	dplain Soi	ils (F19) (I	, MLRA 148)	wetland hydrology m	ust be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	aterial (F21) (MLRA	127, 147)	disturbed or problem	natic.
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric S	Soil Present?		Yes 🗵 No 🗆
	Depth (inches):								
Domarka									
Nethal K5									
A positive	e indication of hydric s	oil was ob	oserved.						

Hydrology Photos



Vegetation Photos

Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

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



US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/Count	ty: 4, Morton, Alamance	e Sampling Dat	e: 2018-May-30	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W	-C18-03_UPL-1
Investigator(s): Don	Lockwood, Joe	e Roy, Jeremy Humr	mel S	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 MLF	RA): MLR/	A 136 of LRR P		Lat: 36.1806651	Long: -79.4945001	Datum: WGS84
Soil Map Unit Name:	Helena Sand	y loam			NWI classifica	tion:
Are climatic/hydrologic	c conditions or	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	olain any answers in Remar	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	present.	

HYDROLOGY

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>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True A 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)	 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 (IC) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Tast (D5) 	Surface (B8) 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.			

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

Sampling Point: W-C18-03_UPL-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	7	(A)
1. Juglans nigra	30	Yes	FACU	Are OBL, FACW, or FAC:		
2. Liquidambar styraciflua	10	Yes	FAC	Across All Strata:	, 12	(B)
3. <i>Liriodendron tulipifera</i>	10	Yes	FACU	Percent of Dominant Species That		
4. <i>Celtis laevigata</i>	10	Yes	FACW	Are OBL FACW or FAC:	58.3	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply	Bv:
7				OBL species 0	x 1 =	0
	60	= Total Cov	er	FACW species 20	- x2=	40
50% of total cover: <u>30</u>	_ 20% of to	tal cover:	12	FAC species 50	- x2 -	150
Sapling/Shrub Stratum (Plot size:15)				FACIL species 75	- × 1 =	300
1. <i>Celtis laevigata</i>	10	Yes	FACW	IPL species 0	· · · · ·	0
2. <u>Carpinus caroliniana</u>	10	Yes	FAC	Column Totals	· · · · · · · · · · · · · · · · · · ·	400 (B)
3. Ligustrum sinense	10	Yes	FACU		(A) . 24	490 (B)
4. Acer negundo	10	Yes	FAC	Prevalence Index – B/A –		
5.				Hydrophytic Vegetation Indicators		
6.				1- Rapid Test for Hydrophytic	Vegetatior	٦
7.				2 - Dominance Test is >50%		
8.				$3 - Prevalence Index is \le 3.0^{1}$		
9.				4 - Morphological Adaptation	s ¹ (Provide	supporting
	40	= Total Cov	er	data in Remarks or on a separate s	neet)	
50% of total cover: 20	20% of to	tal cover:	8	Problematic Hydrophytic Veg	etation' (E)	xpiain)
Herb Stratum (Plot size: 5)				Indicators of nydric soil and wetla	na nyarolo omotic	gy must be
1. Podophyllum peltatum	15	Yes	FACU	present, unless disturbed of probl		<u> </u>
2				Definitions of Four Vegetation Stra	ld.	
3				Tree Weedy plants evoluting vin	ac 2 in (7	
<u> </u>				in diameter at breast beight (DBH)	regardles	s of beight
т. 					regardies.	s of fielding.
S				Sanling/shrub - Woody plants exc	luding vine	es less than 3
7				in. DBH and greater than or equal	to 3.28 ft (1 m) tall.
/						,
0				Herb – All herbaceous (non-woody) plants, re	gardless of
5				size, and woody plants less than 3	.28 ft tall.	0
10		<u> </u>				
11				Woodwyings All woodwyings gro	ator than 3	10 ft in
	15	= lotal Cov	er	height		.201111
50% of total cover: <u>7.5</u>	_ 20% of to	otal cover:	3			
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)	10		FACU			
	10	res	FACU			
2. <u>Vitis rotundifolia</u>	10	Yes	FAC			_
3. <u>Smilax rotundifolia</u>	10	Yes	FAC	Hydrophytic Vegetation Present?	Yes 🗹 No	
4						
5						
	30	= Total Cov	er			
50% of total cover: <u>15</u>	_ 20% of to	otal cover:	6			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-C18-03_UPL-1

Profile D	escription: (Describe to	o the deptl	h needed to docume	ent the i	ndicator o	or confirm	the absenc	e of indicators.)	
(inchoc)	Color (moist)	04	Color (moist)		Turnol	1002		Toyturo	Bomarks
		100		90	Type.			Sandy Loam	Remarks
0-5	10YR 3/3	100		·	·			Sandy Loam	
3 - 18	TUYR 3/6	100			·			Sandy Loam	·
		·		·	·				
		·		·	·				·
	- Concontration D - D	oplation I	M - Poducod Matri		Mackad S	and Grain		n: DL - Doro Lining M -	Matrix
Type. C		repletion, i	Rivi – Reduced Matri	x, ivi <i>s</i> – i	waskeu s		sLUCAUC	Indiantara far Drahlara	ividu IX.
Hydric So			Dark	unface (-7)			indicators for Problem	auc Hydric Solis ³ :
HISTOSO	DI (AI)		_ Dark S	surface (:	57) M Surfaca		147 140)	2 cm Muck (A10) (N	ILRA 147)
HISUC E	listic (A3)		_ POlyva Thin C	aiue Beio Dark Surf	w Suriace	(58) (IVILKA 11 DA 177 1	(147,148) //8)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hvdrog	ren Sulfide (A4)		Loamy	v Gleved	Matrix (F2	2)	40)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifi	ed Layers (A5)		Deplei	ted Matr	ix (F3)	-,		147)	
2 cm N	luck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplet	ed Below Dark Surface (A11)	_ Deple	ted Dark	Surface (F	-7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redox	Depress	sions (F8)			•	
Sandy	Mucky Mineral (S1) (LRF	R N, MLRA 1	47, 148) Iron-M	langane	se Masses	(F12) (LRR	N, MLRA 13	6)₃Indicators of hydroph	vtic vegetation and
Sandy	Gleyed Matrix (S4)		Umbri	ic Surfac	e (F13) (M	LRA 136, 12	22)	wetland hydrology mu	st be present, unless
Sandy	Redox (S5)		Piedm	iont Floo	dplain Soi	IS (F19) (ML	.RA 148)	disturbed or problema	atic.
suppe				arentivia	iterial (FZ I) (MILKA 12	7, 147)	I	
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric So	il Present?		Yes 🗆 No 🗹
	Depth (inches):			-					
Remarks	:								
No posit	ve indication of hydrid	soils was	observed.						

Hydrology Photos



Vegetation Photos

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	thgate	City/County:	Burlington, Alamanc	e Sampling Dat	e: 2018-May-30	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-C	18-05_PEM-2
Investigator(s): Don	Lockwood, Joe I	Roy, Jeremy Humme	<u>)</u> S	Section, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Depression	Local re	lief (concave, convex,	none): Concave	Slope (%): 1 to 10
Subregion (LRR or MLR	RA): MLRA	136 of LRR P		Lat: 36.1788911	Long: -79.4942137	Datum: WGS84
Soil Map Unit Name:	Chewacla loan	n			NWI classificatio	on:
Are climatic/hydrologic	conditions on t	the site typical for th	nis time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks.)
Are Vegetation,	Soil, o	r Hydrology si	gnificantly disturbed?	Are "Normal Ci	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil, o	r Hydrology na	aturally problematic?	(If needed, exp	lain any answers in Remarks	5.)

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

Hydrophytic Vegetation Present?	Yes 🖌 No Yes 🖌 No		
Wetland Hydrology Present?	Yes No	ls 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 on	e is required; chec	Secondary Indicators (minimum of two required)							
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	T F F T C agery (B7)	Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living F Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Fhin Muck Surface (C7) Dther (Explain in Remarks)	Roots (C3) iils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 					
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 gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:									
A positive indication of wetland hydrology was observed (primary and secondary indicators were present).									

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

Sampling Point: W-C18-05_PEM-2

				Deminence Test werke	h a a h			
Tree Stratum (Plot size: <u>30)</u>	Absolute Dominan		i Indicator	Dominance Test workSneet:				
	% Cover	species	Status			1	(A)	
1			·	Total Number of Domi	nant Spacias			
2	·		. <u> </u>	Across All Strata:	nant species	1	(B)	
3				Percent of Dominant S	necies That			
4				Are OBL, FACW, or FAC	:	100	(A/B)	
5				Prevalence Index work	sheet:			
6				Total % Cover	of:	Multiply F	3v:	
7	. <u> </u>			OBL species	15	x 1 =	- 15	
	0	= Total Cov	/er	FACW species	115	x 2 =	230	
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	00	FAC species	15	×3=	/5	
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACI I species	0	× 1 -	0	
1					0	×4- ×	0	
2				Column Totals	145	x 5	200 (D)	
3.					145	(A)	290 (B)	
4.				Prevalence Ir	1 dex = B/A =	2		
5.	·			 Hydrophytic Vegetation Indicators: 				
6.	·			1- Rapid Test for H	-Aydrophytic ۱	/egetation		
7.	·			_✔_ 2 - Dominance Te				
8	·			3 - Prevalence Inc				
9	·			4 - Morphological	Adaptations	¹ (Provide s	supporting	
		- Total Cov		data in Remarks or on	a separate sł	neet)		
E0% of total cover:				Problematic Hydrophytic Vegetation ¹ (Explain)				
Uerh Strotum (Plot cize: E)	_ 20% 01 10	ital cover.	0	¹ Indicators of hydric so	il and wetlan	d hydrolog	gy must be	
<u>Herb Stratum</u> (Plot size. <u>5</u>)	00	Vee		present, unless disturb	ed or proble	matic		
		Yes	FACW	Definitions of Four Veg	etation Strat	a:		
2. Solidago gigantea	20	<u>N0</u>	FACW					
3. Eutrochium purpureum	15	No	FAC	Tree – Woody plants, e	xcluding vine	s, 3 in. (7.6	cm) or more	
4. <u>Boehmeria cylindrica</u>	10	No	FACW	in diameter at breast h	eight (DBH),	regardless	of height.	
5. <i>Carex vulpinoidea</i>	10	No	OBL					
6. <i>Impatiens capensis</i>	5	No	FACW	Sapling/shrub – Woody	/ plants, exclu	uding vines	s, less than 3	
7. <i>Carex lurida</i>	5	No	OBL	in. DBH and greater than or equal to 3.28 ft (1 m) tall.			m) tall.	
8	. <u> </u>							
9				Herb – All herbaceous	(non-woody)	plants, reg	ardless of	
10.				size, and woody plants	less than 3.2	8 ft tall.		
11.								
	145	= Total Co	/er	Woody vines - All wood	dy vines grea	ter than 3.	28 ft in	
50% of total cover: 72.5	20% of to	tal cover:	29	height.				
Woody Vine Stratum (Plot size: <u>30</u>)	_							
1.								
2.	·							
3.	·			Hydrophytic Vegetatio	n Present?	/es ☑ No □	1	
Δ	·		·					
т								
J			uor.					
	2004 after							
50% of total cover:	_ 20% 01 to	ital cover:	0					
Remarks: (Include photo numbers here or on a separa	te sheet.)							

SOIL

Sampling Point: W-C18-05_PEM-2

Profile De Depth	scription: (Describe to Matrix	the dep	oth needed t	o documo Redox	ent the i	ndicator (or confir	m the absenc	e of indicators.)	
(inches)	Color (moist)	%	Color (r	noist)	%	Type ¹	Loc ²		Texture	Remarks
0-3	10YR 3/2	100	`						Sandy Loam	
3 - 18	10YR 5/2	80	10YR	3/4	20	C	M	Sa	ndv Clav Loam	
				0.1						
						·				
						·				
······································					·	·				
						·				
						·				
1True er C -			DM - Dedu	and Matur					n DI - Dava Lining M -	Matuix
'Type: C =	Concentration, $D = D$	epletion,	, RIVI = Redu	ced Matri	x, IVIS = I	Wasked S	and Gra	ins. ² Locatio	on: PL = Pore Lining, IVI =	Matrix.
Hydric Soi	Il Indicators:			David	· unface (-7)			Indicators for Problem	atic Hydric Solls ³ :
Histic Fr	n (AT) Dipedon (A2)			Dark : Polyva	alue Belo	s7) w Surface	(S8) (MI	RA 147, 148)	2 cm Muck (A10) (M	ILRA 147)
Black Hi	stic (A3)			Thin D	Dark Surf	ace (S9) (N	MLRA 147	, 148)	Coast Prairie Redox	((A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)			_ Loam	y Gleyed	Matrix (F2	2)		Piedmont Floodplai	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)			_∕ Deple	ted Matri	ix (F3)			147)	- ((TE4.0)
_ 2 cm Mu	JCK (A10) (LRR N) d Rolow Dark Surfaco (A	11)		Redox	Dark Su	rface (F6)	E7)		Very Shallow Dark S	Surface (TF12)
Depleted	ark Surface (A12)	(11)		Depie Redox	Depress	sions (F8)	,,		Other (Explain in Re	emarks)
Sandy M	lucky Mineral (S1) (LRR	N, MLRA	147, 148)	Iron-N	langanes	se Masses	; (F12) (LF	R N, MLRA 13	6)	vitic vegetation and
Sandy G	ileyed Matrix (S4)			_ Umbr	ic Surface	e (F13) (M	ILRA 136,	122)	wetland hydrology mu	st he present unless
Sandy R	edox (S5)			Piedm	ont Floo	dplain Soi	ils (F19) (MLRA 148)	disturbed or problema	itic.
Stripped	d Matrix (S6)			Red P	arent Ma	terial (F21) (MLRA	127, 147)		
Restrictive	e Layer (if observed): _									
	Type:		None				Hydric	Soil Present?		Yes 🗹 No 🗆
	Depth (inches):				·					
Remarks:										
A positive	indication of hydric so	oil was o	bserved.							

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/County	Burlington, Alamance	e Sampling Dat	e: 2018-May-30	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-C	218-05_PSS-1
Investigator(s): Don	Lockwood, Jo	e Roy, Jeremy Humm	el S	ection, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Depression	Local rel	ief (concave, convex,	none): Concave	Slope (%): 1 to 10
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.1786201	Long: -79.4939349	Datum: WGS84
Soil Map Unit Name:	Chewacla lo	am			NWI classificati	on: None
Are climatic/hydrologi	c conditions o	n the site typical for t	his time of year?	Yes 🟒 No 🔄	(lf no, explain in Remarks	.)
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology r	aturally 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	ls the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:		·	
Covertype is PSS. Area is wetland, all three w	vetland parameters are pr	esent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ie is required; check all		Secondary Indicators (minimum of two required)	
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydr Oxid Pres Rece Thin Othe	Aquatic Plants (B14) rogen Sulfide Odor (C1) lized Rhizospheres on Living R ence of Reduced Iron (C4) ent Iron Reduction in Tilled Soi Muck Surface (C7) er (Explain in Remarks)	loots (C3)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	12	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 inspec	tions), if	available:
Remarks:				
A positive indication of wetland hy	drology was observed ((primary and secondary indica	ators wer	e present).

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

Sampling Point: W-C18-05_PSS-1

	Absolute	Dominant	Indicator	Dominance Test worksheet			
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Specie	ies That		
1				Are OBL, FACW, or FAC:		5	(A)
2	·			Total Number of Dominant	Species	-	(5)
2	·	<u> </u>	,	Across All Strata:		5	(B)
	·	<u> </u>	,	Percent of Dominant Specie	es That	100	(A/P)
т. 	·			Are OBL, FACW, or FAC:	-	100	(A/ D)
5	·			Prevalence Index worksheet	et:		
7	·			Total % Cover of:		<u>Multiply</u>	<u>By:</u>
/		- Total Cov	or	OBL species 6	60	x 1 =	60
F0% of total covery 0	0 20% of to		0	FACW species 1	125	x 2 =	250
Sanling/Shrub Stratum (Plot size: 15)	_ 20% 01 10	ital cover.		FAC species	20	x 3 =	60
<u>Saliv pigra</u>	30	Voc	OBI	FACU species	0	x 4 =	0
2 Samhucus nigra	20	Voc	FAC	UPL species	0	x 5 =	0
2. Sambucus nigra	15	Voc		Column Totals 2	205	(A)	370 (B)
	15	163	FACW	Prevalence Index	= B/A =	1.8	
4	·			Hydrophytic Vegetation Indi	licators:		
s	·			1- Rapid Test for Hydro	ophytic V	egetatior	ı
0	·			2 - Dominance Test is >	>50%		
/	·			3 - Prevalence Index is	s ≤ 3.0 ¹		
o	·			4 - Morphological Ada	ptations ¹	(Provide	supporting
9		Tabal Car		data in Remarks or on a sep	parate sh	ieet)	
	2004 - 5 + -		er	Problematic Hydrophy	ytic Veget	tation ¹ (Ex	(plain)
S0% Of total cover: <u>32.5</u>	_20% 01 to	ital cover:	13	¹ Indicators of hydric soil and	d wetland	d hydrolo	gy must be
Herb Stratum (Plot Size. <u>5</u>)	60	Vac		present, unless disturbed of	or probler	natic	
1. Agrostis stololillera	20	Vec	FACW	Definitions of Four Vegetation	ion Strata	a:	
		<u>res</u>	FACW				
3. Solidago gigantea			FACW	Tree – Woody plants, exclud	ding vines	s, 3 in. (7.	6 cm) or more
4. Carex Vulpinoidea	15		OBL	in diameter at breast neight	t (DBH), r	regardies	s of neight.
5. Carex Iurida	15	NO	OBL	Cooling/chrub Maadu plan	nto ovelu	dingving	c locs than 2
6	·			in DBH and greater than or	r equal to	3.28 ft (1	s, iess tridri s
7	·				i equal te	J.20 It (1	i iii) tali.
8	·			Herb – All herbaceous (non-	-woodv) i	plants, re	gardless of
9	·			size, and woody plants less	than 3.2	8 ft tall.	Baraices er
	·						
11				Maaduu in aa Alluu aaduu in			20.44 in
	140	= lotal Cov	er	hoight	nes great	er than 5	.20 11 11
50% of total cover: <u>70</u>	_20% of to	ital cover:	28	neight.			
<u>woody vine Stratum</u> (Plot size: <u>30</u>)							
1	·						
2.	·			Lludrophytic Vagatation Dro	acant7 V	(ac 🖂 Na I	
3.	·			Hydrophytic vegetation Pre	esent? r		
4.	·	<u> </u>					
S		Tabal Car					
	0		er				
50% of total cover: <u>0</u>	_20% 01 to	ital cover:					
Remarks: (Include photo numbers here or on a separa	e sheet.)						

SOIL

Sampling Point: W-C18-05_PSS-1

Profile De	escription: (Describe to	the dep	oth needed to d	locument the	e indicator	or confir	m the absenc	e of indicators.)	
Depth	Matrix			Redox Featu	ires				
(inches)	Color (moist)	%	Color (moi	st) %	Type ¹	Loc ²		Texture	Remarks
0 - 1	10YR 3/2	100	10YR 3/2	2					
1 - 18	10YR 5/2	80	7.5YR 3/4	4 20	С	М	Sa	ndy Clay Loam	
							-		
·									
·									
¹ lype: C =	Concentration, D = D	epletion	, RM = Reduced	d Matrix, MS	= Masked S	Sand Gra	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problema	atic Hydric Soils ³ :
Histoso	l (A1)		-	Dark Surface	e (S7) Leve Conferen		DA 447 440	2 cm Muck (A10) (M	ILRA 147)
HISTIC E	pipedon (A2)		_	Polyvalue Be	rface (SO) (e (S8) (ML MLDA 147	RA 147, 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
Hvdrog	en Sulfide (A4)		_	Loamy Gleve	d Matrix (F	2)	, 140)	Piedmont Floodplai	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)			Depleted Ma	trix (F3)	_)		147)	
2 cm M	uck (A10) (LRR N)			Redox Dark	Surface (F6))		Very Shallow Dark S	Surface (TF12)
_ Deplete	d Below Dark Surface (/	A11)	_	Depleted Da	rk Surface (F7)		Other (Explain in Re	emarks)
Thick D	ark Surface (A12)		_	Redox Depre	essions (F8)				
Sandy N	/lucky Mineral (S1) (LRR	N, MLRA	. 147, 148)	Iron-Mangar	iese Masse	s (F12) (LF	R N, MLRA 13	6)₃Indicators of hydrophy	vtic vegetation and
Sandy C	Gleyed Matrix (S4)		_	Umbric Surfa	ace (F13) (N	ILRA 136,	122)	wetland hydrology mu	st be present, unless
_ Sandy F	Redox (S5)		_	Piedmont Flo	odplain So	ils (F19) (MLRA 148)	disturbed or problema	tic.
Strippe	d Matrix (S6)			_ Red Parent N	/laterial (F2	1) (MLRA	127, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes 🗵 No 🗆
	Depth (inches):								
Remarks:									
A positive	indication of hydric s	oil was c	bserved.						

Hydrology Photos



Vegetation Photos



Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

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	oject/Site: MVP Southgate City/County: Burlington, Alamance Sampling Date: 2018-May-30							
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: W-C	18-05_UPL-1		
Investigator(s): Don	Investigator(s): Don Lockwood, Joe Roy, Jeremy Hummel Section, Township, Range:							
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local re	elief (concave, convex,	none): Undulating	Slope (%): 1 to 3		
Subregion (LRR or MLF	RA): MLRA	A 136 of LRR P		Lat: 36.1785389	Long: -79.4941878	Datum: WGS84		
Soil Map Unit Name:	Chewacla loa	im Wehadkee Com	plex		NWI classification	on: None		
Are climatic/hydrologic	conditions or	the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks.)		
Are Vegetation,	Soil,	or Hydrology	significantly disturbed	? Are "Normal C	ircumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology	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 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 thr	ee wetland parameters a	are present.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of o	ne is required; check all t	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ir Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / Hydro Oxidi: Prese Recer Thin I Other nagery (B7)	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)	 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 In Stunted or Stressed Plants (IC) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) 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	gauge, monitoring well, a	erial photos, previous inspections), if	available:	

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

Sampling Point: W-C18-05_UPL-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:	
	% Cover	Species?	Status	Number of Dominant Species That	4 (A)
1. Liquidambar styraciflua	20	Yes	FAC	Total Number of Dominant Species	
2. Platanus occidentalis	15	Yes	FACW	Across All Strata:	10 (B)
3. Acer rubrum	15	Yes	FAC	Percent of Dominant Species That	
4. <u>Celtis laevigata</u>	10	No	FACW	Are OBL, FACW, or FAC:	40 (A/B)
5	·	·		Prevalence Index worksheet:	
6				Total % Cover of:	Multiply By:
7		·		OBL species 0	x 1 = 0
	60	= Total Cov	er	FACW species 35	x 2 = 70
50% of total cover: <u>30</u>	_20% of to	tal cover:	12	FAC species 35	x 3 = 105
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 60	x 4 = 240
1. <u>Celtis laevigata</u>	10	Yes	FACW	UPL species 0	$x_{5} = 0$
2. Acer saccharum	10	Yes	FACU	Column Totals 130	(A) 415 (B)
3. Ligustrum sinense	10	Yes	FACU	$\frac{130}{130}$	32
4. <i>Quercus alba</i>	10	Yes	FACU		
5				Hydrophytic Vegetation Indicators:	
6.				1- Rapid Test for Hydrophytic V	egetation
7.				2 - Dominance Test is > 50%	
8.				$3 - Prevalence Index is \le 3.0^{1}$	
9.	·	·		4 - Morphological Adaptations	(Provide supporting
	40	= Total Cov	er	data in Remarks or on a separate sr	ieet)
50% of total cover: 20	20% of to	tal cover:	8	Problematic Hydrophytic Vege	tation' (Explain)
Herb Stratum (Plot size: 5)	_ 20 /0 01 00			¹ Indicators of hydric soil and wetlan	d hydrology must be
1 Fragaria virginiana	10	Ves	FACU	present, unless disturbed or proble	nauc
		103	TACO	Definitions of Four Vegetation Strate	a :
2. 	·				
S	·			Iree – Woody plants, excluding vine	s, 3 in. (7.6 cm) or more
4.	·	<u> </u>		In diameter at breast height (DBH),	regardless of height.
5		·		Contractor to Manchen Lanta and	dia antia an Inan than 2
6.				in DBU and greater than or equal to	ang vines, less than 3
/) 5.20 It (1 III) tall.
8				Harb All borbaccours (pop woody)	plants regardless of
9				size and woody plants less than 3.2	8 ft tall
10				size, and woody plants less than 3.2	
11					
	10	= Total Cov	er	Woody vines – All woody vines grea	er than 3.28 ft in
50% of total cover: <u>5</u>	_ 20% of to	tal cover:	2	height.	
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)					
1. <i>Lonicera japonica</i>	10	Yes	FACU		
2. Parthenocissus quinquefolia	10	Yes	FACU		
3.				Hydrophytic Vegetation Present?	′es 🗆 No 🗵
4.					
5.	·	·			
	20	= Total Cov	er		
50% of total cover: 10	20% of to	tal cover:	4		
Remarks: (Include photo numbers here or on a separa	te sheet.)				

SOIL

Sampling Point: W-C18-05_UPL-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
(inches) Color (moist)	04	Color (moist)	04	Tupo1	1.002		Toyturo	Bomarks
	100		90	туре	LOC-		Texture	Refficiences
0-3 10YR 3/3	100	10/15 2/6			<u> </u>		Sandy Loam	·
<u>3 - 18</u> 10YR 4/3	90	10YR 3/6	10	<u> </u>	M		sandy Loam	
· ·								
¹ Type: C = Concentration, D = D	epletion	. RM = Reduced Matri	x. MS =	Masked S	and Gra	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric Soil Indicators:			, -				Indicators for Problem	atic Hydric Soils ³ :
Histosol (A1)		Dark 9	Surface (S7)				
Histic Epipedon (A2)		Polyva	alue Belo	w Surface	(S8) (ML	RA 147, 148)	2 cm Muck (A10) (N	/LRA 147)
Black Histic (A3)		Thin D	Dark Surf	ace (S9) (I	MLRA 147	, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hydrogen Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratified Layers (A5)		_ Deple	ted Matr	ix (F3)			147)	
2 cm Muck (A10) (LRR N)		Redox	Dark Su	Irface (F6)			Very Shallow Dark	Surface (TF12)
Depleted Below Dark Surface (A	411)	_ Deple	ted Dark	Surface (F7)		Other (Explain in R	emarks)
Sandy Mucky Mineral (S1) (I BB		147 148) Redux	langane	SIULIS (FO) Se Masses	(F12) (F		5)	
Sandy Gleved Matrix (S4)	14, 1012101	Umbr	ic Surfac	e (F13) (M	ILRA 136.	122)	³ Indicators of hydroph	ytic vegetation and
Sandy Redox (S5)		Piedm	nont Floc	dplain So	ils (F19) (MLRA 148)	wetland hydrology mu	ist be present, unless
Stripped Matrix (S6)		Red P	arent Ma	aterial (F21) (MLRA	127, 147)	disturbed or problema	atic.
Restrictive Layer (if observed):								
Туре:		None			Hydric S	Soil Present?		Yes 🗆 No 🗹
Depth (inches):								
Remarks:								
No positive indication of hydric	soils wa	s observed. The criter	rion for	hydric soi	il is not n	net.		

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/County:	Burlington, Alamance	e Sampling Dat	te: 2018-May-31	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: W-	C18-07_PFO-1
Investigator(s): Don	Lockwood, Joe	Roy, Jeremy Humme	el S	ection, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local rel	ief (concave, convex,	none): Undulating	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): MLRA	136 of LRR P		Lat: 36.1777022	Long: -79.4938325	Datum: WGS84
Soil Map Unit Name:	Chewacla loa	m			NWI classificati	on:
Are climatic/hydrologic	conditions on	the site typical for th	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)
Are Vegetation,	Soil, 0	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 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 PFO. Area is wetland, all three w	vetland parameters are pr	resent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; che	Secondary Indicators (minimum of two required)		
 ✓ Surface Water (A1) High Water Table (A2) ✓ Saturation (A3) ✓ Water Marks (B1) Sediment Deposits (B2) ✓ Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im ✓ Water-Stained Leaves (B9) Aquatic Fauna (B13) 		_ True Aquatic Plants (B14) _ Hydrogen Sulfide Odor (C1) _ Oxidized Rhizospheres on Living Ro _ Presence of Reduced Iron (C4) _ Recent Iron Reduction in Tilled Soil: _ Thin Muck Surface (C7) _ Other (Explain in Remarks)	oots (C3) s (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) EAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes 🖌 No _	Depth (inches):	1	
Water Table Present?	Yes 🟒 No _	 Depth (inches):	8	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 inspect	ions), if	available:
Remarks:				
A positive indication of wetland hyc	irology was obse	rved (primary and secondary indicat	tors wer	e present).

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

Sampling Point: W-C18-07_PFO-1

	Abcoluto	Dominant	Indicator	Dominance Test worksheet		
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That		
1 Liquidambar styraciflua	30	Ves	FAC	Are OBL, FACW, or FAC:	8	(A)
2 Acer rubrum	25	Yes	FAC	Total Number of Dominant Species	10	(D)
3 Liriodendron tulinifera	10	No	FACU	Across All Strata:	10	(B)
4		110	inco	Percent of Dominant Species That	80	(A/B)
5				Are OBL, FACW, or FAC:		(,,,,)
6				Prevalence Index worksheet:		
7				Total % Cover of:	<u>Multiply</u>	<u>By:</u>
··	65	= Total Cov	er	OBL species 0	x 1 = _	0
50% of total cover: 32.5	20% of to	tal cover:	13	FACW species 40	x 2 = _	80
Sapling/Shrub Stratum (Plot size: 15)	_ 20 /0 01 00			FAC species 105	x 3 = _	315
1. Fraxinus pennsylvanica	20	Yes	FACW	FACU species <u>30</u>	x 4 = _	120
2. Ligustrum sinense	10	Yes	FACU	UPL species 0	x 5 = _	0
3. Sambucus nigra	10	Yes	FAC	Column Totals 175	(A)	515 (B)
4.				Prevalence Index = B/A =	2.9	
5.	·	· ·		Hydrophytic Vegetation Indicators:		
6				1- Rapid Test for Hydrophytic	√egetatior	ו
7.				2 - Dominance Test is >50%		
8		·		3 - Prevalence Index is $\leq 3.0^1$		
9		·		4 - Morphological Adaptations	¹ (Provide	supporting
·	40	= Total Cov	٥r	data in Remarks or on a separate sl	neet)	
50% of total cover: 20	20% of to	tal cover:	8	Problematic Hydrophytic Vege	etation ¹ (Ex	kplain)
Herb Stratum (Plot size: 5)	_2070 01 00		0	¹ Indicators of hydric soil and wetlar	id hydrolo	gy must be
1 Microstegium vimineum	30	Ves	FAC	present, unless disturbed or proble	matic	
2 Boohmaria cylindrica	10	Voc	EACW	Definitions of Four Vegetation Strat	a:	
3 Impatiens canensis	10	Vec	FACW		2 (7	
	10	163	FACIN	in diameter at broast beight (DPH)	s, 3 in. (7.)	6 cm) or more
4	·				regardies	s of height.
с	·			- Sanling/shruh - Woody plants, eycli	uding vine	s less than 3
7				in. DBH and greater than or equal t	o 3.28 ft (l m) tall.
·	·			-		,
o		·		Herb – All herbaceous (non-woody)	plants, re	gardless of
9		·		size, and woody plants less than 3.2	28 ft tall.	0
		·				
				Moodywines Allwoodywines great	tor than 7	20 ft in
	50	= lotal Cov	er	beight		.28 IU III
50% of total cover: <u>25</u>	_20% of to	tal cover:	10			
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)	10		FAC			
1. Toxicodendron radicans	10	Yes	FAC			
2. Lonicera japonica	10	Yes	FACU			
3		·		Hydrophyuc vegetation Present?	res 🖾 No I	
4.		·		-		
5				-		
	20	= lotal Cov	er			
50% of total cover: <u>10</u>	_20% of to	tal cover:	4			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-C18-07_PFO-1

Profile De	escription: (Describe to	o the dep	oth needed to docum	ent the i	ndicator	or confiri	m the absend	e of indicators.)	
Depth	Matrix		Redo	k Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 5	10YR 3/2	90	7.5YR 4/6	10	С	М		Sandy Loam	
5 - 18	10YR 5/1	70	10YR 4/6	30	С	M/PL	Sa	ndy Clay Loam	
					·				
				·	·				
				·	·				
17. 6									
'Type: C =	= Concentration, D = L	Depletion	, RM = Reduced Matr	ix, MS =	Masked	and Grai	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric Sc	oil Indicators:							Indicators for Problema	atic Hydric Soils ³ :
Histoso	ol (A1) ninodon (A2)		Dark	Surface (S7)		DA 147 140)	2 cm Muck (A10) (M	LRA 147)
HISTIC E	pipedon (A2)		Polyv	alue Belo		2 (58) (IVIL) MI DA 147	RA 147, 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
Hvdrog	en Sulfide (A4)		Loam	v Gleved	Matrix (F)	2)	, 140)	Piedmont Floodplai	n Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		 ∕ Deple	ted Matr	ix (F3)	,		147)	
2 cm M	uck (A10) (LRR N)		Redo	k Dark Su	irface (F6)			Very Shallow Dark S	jurface (TF12)
_ Deplete	ed Below Dark Surface ((A11)	_ Deple	ted Dark	Surface (F7)		Other (Explain in Re	marks)
Thick D	ark Surface (A12)		Redox	< Depress	sions (F8)				
_ Sandy I	Mucky Mineral (S1) (LRF	R N, MLRA	147, 148) Iron-N	/langane:	se Masses	5 (F12) (LR	(R N, MLRA 13	⁶⁾ 3Indicators of hydrophy	tic vegetation and
Sandy B	Sedox (S5)		Unibr Piedn	ic Suriac	e (F13) (N Idolain So	ilka 130, ils (F19) (I	122) VII RA 148)	wetland hydrology mus	st be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	aterial (F2	1) (MLRA [·]	127. 147)	disturbed or problemat	tic.
 Restrictiv	e Laver (if observed):								
	Type:		None			Hydric	Soil Present?		
	Denth (inches):			•		i iyune .	Join reserie:		
	Deptil (illelies).								
Remarks									
A positive	e indication of hydric s	soil was o	bserved. The criterio	n for hyd	dric soil is	s met. Aco	cording to the	e USDA NRCS the mappe	d soil type is classified as
hydric.									

Hydrology Photos



Soil 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/County	Burlington, Alamanc	e Sampling Dat	te: 2018-May-31	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	C18-07_UPL-1
Investigator(s): Don	Lockwood, Joe	e Roy, Jeremy Humm	el S	Section, Township, Rai	nge:	
Landform (hillslope, te	rrace, etc.):	Foot slope	Local re	lief (concave, convex,	none): Convex	Slope (%): 1 to 10
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P		Lat: 36.1777389	Long: -79.4935963	Datum: WGS84
Soil Map Unit Name:	Helena Sand	ly loam			NWI classificati	ion:
Are climatic/hydrologic	c conditions or	n 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 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	present.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum o	of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / Hydro Oxidi Prese Recer Thin l Other agery (B7)	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D' Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	urface (B8) nagery (C9) I)
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	aerial photos, previous inspections), if	available:	
No positive indication of wetland h	drology was observed			

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

Sampling Point: W-C18-07_UPL-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	8	(A)
1. Liquidambar styraciflua	15	Yes	FAC	Are OBL, FACW, of FAC:		
2. <u>Acer rubrum</u>	10	Yes	FAC	Across All Strata:	12	(B)
3. Liriodendron tulipifera	10	Yes	FACU	Percent of Dominant Species That		
4. Quercus phellos	10	Yes	FAC	Are OBL_EACW or EAC	66.7	(A/B)
5	. <u> </u>			Prevalence Index worksheet:		
6	<u> </u>			Total % Cover of	Multiply	Bv:
7				OBL species 0	<u>v 1 =</u>	0
	45	= Total Cov	er	EACW species 20	×2-	40
50% of total cover: <u>22.5</u>	_ 20% of to	tal cover:	9	EAC species 20	×2- ×2-	240
Sapling/Shrub Stratum (Plot size: <u>15</u>)				EACLI species 25	× 4 =	140
1. Carpinus caroliniana	15	Yes	FAC	FACO species 35	x 4 =	140
2. Acer rubrum	10	Yes	FAC		x 5 = _	0
3. <i>Carya ovata</i>	10	Yes	FACU	Column lotais 135	(A)	420 (B)
4.	·	· ·		Prevalence Index = B/A =	3.1	
5.	·			Hydrophytic Vegetation Indicators:		
6	·			1- Rapid Test for Hydrophytic	Vegetation	l
7		·		2 - Dominance Test is >50%		
/	·	······································		3 - Prevalence Index is ≤ 3.0^{1}		
0				4 - Morphological Adaptations	¹ (Provide	supporting
9.		Tabal Car		data in Remarks or on a separate sl	heet)	
	35	= lotal Cov	er _	Problematic Hydrophytic Vege	etation ¹ (Ex	(plain)
50% of total cover: <u>17.5</u>	_ 20% of to	ital cover:	/	¹ Indicators of hydric soil and wetlar	nd hydrolo	gy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. <u>Rubus apogaeus</u>	10	Yes	FAC	Definitions of Four Vegetation Strat	a:	
2. <u>Viola hirsutula</u>	10	Yes	FACU			
3. <u>Carya ovata</u>	5	Yes	FACU	Tree – Woody plants, excluding vine	es, 3 in. (7.6	5 cm) or more
4				in diameter at breast height (DBH),	regardless	s of height.
5						
6	<u> </u>			Sapling/shrub – Woody plants, exclu	uding vine	s, 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, reg	gardless of
10.				size, and woody plants less than 3.2	28 ft tall.	
11.	·	· ·				
	25	= Total Cov	er	Woody vines – All woody vines grea	iter than 3	.28 ft in
50% of total cover: 12.5	20% of to	tal cover:	5	height.		
Woody Vine Stratum (Plot size: 30)	_2070 01 00					
1 Vitis rinaria	20	Ves	FACW			
2 Tovicodendron radicans	10	Voc	FAC			
2			inc	Hydrophytic Vegetation Present?		7
4	·					
5						
	30	= lotal Cov	er			
50% of total cover: <u>15</u>	_20% of to	tal cover:	6			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-C18-07_UPL-1

Profile D Depth	escription: (Describe t Matrix	o the dept	h needed to docum Redo	ent the i x Featur	ndicator es	or confirm the abse	nce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 4	10YR 3/3	100					Sandy Loam	
4 - 18	10YR 4/6	100				· ·	Sandy Loam	·
- 10	1011(4/0					·	Sundy Louin	
		·				<u> </u>		
						<u> </u>		
						<u> </u>		
						<u> </u>		
						<u> </u>		
		· ·						
¹ Type: C	= Concentration, D = [Depletion,	RM = Reduced Matr	ix, MS =	Masked S	and Grains. ² Locat	ion: PL = Pore Lining, M =	Matrix.
Hydric So	oil Indicators:						Indicators for Problem	atic Hydric Soils ³ :
	ol (A1)		_ Dark	Surface (S7)		2 cm Muck (A10) (N	AL PA 1/7)
Histic E	pipedon (A2)		_ Polyv	alue Belo	w Surface	(S8) (MLRA 147, 148)	Coast Prairie Redo	(A16) (MI RA 147 148)
Black H	listic (A3)		Thin I	Dark Surf	ace (S9) (I	MLRA 147, 148)	Piedmont Floodpla	in Soils (F19) (MI PA 136
Hydrog	gen Sulfide (A4)		_ Loam	y Gleyed	Matrix (F2	2)	1eennone noodpia	
_ 3tratin	luck (A10) (I RR N)		Depie	x Dark Su	ix (FS) irface (F6)		Very Shallow Dark	Surface (TE12)
Deplet	ed Below Dark Surface	(A11)	Deple	eted Dark	Surface (I	F7)	Other (Explain in Re	emarks)
Thick D	ark Surface (A12)		Redo	x Depres	sions (F8)			
Sandy	Mucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-I	Mangane	se Masses	(F12) (LRR N, MLRA 1	36) ₃ Indicators of hydroph	vtic vegetation and
Sandy	Gleyed Matrix (S4)		Umbi	ic Surfac	e (F13) (M	LRA 136, 122)	wetland hydrology mu	st be present, unless
Sandy	Redox (S5)		Piedr	nont Floo	dplain Sol	IIS (F19) (MLRA 148)	disturbed or problema	itic.
_ surphe			Keu F		ateriai (FZ) (IVILKA 127, 147)	•	
Restrictiv	e Layer (if observed):							
	Type:		None	-		Hydric Soil Present	?	Yes 🗆 No 🗹
	Depth (inches):			-				
Remarks	:							

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



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP South	hgate	City/County	r: 4, Morton, Alamar	ce	Sampling Dat	te: 2018-June-04	
Applicant/Owner: Ne	extEra				State: North Ca	arolina Sampling Point:	W-C18-29_UPL-1
Investigator(s): Don L	ockwood, Jeff	Vandeveer, Nate R	enaudin	Sectio	on, Township, Rai	nge:	
Landform (hillslope, terr	race, etc.):	Flood Plain	Local	relief (d	oncave, convex,	none): Convex	Slope (%): 1 to 10
Subregion (LRR or MLRA	A): MLRA	136 of LRR P		Lat:	36.1607379	Long: -79.4541862	Datum: WGS84
Soil Map Unit Name:	Helena Sandy	loam				NWI classific	ation:
Are climatic/hydrologic	conditions on	the site typical for t	this time of year?		Yes 🟒 No 🔄	(If no, explain in Rema	rks.)
Are Vegetation,	Soil, c	or Hydrology s	significantly disturbed	1?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil, a	or Hydrology r	naturally problematio	?	(If needed, exp	olain any answers in Rem	arks.)

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	<u>hat apply)</u>	Secondary Indicators (minimum	<u>of two required)</u>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True A 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)	 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 (IC) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Tast (D5) 	Surface (B8) 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.			

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

Sampling Point: W-C18-29_UPL-1

T C () (D) () (D)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Iree Stratum</u> (Plot size: <u>30')</u>	% Cover	Species?	Status	Number of Dominant Species That	з	(A)
1. <u>Acer rubrum</u>	20	Yes	FAC	Are OBL, FACW, or FAC:		(/ ()
2. Quercus phellos	20	Yes	FAC	Total Number of Dominant Species	6	(B)
3. <u>Acer saccharum</u>	15	Yes	FACU	Across All Strata:		
4				Are OBL EACW or EAC	50	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of	Multiply	Bv:
7				OBL species 0	x 1 =	0
	55	= Total Cov	er	FACW species 0	x 2 =	0
50% of total cover: <u>27.5</u>	_ 20% of to	tal cover:	11	FAC species 60	x 3 =	180
Sapling/Shrub Stratum (Plot size:15')				FACU species 40	x 4 =	160
1. <i>Carpinus caroliniana</i>	20	Yes	FAC	UPL species 0	x 5 =	0
2. Acer saccharum	15	Yes	FACU	Column Totals 100	(A) -	340 (B)
3				$\frac{100}{\text{Prevalence Index} = B/A = 1}$	34	540 (B)
4						
5				Hydrophytic vegetation indicators:	Vagatation	
6				1- Rapid Test for Hydrophytic	vegetation	I
7				2 - Dominance fest is > 50%		
8				$3 - Prevalence index is \leq 3.0^{\circ}$	1 (Drovida	currenting
9				data in Remarks or on a separate s		supporting
	35	= Total Cov	er	Problematic Hydrophytic Vege	etation ¹ (E)	(nlain)
50% of total cover: <u>17.5</u>	_ 20% of to	tal cover:	7	¹ Indicators of hydric soil and wetlar	nd hydrolo	ev must be
<u>Herb Stratum</u> (Plot size: <u>5'</u>)				present, unless disturbed or proble	ematic	89
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	s of height.
5.				_		-
6.				Sapling/shrub – Woody plants, excl	uding vine	s, less than 3
7.				in. DBH and greater than or equal t	o 3.28 ft (1	l 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.						
		= Total Cov	er	Woody vines – All woody vines grea	ter than 3	.28 ft in
50% of total cover: 0	20% of to	tal cover:	0	height.		
Woody Vine Stratum (Plot size: 30')	_ 20/0 0. 00					
1. Parthenocissus auinauefolia	10	Yes	FACU			
2						
3.				Hydrophytic Vegetation Present?	Yes 🗆 No i	7
4						
	10	= Total Cov	or			
50% of total cover: 5	20% of to	- Total COV	2			
	_ 20% 01 to	tai cover.				
Remarks: (include photo numbers here or on a separa	të sheet.)					

SOIL

Sampling Point: W-C18-29_UPL-1

Profile Des Depth	scription: (Describe to Matrix	the depth n	eeded to docume Redox	nt the ii Feature	ndicator (es	or confirr	n the absenc	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 18	10YR 3/2	100			<u>.,,,,,</u>		Sa	ndy Clay Loam	
	101110/2								·
•									
·									
1Tuno: C =	Concontration D = D	aplation DM	- Roducod Matrix	/ MC - I	Mackad S	and Crai	ns ² l ocatio	n: DL - Doro Lining M - N	Antrix
Type. C =		epiecion, Rivi		(, 1013 – 1	viaskeu s	anu Grai		Judianteur fan Duchlaus	tia Ukudula Calla?
Hyaric Sol	indicators:		D		-7)			indicators for Problema	iuc Hyaric Solls ³ :
Histosol	(AI)		_ Dark S	urtace (S	o/) w.Surfaca	(00) /	04 147 140	2 cm Muck (A10) (M	LRA 147)
Black His	stic (A3)		_ PolyVa	iue Belo' ark Surf		(JO) (IVIL) 1/1 RA 1/17	vr. 147, 148) 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
Hvdroge	I nin D	INIT Dark Surface (S9) (MLRA 147, 148)				Piedmont Floodplai	n Soils (F19) (MLRA 136,		
Stratified	d Lavers (A5)		Deplet	ed Matri	ix (F3)	-,		147)	
2 cm Mu	ck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark S	urface (TF12)
_ Depleted	d Below Dark Surface (A	A11)	_ Deplet	ed Dark	Surface (I	F7)		Other (Explain in Re	marks)
_ Sandy M	ucky Mineral (S1) (LRR	N, MLRA 147,	148) _ Iron-M	anganes	se Masses	; (F12) (LR	R N, MLRA 13	6)₃Indicators of hydrophy	tic vegetation and
Sandy G	leyed Matrix (S4)		Umbri	c Surface	e (F13) (M	ILRA 136,	122)	wetland hydrology mus	t be present, unless
Sandy Re	edox (S5)		_ Piedm	ont Floo	dplain Soi	ils (F19) (N	/LRA 148)	disturbed or problemat	ic.
Stripped	Matrix (S6)		Red Pa	irent Ma	terial (F21	I) (MLRA 1	27, 147)		
Restrictive	Layer (if observed):								
-	Туре:	I	None			Hydric S	ioil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks:									
A positive indication of hydric soil was observed									
, posicite									

Hydrology Photos



Vegetation Photos



Soil Photos





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:	Burlington, Alamanc	e Sampling Dat	t e: 2018-June-04	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: W-	C18-29_PFO-1
Investigator(s): Don	Lockwood, Joe	Roy, Jeremy Humme	<u>)</u> S	Section, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Depression	Local re	lief (concave, convex,	none): Concave	Slope (%): 1 to 10
Subregion (LRR or MLR	RA): MLRA	136 of LRR P		Lat: 36.1606742	Long: -79.4544701	Datum: WGS84
Soil Map Unit Name:	Chewacla loa	m			NWI classificat	ion:
Are climatic/hydrologic	conditions on	the site typical for th	nis time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	5.)
Are Vegetation,	Soil, c	or Hydrology si	gnificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil, c	or Hydrology na	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?	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 w	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)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial In Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / 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)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 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): 8	_
(includes capillary fringe)			
Describe Recorded Data (stream g	auge, monitoring well, a	erial photos, previous inspections), if	available:
Remarks:			
A positive indication of wetland hy	drology was observed (p	primary and secondary indicators wer	e present).

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

Sampling Point: W-C18-29_PFO-1

Tree Churchard (Plat sizes 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Iree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	7	(A)
1. <i>Quercus phellos</i>	30	Yes	FAC	Are OBL, FACW, or FAC:		(~)
2. <u>Ulmus americana</u>	30	Yes	FACW	Total Number of Dominant Species	7	(B)
3. <i>Carpinus caroliniana</i>	20	Yes	FAC	Across All Strata:		
4	<u> </u>				100	(A/B)
5	<u> </u>			Prevalence Index worksheet:		
6				Total % Cover of:	Multiply I	Rv.
7	<u> </u>			OBL species 0	x 1 =	- <u></u>
	80	= Total Cov	er	FACW species 75	x 2 =	150
50% of total cover: <u>40</u>	_20% of to	otal cover:	16	FAC species 80	x 3 =	240
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 0	x 4 =	0
1. <i>Carpinus caroliniana</i>	15	Yes	FAC	UPL species 0	x 5 =	0
2. <u>Ulmus rubra</u>	15	Yes	FAC	Column Totals 155	(A)	390 (B)
3				$\frac{133}{\text{Prevalence Index} = B/A = 1}$	25	550 (B)
4					2.5	
5				1 Papid Test for Hydrophytic	Vogotation	
6				1- Kapid Test for Hydrophytic	vegetation	
7				\checkmark 2 · Dominance rest is > 50%		
8				4 - Morphological Adaptations	1 (Provide)	supporting
9				data in Remarks or on a separate s	heet)	Supporting
	30	= Total Cov	er	Problematic Hydrophytic Vege	etation ¹ (Ex	plain)
50% of total cover: <u>15</u>	_20% of to	otal cover:	6	¹ Indicators of hydric soil and wetlar	nd hydrolog	y must be
<u>Herb Stratum</u> (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. Carex intumescens	30	Yes	FACW	Definitions of Four Vegetation Strat	a:	
2. Impatiens capensis	15	Yes	FACW			
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, excl	uding vines	s, 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, reg	ardless of
10	<u> </u>			size, and woody plants less than 3.2	28 It tall.	
11	<u> </u>					
	45	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.	28 ft in
50% of total cover: <u>22.5</u>	_20% of to	otal cover:	9	height.		
Woody Vine Stratum (Plot size: <u>30</u>)						
1	<u> </u>					
2	<u> </u>					
3	<u> </u>			Hydrophytic Vegetation Present?	Yes 🗹 No 🗆]
4	<u> </u>					
5	<u> </u>					
	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-C18-29_PFO-1

Profile De	escription: (Describe to Matrix	the dep	th needed to doc	ument the i	indicator (or confirm	n the absend	e of indicators.)	
(inches)	Color (moist)	06	Color (moist)	.uox i catui %	Type1	1.002		Texture	Pomarks
				90				lexiure	Refficiences
0-9	10YR 4/2	90	TUYR 4/6	10	<u> </u>			Loam	
9 - 18	10YR 5/1	70	7.5YR 4/6	30	C	M	Si	ilty Clay Loam	
	·								
	Concentration D = D	aplation	DM - Doducod M	latrix MC -	Maskad C	and Crai	ac 21 a catio	n DL - Doro Lining M-	Matrix
-Type. C -		epietion,	RIVI – Reduced IV	atrix, 1VIS –	Maskeu S	anu Gran	IS. LOCALIC	n. PL – Pore Lining, Wi –	
Hydric So	II Indicators:		-		C7)			indicators for Problem	atic Hydric Solls ³ :
Histoso	I (AT)		Da	ark Surface (S/)	(0)	04 147 140	2 cm Muck (A10) (N	MLRA 147)
- HISTIC E	pipedon (A2) istic (A3)		PC	viyvalue Belo	w Surrace	(58) (MLH 117	(A 147, 148) 178)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
- DIACK H Hydrog	en Sulfide (A4)			amy Gleved	ace (59) (1 Matrix (F3	vierza 147, ?)	140)	Piedmont Floodpla	ain Soils (F19) (MLRA 136 ,
Stratifie	ed Lavers (A5)		 	enleted Mat	rix (F3)	-)		147)	
2 cm M	uck (A10) (LRR N)		Re	edox Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
Deplete	ed Below Dark Surface (A	A11)	De	epleted Dark	surface (I	-7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Re	edox Depres	sions (F8)				
Sandy M	/lucky Mineral (S1) (LRR	N, MLRA	147, 148) Iro	on-Mangane	se Masses	(F12) (LR	R N, MLRA 13	6) _{3Indicators of hydroph}	nytic vegetation and
Sandy C	Gleyed Matrix (S4)		_ Ui	mbric Surfac	e (F13) (M	LRA 136, 1	122)	wetland hydrology mi	ist be present, unless
Sandy F	Redox (S5)		Pi	edmont Floo	odplain Soi	ls (F19) (N	1LRA 148)	disturbed or problem	atic
Strippe	d Matrix (S6)		Re	ed Parent Ma	aterial (F21) (MLRA 1	27, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric S	oil Present?		Yes 🛛 No 🗆
	Depth (inches):								
Remarks:									

Hydrology Photos



Vegetation Photos



Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

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	pject/Site: MVP Southgate City/County: Burlington, Alamance Sampling Date: 2018-May-29						
Applicant/Owner: N	Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-79_UPL-1						
Investigator(s): Laur	a Giese, Joe Ro	oy, Simon King	Sect	ion, Township, Rar	nge:		
Landform (hillslope, te	rrace, etc.):	Foot slope	Local relief	Local relief (concave, convex, none): Convex Slope (%): 2			
Subregion (LRR or MLF	RA): MLR/	A 136 of LRR P	Lat	: 36.1563841	Long: -79.4393093	Datum: WGS84	
Soil Map Unit Name:	Cullen clay lo	oam, 6-10 percent slo	pes, moderately eroded	(CnC2)	NWI classificati	on:	
Are climatic/hydrologi	c 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 C	ircumstances" present?	Yes 🟒 No	
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)					: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 based on a	bsence of hydric soils and	wetland hydrology .	

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) 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) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
	FAC-Neutral Test (D5)
Held Observations:	
surface water Present? Yes <u>No 2</u> Depth (inches):	
Water Table Present? Yes No _Z Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present? Yes No _∠ Depth (inches):	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a	vailable:
Remarks:	
The criterion for wetland hydrology is not met. Water at 14" in borehole.	

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

Sampling Point: W-A18-79_UPL-1

		Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tre</u>	<u>e Stratum</u> (Plot size: <u>30')</u>	% Cover	Species?	Status	Number of Dominant Species That	c	(4)
1.	llex opaca	10	Yes	FACU	Are OBL, FACW, or FAC:	0	(A)
2.	Acer rubrum	10	Yes	FAC	Total Number of Dominant Species	10	(B)
3.	Ulmus rubra	10	Yes	FAC	Across All Strata:		(8)
4.	Fraxinus pennsylvanica	10	Yes	FACW	Percent of Dominant Species That	60	(A/B)
5.					Are OBL, FACW, or FAC:		
6.					Prevalence Index worksheet:	. ا ماهند ا	D
7.					<u>Iotal % Cover of:</u>		<u>BÀ:</u>
		40	= Total Cov	er		x I =	20
	50% of total cover: <u>20</u>	20% of to	tal cover:	8	FACTOr species 10	x 2 =	20
Sa	<u> bling/Shrub Stratum</u> (Plot size: <u>15'</u>)				FAC species 70	× 4 -	160
1.	Liquidambar styraciflua	10	Yes	FAC	LIPL species 0	× 4	160
2.	Acer rubrum	10	Yes	FAC	Column Totals	x 5 =	200 (D)
3.	Quercus alba	10	Yes	FACU		(A) _	390 (B)
4.	Juniperus virginiana	10	Yes	FACU	Prevalence Index = B/A =	3.3	
5.	Quercus phellos	5	No	FAC	Hydrophytic Vegetation Indicators:		
6.	Nyssa sylvatica	5	No	FAC	1- Rapid Test for Hydrophytic	Vegetation	1
7.					2 - Dominance Test is >50%		
8.					3 - Prevalence Index is $\leq 3.0^{\circ}$		
9.					4 - Morphological Adaptations	(Provide	supporting
		50	= Total Cov	er	Problematic Hydrophytic Vege	tation ¹ (E)	(nlain)
	50% of total cover: <u>25</u>		tal cover:	10	11ndicators of hydric soil and wetlar		ay must be
He	r <u>b Stratum</u> (Plot size: <u>5'</u>)				present, unless disturbed or proble	matic	gy must be
1.	Rubus idaeus	20	Yes	FAC	Definitions of Four Vegetation Strat	a:	
2.	Lonicera japonica	10	Yes	FACU			
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	uding vine	s, less than 3
7.					in. DBH and greater than or equal t	o 3.28 ft (1	l 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.							
		30	= Total Cov	er	Woody vines – All woody vines grea	ter than 3	.28 ft in
	50% of total cover: 15	20% of to	tal cover:	6	height.		
Wc	ody Vine Stratum (Plot size: 30')						
1.							
2.							
<u>-</u> . З					Hydrophytic Vegetation Present?	Yes 🖓 No [
۵. ۵							
5							
5.		0	= Total Cov	er			
	50% of total cover: 0	20% of to	tal cover:	0			
	30% of total cover	_20/00110					
A p	ositive indication of hydrophytic vegetation was obs	erved (>50	0% of domin	ant species	indexed as OBL, FACW, or FAC). Note	Pl was no	t met.

SOIL

Sampling Point: W-A18-79_UPL-1

Profile De	scription: (Describe t	to the dept	h needed to docume	ent the i	ndicator	or confiri	m the absenc	e of indicators.)	
Depth	Matrix		Redox	Feature	es			_	
(inches)	Color (moist)		Color (moist)	%	Туре¹	Loc ²		Texture	Remarks
0 - 10	10YR 3/1	100					l	Loamy Sand	
10 - 16	10YR 4/2	80					l	Loamy Sand	
10 - 16	10YR 3/1	20							
16 - 22	2.5Y 6/1	80	7.5YR 4/6	20	С	Μ	l	Loamy Sand	
					·				
					·				·
¹ Type: C =	Concentration D = [Depletion	RM = Reduced Matri	x MS = 1	Masked S	and Grai	ins ² l ocatio	n. Pl = Pore Lining M =	Matrix
Hydric Soi	il Indicators:	Depiction,		, 1013	musicu s			Indicators for Problem	atic Hydric Soile3:
Histosol			Darks	urfaco (S	(7)				auc Hyuric Solis".
Histic Fr	ninedon (A2)		Dark 3	lue Belo	w Surface	(S8) (MI	RA 147 148)	2 cm Muck (A10) (N	ILRA 147)
Black Hi	stic (A3)		Toiyva Thin D	ark Surf	ace (S9) (I	MI RA 147	148)	Coast Prairie Redo:	x (A16) (MLRA 147, 148)
Hvdroge	en Sulfide (A4)		Loam	Gleved	Matrix (F2	2)	, 140)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Lavers (A5)		Deplet	ed Matr	ix (F3)	-,		147)	
2 cm Mu	uck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Deplet	ed Dark	Surface (I	F7)		Other (Explain in R	emarks)
Thick Da	ark Surface (A12)		Redox	Depress	sions (F8)				
Sandy N	lucky Mineral (S1) (LR	R N, MLRA	147, 148) Iron-W	langanes	se Masses	(F12) (LR	R N, MLRA 136	5)	vtic vogotation and
Sandy G	ileyed Matrix (S4)		_ Umbri	c Surface	e (F13) (M	LRA 136,	122)	wetland bydrology mu	ytic vegetation and
Sandy R	edox (S5)		Piedm	ont Floo	dplain Soi	ils (F19) (I	MLRA 148)	disturbed or problems	ist be present, uniess
Stripped	d Matrix (S6)		Red Pa	arent Ma	terial (F21) (MLRA	127, 147)	disturbed or problema	ITIC.
Restrictive	e Layer (if observed):								
	Туре:		None			Hydric S	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks:									
No positiv	e indication of hydri	c soils was	observed.						

Photo of Sample Plot North



Photo of Sample Plot South

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	ect/Site: MVP Southgate City/County: Burlington, Alamance Sampling Date: 2018-May-29						
Applicant/Owner: N	Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-79_PSS-1						
Investigator(s): Laur	a Giese, Joe Ro	oy, Simon King	Sect	ion, Township, Rar	nge:		
Landform (hillslope, te	rrace, etc.):	Back slope	Local relief	cal relief (concave, convex, none): Concave Slope (%): 1			
Subregion (LRR or MLF	RA): MLR/	A 136 of LRR P	Lat	: 36.1563813	Long: -79.4392331	Datum: WGS84	
Soil Map Unit Name:	Cullen clay lo	oam, 6-10 percent slo	opes, moderately eroded	(CnC2)	NWI classificat	ion:	
Are climatic/hydrologi	c conditions or	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 naturally problematic? (If needed, explain any answers in Remarks.)					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 PSS. Area is wetland, all three w	vetland parameters are pr	esent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check a	<u>ll that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tru Hyd Oxi Pre Rec Thin Oth	e Aquatic Plants (B14) drogen Sulfide Odor (C1) dized Rhizospheres on Living Rc sence of Reduced Iron (C4) ent Iron Reduction in Tilled Soils n Muck Surface (C7) eer (Explain in Remarks)	oots (C3) s (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) 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 inspect	ions), if	available:
Remarks:				
The criterion for wetland hydrolog	/ is met.			

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

Sampling Point: W-A18-79_PSS-1

				1			
Tree Stratum (Plat size) 20%	Absolute	Dominant	Indicator	Dominance Test worksh	neet:		
<u>Tree Stratum</u> (Plot Size. <u>50</u>)	% Cover	Species?	Status	Number of Dominant S	pecies That	3	(A)
1.				Are OBL, FACW, or FAC:			(~)
2.				Total Number of Domin	ant Species	3	(B)
3.				Across All Strata:			(2)
4.				Percent of Dominant Sp	pecies That	100	(A/B)
5.				Are OBL, FACW, or FAC:			
6.				Prevalence Index works	sheet:		_
7.				Iotal % Cover	<u>of:</u>	Multiply	<u>By:</u>
	0	= Total Cov	ver	- OBL species	45	x 1 =	45
50% of total cover: 0	20% of to	_ otal cover:	0	FACW species	45	x 2 =	90
Sapling/Shrub Stratum (Plot size: 15')				FAC species	55	x 3 =	165
1. <i>Ilex verticillata</i>	35	Yes	FACW	FACU species	15	x 4 =	60
2. Liriodendron tulipifera	10	No	FACU	UPL species	0	x 5 =	0
3. Liquidambar styraciflua	10	No	FAC	Column Totals	160	(A) _	360 (B)
4.		·		Prevalence In	dex = B/A =	2.3	
5.		·		Hydrophytic Vegetation	Indicators:		
6.				1- Rapid Test for H	اydrophytic	Vegetation	
7.		·		2 - Dominance Tes	st is >50%		
8		·		3 - Prevalence Ind	ex is $\leq 3.0^1$		
9		<u> </u>		4 - Morphological	Adaptations	¹ (Provide	supporting
	55	= Total Cov	/er	data in Remarks or on a	a separate sl	neet)	
50% of total cover: 27.5	20% of to		11	Problematic Hydro	ophytic Vege	etation ¹ (Ex	plain)
Herb Stratum (Plot size: 5')	_ 20 /0 01 00			Indicators of hydric soi	l and wetlar	nd hydrolog	gy must be
1. Leersia orvzoides	45	Yes	OBI	present, unless disturbe	ed or proble	matic	
2 Microstegium vimineum	10	No	FAC	Definitions of Four vege	elation Strat	a.	
3 Boehmeria cylindrica	10	No	FACW		ممانية محيناتهم		
4 Solidago canadensis	5	No	FACIL	in diameter at breast br	ciuding vine aight (DBH)	rogardloss	o cm) or more
5			1/100			regulatess	or neight.
6		<u> </u>		Sapling/shrub - Woody	plants, exclu	uding vine	s. less than 3
7				in. DBH and greater tha	in or equal t	o 3.28 ft (1	m) tall.
8							
9				Herb – All herbaceous (non-woody)	plants, reg	gardless of
10		·		size, and woody plants	less than 3.2	28 ft tall.	
11		·					
11	70	- Total Cou		Woody vines - All wood	ly vines gree	tor than 3	28 ft in
E00% of total covery 25	70 20% of to		14	height.	ly vines grea		2010111
S0% Of total cover. <u>55</u>	_ 20% 01 tt	otal cover.	14				
<u>woody vine stratum</u> (Plot size. <u></u>)	25	Voc	EAC				
		163	FAC	-			
2.		·		- Hudronbutic Vogotation	Drocont?		7
J		·			i riesent:		
4		·					
э. 	25	- Total Cou					
	20% of to						
50% of total cover:	_ 20% 01 to	otal cover:					
Remarks: (Include photo numbers here or on a separa	ite sheet.)						
A positive indication of hydrophytic vegetation was ob	served (>50	J% of domir	nant species	indexed as OBL, FACW, or	r FAC).		

SOIL

Sampling Point: W-A18-79_PSS-1

Profile De	escription: (Describe to	the dep	th needed to docume	ent the i	ndicator	or confirm	the absen	ce of indicators.)	
Depth	Matrix		Redox	Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 8	10YR 4/2	90	10YR 5/8	10	С	М		Sandy Loam	
8 - 16	10YR 5/1	90	7.5YR 5/8	10	С	М	Sa	andy Clay Loam	
16 - 22	2.5Y 5/1	80	10YR 5/8	20	С	М		Loamy Sand	
								, , , , , , , , , , , , , , , , , , ,	
		<u> </u>			·				
					·				
						<u> </u>			
·		<u> </u>			· <u> </u>	<u> </u>			·
					·				
					·	<u> </u>			
¹ Type: C =	- Concentration, D = D	epletion,	RM = Reduced Matri	x, MS =	Masked S	and Grain	s. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
_ Histoso	l (A1)		Dark S	urface (S	57)			2 cm Muck (A10) (N	/LRA 147)
Histic E	pipedon (A2)		Polyva	lue Belo	w Surface	(S8) (MLR	A 147, 148)	Coast Prairie Redo	, x (A16) (MLRA 147, 148)
Black H	istic (A3)		Thin D	ark Surf	ace (S9) (N	MLRA 147,	148)	Piedmont Floodola	in Soils (F19) (MI RA 136
Hydrog	en Suitide (A4)		_ Loamy	/ Gleyed	Watrix (F2	<u>(</u>)		147)	(130, 113) (III EIU (130,
_ Stratine	u Layers (AS)		Depier		IX (F3) rfaco (E6)			Von Shallow Dark	Surface (TE12)
_ 2 CITI IVI	uck (ATU) (LKK N) d Rolow Dark Surface (A 1 1 \	Reu0x	od Dark	Surface (FO)	=7)			Surface (TFTZ)
_ Depiete	ark Surface (A12)	NII)	Depier	Depres	sions (E8)	/)		Other (Explain in R	emarks)
_ Sandy M	Aucky Mineral (S1) (I RR		147 148) Iron-M	langane	se Masses	(F12) (I RR	N MIRA 13	86)	
Sandy (Gleved Matrix (S4)		Umbri	c Surface	e (F13) (M	I RA 136. 1	22)	³ Indicators of hydroph	ytic vegetation and
Sandy F	Redox (S5)		Piedm	ont Floo	dplain Soi	ils (F19) (M	LRA 148)	wetland hydrology mu	st be present, unless
Strippe	d Matrix (S6)		Red Pa	arent Ma	terial (F21) (MLRA 12	27, 147)	disturbed or problema	atic.
Restrictiv	e Laver (if observed):								
	Type:		None			Hydric So	oil Present?		Yes 🛛 No 🗆
	Depth (inches):								
Damaarika	Deptil (menes).								
Remarks.									
A positive	indication of hydric s	oil was o	bserved						
ripositive		on was o	boerveu.						

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/Coun	ty: Burlington, Alama	nce	Sampling Da	te: 2018-May-30	
Applicant/Owner: N	lextEra				State: North C	arolina Sampling Point: W	/-A18-75_PEM-1
nvestigator(s): Laura Giese, Jeff Vandeveer, Nate Renaudin Section, Township, Range:							
Landform (hillslope, te	rrace, etc.):	Back slope	Local	relief (concave, convex,	none): Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat:	36.1507577	Long: -79.4296123	Datum: WGS84
Soil Map Unit Name:	Helena Sand	ly loam, 6-10 perce	nt slopes (HeC)			NWI classifica	tion:
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	significantly disturbe	d?	Are "Normal C	Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally problemation	?	(If needed, ex	plain any answers in Remar	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 wetland parameters are present. Base of pond and side of dirt road.								

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; checl	<u>k all that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	T P P R T C agery (B7)	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)	Roots (C3) ils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) < EAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	13	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	13	
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring w	ell, aerial photos, previous inspec	ctions), if	available:
Remarks:				
The criterion for wetland hydrology	/ is met.			

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

Sampling Point: W-A18-75_PEM-1

Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test works	sheet:		
	% Cover	Species?	Status	Number of Dominant	Species That 	2	(A)
1		<u> </u>		Total Number of Domi	 inant Spacias		
2		·		Across All Strata:	mant species	2	(B)
3				Percent of Dominant S	Species That	100	(4 (D)
4		·		Are OBL, FACW, or FAC	:	100	(A/B)
S				Prevalence Index work	(sheet:		
7				Total % Cover	<u>r of:</u>	Multiply	<u>By:</u>
/·		= Total Cov	er	OBL species	50	x 1 =	50
50% of total cover: 0	20% of to		0	FACW species	30	x 2 =	60
Sapling/Shrub Stratum (Plot size: 15')	_ 20/0 01 10			FAC species	10	x 3 =	30
1.				FACU species	0	x 4 =	0
2.				UPL species	0	x 5 =	0
3.				Column Totals	90	(A)	140 (B)
4.				Prevalence I	ndex = B/A =	1.6	
5.				Hydrophytic Vegetatio	n Indicators:		
6.				1- Rapid Test for	Hydrophytic \	/egetation	
7.				2 - Dominance Te	est is >50%		
8.				3 - Prevalence In	dex is $\leq 3.0^1$		
9.				4 - Morphologica	I Adaptations	¹ (Provide	supporting
	0	= Total Cov	er	data in Remarks or on	a separate sh	neet)	
50% of total cover: 0	20% of to	tal cover:	0	Problematic Hyd	ropnytic vege	tation' (Ex	(piain) au must he
Herb Stratum (Plot size:5')	-			present, unless distur	bed or proble	matic	gy must be
1. Carex crinita	35	Yes	OBL	Definitions of Four Ver	petation Strat	a:	
2. Onoclea sensibilis	20	Yes	FACW		500000000000		
3. <i>Carex stipata</i>	15	No	OBL	Tree – Woody plants, e	excluding vine	s, 3 in. (7.6	5 cm) or more
4. Juncus effusus	10	No	FACW	in diameter at breast l	neight (DBH),	regardless	of height.
5. Eutrochium purpureum	10	No	FAC				
6.				Sapling/shrub - Wood	y plants, exclı	uding vines	s, less than 3
7.				in. DBH and greater th	ian or equal t	o 3.28 ft (1	m) tall.
8.							
9				Herb – All herbaceous	(non-woody)	plants, reg	gardless of
10				size, and woody plants	s less than 3.2	8 ft tall.	
11							
	90	= Total Cov	er	Woody vines - All woo	dy vines grea	ter than 3.	.28 ft in
50% of total cover: <u>45</u>	_ 20% of to	otal cover:	18	height.			
Woody Vine Stratum (Plot size: <u>30'</u>)							
1							
2							
3				Hydrophytic Vegetatio	on 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.)						
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-A18-75_PEM-1

Deptil	Matrix		Redo	x Feature	es			-	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 5	10YR 4/2	90	7.5YR 4/6	10	С	М		Silt Loam	
5 - 9	10Y 5/1	80	7.5YR 5/8	20	С	М	S	ilty Clay Loam	
9 - 13	10Y 5/1	80	7.5YR 5/8	20	С	М	Sa	ndy Clay Loam	
13 - 15	2.5Y 5/1	100						Sand	
·		· ·							
·		· ·							
¹ Type: C =	Concentration, D = I	Depletion,	RM = Reduced Matr	ix, MS = I	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric Soi	il Indicators:							Indicators for Problema	atic Hydric Soils ³ :
Black Hi Hydroge Stratified 2 cm Mu Depletee Thick Da Sandy M Sandy R Sandy R	stic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) fucky Mineral (S1) (LR ileyed Matrix (S4) edox (S5)	(A11) R N, MLRA 1	Thin I Loam Deple Redo Deple Redo Redo 147, 148) Iron-1 Umbi Piedr	Dark Surfa y Gleyed ted Matri & Dark Su ted Dark & Depress Manganes ric Surface	ace (S9) (I Matrix (F2 ix (F3) rface (F6) Surface (I sions (F8) se Masses e (F13) (M dplain Soi	MLRA 147, 2) 5 (F12) (LRI 1LRA 136, 1 ils (F19) (N	148) R N, MLRA 13 122) 1LRA 148) 22 4 12	 Coast Prairie Redox Piedmont Floodplai 147) Very Shallow Dark S Other (Explain in Re andicators of hydrophy wetland hydrology must disturbed or problema 	(A16) (MLRA 147, 148) n Soils (F19) (MLRA 136 , surface (TF12) marks) /tic vegetation and st be present, unless tic.
Stripped	d Matrix (S6)		Red F	arent Ma	terial (F21	I) (MLRA 1	27, 147)		
Restrictive	e Layer (if observed):								
	Туре:		Rock	-		Hydric S	oil Present?		Yes 🛛 No 🗆
	Depth (inches):		15						
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 Photo of Sample Plot Sketch



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	e <u>City/County:</u> Burlin	gton, Alamance Sampling Date: 2	2018-May-30					
Applicant/Owner: NextEra	a	State: North Caroli	na Sampling Point: W-A1	8-75_UPL-1				
nvestigator(s): Laura Giese, Jeff Vandeveer, Nate Renaudin Section, Township, Range:								
Landform (hillslope, terrace,	etc.): Foot slope	Local relief (concave, convex, non	e): Convex	Slope (%): 1 to 3				
Subregion (LRR or MLRA):	MLRA 136 of LRR P	Lat: 36.1507541 Lo	ng: -79.4296031	Datum: WGS84				
Soil Map Unit Name: Hele	ena Sandy loam, 6-10 percent slopes	(HeC)	NWI classification	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 significar	ntly disturbed? Are "Normal Circu	nstances" present?	res 🟒 No				
Are Vegetation, Soil _	, or Hydrology naturally	problematic? (If needed, explain	any answers in Remarks.))				

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

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 UPL. Area is upland based on ab	sence of hydrophytic plan	t community and wetland hydrology .	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum	<u>of two required)</u>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True . Hydro Oxidi Prese Recei Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 11)
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	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-A18-75_UPL-1

Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	; 1	(A)
1				Are OBL, FACW, or FAC:		
2.	·	·		Across All Strata:	, 6	(B)
3	·	<u> </u>	<u> </u>	Percent of Dominant Species That	16.7	(A/B)
т. 				Are OBL, FACW, or FAC:		(/// D)
с. 	·		<u> </u>	Prevalence Index worksheet:		
7				Total % Cover of:	<u>Multiply B</u>	<u>By:</u>
/·		= Total Cov	or	OBL species 0	x 1 =	0
E0% of total cover: 0	20% of to		0	FACW species 0	x 2 =	0
Sanling/Shrub Stratum (Plot size: 15')	_ 20% 01 10	Juli Cover.	0	FAC species 10	x 3 =	30
1				FACU species 50	x 4 =	200
2	·			UPL species 10	x 5 =	50
2	·	·		Column Totals 70	(A)	280 (B)
	·			Prevalence Index = B/A =	4	
4. 	·			Hydrophytic Vegetation Indicators	:	
з				1- Rapid Test for Hydrophytic	Vegetation	
0	·			2 - Dominance Test is > 50%		
/	·	·		3 - Prevalence Index is $\leq 3.0^{1}$		
8	·			4 - Morphological Adaptation	s¹ (Provide s	upporting
9				data in Remarks or on a separate s	sheet)	
	0		er	Problematic Hydrophytic Veg	etation ¹ (Exp	olain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	¹ Indicators of hydric soil and wetla	nd hydrolog	y must be
Herb Stratum (Plot size: <u>5</u>)	20		FACU	present, unless disturbed or probl	ematic	
1. Dactylis glomerata	20	Yes	FACU	Definitions of Four Vegetation Stra	ta:	
2. Plantago lanceolata	10	Yes	UPL			
3. Trifolium hybridum	10	Yes	FACU	Tree – Woody plants, excluding vin	es, 3 in. (7.6	cm) or more
4. Potentilla simplex	10	Yes	FACU	in diameter at breast height (DBH)	, regardless	of height.
5. Lonicera japonica	10	Yes	FACU			
6. <u>Campsis radicans</u>	10	Yes	FAC	Sapling/shrub – Woody plants, exc	luding vines	, less than 3
7	·	·		III. DBH and greater than of equal	10 5.26 11 (1	III) lall.
8	·	·		Harb All barbaceous (pop wood)) plants rog	ardless of
9		<u> </u>		size, and woody plants less than 3	28 ft tall.	
10					201111	
11						
	70	= Total Cov	er	Woody vines – All woody vines gre	ater than 3.2	28 ft in
50% of total cover: <u>35</u>	_20% of to	otal cover:	14	neight.		
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 separate sheet.) No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).						

SOIL

Sampling Point: W-A18-75_UPL-1

Profile De	scription: (Describe to	o the dept	h needed to docum	ent the i	ndicator	or confir	m the absend	ce of indicators.)	
Deptn	Matrix		Redox	x Feature	es Trancit	1 2		T	Demonto
(inches)	Color (moist)	<u> </u>	Color (moist)	- %	Туреч	LOC ²		lexture	Remarks
0 - 2	10YR 4/2	100		· <u> </u>				Silt Loam	
2-8	10YR 4/3	95	7.5YR 5/8	5	<u> </u>			Sandy Loam	
8 - 15	2.5Y 5/2	70	2.5Y 6/1	15	C	M	Sa	ndy Clay Loam	
8 - 15	7.5YR 5/8	15			C	M	S	ilty Clay Loam	
15 - 20	2.5YR 4/8	55						Clay	
15 - 20	2.5Y 6/1	45						Clay	
		<u> </u>							
¹ Type: C =	Concentration, D = D	epletion,	RM = Reduced Matr	ix, MS =	Masked S	and Gra	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric Soi	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histosol	(A1)		Dark	Surface (57)				
Histic Ep	bipedon (A2)		Polyv;	alue Belo	w Surface	(S8) (ML	RA 147, 148)	2 cm Muck (A10) (N	1LRA 14/)
Black Hi	stic (A3)		Thin [Dark Surf	ace (S9) (N	ILRA 147	7, 148)	Coast Prairie Redo>	(A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_∕ Deple	ted Matr	ix (F3)			147)	S
_ 2 cm ML	JCK (A10) (LRR N) d Rolow Dark Surface (A11)	Redox	CDark Su	Surface (F6)	-7)		Very Shallow Dark :	Surface (TFTZ)
Depiete Thick Da	u Below Dark Surface (ark Surface (A12)	ATT)	Deple	(Denres	sions (F8)	-/)		Other (Explain in Re	emarks)
Sandy M	lucky Mineral (S1) (LRF	R N, MLRA	147, 148) Iron-N	/angane:	se Masses	(F12) (LF	RR N, MLRA 13	6) ₂₁₂₂ 1:	, dia sua andra dia sua ad
Sandy G	ileyed Matrix (S4)		_ Umbr	ic Surfac	e (F13) (M	LRA 136,	122)	undicators of hydrophy	st he present upless
Sandy R	edox (S5)		Piedm	nont Floo	dplain Soi	ls (F19) (MLRA 148)	disturbed or problems	st be present, unless
Stripped	d Matrix (S6)		Red P	arent Ma	iterial (F21) (MLRA	127, 147)	disturbed of problema	ilic.
Restrictive	e Layer (if observed):								
	Туре:		None	_		Hydric	Soil Present?		Yes 🛛 No 🗆
	Depth (inches):			_					
Remarks:				-					
A positive	indication of hydric s	soil was ob	served.						



Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/Count	y: 5, Faucette, Alaman	ce Sampling Dat	te: 2018-May-29			
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: <u>W</u>	/-A18-73_PFO-1		
Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:								
Landform (hillslope, te	rrace, etc.):	Channel	Local re	lief (concave, convex,	none): Concave	Slope (%): 1 to 3		
Subregion (LRR or MLR	RA): MLRA	A 136 of LRR P		Lat: 36.1503492	Long: -79.4302949	Datum: WGS84		
Soil Map Unit Name:					NWI classifica	ition:		
Are climatic/hydrologic	conditions or	the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	<s.)< td=""></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	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 PFO. Area is wetland, all three w	vetland parameters are pr	resent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check	<u>all that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tru Hy Ox Pru Re Th Ot	Je 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)	Roots (C3 bils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) 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 we	ll, 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-A18-73_PFO-1

Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test workshee	et:		
	% Cover	Species?	Status	Number of Dominant Spe	cies That	1	(A)
1				Are OBL, FACW, or FAC:	at Spacias		
2				Across All Strata:	it species	1	(B)
3				Percent of Dominant Spec	cies That		
4		<u> </u>		Are OBL, FACW, or FAC:		100	(A/B)
5		<u> </u>		Prevalence Index workshe	eet:		
6.				Total % Cover of:	•	Multiply I	<u>By:</u>
/		Tabal Cause		OBL species	0	x 1 =	0
	0	= lotal Cove	er o	FACW species	30	x 2 =	60
50% of total cover: <u> </u>	_ 20% of to	tal cover:	0	FAC species	5	x 3 =	15
<u>Sapiirig/Stirub Stratum</u> (Piot Size. <u>15</u>)				FACU species	0	x 4 =	0
1		·		UPL species	0	x 5 =	0
2.		·		Column Totals	35	(A)	75 (B)
		·		Prevalence Inde	x = B/A =	2.1	
4. 		·		Hydrophytic Vegetation In	ndicators:		
з. с		·		1- Rapid Test for Hyd	Jrophytic V	egetation/	
7		·		2 - Dominance Test i	s >50%		
8				3 - Prevalence Index	is ≤ 3.0 ¹		
o		·		4 - Morphological Ad	laptations	(Provide s	supporting
·		- Total Cove	r	data in Remarks or on a se	eparate sh	ieet)	
50% of total cover: 0	20% of tot	= Iotal Cove	0	Problematic Hydrop	hytic Vege	tation ¹ (Ex	plain)
Herb Stratum (Plot size: 5')	_ 20% 01 10	tai cover.		¹ Indicators of hydric soil a	ind wetlan	d hydrolog	gy must be
1 Carex tribuloides	30	Voc	FACW	present, unless disturbed	or proble	matic	
2 Microstagium vimineum	5		FAC	Definitions of Four Vegeta	ition Strata	a:	
		110	FAC			o · /7 /	
		·		Iree – Woody plants, exclu	uding vine	s, 3 in. (7.6	o cm) or more
4. 		·		in diameter at breast heig	,ווג (ספה), ו	egaluless	of fielgrit.
о				Sanling/shruh - Woody pl	ants exclu	ıding vines	s less than 3
7				in. DBH and greater than	or equal to	o 3.28 ft (1	m) tall.
8				0			
0				Herb – All herbaceous (no	on-woody)	plants, reg	ardless of
10				size, and woody plants les	ss than 3.2	8 ft tall.	
11							
	35	= Total Cove	r	Woody vines - All woody y	vines grea	ter than 3.	28 ft in
50% of total cover: 17.5	20% of tot	tal cover	7	height.	0.11		
Woody Vine Stratum (Plot size: 30')	_ 20 /0 01 00						
1.							
2.	·						
3.				Hydrophytic Vegetation P	Present?	⁄es ☑ No 🛛	
4.							
5.							
	0	= Total Cove	r				
50% of total cover: 0	20% of to	tal cover:	0				
Demarker (Include abote numbers berg or on a constant	to choot)						
Remarks: (include photo numbers here of on a separat	te sneet.)						
A positive indication of hydrophytic vegetation was obs	served (>50	% of domina	ant species i	indexed as OBL. FACW. or F	AC). Trees	are on ed	ge of swale.
, , , , , , , , , , , , , , , , , , , ,					-,		

SOIL

Sampling Point: W-A18-73_PFO-1

Profile De	escription: (Describe t	o the dep	th needed to docume	nt the i	indicator o	or confirm	the absenc	e of indicators.)	
Depth	Color (moist) % Color (moist) % Type1		1 2		Tarahama	Deveender			
(incres)		<u> </u>	Color (moist)	<u>%</u>	Iype'				Remarks
0 - 5	10YR 4/2	90	7.5YR 4/6	10	<u> </u>	M		Sandy Loam	
5 - 22	10YR 5/1	98	10YR 5/4	2	C	M		Sand	
		<u> </u>							
	-								
		·							
		. <u> </u>							
¹ Type: C =	Concentration, D = E	Depletion	, RM = Reduced Matrix	k, MS =	Masked S	and Grains	s. ² Locatio	on: PL = Pore Lining, M	= Matrix.
Hydric So	il Indicators:							Indicators for Proble	matic Hydric Soils ³ :
Histoso	l (A1)		Dark S	urface (S7)			2 Marala (440)	
Histic E	pipedon (A2)		Polyva	lue Belo	w Surface	(S8) (MLRA	147, 148)	2 cm Muck (ATU) ((MLRA 147)
_ Black H	istic (A3)		Thin D	ark Sur	face (S9) (N	/ILRA 147, 1	48)	Coast Prairie Red	ox (A16) (MLRA 147, 148)
_ Hydrog	en Sulfide (A4)		_ Loamy	Gleyed	Matrix (F2	2)		Piedmont Floodp	lain Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_∕ Deplet	ed Mati	rix (F3)			147)	
_ 2 cm M	uck (A10) (LRR N)		Redox	Dark Su	urface (F6)			Very Shallow Darl	k Surface (TF12)
_ Deplete	d Below Dark Surface ((A11)	_ Deplet	ed Dark	Surface (H	-/)		Other (Explain in	Remarks)
_ INICK D	ark Surface (ATZ)		Redox	Depres		(F12) (I DD		C)	
Sandy (Sloved Matrix (SA)	K IN, IVILKA	. 147, 140) ITOTI-WI	c Surfac	(E13) (M	(FIZ) (LKK	11, IVILKA 15 27)	⁹ ³ Indicators of hydrop	hytic vegetation and
Sandy F	Redox (S5)		Onbri Piedm	ont Flor	ndnlain Soi	LKA 130, 12 Is (F19) (MI	2) RA 148)	wetland hydrology m	nust be present, unless
Strippe	d Matrix (S6)		Red Pa	arent Ma	aterial (F21) (MI RA 12	7. 147)	disturbed or problen	natic.
Restrictiv	e Laver (if observed):					/	,		
	Type:		None			Hydric So	il Procont?		
	Denth (inches)					inguine 50	in resent.		
	Deptil (illelies).								
Remarks:									
A positive	indication of hydric s	soil was o	bserved. gravelly near	r bottoı	n of profi	e.			

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 Sout	thgate	City/Coun	ty: 5, Faucette, Alama	nce Sa	ampling Date:	2018-May-29		
Applicant/Owner: N	extEra			State	e: North Card	olina Sampling Point: W-	A18-73_UPL-1	
Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:								
Landform (hillslope, te	rrace, etc.):	Terrace	Local ı	elief (conca	ve, convex, no	one): Convex	Slope (%): 1 to 3	
Subregion (LRR or MLR	A): MLRA	A 136 of LRR P		Lat: 36.1	503887	Long: -79.4302572	Datum: WGS84	
Soil Map Unit Name:						NWI classificat	ion:	
Are climatic/hydrologic	conditions on	the site typical for	r this time of year?	Yes	🖌 No	(If no, explain in Remarks	5.)	
Are Vegetation,	Soil,	or Hydrology	significantly disturbed	l? Are	e "Normal Circ	cumstances" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology	naturally problematic	? (lfı	needed, expla	in any answers in Remarl	(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	e is required; check all t	that apply)	Secondary Indicators (minimum	of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True A Hydro Oxidiz Prese Recer Thin M Other agery (B7)	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 In Stunted or Stressed Plants (IC) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) EAC-Neutral Test (D5) 	Surface (B8) 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	iuge, 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-A18-73_UPL-1

· · ·	•					
<u>Tree Stratum</u> (Plot size: <u>30')</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:		
1 liziadandran tulinifara	% Cover	Species		Are OBL. FACW. or FAC:	0 (A))
		Yes	FACU	Total Number of Dominant Species		
2. <u>Nex opaca</u>		No	FACU	Across All Strata:	5 (B))
S. ALEI TUDIUIII	10		FAC	Percent of Dominant Species That	0 (4	
	10	NU	FACU	Are OBL, FACW, or FAC:	U (A	/В)
S				Prevalence Index worksheet:		
6				Total % Cover of:	<u>Multiply By:</u>	
7				OBL species 0	x 1 = 0	
	/5	= lotal Cov	er	FACW species 0	x 2 = 0	
50% of total cover: <u>37.5</u>	_20% of to	tal cover:	15	FAC species 10	x 3 =30	
Sapling/Shrub Stratum (Plot size:15')	10		FACU	FACU species 105	x 4 = 420)
1. Juniperus Virginiana	10	Yes	FACU	UPL species 0	x 5 = 0	
2.				Column Totals 115	(A) 450	(B)
3				Prevalence Index = B/A =	3.9	<u> </u>
4.				Hydrophytic Vegetation Indicators:		
5				1- Rapid Test for Hydrophytic \	egetation	
6				2 - Dominance Test is > 50%	6800000	
7				3 - Prevalence Index is < 3.01		
8				4 - Morphological Adaptations	(Provide suppor	ting
9				- data in Remarks or on a separate sh	(eet)	
	10	= Total Cov	er	Problematic Hydrophytic Vege	tation ¹ (Explain)	
50% of total cover: <u>5</u>	_20% of to	tal cover:	2	¹ Indicators of hydric soil and wetlan	d hydrology mus	t be
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbed or problem	natic	
1. Ligustrum sinense	15	Yes	FACU	Definitions of Four Vegetation Strata	a:	
2. <i>Lonicera japonica</i>	15	Yes	FACU	_		
3				Tree – Woody plants, excluding vine	s, 3 in. (7.6 cm) or	r more
4				in diameter at breast height (DBH),	egardless of heig	ght.
5						
6				Sapling/shrub – Woody plants, exclu	ding vines, less t	han 3
7				in. DBH and greater than or equal to	o 3.28 ft (1 m) tall	•
8						
9.				Herb – All herbaceous (non-woody)	plants, regardless	s of
10.				size, and woody plants less than 3.2	8 ft tall.	
11.				-		
	30	= Total Cov	er	Woody vines – All woody vines great	er 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.						
2.				-		
3.				Hydrophytic Vegetation Present?	′es 🗆 No 🗹	
4.						
5.				-		
	0	= Total Cov	er	-		
50% of total cover: 0	20% of to	tal cover:	0			
Remarks: (Include photo numbers here or on a separat	e sheet.)					
No positive indication of hydrophytic vegetation was a	sonied (+	50% of do	inant chaci	as indexed as EAC- as drive)		
	oserveu (≥		mant speci	es muezeu as FAC- UI UNED.		
Sampling Point: W-A18-73_UPL-1

Profile De Depth	scription: (Describe t Matrix	o the dept	h needed to docume Redox	ent the i c Featur	ndicator (es	or confir	m the absend	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 1	10YR 3/2	100						Silt Loam	
1 - 14	10YR 4/3	100						Silt Loam	
14 - 19	10YR 4/3	98	10YR 5/1	2		M		Sandy Loam	
19 - 24	7 5VR 3/1	95	7 5YR 4/6	5				Loamy Sand	
15 24	7.511(5)1		7.511(4/0					Louniy Sund	·
		· ·		·					
<u> </u>		· ·		·					
		· ·		·					
<u> </u>									
				·					
¹ Type: C =	Concentration, D = [Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Gra	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
_ Histoso	l (A1)		_ Dark S	Surface (S7)			2 cm Muck (A10) (N	/ILRA 147)
Histic Ep	bipedon (A2)		Polyva	alue Belo North Curre	w Surface	(S8) (ML	RA 147, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
- BIACK H	isuc (A3) en Sulfide (A4)			ark Suri A Gleved	Matrix (F2	VILKA 147	, 148)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Lavers (A5)		Louing Deple	ted Matr	ix (F3)	-)		147)	
2 cm Mi	uck (A10) (LRR N)		Redox	Dark Su	irface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface	(A11)	_ Deple	ted Dark	Surface (I	F7)		Other (Explain in R	emarks)
Thick Da	ark Surface (A12)		Redox	Depres	sions (F8)				
Sandy N	Aucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-N	langane	se Masses	(F12) (LF	R N, MLRA 13	6)₃Indicators of hydroph	ytic vegetation and
Sandy G	edox (S5)		Umbr Piedm	ic Surfac	e (F13) (M dolain Soi	LKA 136,	122) MIRA 148)	wetland hydrology mu	ist be present, unless
Stripped	d Matrix (S6)		Red Pa	arent Ma	aterial (F21) (MLRA	127. 147)	disturbed or problema	atic.
Restrictive	e Laver (if observed):								
Reserver	Type [.]		None			Hydric	Soil Procont?		
	Denth (inches):		None	-		inyunc	Jui Fresent:		
	Depth (inches).								
Remarks:									
No positiv	e indication of hydri	soils was	observed.						

Photo of Sample Plot North



Photo of Sample Plot South

Project/Site: MVP Sou	thgate	City/County:	Burlington, Alamance	Sampling Dat	e: 2018-May-29				
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W	-A18-74_PFO-1			
Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:									
Landform (hillslope, te	rrace, etc.):	Back slope	Local relie	f (concave, convex,	none): Concave	Slope (%): 0 to 1			
Subregion (LRR or MLF	RA): MLRA	A 136 of LRR P	Li	at: 36.1499055	Long: -79.4292552	Datum: WGS84			
Soil Map Unit Name:					NWI classificat	tion:			
Are climatic/hydrologic	c conditions or	the site typical for t	his 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 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? 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 pr	resent.	

Wetland Hydrology Indicators:					
Primary Indicators (minimum of or	<u>ie is required; check a</u>	ll that apply)		Secondary Indicators (minimum of two required)	
✓ Surface Water (A1) True Aquatic Plants (B14) ✓ 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) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) 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) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	
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	y is met.				

Sampling Point: W-A18-74_PFO-1

	-						
<u>Tree Stratum</u> (Plot size: <u>30')</u>	Absolute % Cover	Dominant	Indicator Status	Dominance Test worksheet:			
1 Acer ruhrum	10	Voc	EAC	Are OBL, FACW, or FAC:	4	(A)	
2.	10	105	TAC	Total Number of Dominant Species Across All Strata:	4	(B)	
3 4.		·		Percent of Dominant Species That	100	(A/B)	
5.	·	·		Are OBL, FACW, or FAC:			
6.	·	·		Prevalence Index worksheet:			
7.				Total % Cover of:	Multiply B	<u>y:</u>	
···	10	= Total Cov	er	OBL species 5	x 1 =	5	
50% of total cover: 5	20% of to	tal cover	2	FACW species 0	x 2 =	0	
Sanling/Shrub Stratum (Plot size: 15')	_ 20 /0 01 00			FAC species 30	x 3 =	90	
1. Acer rubrum	15	Yes	FAC	FACU species 0	x 4 =	0	
2				UPL species 0	x 5 =	0	
2	·	·		Column Totals 35	(A)	95 (B)	
J	·			Prevalence Index = B/A =	2.7		
4.	·	·		Hydrophytic Vegetation Indicators:			
5.	·			1- Rapid Test for Hydrophytic	Vegetation		
6.				✓ 2 - Dominance Test is >50%	0		
7	·			\checkmark 3 - Prevalence Index is $\leq 3.0^{1}$			
8				4 - Morphological Adaptations	¹ (Provide s	upporting	
9				data in Remarks or on a separate sl	heet)		
	15	= Total Cov	er	Problematic Hydrophytic Vege	etation ¹ (Exp	lain)	
50% of total cover: <u>7.5</u>	_20% of to	tal cover:	3	¹ Indicators of hydric soil and wetlar	id hydrolog	y must be	
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbed or proble	matic		
1. <i>Campsis radicans</i>	5	Yes	FAC	Definitions of Four Vegetation Strat	a:		
2. <i>Glyceria striata</i>	5	Yes	OBL				
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.		·			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 r	n) tall.	
8	·			-			
0	·	·		Herb – All herbaceous (non-woody)	plants, rega	ardless of	
10	·	<u> </u>		size, and woody plants less than 3.2	28 ft tall.		
	·						
11					****	0.4+:	
	10	= lotal Cov	er	woody vines – All woody vines grea	iter than 3.2	8 IL IN	
50% of total cover: <u>5</u>	_20% of to	tal cover:	2	neight.			
<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:	00				
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).							

Sampling Point: W-A18-74_PFO-1

Profile De	escription: (Describe to	o the dep	th needed to docume	ent the i	ndicator	or confirr	n the absend	ce of indicators.)	
Depth			Redox	K Feature	es				
(inches)		<u>%</u>	Color (moist)	%	Туреч	LOC ²		lexture	Remarks
0 - 1	10YR 3/2	100						Silt Loam	
1-6	10YR 5/1	90	7.5YR 5/8	10	<u> </u>	M	5	ilty Clay Loam	
6 - 16	2.5Y 6/4	70	10YR 5/8	20	C	M		Loamy Sand	
6 - 16			2.5Y 5/1	10	D	Μ			
¹ Type: C =	= Concentration, D = D	epletion,	RM = Reduced Matri	x, MS =	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric Sc	il Indicators:	•						Indicators for Problem	atic Hydric Soils ³ :
_ Histoso	l (A1)		_ Dark S	Surface (S	S7)			2 cm Muck (A10) (A	- /I DA 1/7)
Histic E	pipedon (A2)		Polyva	alue Belo	w Surface	(S8) (MLI	RA 147, 148)	2 Chi Muck (ATO) (N	$((\Lambda 16) (M) DA 1/7 1/8)$
Black H	istic (A3)		Thin D	Dark Surf	ace (S9) (N	MLRA 147	, 148)	Coast Fraine Reub	in Soile (E10) (MI DA 126
Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)		Fleamont Flooupia	
2 cm M	uck (A10) (I RR N)		Depie Redox	(Dark Su	ix (F3) irface (F6)			Very Shallow Dark	Surface (TE12)
Deplete	ed Below Dark Surface (/	A11)	Redux	ted Dark	Surface (I	F7)		Other (Explain in Re	emarks)
Thick D	ark Surface (A12)	,	Redox	Depress	sions (F8)	,			
Sandy I	Mucky Mineral (S1) (LRR	N, MLRA	147, 148) Iron-N	langane	se Masses	(F12) (LR	R N, MLRA 13	6) _{3Indicators of hydroph}	vtic vegetation and
Sandy (Gleyed Matrix (S4)		Umbr	ic Surfac	e (F13) (M	LRA 136,	122)	wetland hydrology mu	st be present, unless
_ Sandy I	Redox (S5)		Piedm	iont Floo	dplain Soi	IIS (F19) (N	/LRA 148)	disturbed or problema	atic.
Destriction					1101101 (1 2 1		27, 147)		
Restrictiv	Turpol		Nana						
	Type.		None			Hydric	oil Present?		Yes ⊠ No ⊔
	Depth (inches):								
Remarks									
A positive	e indication of hydric s	oil was o	bserved.						

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	Burlington, Alamanc	e Sampling Da	ate: 2018-May-30				
Applicant/Owner: N	extEra			State: North C	Carolina Sampling Point: M	/-A18-74_UPL-1			
Investigator(s): Laura Giese, Jeff Vandeveer, Nate Renaudin Section, Township, Range:									
Landform (hillslope, te	rrace, etc.):	Back slope	Local rel	ief (concave, convex	, none): Convex	Slope (%): 2 to 5			
Subregion (LRR or MLR	RA): MLRA	136 of LRR P		Lat: 36.150017	Long: -79.4293945	Datum: WGS84			
Soil Map Unit Name:					NWI classifica	tion:			
Are climatic/hydrologic	conditions on	the site typical for t	this time of year?	Yes 🟒 No _	(If no, explain in Remark	<s.)< td=""></s.)<>			
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal	Circumstances" present?	Yes 🟒 No			
Are Vegetation,	Soil,	or Hydrology n	naturally 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?	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	<u>that apply)</u>	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydr Oxidi Prese Recei Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D1 Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	urface (B8) Hagery (C9) I)	
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.				

Sampling Point: W-A18-74_UPL-1

	•								
<u>Tree Stratum</u> (Plot size: <u>30')</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:					
1 ///mus americana	% Cover	Species:		Are OBL, FACW, or FAC:	2	(A)			
2. Quercus phellos	10	Yes	FACT	Total Number of Dominant Species	6	(B)			
3	·	·		Percent of Dominant Species That					
4.		·		Are OBL, FACW, or FAC:	33.3	(A/B)			
5.	·	<u> </u>		Prevalence Index worksheet:					
6.	·			Total % Cover of:	<u>Multiply B</u>	<u>By:</u>			
7		Tabal Car		OBL species 5	x 1 =	5			
	30	= lotal Cove	er	FACW species 20	x 2 =	40			
50% of total cover: <u>15</u>	_20% of to	otal cover:	6	FAC species 15	x 3 =	45			
<u>Sapiing/Shrub Stratum</u> (Piot Size: <u>15</u>)				FACU species 45	x 4 =	180			
1	·			UPL species 0	x 5 =	0			
2.	· <u></u>			Column Totals 85	(A)	270 (B)			
3.	· <u></u>			Prevalence Index = B/A =	3.2				
4	·			Hydrophytic Vegetation Indicators:					
S	·			1- Rapid Test for Hydrophytic	Vegetation				
o	·			2 - Dominance Test is > 50%	-				
7	·			3 - Prevalence Index is ≤ 3.0^{1}					
8	·			4 - Morphological Adaptations	s¹ (Provide s	upporting			
9	·			data in Remarks or on a separate s	heet)				
	0	= lotal Cove	er	Problematic Hydrophytic Vege	etation ¹ (Exp	olain)			
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	¹ Indicators of hydric soil and wetlar	าd hydrolog	y must be			
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbed or proble	matic				
1. <u>Rosa multiflora</u>	15	Yes	FACU	Definitions of Four Vegetation Strat	a:				
2. Juniperus virginiana	10	Yes	FACU						
3. Ligustrum sinense	10	Yes	FACU	_ Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more					
4. <i>Lonicera japonica</i>	10	Yes	FACU	in diameter at breast height (DBH),	regardless	of height.			
5. <u>Rubus idaeus</u>	5	No	FAC						
6. <i>Glyceria striata</i>	5	No	OBL	Sapling/shrub – Woody plants, excl	uding vines,	, less than 3			
7				In. DBH and greater than or equal t	.0 3.28 ft (1 i	m) tall.			
8									
9				Herb – All herbaceous (hon-woody)	piants, rega 28 ft tall	ardless of			
10	·				10 It tall.				
11	. <u></u>								
	55	= Total Cove	er	Woody vines – All woody vines grea	iter than 3.2	28 ft in			
50% of total cover: <u>27.5</u>	_20% of to	tal cover:	11	height.					
Woody Vine Stratum (Plot size: <u>30'</u>)									
1	. <u></u>								
2	. <u></u>								
3	. <u></u>			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 separat	t e sheet.) oserved (≥	50% of dom	inant specie	es indexed as FAC– or drier).					

Sampling Point: W-A18-74_UPL-1

Profile D	escription: (Describe to	o the dept	h needed to docume	nt the i	ndicator	or confiri	m the absence	e of indicators.)	
Depui	Midul IX		Color (monist)	reatur	True e1	1 2		Tauduura	Demerika
(incres)		<u> </u>	Color (moist)	90	Туре	LOC		Cilt La sua	Remarks
0-3	10YR 3/2	100						Slit Loam	
3 - 15	2.57 5/3	93	10YR 5/8	5	<u> </u>	M	l	Loamy Sand	
3 - 15		·	2.5Y 6/1	2					·
					·				
		· ·							
¹ Type: C	= Concentration, D = D	Depletion,	RM = Reduced Matrix	, MS =	Masked S	and Grai	ns. ² Locatio	n: PL = Pore Lining, M =	Matrix.
Hydric So	oil Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histoso	bl (A1)		Dark S	urface (S7)				
Histic E	pipedon (A2)		Polyva	lue Belo	w Surface	(S8) (ML	RA 147, 148)	2 cm Muck (A10) (N	/ILRA 147)
Black H	listic (A3)		Thin D	ark Surf	ace (S9) (MLRA 147	, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		_ Loamy	Gleyed	Matrix (F2	2)		Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		_ Deplet	ed Matr	ix (F3)			147)	
_ 2 cm M	uck (A10) (LRR N)		Redox	Dark Su	irface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface (A11)	_ Deplet	ed Dark	Surface (l	F7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redox	Depres	sions (F8)			-	
_ Sandy	Mucky Mineral (S1) (LRI	R N, MLRA 1	147, 148) Iron-M	angane	se Masses	5 (F12) (LR	R N, MLRA 136	⁵⁾ 3Indicators of hydroph	ytic vegetation and
Sandy	Gleyed Matrix (S4)		Umbri	c Surfac	e (F13) (M Idealaine Cai	ILRA 136,	122)	wetland hydrology mu	ist be present, unless
Sandy	Redox (SS)		_ Pleam	ont Floo	apiain Sol	IIS (FI9) (F	VILKA 148)	disturbed or problema	atic.
					iteriai (FZ)		127, 147)	•	
Restrictiv	e Layer (if observed):		Nama						
	Type:		None			Hydric	soil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks	:								
No positi	ve indication of hvdrid	soils was	observed.						
	,								

Photo of Sample Plot South



Photo of Sample Plot West

Project/Site: MVP Sout	thgate	City/Count	ty: Burlington, Alamar	nce	Sampling Da	te: 2018-May-30		
Applicant/Owner: N	extEra				State: North C	arolina Sampling Point: W	-A18-80_PEM-1	
Investigator(s): Laura Giese, Jeff Vandeveer, Nate Renaudin Section, Township, Range:								
Landform (hillslope, te	rrace, etc.):	Back slope	Local r	Local relief (concave, convex, none): Concave Slope				
Subregion (LRR or MLR	A): MLR	A 136 of LRR P		Lat:	36.1495604	Long: -79.4268542	Datum: WGS84	
Soil Map Unit Name:	Helena Sand	y loam, 6-10 perce	nt slopes (HeC)			NWI classificat	tion:	
Are climatic/hydrologic	conditions or	the site typical for	r this time of year?		Yes 🟒 No 🔄	(If no, explain in Remark	s.)	
Are Vegetation,	Soil,	or Hydrology	significantly disturbed	?	Are "Normal C	Circumstances" present?	Yes No 🟒	
Are Vegetation,	Soil,	or Hydrology	naturally 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?	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 wet vegetation. appears cultivated for hay.	land parameters are presen	t. Circumstances are not normal due to mowing of	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) 	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) Imagery (B7)			 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Aquatic Fauna (B13)				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 g	auge, monitoring well, aer	rial photos, previous inspe	ections), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met.			

Sampling Point: W-A18-80_PEM-1

	-					
Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	2	(A)
1				Are OBL, FACW, or FAC:		
2	·			Across All Strata:	, 3	(B)
4.				Percent of Dominant Species That	66.7	(A/B)
5.				Are OBL, FACW, or FAC:		
6.				Total & Cover of	Multichy D	
7.				OBL species 20	<u>iviuiupiy b</u>	y. 20
	0	= Total Cove	er	EACW species 30	×1-	50
50% of total cover: <u>0</u>	20% of to	tal cover:	0	FAC species 25	. x 2 =	50
Sapling/Shrub Stratum (Plot size:15')				FAC species 0	- x 3 =	0
1.				FACU species 30	× 4 =	120
2.				UPL species 0	x 5 =	0
3.	·			Column lotals 85	(A)	200 (B)
4.	- <u> </u>			Prevalence Index = B/A =	2.4	
5.				Hydrophytic Vegetation Indicators		
б. 	·			1- Rapid Test for Hydrophytic	Vegetation	
7	·			2 - Dominance Test is >50%		
, 8	·			$_ ▲ 3$ - Prevalence Index is $\le 3.0^1$		
o	·	<u> </u>		4 - Morphological Adaptation	s¹ (Provide si	upporting
^{3.}		- Total Cov		data in Remarks or on a separate s	heet)	
	0			Problematic Hydrophytic Veg	etation ¹ (Exp	olain)
50% of total cover: <u>0</u>	_ 20% 01 to	cover:		¹ Indicators of hydric soil and wetla	nd hydrology	y must be
Herb Stratum (Plot size: <u>5</u>)	20			present, unless disturbed or proble	ematic	
1. Carex crinita	30	Yes	OBL	Definitions of Four Vegetation Stra	ta:	
2. Iritolium repens	30	Yes	FACU			
3. Juncus effusus	20	Yes	FACW	Tree – Woody plants, excluding vin	es, 3 in. (7.6	cm) or more
4. <u>Carex scoparia</u>	5	No	FACW	in diameter at breast height (DBH)	, regardless o	of height.
5						
6	<u> </u>			Sapling/shrub – Woody plants, exc	luding vines,	less than 3
7	<u> </u>			In. DBH and greater than or equal	to 3.28 ft (1 r	m) tall.
8						
9				Herb – All nerbaceous (non-woody) plants, rega	ardless of
10	<u> </u>			size, and woody plants less than 5.	20 IT tall.	
11						
	85	= Total Cove	er	Woody vines – All woody vines gre	ater than 3.2	8 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 Present?	Yes 🗹 No 🗆	
4.						
5.						
	0	= Total Cove	er			
50% of total cover:0	20% of to	tal cover:	0			
Demostra (Include abote sumbars bars bars	to chert'			1		
Remarks: (Include photo numbers here or on a separa	te sneet.)					
A positive indication of hydrophytic version was the	anuad (SEC	104 of dom:-	antenacies	indexed as OPL EACIN as EAC)		
A positive indication of hydrophytic vegetation was ob	servea (>50	170 OI domin	ant species	indexed as OBL, FACW, of FAC).		

Sampling Point: W-A18-80_PEM-1

Profile De Depth	escription: (Describe to Matrix	o the dep	th needed to docume Redox	nt the i Featur	ndicator (or confirm	the absen	ce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	L OC ²		Texture	Remarks
0 - 2	10YB 3/2	100			<u></u>			Silt Loam	Kernarko
2 . 1/	2 5V 6/1	95	7 5VR 5/8	5				Loamy Sand	
14 20	2.51 0/1		10VD E/6		<u> </u>			Loamy Sand	
14 - 20	2.51 0/1	95	1018 5/6	2	<u> </u>				
									. <u> </u>
¹ Type: C =	= Concentration, D = D	epletion,	RM = Reduced Matrix	k, MS =	Masked S	Sand Grain	s. ² Locati	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problema	atic Hydric Soils³:
_ Histoso	ol (A1)		Dark S	urface (S7)			2 cm Muck (A10) (M	II RA 147)
Histic E	pipedon (A2)		Polyva	lue Belo	w Surface	e (S8) (MLR	A 147, 148)	Coast Prairie Redox	(A16) (MI RA 147, 148)
Black H	istic (A3)		Thin D	ark Surf	ace (S9) (I	MLRA 147,	148)	Piedmont Floodplai	n Soils (F19) (MI RA 136 .
Hydrog	en Suitide (A4)		Loamy	od Matr	Watrix (F2	2)		147)	(inclut 130,
2 cm M	uck (A10) (LRR N)		Depiet	Dark Su	urface (F6)			Very Shallow Dark S	Surface (TF12)
Deplete	ed Below Dark Surface (A11)	_ Deplet	ed Dark	Surface (I	F7)		Other (Explain in Re	emarks)
Thick D	ark Surface (A12)		Redox	Depres	sions (F8)				
Sandy M	Mucky Mineral (S1) (LRF	R N, MLRA	147, 148) Iron-M	angane	se Masses	s (F12) (LRR	N, MLRA 13	³⁶⁾ ₃ Indicators of hydrophy	tic vegetation and
Sandy (Gleyed Matrix (S4)		Umbri	c Surfac	e (F13) (M	ILRA 136, 1	22)	wetland hydrology mu	st be present, unless
_ Sandy H	Redox (S5) d Matrix (S6)		Piedm	ont Floo	apiain Sol	IIS (F19) (MI 1) (MI DA 1	LRA 148) 27 147)	disturbed or problema	tic.
					ateriai (i z i		27, 147)		
Restrictiv	e Layer (if observed):		News						
	Type:		None			Hydric So	oil Present?		Yes 🗹 No 🗆
	Depth (inches):								
Remarks:	:								
A positive	e indication of hvdric s	oil was ol	oserved.						
	5								



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/Count	ty: Burlington, Alamand	e Sampling Da	te: 2018-May-30	
Applicant/Owner: N	lextEra			State: North C	arolina Sampling Point: <u>W</u>	/-A18-80_UPL-1
Investigator(s): Laur	a Giese, Jeff Va	andeveer, Nate Ren	naudin S	Section, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Back slope	Local re	lief (concave, convex,	none): Convex	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLR/	A 136 of LRR P		Lat: 36.1495948	Long: -79.4271155	Datum: WGS84
Soil Map Unit Name:	Helena Sand	y loam, 6-10 percei	nt slopes (HeC)		NWI classifica	tion:
Are climatic/hydrologic	c conditions or	n the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	<s.)< td=""></s.)<>
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Normal O	Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally 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?	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	<u>call that apply)</u>	Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tr H O Pi R Tl O	rue Aquatic Plants (B14) lydrogen Sulfide Odor (C1) ixidized Rhizospheres on Living Root resence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soils (C hin Muck Surface (C7) ither (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) EAC-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):	
(includes capillary fringe)			
Describe Recorded Data (stream ga	auge, monitoring we	ell, aerial photos, previous inspectior	ıs), if available:
Remarks:			
The criterion for wetland hydrology	/ is not met. Water a	at 9" in borehole from surface due to	heavy rains

Sampling Point: W-A18-80_UPL-1

Tree Stratum (Plot size: 20)	Absolute	e Dominant	Indicator	Dominance Test worksheet:		
<u>Thee stratum</u> (Plot size. <u>50</u>)	% Cover	Species?	Status	Number of Dominant Species That	0	(A)
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Species	2	(B)
3				Across All Strata:		
4.				Percent of Dominant Species That	0	(A/B)
5.				Are OBL, FACW, of FAC.		
6.				Total % Cover of	Multiplu	D. #
7.				OBL species	<u>wuupy</u>	<u>ру.</u>
	0	= Total Cov	er		x I -	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:15')				FAC species 10	x 3 =	30
1.				FACU species /0	x 4 =	280
2.				UPL species 0	x 5 =	0
3.				Column Totals 80	(A)	310 (B)
4.				Prevalence Index = B/A =	3.9	
5.				Hydrophytic Vegetation Indicators:		
6				1- Rapid Test for Hydrophytic	Vegetatio	٦
7				2 - Dominance Test is > 50%		
2 · · · · · · · · · · · · · · · · · · ·				3 - Prevalence Index is ≤ 3.0^{1}		
0				4 - Morphological Adaptations	¹ (Provide	supporting
·····		- Total Cov		data in Remarks or on a separate sl	heet)	
	2004 after		er	Problematic Hydrophytic Vege	etation ¹ (E	xplain)
50% of total cover: <u>0</u>	_ 20% 01 to	otal cover:	0	¹ Indicators of hydric soil and wetlar	nd hydrolo	ogy must be
Herb Stratum (Plot Size:)	45	Vee	FACU	present, unless disturbed or proble	matic	
1. Festuca rubra	45	Yes	FACU	Definitions of Four Vegetation Strat	a:	
		Yes	FACU			
3. <u>Campsis radicans</u>	10	No	FAC	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, exclu	uding vine	es, less than 3
7				In. DBH and greater than or equal t	ο 3.28 π (i m) tall.
8					plants re	gardlace of
9				size and woody plants less than 3	piants, re 28 ft tall	igar diess of
10					20 11 1411.	
11						
	80	= Total Cov	er	Woody vines – All woody vines grea	iter than 3	8.28 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	\checkmark
4.						
5.						
	0	= Total Cov	er			
50% of total cover: <u>0</u>	20% of to	otal cover:	0			
	40 ob 0 ob)					
Remarks: (Include photo numbers here or on a separa	te sneet.)					
	haave vaal (>	FOO(of down		es indexed on FAC an duisy)		
No positive indication of hydrophytic vegetation was o	nzervea (≥	2010 IO 2017	mant specie	es muexeu as FAC- or drier).		

Sampling Point: W-A18-80_UPL-1

Profile De	escription: (Describe to	o the dep	th needed to docum	ent the i	indicator (or confiri	n the absen	ce of indicators.)	
(inchoc)	MidUIX	04	Color (moist)		Turnel	1.0.02		Touturo	Domorka
(incries)		<u> </u>						Candul care	
0-3	10YR 3/2	80	10YR 6/3	- 18	<u> </u>			Sandy Loam	
0-3	2 51/ 6/2		10YR 5/8		<u> </u>			La anna Canad	
3 - 19	2.54 6/3	95	10YR 4/6	5	<u> </u>	IVI		Loamy Sand	
·					·				
						·			<u></u>
									·
									·
¹ Type: C =	Concentration, D = D	epletion,	RM = Reduced Matr	ix, MS =	Masked S	and Grai	ns. ² Locati	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
_ Histoso	l (A1)		_ Dark	Surface (S7)	(20) (14)		2 cm Muck (A10) (N	/ILRA 147)
Histic E	oipedon (A2)		Polyv	alue Belo	w Surface	(S8) (ML	RA 147, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
- BIACK H Hydrog	istic (A3) en Sulfide (A4)		_ IIIII Loam	Dark Suri w Gleved	Matrix (F2	VILKA 147	, 148)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		Deple	eted Matr	fix (F3)	-)		147)	
2 cm M	uck (A10) (LRR N)		Redo	x Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (/	A11)	_ Deple	eted Dark	Surface (l	F7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redo	x Depres	sions (F8)	(510) (10			
Sandy N	lucky Mineral (ST) (LRR Leved Matrix (S4)	N, MIRA	147, 148) Iron-	viangane ric Surfac	se Masses	(FIZ) (LR	R N, MLRA 13 122)	³⁶⁾ ³ Indicators of hydroph	ytic vegetation and
Sandy G	edox (S5)		Onio Piedr	nont Floo	dolain Soi	ils (F19) (122) VILRA 148)	wetland hydrology mu	ist be present, unless
Stripped	d Matrix (S6)		Red F	Parent Ma	aterial (F21) (MLRA	127, 147)	disturbed or problema	atic.
Restrictiv	e Layer (if observed):								
	Туре:		None	_		Hydric S	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):			_					
Remarks:									
No positiv	ve indication of hydric	soils was	s observed.						
	,								

Photo of Sample Plot North



Photo of Sample Plot West

Project/Site: MVP Sou	thgate	City/Coun	ty: Burlington, Alamand	se Sampling Da	te: 2018-May-30	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: V	V-A18-81_PEM-1
Investigator(s): Laur	a Giese, Jeff Va	andeveer, Nate Rei	naudin	Section, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Back slope	Local re	lief (concave, convex,	none): Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.1493418	Long: -79.4263698	Datum: WGS84
Soil Map Unit Name:	Helena Sand	ly loam, 2-6 percen	it slopes (HeB)		NWI classifica	ation:
Are climatic/hydrologic	c conditions or	n the site typical fo	r this time of year?	Yes 🟒 No 🔄	(If no, explain in Remar	ks.)
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Normal C	Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	_naturally problematic?	(If needed, exp	olain 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 🖌 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	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tru Hy Ox Pre Th Oti	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)	Roots (C3) bils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) 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 wel	ll, aerial photos, previous inspe	ections), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met.			

Sampling Point: W-A18-81_PEM-1

Tree Stratum (Plot size: 20')	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Thee Stratum</u> (Plot Size. <u>50</u>)	% Cover	Species?	Status	Number of Dominant Species That	3 (^)	
1.				Are OBL, FACW, or FAC:	J (A)	
2.				Total Number of Dominant Species	3 (B)	`
3				Across All Strata:	3 (B))
				Percent of Dominant Species That	100 (A)	(D)
+				Are OBL, FACW, or FAC:	100 (A/	D)
5.				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply By:	
7				OBL species 30	x 1 = 30	
	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 30	x 3 = 90	
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				EACLI species 10	× 4 = 40	
1.					x 4 - <u>40</u>	
2.					x 5 = <u>0</u>	
3.				Column lotals 100	(A) 220	(B)
4				Prevalence Index = B/A =	2.2	
5				Hydrophytic Vegetation Indicators:		
				1- Rapid Test for Hydrophytic	Vegetation	
0		<u> </u>		2 - Dominance Test is >50%		
/				\checkmark 3 - Prevalence Index is $\leq 3.0^{1}$		
8				4 - Morphological Adaptations	¹ (Provide support	ting
9				data in Remarks or on a separate s	heet)	
	0	= Total Cov	er	Problematic Hydrophytic Vege	tation ¹ (Explain)	
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	Indicators of hydric soil and wetlar	nd hydrology must	he
Herb Stratum (Plot size: <u>5'</u>)				present unless disturbed or proble	matic	
1. Carex stipata	20	Yes	OBL	Definitions of Four Vegetation Strat		
2 Juncus effusus	20	Yes	FACW	Demnitions of Four Vegetation Strat	a.	
3 Holcus lanatus	20	Ves	FAC	Tree Minerhumberte eveluting vin		
A Corex lurida	10	No		in diameter at breast bright (DDU)	S, 3 In. (7.6 cm) or	more
	10	<u> </u>		in diameter at breast height (DBH),	regardless of neig	snt.
5. Leersia virginica	10	NO	FACW	·		
6. <u>Acer rubrum</u>	10	No	FAC	Sapling/shrub – Woody plants, excl	Jding vines, less th	nan 3
7. <i>Lonicera japonica</i>	10	No	FACU	In. DBH and greater than or equal t	o 3.28 ft (1 m) tall.	
8	. <u> </u>					_
9			_	Herb – All herbaceous (non-woody)	plants, regardless	s of
10.				size, and woody plants less than 3.2	28 ft tall.	
11.				·		
	100	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 ft in	
50% of total cover: 50	20% of to		20	height.		
Weady Vine Stratum (Blot size: 20')	_ 20 % 01 10	cover.	20			
··		·		·		
<u></u>		·······		-		
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 consta	to choot)					
Remarks: (include photo numbers here or on a separa	te sneet.)					
A positive indication of hydrophytic vegetation was ob	served (>50	0% of domin	ant species	indexed as OBL, FACW, or FAC).		

Sampling Point: W-A18-81_PEM-1

Profile De	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
(inchoc)	MidUIX	04	Color (moist)		Turn of	1.0.62	Touturo	Domarka			
(incres)		<u> </u>	Color (moist)	90	Туре	LOC ²		Remarks			
0-1	10YR 3/2	100					Slit Loam				
1-6	2.57 5/1	95	10YR 5/8	5	<u> </u>	M	Loamy Sand				
6 - 18	2.5Y 6/1	70	10YR 5/8	30	C	M	Loamy Sand				
¹ Type: C =	Concentration, D = [Depletion,	RM = Reduced Matri	x, MS = I	Masked S	and Gra	ns. ² Location: PL = Pore Lining, M	= Matrix.			
Hydric So	il Indicators:						Indicators for Probler	natic Hydric Soils ³ :			
Histoso	l (A1)		Dark S	Surface (S	57)						
Histic E	pipedon (A2)		Polyva	alue Belo	w Surface	(S8) (ML	RA 147, 148) — 2 cm Muck (A10) (MLRA 147)			
Black H	istic (A3)		Thin D	ark Surf	ace (S9) (N	MLRA 147	, 148) — Coast Prairie Redo	DX (A16) (MILKA 147, 148)			
Hydrog	en Sulfide (A4)		Loamy	/ Gleyed	Matrix (F2	2)	Piedmont Floodpi	ain Soils (F19) (MLRA 136,			
Stratifie	d Layers (A5)		_ Deplet	ted Matr	ix (F3)		147)	Curfe en (TE12)			
_ 2 CM M	uck (ATU) (LKK N) Id Below Dark Surface ((411)	Redox	Dark Su	Surface (F6)	=7)	Very Shallow Dark	Surface (TFTZ)			
Depicte Thick D	ark Surface (A12)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Depict Redox	Depress	sions (F8)	/)	Other (Explain In F	(emarks)			
Sandy M	/lucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-M	langanes	se Masses	(F12) (LF	R N, MLRA 136) and isotors of budron	butic vogatation and			
Sandy O	Gleyed Matrix (S4)		Umbri	ic Surface	e (F13) (M	LRA 136,	122) wetland bydrology m	ust be present upless			
Sandy F	Redox (S5)		Piedm	iont Floo	dplain So	ls (F19) (MLRA 148) disturbed or problem	atic			
Strippe	d Matrix (S6)		Red Pa	arent Ma	iterial (F21) (MLRA	127, 147) additional of problem				
Restrictiv	e Layer (if observed):										
	Туре:		None			Hydric	Soil Present?	Yes 🗹 No 🗆			
	Depth (inches):										
Remarks:											
The criter	ion for hydric soil is r	not									
The criter	Ion for hydric soli is i	net.									

Photo of Sample Plot North



Photo of Sample Plot East

Photo of Sample Plot South



Photo of Sample Plot West



Project/Site: MVP Southgate City/County: Burlington, Alamance Sampling Date: 2018-May-30						
Applicant/Owner: N	lextEra			State: North C	arolina Sampling Point: V	V-A18-81_UPL-1
Investigator(s): Laur	a Giese, Jeff Va	andeveer, Nate Rei	naudin S	Section, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Back slope	Local re	lief (concave, convex,	none): Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.1491834	Long: -79.4264499	Datum: WGS84
Soil Map Unit Name:	Helena Sand	ly loam, 2-6 percer	nt slopes (HeB)		NWI classifica	ation:
Are climatic/hydrologic	c conditions or	n the site typical fo	r this time of year?	Yes 🟒 No 🔄	(If no, explain in Remar	ks.)
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Normal C	Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	_ naturally problematic?	(If needed, ex	olain 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 No _ _ Yes _ No _ Yes No _ _	Is the Sampled Area within a Wetland?	Yes No⁄_
Remarks:			
Covertype is UPL. Area is upland based on abs	ence of hydrophytic plant	community and wetland hydrology .	

Wetland Hydrology Indicators:					
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True . Hydro Oxidi Prese Recei Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 11)	
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	aerial photos, previous inspections), if	available:		
Remarks:					
The criterion for wetland hydrology	is not met.				

Sampling Point: W-A18-81_UPL-1

Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test workshee	et:		
	% Cover	Species?	Status	Number of Dominant Spec	cies That	1	(A)
1				Are OBL, FACW, or FAC:			
2				Total Number of Dominan Across All Strata:	t Species	3	(B)
4	·	·		Percent of Dominant Spec	ies That	33.3	(A/B)
5				Prevalence Index workshe	ot:		
6				Total % Cover of	el.	Multiply	Bv:
7				OBL species	0	v 1 =	- <u>-y-</u> 0
	0	= Total Cov	er	EACW species	10	× 7 -	20
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0		16	×2- ×2-	15
Sapling/Shrub Stratum (Plot size: <u>15'</u>)					15	× 3	43
1					50	x 4	200
2.				Calumara Tatala	0	× 5 =	0
3.					/5	(A)	265 (B)
4.				Prevalence Index	x = B/A =	3.5	
5.				Hydrophytic Vegetation In	dicators:		
6.	·			1- Rapid Test for Hyd	rophytic V	egetation/	
7.				2 - Dominance Test is	s > 50%		
8	·			3 - Prevalence Index	is ≤ 3.01		
Q	·			4 - Morphological Ad	aptations	(Provide s	supporting
J		- Total Cov	or	data in Remarks or on a se	eparate sh	ieet)	
E0% of total covor: 0	20% of to		0	Problematic Hydroph	nytic Vege	tation ¹ (Ex	plain)
Solv of total cover	_ 20% 01 10	Juli Cover.		¹ Indicators of hydric soil a	nd wetlan	d hydrolog	gy must be
<u>Herb Stratum</u> (Flot size. <u>5</u>)	25	Voc	EACU	present, unless disturbed	or problei	matic	
	25	Yee .	FACU	Definitions of Four Vegeta	tion Strata	ə:	
		<u>res</u>	FACU				
3. Holcus lanatus	15	Yes	FAC	Tree – Woody plants, exclu	iding vine	s, 3 in. (7.6	cm) or more
4. Juncus effusus		No	FACW	in diameter at breast heig	ht (DBH), i	regardless	of height.
5. <i>Fraxinus pennsylvanica</i>	5	No	FACW				
6				Sapling/shrub – Woody pla	ants, exclu	iding vines	s, less than 3
7	·			In. DBH and greater than t	or equal to) 3.28 IL (I	m) tall.
8							
9	<u> </u>			size and woody plants les	n-woody) s than 2 2	piants, reg 8 ft tall	gar diess of
10				size, and woody plants les	5 11011 3.2	o it tall.	
11							
	75	= Total Cov	er	Woody vines – All woody v	vines great	ter than 3.	28 ft in
50% of total cover: <u>37.5</u>	_ 20% of to	otal cover:	15	height.			
Woody Vine Stratum (Plot size: <u>30'</u>)							
1							
2							
3				Hydrophytic Vegetation P	resent? \	⁄es 🗆 No 🖬	2
4.							
5.							
	0	= Total Cov	er				
50% of total cover: <u>0</u>	_20% of to	tal cover:	00				
Remarks: (Include photo numbers here or on a separa	te sheet.)						
No positive indication of hydrophytic vegetation was o	hserved (>	.50% of dom	inant specie	s indexed as FAC - or drier)			
	oserveu (≥	.55% 01 0011	mant specie	Lo mucheu ao rAC Or uller).			

Sampling Point: W-A18-81_UPL-1

Profile D	escription: (Describe to	o the dep	th needed to docum	ent the i	indicator	or confir	m the absen	ce of indicators.)	
Depth	Matrix	<u> </u>	Redox	x Featur	es			- .	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туре	Loc ²		lexture	Remarks
0 - 3	2.5Y 5/2	95	10YR 5/8	5	C	M		Loamy Sand	
3 - 24	2.5Y 5/3	85	7.5YR 4/6	15	C	M		Sandy Loam	
¹ Type: C	= Concentration, D = D	Depletion,	RM = Reduced Matr	ix, MS =	Masked S	and Gra	ins. ² Locati	on: PL = Pore Lining, M =	= Matrix.
Hydric So	oil Indicators:							Indicators for Problen	natic Hydric Soils ³ :
Histoso	ol (A1)		_ Dark	Surface ((S7)			2 cm Muck (A10) (I	-
Histic E	pipedon (A2)		Polyv	alue Belc	ow Surface	(S8) (ML	RA 147, 148)	2 CHI MUCK (ATO) (I	WLRA 147)
Black H	listic (A3)		Thin [Dark Surf	face (S9) (I	MLRA 147	', 148)	Coast Prairie Reut	DX (A16) (IVILKA 147, 146)
Hydrog	gen Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)			ain sons (F19) (Ivilka 130,
Stratifi	ed Layers (A5) luck (A10) (LPP NI)		Deple	ted Matr	rix (F3) urfaco (E6)			Vory Shallow Dark	Surface (TE12)
2 cm w	ed Below Dark Surface (A11)	Redu	ted Dark	(Surface (F7)			Domarks)
Thick D	ark Surface (A12)	,,	Redox	x Depres	sions (F8)	,			(end ks)
Sandy	Mucky Mineral (S1) (LRF	R N, MLRA	147, 148) Iron-M	Mangane	ese Masses	5 (F12) (LF	R N, MLRA 13	6) _{3Indicators of hydron}	hytic vegetation and
Sandy	Gleyed Matrix (S4)		_ Umbr	ic Surfac	e (F13) (M	ILRA 136,	122)	wetland hydrology m	ust he present junless
Sandy	Redox (S5)		Piedn	nont Floc	odplain So	ils (F19) (MLRA 148)	disturbed or problem	atic.
Strippe	d Matrix (S6)		Red P	arent Ma	aterial (F2	I) (MLRA	127, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None	-		Hydric	Soil Present?		Yes 🗹 No 🗆
	Depth (inches):			-					
Remarks	:								
The crite	rion for hydric soil is n	net.							

Photo of Sample Plot South



Photo of Sample Plot West

Project/Site: MVP Sou	thgate	City/County:	Burlington, Alamance	e Sampling Dat	te: 2018-June-04	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	B18-32_PEM-1
Investigator(s): Don	Lockwood, Joe	e Roy, Jeremy Humme	el S	ection, Township, Rai	nge:	
Landform (hillslope, te	rrace, etc.):	Depression	Local rel	ief (concave, convex,	none): Concave	Slope (%): 1 to 10
Subregion (LRR or MLR	RA): MLRA	A 136 of LRR P		Lat: 36.1481952	Long: -79.4240012	Datum: WGS84
Soil Map Unit Name:	Helena Sand	y loam			NWI classificati	ion:
Are climatic/hydrologic	c conditions or	the site typical for t	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	5.)
Are Vegetation,	Soil,	or Hydrology si	gnificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology n	aturally 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?	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	Covertype is PEM. Area is wetland, all three wetland parameters are present.									

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	<u>e is required; chec</u>	<u>k all that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	T F F T C nagery (B7)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Thin Muck Surface (C7) Dther (Explain in Remarks)	oots (C3) ls (C6)	
Field Observations:				
Surface Water Present?	Yes 🖌 No	Depth (inches):	6	
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	vell, aerial photos, previous inspec	tions), if	available:
Remarks:				
A positive indication of wetland hyd	drology was observ	ved (primary and secondary indica	itors wer	e present).

Sampling Point: W-B18-32_PEM-1

-							
Tr	ee Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	2	(4)
1.					Are OBL, FACW, or FAC:	2	(A)
2.					Total Number of Dominant Species	3	(B)
3.					Across All Strata:		
4.					Percent of Dominant Species That	66.7	(A/B)
5.					Are OBL, FACW, of FAC:		
6.					Tetel % Cover of	Mariaha .	D
7.					OBL species 20	<u>iviuiupiy</u>	<u>py.</u> 20
		0	= Total Cover		EACW species 60	× 1	120
	50% of total cover: <u>0</u>	20% of to	tal cover:	0	EAC species 10	× 2	20
<u>Sa</u>	<u>pling/Shrub Stratum</u> (Plot size: <u>15</u>)				EACLI species 20	× 3	120
1.					LIPL species	× 4	0
2.					Column Totals	x 5	200 (D)
3.						(A) _	300 (b)
4.						2.3	
5.					Hydrophytic Vegetation Indicators:		
6.					- 1- Rapid Test for Hydrophytic	vegetation	
7.					∠ 2 - Dominance Test is >50%		
8.					$3 - \text{Prevalence Index Is} \leq 3.0^{\circ}$	1 (Duras viela	
9.					4 - Morphological Adaptations	' (Provide	supporting
		0	= Total Cover		Problematic Hydronbytic Vege	ieeu) itation ¹ (Ex	nlain)
	50% of total cover: <u>0</u>	_20% of to	tal cover:	0	¹ Indicators of hydric soil and wetlan		ov must he
He	erb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	By must be
1.	Cynodon dactylon	30	Yes	FACU	Definitions of Four Vegetation Strat	a:	
			Percent cover				
2	luncus effusus	50	cannot be greater	FACW	Tree – Woody plants, excluding vine	s, 3 in. (7.6	5 cm) or more
	,		than a previous		in diameter at breast height (DBH),	regardless	of height.
_			species				
3.		20	NO	OBL	- Sapling/shrub – Woody plants, exclu	uding vine	s, less than 3
4.		10	NO	FACW	in. DBH and greater than or equal to	o 3.28 ft (1	m) tall.
5.	Carex vulpinoidea	10	No	OBL			
6.		. <u> </u>			Herb – All herbaceous (non-woody)	plants, reg	gardless of
7.					size, and woody plants less than 3.2	8 ft tall.	
8.							
9.					Woody vines – All woody vines grea	ter than 3.	.28 ft in
10					height.		
11							
		120	= Total Cover				
	50% of total cover: <u>60</u>	20% of to	tal cover:	24			
W	oody Vine Stratum (Plot size: <u>30</u>)				Hydrophytic Vegetation Present?	Yes 🗹 No 🛛	
1.	Toxicodendron radicans	5	Yes	FAC	_		
2.	Campsis radicans	5	Yes	FAC			
3.					.		
4.							
5.							
1		10	= Total Cover				
1	50% of total cover: <u>5</u>	_20% of to	tal cover:	2			
Re	marks: (Include photo numbers here or o	n a separat	e sheet.)		-		

Sampling Point: W-B18-32_PEM-1

Profile Depth	escription: (Describe to Matrix	o the dep	th needed t	o docume Redox	nt the i Feature	ndicator (es	or confirr	n the absence	e of indicators.)	
(inches)	Color (moist)	%	Color (r	noist)	%	Type ¹	L OC ²		Texture	Remarks
0 - 18	10YB 5/2	100				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Sar	ndy Clay Loam	
	1011(3/2					·		501		
		·								
		·				·				
		·				·				
								-		
		·								
		·				·				
	Concontration D - C	. <u> </u>	DM - Dodu	cod Matrix	/ MC -	Mackod S	and Crai	os ² l ocatio	n: DL - Doro Liping M - I	Matrix
-Type. C		repletion,	RIVI – Redu		(, IVIS – I	waskeu s	anu Grai	IS. ² LOCALIO		
Hydric Sc	il Indicators:			D 1 -	,				Indicators for Problema	itic Hydric Soils ³ :
Histoso	il (A1)			_ Dark S	urtace (S	5/)		A 147 440	2 cm Muck (A10) (M	LRA 147)
- HISTIC E	pipedon (A2)			_ Polyva	iue Belo	w Surface	(58) (ML)	(A 147, 148) 179)	Coast Prairie Redox	(A16) (MLRA 147, 148)
BIACK H	ISUC (A3) en Sulfide (A4)				Gleved	ace (59) (F Matrix (F)	VILKA 147,	148)	Piedmont Floodplai	n Soils (F19) (MLRA 136,
Stratifie	ell Sunde (A4) ed Lavers (A5)			∠ Deplet	ed Matr	ix (F3)	-)		147)	
2 cm M	uck (A10) (LRR N)			Redox	Dark Su	rface (F6)			Very Shallow Dark S	urface (TF12)
Deplete	ed Below Dark Surface ((A11)		Deplet	ed Dark	Surface (I	F7)		Other (Explain in Re	marks)
Thick D	ark Surface (A12)			Redox	Depress	sions (F8)				
Sandy l	Mucky Mineral (S1) (LRF	R N, MLRA	147, 148)	_ Iron-M	anganes	se Masses	(F12) (LR	r n, mlra 136	³ Indicators of hydrophy	tic vegetation and
Sandy (Gleyed Matrix (S4)			_ Umbrio	c Surfac	e (F13) (M	LRA 136,	122)	wetland hydrology mus	t he present unless
Sandy I	Redox (S5)			Piedm	ont Floo	dplain Soi	ls (F19) (N	1LRA 148)	disturbed or problemat	tic
Strippe	d Matrix (S6)			Red Pa	irent Ma	terial (F21) (MLRA 1	27, 147)		
Restrictiv	e Layer (if observed):									
	Туре:		None				Hydric S	oil Present?		Yes 🗵 No 🗆
	Depth (inches):									
Remarks										
Hydrology Photos



Vegetation Photos

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 Sout	thgate	City/County	Burlington, Alamance	Sampling Dat	te: 2018-May-18	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: M	/-B18-32_PFO-1
Investigator(s): Jame	es Bolduc, Ton	y Tredway	Se	ection, Township, Rai	nge:	
Landform (hillslope, te	rrace, etc.):	Foot slope	Local reli	ef (concave, convex,	none): Concave	Slope (%): 1 to 3
Subregion (LRR or MLR	A): MLR	A 136 of LRR P	L	at: 36.1479646	Long: -79.4233212	Datum: WGS84
Soil Map Unit Name:					NWI classifica	ation: PFO
Are climatic/hydrologic	conditions o	n the site typical for t	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remarl	ks.)
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 PFO.			

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne is required; cheo	<u>k all that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	Roots (C3) bils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🖌 No	Depth (inches):	3	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring v	vell, aerial photos, previous inspe	ections), if	available:

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

Sampling Point: W-B18-32_PFO-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	6	(A)
1. <i>Ulmus americana</i>	30	Yes	FACW	Are UBL, FACW, or FAC:		
2. Liquidambar styraciflua	30	Yes	FAC	Across All Strata:	6	(B)
3. <i>Quercus alba</i>	15	No	FACU	Percent of Dominant Species That		
4. <i>Carya glabra</i>	5	No	FACU	Are OBL_EACW or EAC	100	(A/B)
5. <i>Ilex opaca</i>	5	No	FACU	Prevalence Index worksheet:		
6				Total % Cover of:	Multiply I	Bv:
7				OBL species 0	x 1 =	- <u>,</u>
	85	= Total Cov	rer	FACW species 50	x 2 =	100
50% of total cover: <u>42.5</u>	_ 20% of to	otal cover:	17	FAC species 175	x 3 =	525
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 32	× 4 =	128
1. Liquidambar styraciflua	30	Yes	FAC	LIPL species 0	×	0
2. Quercus phellos	10	No	FAC	Column Totals	(A)	7E2 (P)
3. <i>Ulmus americana</i>	10	No	FACW		(~) _	755 (B)
4. <i>Carya glabra</i>	5	No	FACU		2.9	
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic V	Vegetation	
7.				2 − 2 − Dominance Test is >50%		
8.				\checkmark 3 - Prevalence Index is $\leq 3.0^{1}$		
9.				4 - Morphological Adaptations	¹ (Provide :	supporting
	55	= Total Cov	/er	data in Remarks or on a separate sr	neet)	
50% of total cover: 27.5	20% of to	_ tal cover:	11	Problematic Hydrophytic Vege	etation' (Ex	piain)
Herb Stratum (Plot size: 5)				Indicators of hydric soil and wetlan	ia nyarolog matic	gy must be
1. Microstegium vimineum	90	Yes	FAC	Definitions of Four Vegetation Strat		
2. Rubus hispidus	10	No	FACW	Deminitions of Four Vegetation Strat	a.	
3. Polystichum acrostichoides	2	No	FACU	Tree Woody plants excluding vine	s 3 in (76	cm) or more
4.				in diameter at breast height (DBH).	regardless	of height.
5				in diameter de breast height (b.b.i.),	regulatess	or neight.
6				Sapling/shrub - Woody plants, exclu	Iding vines	s less than 3
7				in. DBH and greater than or equal to	o 3.28 ft (1	m) tall.
8		<u> </u>				,
0		·		Herb – All herbaceous (non-woody)	plants, reg	ardless of
3		·······		size, and woody plants less than 3.2	28 ft tall.	
10		<u> </u>				
····				Woody vines All woody vines great	tar than 7	20 ft in
	102	= lotal Cov	er	beight	ter than 5.	20 11 11
50% of total cover: <u>51</u>	_ 20% of to	otal cover:	20.4			<u> </u>
Woody Vine Stratum (Plot size: <u>30</u>)						
1. Toxicodendron radicans	10	Yes	FAC			
2. <u>Smilax hispida</u>	5	Yes	FAC			_
3				Hydrophytic Vegetation Present?	Yes 🗹 No L	
4.						
5						
	15	= Total Cov	rer			
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.)					

SOIL

Sampling Point: W-B18-32_PFO-1

Profile Des	cription: (Describe to Matrix	o the dep	th needed to docume Redox	ent the i	indicator (or confiri	n the absend	e of indicators.)	
(inches)	Color (moist)	06	Color (moist)	0%	Type1			Texture	Pemarks
			7 5VP 5/6						Remarks
6 12	2 57 6/2	90	7.5TK 5/0	10	<u> </u>	N	FII	Sandy Loam	
12 10	2.51 0/2	90	7.51R 5/0	20	<u> </u>				·
12 - 18	2.51 6/2	80	7.518 5/6	20	<u> </u>	IVI		Sandy Loam	
									- <u> </u>
¹ Type: C =	Concentration, D = D	epletion,	RM = Reduced Matri	x, MS =	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hvdric Soil	Indicators:			,				Indicators for Problem	atic Hydric Soils ³ :
Histosol	(A1)		Dark S	Surface (S7)				
Histic Epi	ipedon (A2)		Polyva	lue Belo	ow Surface	(S8) (ML	RA 147, 148)	2 cm Muck (A10) (N	1LRA 14/)
Black His	tic (A3)		Thin D	ark Surf	face (S9) (N	/LRA 147	, 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
Hydroger	n Sulfide (A4)		_ Loamy	/ Gleyed	Matrix (F2	<u>!</u>)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratified	l Layers (A5)		_∕ Deple	ted Matr	rix (F3)			147)	
_ 2 cm Mu	ck (A10) (LRR N)		Redox	Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Depleted	Below Dark Surface (A11)	_ Deple	ted Dark	Surface (I	-/)		Other (Explain in Re	emarks)
I NICK Dai	rk Surface (ATZ) uchy Mineral (S1) (LP		Redox	Depres	SIONS (F8)	(E12) (I P		6)	
Sandy Gl	eved Matrix (S4)		Limbri	ic Surfac	e (F13) (M	(112) (LIN	122)	⁰ ³ Indicators of hydroph	ytic vegetation and
Sandy Re	edox (S5)		Piedm	ont Floc	dplain Soi	ls (F19) (I	MLRA 148)	wetland hydrology mu	st be present, unless
Stripped	Matrix (S6)		Red Pa	arent Ma	aterial (F21) (MLRA	127, 147)	disturbed or problema	itic.
Restrictive	Layer (if observed):								
٦	Гуре:		None			Hydric S	Soil Present?		Yes 🗵 No 🗆
[Depth (inches):								
Remarks:									

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 Sour	thgate	City/County	y: Burlington, Alaman	ce Sampling Dat	te: 2018-May-18	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: W	-B18-32_UPL-1
Investigator(s): Jame	es Bolduc, Ton	y Tredway		Section, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local re	elief (concave, convex,	none): Convex	Slope (%): 1 to 10
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P		Lat: 36.1482137	Long: -79.4235195	Datum: WGS84
Soil Map Unit Name:					NWI classificat	ti on: None
Are climatic/hydrologic	conditions or	n the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	s.)
Are Vegetation,	Soil,	or Hydrologys	significantly disturbed	? Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology r	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 No _ _/ Yes No _ _/ Yes No _ _/	Is the Sampled Area within a Wetland?	Yes No _
Remarks:		·	
Covertype is UPL. Area is upland, not all three	wetland parameters are p	resent. dense soil layer within 15 inches.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum	<u>of two required)</u>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True . Hydro Oxidi Prese Recei Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 11)
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	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-B18-32_UPL-1

Tr	ee Stratum (Plot size: <u>30)</u>	Absolute	Dominant Species?	Indicator	Dominance Test worksheet:	T I (
		% Cover		Status	Are OBL_FACW_or_FAC	That	3	(A)
1.	Quercus alba	40	Yes	FACU	Total Number of Dominant Spe	- ecies		
Ζ.	Liriodendron tulipitera	10	Yes	FACU	Across All Strata:		9	(B)
3.	Carya glabra	20	cannot be greater than a previous	FACU	Percent of Dominant Species T Are OBL, FACW, or FAC:	hat	33.3	3 (A/B)
		·	species					. D
4.	Ulmus americana	10	No	FACW	<u>Iotal % Cover of:</u>		Multiply	<u>иву:</u>
5.	Acer rubrum	10	No	FAC			x I =	0
6.	Acer saccharum	10	No	FACU	FACW species 40		x 2 =	80
7.					FAC species 25		x 3 =	75
		100	= Total Cover		FACO species 180		x 4 =	720
	50% of total cover: <u>50</u>	_20% of to	tal cover:	20	OPL species 0		x 5 =	0
<u>Sa</u>	pling/Shrub Stratum (Plot size: <u>15</u>)				Column lotals 245		(A)	875 (B)
1.	Ulmus americana	20	Yes	FACW	Prevalence Index = B	/A =	3.6	
2.	llex opaca	10	Yes	FACU	Hydrophytic Vegetation Indicat	tors:		
3.	Quercus alba	10	Yes	FACU	1- Rapid Test for Hydroph	nytic V	egetatio	n
4.	Acer rubrum	5	No	FAC	2 - Dominance Test is > 5	0%		
5.	Carya glabra	5	No	FACU	3 - Prevalence Index is ≤	3.0 ¹		
6.		·			4 - Morphological Adapta	tions ¹	(Provide	e supporting
7.		. <u> </u>			data in Remarks or on a separa	ate sh	eet)	
8.					Problematic Hydrophytic	Veget	ation ¹ (E	xplain)
9.					¹ Indicators of hydric soil and w	etland	d hydrolo	ogy must be
		50	= Total Cover		present, unless disturbed or pi	robier	natic	
	50% of total cover: <u>25</u>	_20% of to	tal cover:	10	Definitions of Four vegetation	Strata		
He	erb Stratum (Plot size: <u>5</u>)				Tree Meedy plants evoluting		- 2 :- 7	
1.	Lonicera japonica	50	Yes	FACU	in diameter at breast height (D	RH) r	s, 5 III. (7 agardlas	s of beight
2.	Fragaria vesca	20	Yes	FACU	in diameter at breast height (b	, он <i>у</i> , т	egarates	is of fieldine.
3.	Rubus hispidus	10	No	FACW	Sapling/shrub - Woody plants	exclu	ding vine	es less than 3
4.	Parthenocissus quinquefolia	5	No	FACU	in. DBH and greater than or eq	ual to	3.28 ft (1 m) tall.
5.								,
6.					Herb – All herbaceous (non-wo	odv) i	olants. re	egardless of
7.		·			size, and woody plants less tha	an 3.28	8 ft tall.	0
~		·						
8.		·						2064:-
9.		·			woody vines - All woody vines	great	er than :	3.28 IL IN
10		·						<u> </u>
11	·	·						
		85	= Total Cover					
	50% of total cover: <u>42.5</u>	_ 20% of to	tal cover:	17				_
W	oody Vine Stratum (Plot size: <u>30</u>)				Hydrophytic Vegetation Prese	nt? Y	es ⊔ No	
1.	Smilax rotundifolia	5	Yes	FAC				
2.	Toxicodendron radicans	5	Yes	FAC				
3.								
4.								
5.								
1		10	= Total Cover					
1	50% of total cover: <u>5</u>	_ 20% of to	tal cover:	2				
Re	marks: (Include photo numbers here or or	n a separat	e sheet.)		_			

SOIL

Sampling Point: W-B18-32_UPL-1

nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 6	10YR 3/2	100						Sandy Loam	
6 - 9	10YR 5/3	100						Sandy Loam	
9 - 16	2.5Y 6/3	100				·		Loamy Sand	
6 - 20	2.5Y 6/3	80	7.5YR 5/6	20	С	М	Si	lty Clay Loam	
					·				
ype: C =	Concentration, D =	Depletion,	RM = Reduced Ma	trix, MS = I	Masked S	and Gra	ins. ² Locatio	on: PL = Pore Lining, M = N	Matrix.
ydric Soi	I Indicators:		_					Indicators for Problema	tic Hydric Soils ³ :
Histosof Histic Ep Black His Hydroge Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G	(A1) pipedon (A2) stic (A3) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface urk Surface (A12) lucky Mineral (S1) (LR leyed Matrix (S4)	(A11) RR N, MLRA	Dai Poly Thin Loa Red Red 1 47, 148) Iron Um	value Belo Dark Surfa my Gleyed leted Matri ox Dark Su leted Dark ox Depress -Manganes oric Surface	w Surface ace (S9) (I Matrix (F2 ix (F3) rface (F6) Surface (sions (F8) se Masses e (F13) (M	(S8) (ML MLRA 147 2) F7) (F12) (LF LRA 136,	RA 147, 148) ', 148) RR N, MLRA 13 122)	 2 cm Muck (A10) (ML Coast Prairie Redox Piedmont Floodplair 147) Very Shallow Dark Si Other (Explain in Red 	.RA 147) (A16) (MLRA 147, 148) n Soils (F19) (MLRA 136 urface (TF12) marks) tic vegetation and t be present unless
Sandy Re Stripped	edox (S5) l Matrix (S6)		Piec Red	lmont Floo Parent Ma	dplain So terial (F21	ils (F19) () (MLRA	MLRA 148) 127, 147)	disturbed or problemat	ic.
estrictive	Layer (if observed):	:							
Т	Гуре:	Dens	e silty clay loam	_		Hydric	Soil Present?		Yes 🗆 No 🗹
0	Depth (inches):		16						





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 Sout	thgate	City/Count	y: Burlington, Alamano	se Sampling Dat	e: 2018-May-18	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: M	/-B18-31_PFO-1
Investigator(s): Jame	es Bolduc, Tony	/ Tredway		Section, Township, Rar	nge:	
Landform (hillslope, ter	rrace, etc.):	Hillslope	Local re	lief (concave, convex,	none): Concave	Slope (%): 0 to 1
Subregion (LRR or MLR	A): MLRA	A 136 of LRR P		Lat: 36.1476194	Long: -79.4207497	Datum: WGS84
Soil Map Unit Name:					NWI classifica	ation: PFO
Are climatic/hydrologic	conditions on	the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarl	<s.)< td=""></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	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 PFO.			

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	Roots (C3) bils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) EAC-Neutral Test (D5)
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):	5	
(includes capillary fringe)				-
Describe Recorded Data (stream g	auge, monitoring v	vell, aerial photos, previous inspe	ections), if	available:

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

Sampling Point: W-B18-31_PFO-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	Species?	Status	Number of Dominant Species That	E	(A)
1. Liquidambar styraciflua	40	Yes	FAC	Are OBL, FACW, or FAC:		(A)
2. Acer rubrum	20	Yes	FAC	Total Number of Dominant Species	6	(B)
3. <i>Ulmus americana</i>	10	No	FACW	Across All Strata:		(5)
4. Liriodendron tulipifera	10	No	FACU	Percent of Dominant Species That	83.3	(A/B)
5. Ilex opaca	5	No	FACU	Are UBL, FACW, or FAC:		
6.			<u> </u>	Prevalence Index worksneet:	Multiply I	D. <i>a</i>
7.			<u> </u>	OPL species		<u>by:</u>
	85	= Total Cov	er	EACW species 0	× 1	60
50% of total cover: <u>42.5</u>	20% of to	tal cover:	17	EAC species 30	×2	510
Sapling/Shrub Stratum (Plot size: <u>15</u>)				EACLI species 170	× 5	100
1. <i>Ulmus americana</i>	20	Yes	FACW	LIPL species 0	×4- ×	0
2. <i>Ilex opaca</i>	10	Yes	FACU	Column Totals	× 5	(70 (D)
3					(A)	070 (Б)
4					<u>_</u>	
5				Hydrophytic Vegetation Indicators:		
6				1- Rapid Test for Hydrophytic	/egetation	
7.				2 - Dominance Test is >50%		
8.				3 - Prevalence Index is $\leq 3.0^{\circ}$		
9.			<u> </u>	4 - Morphological Adaptations	' (Provide s	supporting
	30	= Total Cov	er	Problematic Hydrophytic Vers	ieel)	nlain)
50% of total cover: <u>15</u>	20% of to	tal cover:	6	Indicators of bydric soil and wetlan		piani) Ty must be
<u>Herb Stratum</u> (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	sy must be
1. Microstegium vimineum	80	Yes	FAC	Definitions of Four Vegetation Strat	a:	
2. Smilax rotundifolia	10	No	FAC			
3.			<u> </u>	Tree – Woody plants, excluding vine	s, 3 in. (7.6	5 cm) or more
4.				in diameter at breast height (DBH),	regardless	of height.
5.					-	•
6.		· ·		Sapling/shrub – Woody plants, exclu	uding vines	s, 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, reg	gardless of
10.		· ·		size, and woody plants less than 3.2	8 ft tall.	
11.						
	90	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.	28 ft in
50% of total cover: 45	20% of to	tal cover:	18	height.		
Woody Vine Stratum (Plot size: 30)						
1. Smilax rotundifolia	20	Yes	FAC			
2.						
3.				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆]
4.						
5.						
	20	= Total Cov	er			
50% of total cover: 10	20% of to	tal cover:	4			
remarks, (include proto numbers nere or on a separa	e sneet.j					

SOIL

Sampling Point: W-B18-31_PFO-1

Profile De	escription: (Describe to	o the dep	th needed to docum	ent the i	ndicator	or confirr	n the absence of indicators.)	
Deptn _	Matrix		Redox	c Feature	2S	12	T	Deve entre
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туреч	LOC ²	lexture	Remarks
0-3	10YR 3/1	100					Silt Loam	
3 - 10	10YR 6/2	95	7.5YR 5/6	5	C	M	Sandy Loam	
10 - 20	2.5Y 6/1	80	7.5YR 5/6	20	C	Μ	Silty Clay Loam	
					·			
		·		·	·			
	$Concentration D = \Gamma$)enletion	RM = Reduced Matri	× MS = 1	Masked 9	and Grai	ns ² location: Pl = Pore l in	ing M = Matrix
Hydric Co	il Indicators:	repletion,	NW - Reduced Math	X, WIJ - I	Maskeu 2		Indicators for I	Problematic Hydric Sails3:
			Dark	Surface (-7)		indicators for i	Problematic Hydric Solis ³ .
Histic F	ninedon (A2)		Dark : Polyva	alue Relo	w Surface	(S8) (MI	2 cm Muck	(A10) (MLRA 147)
Black H	istic (A3)		T biyva	ark Surfa	ace (S9) (I	VI RA 147	148) — Coast Prair	ie Redox (A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	<u>2)</u>	Piedmont I	Floodplain Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		 ∕ Deple	ted Matri	ix (F3)		147)	
_ 2 cm M	uck (A10) (LRR N)		Redo>	Dark Su	rface (F6)		Very Shallo	w Dark Surface (TF12)
_ Deplete	d Below Dark Surface ((A11)	_ Deple	ted Dark	Surface (I	F7)	Other (Exp	lain in Remarks)
Thick D	ark Surface (A12)		Redo>	Depress	sions (F8)			
_ Sandy N	Aucky Mineral (S1) (LRF	R N, MLRA	147, 148) Iron-N	langanes		(F12) (LR	R N, MLRA 136) ₃ Indicators of I	hydrophytic vegetation and
Sandy C	Jeyed Matrix (S4)		Umbr Piedm	ic Surface	e (F13) (M dolain Soi	LKA 136, ile (E19) (N	wetland hydro	logy must be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	terial (F21	I) (MI RA 1	27, 147) disturbed or p	roblematic.
Restrictiv	e Laver (if observed):							
Restrictiv			None			Lhudric C	oil Drocont?	
	Donth (inchoc)		None			myuric s	on Present?	fes 🗹 NO 🗆
	Depth (inches).							
Remarks:								

Vegetation Photos





Soil Photos

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South





Photo of Sample Plot Sketch



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/Coun	ty: Burlington, Alamance	Sampling Da	te: 2018-May-18	
Applicant/Owner: N	extEra			State: North C	arolina Sampling Point: W	-B18-31_UPL-1
Investigator(s): Jame	es Bolduc, Ton	iy Tredway	Se	ction, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local relie	ef (concave, convex,	none): Convex	Slope (%): 1 to 10
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P	L	at: 36.147664	Long: -79.4206475	Datum: WGS84
Soil Map Unit Name:					NWI classifica	tion: None
Are climatic/hydrologic	conditions o	n the site typical for	r 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	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

required)
: (B8) (C9)
No
-

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

Sampling Point: W-B18-31_UPL-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That		(1)
1. <i>Quercus alba</i>	40	Yes	FACU	Are OBL, FACW, or FAC:	1	(A)
2. Carya glabra	30	Yes	FACU	Total Number of Dominant Species	6	(B)
3. Acer rubrum	20	No	FAC	Across All Strata:		(0)
4. Ilex opaca	15	No	FACU	Percent of Dominant Species That	16.7	(A/B)
5.	·			Are OBL, FACW, or FAC:		
6.				Prevalence Index worksheet:		_
7.	·			<u>Iotal % Cover of:</u>	Multiply I	<u>By:</u>
	105	= Total Cov	er	OBL species 0	x1=	0
50% of total cover: <u>52.5</u>	20% of to	tal cover:	21	FAC w species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size:15)				FAC species 40	x 3 =	120
1. Quercus alba	30	Yes	FACU	FACU Species 170	x 4 =	680
2. Carya glabra	30	Yes	FACU	OPL species 0	x 5 =	0
3. Ilex opaca	10	No	FACU	Column lotals 210	(A) _	800 (B)
4. Prunus serotina	10	No	FACU	Prevalence Index = B/A =	<u>3.8</u>	
5.				Hydrophytic Vegetation Indicators:		
6.				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	s ¹ (Provide :	supporting
	80	= Total Cov	er	data in Remarks or on a separate s	neet)	
50% of total cover: 40	20% of to	- tal cover:	16	Problematic Hydrophytic Vege	station' (Ex	piain) Tri must bo
Herb Stratum (Plot size: 5_)	-			present unless disturbed or proble	iu riyuroloş matic	gy must be
1. Parthenocissus quinquefolia	5	Yes	FACU	Definitions of Four Vegetation Strat		
2.	·			Definitions of Four Vegetation Stat	.a.	
3.	·			Tree - Woody plants, excluding vine		cm) or more
4.	·			in diameter at breast height (DBH).	regardless	of height.
5.	·					
6.	·			Sapling/shrub – Woody plants, excl	uding vines	s. 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, reg	gardless of
10				size, and woody plants less than 3.	28 ft tall.	
11	·					
····	5	- Total Cov	or	Woody vines - All woody vines grea	ater than 3	28 ft in
E0% of total cover: 2 E			1	height.		2010111
Woody Vine Stratum (Plot size: 30)	_20% 01 10					
1 Smilay rotundifolia	20	Ves	FAC			
2			inc			
2.	·			Hydrophytic Vegetation Present?	Ves 🗆 No 🛛	7
	·					
т Г	·					
····	20	= Total Cov	or			
50% of total cover: 10	20% of to	- Total COV	1			
<u> </u>	_2070 01 10					
Remarks: (include photo numbers here or on a separa	e sneet.)					

SOIL

Sampling Point: W-B18-31_UPL-1

Profile De	escription: (Describe to	o the deptl	h needed to docum	ent the i	ndicator o	or confiri	n the absen	ce of indicators.)	
Deptn			Redo	x reature	US Tranca 1	1 4 -2		Tautuma	Dem - de-
(inches)		<u> </u>	Color (moist)	%	туреч	LOC		rexture	Kemarks
0-3	10YR 3/2	100						Sandy Loam	
3 - 6	10YR 4/3	100			·			Sandy Loam	·
6 - 15	2.5Y 6/3	100						Sandy Loam	
		<u> </u>							
¹ Type: C	= Concentration, D = D	Pepletion, I	RM = Reduced Matr	ix, MS =	Masked S	and Grai	ns. ² Locati	on: PL = Pore Lining, M =	Matrix.
Hydric Sc	il Indicators:	· · /						Indicators for Problem	atic Hydric Soils ³ :
Histoso	l (A1)		Dark	Surface (57)				
Histic E	pipedon (A2)		Polyv	alue Belo	w Surface	(S8) (ML	RA 147, 148)	2 cm Muck (A10) (N	/ILRA 147)
Black H	istic (A3)			Dark Surf	ace (S9) (N	MLRA 147	, 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)		Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		Deple	ted Matr	ix (F3)			14/)	
_ 2 cm M	uck (A10) (LRR N)	A 1 1 \	Redo:	k Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface (ATT)	Deple	eted Dark	Surface (F	-/)		Other (Explain in R	emarks)
_ Thick D	Mucky Mineral (S1) (I RF	N. MI RA 1	47. 148) Iron-N	Vangane ^s	se Masses	(F12) (I R	R N. MI RA 13	36)	
Sandy (Gleved Matrix (S4)		Umbr	ic Surfac	e (F13) (M	LRA 136.	122)	³ Indicators of hydroph	ytic vegetation and
Sandy I	Redox (S5)		Piedn	nont Floo	dplain Soi	ls (F19) (, /ILRA 148)	wetland hydrology mu	ist be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	iterial (F21) (MLRA	127, 147)	disturbed or problema	atic.
Restrictiv	e Layer (if observed):								
	Туре:		None	_		Hydric S	Soil Present?)	Yes 🗆 No 🗹
	Depth (inches):			_					
Remarks	:								

Vegetation Photos



Soil Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot Sketch

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Burlingto	on, Alamance	Sampling Date	e: 2018-May-18	
Applicant/Owner: NextEra			State: North Ca	rolina Sampling Point: W-E	318-28_PFO-1
Investigator(s): James Bolduc, Tony					
Landform (hillslope, terrace, etc.):	Flat	Local relief (c	oncave, convex, r	none): Concave	Slope (%): 0 to 1
Subregion (LRR or MLRA): MLRA	136 of LRR P	Lat:	36.147419	Long: -79.4212923	Datum: WGS84
Soil Map Unit Name:				NWI classification	on: PFO
Are climatic/hydrologic conditions on	the site typical for this time of	year?	Yes 🟒 No	_ (If no, explain in Remarks.)
Are Vegetation, Soil, c	or Hydrology significantly	disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No
Are Vegetation, Soil, o	or Hydrology naturally pr	oblematic?	(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 PFO. Area is wetland, all three v	vetland parameters are p	resent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tru Hyı Ox Pre Req Thi Oth	ie Aquatic Plants (B14) drogen Sulfide Odor (C1) idized Rhizospheres on Living Ro esence of Reduced Iron (C4) cent Iron Reduction in Tilled Soils in Muck Surface (C7) her (Explain in Remarks)	oots (C3) 5 (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC-Neutral Test (D5)
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):	0	
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring wel	l, aerial photos, previous inspect	ions), if	available:
Remarks:				
VEGETATION (Four Strata) -- Use scientific names of plants.

Sampling Point: W-B18-28_PFO-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:				
<u>Tree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	c			
1. Liquidambar styraciflua	20	Yes	FAC	Are OBL, FACW, or FAC:	0	(A)		
2. Betula nigra	20	Yes	FACW	Total Number of Dominant Species	6	(B)		
3. Liquidambar styraciflua	10	No	FAC	Across All Strata:		(2)		
<i>4. Liriodendron tulipifera</i>	10	No	FACU	Percent of Dominant Species That	100	(A/B)		
5. <i>Ulmus americana</i>	5	No	FACW	Are OBL, FACW, or FAC:				
6.				Prevalence Index worksheet:	N.A. Jaim I	D		
7.				<u>Iotal % Cover of:</u>		<u>ву:</u>		
	65	= Total Cove	er		x I =	120		
50% of total cover: <u>32.5</u>	20% of to	tal cover:	13	FACW species 65	x 2 =	130		
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FAC species 55	x 3 =	105		
1. <i>Betula nigra</i>	30	Yes	FACW	LIPL species 20	×4	0		
2. Liquidambar styraciflua	10	No	FAC	Column Totals	x 5 =	U 275 (D)		
3. <i>Ilex opaca</i>	10	No	FACU		(A) _	375 (B)		
4. <i>Ulmus americana</i>	5	No	FACW	Prevalence Index = B/A =	2.7			
5.				Hydrophytic Vegetation Indicators:				
6.				1- Rapid Test for Hydrophytic	Vegetation			
7.				2 − 2 - Dominance Test is >50%				
8.				3 - Prevalence Index is $\leq 3.0^{1}$				
9.				4 - Morphological Adaptations	¹ (Provide	supporting		
	55	= Total Cove	er	data in Remarks or on a separate sheet) Droblematic Hydrophytic Vegetation1 (Evaluate)				
50% of total cover: 27.5	20% of to	- tal cover:	11	Problematic Hydrophytic Vege	elation' (Ex	piain) au acust b s		
Herb Stratum (Plot size: 5)				indicators of hydric soil and wetlar	na nyarolog matic	gy must be		
1. Microstegium vimineum	5	Yes	FAC	Definitions of Four Vegetation Strat				
2. Arisaema triphyllum	5	Yes	FACW	Deminitions of Four Vegetation Strat	a.			
3.				Tree Woody plants excluding vinc	s 3 in (7 6	5 cm) or more		
4.	·	· ·		in diameter at breast height (DBH)	regardless	of height		
5	·				reguratess	of neight.		
6	·			Sapling/shrub - Woody plants, exclu	Iding vine	s, 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, reg	gardless of		
10	·			size, and woody plants less than 3.2	28 ft tall.	-		
11	·							
11	10	- Total Cau		Woody vines All woody vines great	tor than 3	28 ft in		
FOW of total account F	10		2	height	ter than 5.	201111		
50% of total cover: <u>5</u>	_ 20% of to	ital cover:		incigina.				
<u>woody vine stratum</u> (Plot size: <u>30</u>)	10	Vee	FAC					
	10	res	FAC					
2.	·					-		
3	·	<u> </u>		Hydrophytic vegetation Present?	Yes 🗹 No L			
4								
5	·	<u> </u>						
	10	= Total Cov	er					
50% of total cover: <u>5</u>	_ 20% of to	tal cover:	2					
Remarks: (Include photo numbers here or on a separa	e sheet.)							

SOIL

Sampling Point: W-B18-28_PFO-1

Profile De	scription: (Describe to Matrix	o the dept	h needed to docume Redox	nt the i Featur	ndicator (or confiri	n the absence of indicators.)	
(inches)	Color (moist)	%	Color (moist)	06	Type ¹	L oc²	Texture	Remarks
	10VP 3/1	100		70	туре		Eine Sandy Loam	
4 10	10YR 5/1							
4 - 10	10YR 5/1	95	7.5YR 5/6	5	<u> </u>		Sandy Loam	
10 - 18	10YR 6/1	/0	7.5YR 5/6	30	<u> </u>	M	Silty Clay Loam	
		<u> </u>			·			
					<u> </u>			
					·			
¹ Type: C =	Concentration, D = D	Depletion,	RM = Reduced Matrix	k, MS =	Masked S	and Grai	ns. ² Location: PL = Pore Lin	ing, M = Matrix.
Hydric So	il Indicators:	•					Indicators for F	Problematic Hydric Soils ³ :
Histoso	l (A1)		Dark S	urface (S7)			
Histic E	oipedon (A2)		Polyva	lue Belo	w Surface	(S8) (ML	RA 147, 148)2 cm Muck	(ATU) (MLKA 147)
Black H	istic (A3)		Thin D	ark Surf	ace (S9) (N	/LRA 147	, 148) — Coast Prair	ie Redox (A16) (MLRA 147, 148)
_ Hydrog	en Sulfide (A4)		Loamy	Gleyed	Matrix (F2	!)	Piedmont F	-loodplain Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_∕ Deplet	ed Matr	ix (F3)		147)	
2 cm Mi	uck (A10) (LRR N)		Redox	Dark Su	irface (F6)		Very Shallo	w Dark Surface (TF12)
_ Deplete	d Below Dark Surface (A11)	_ Deplet	ed Dark	Surface (I	-7)	Other (Expl	lain in Remarks)
_ INICK Da	ark Surface (ATZ) Auchy Minoral (S1) (LBE		Redox	Depress	SIONS (F8)	(E12) /I B		
Sandy G	Gleved Matrix (S4)		I47, I40 ITOT-W	c Surfac	e (F13) (M	(F12) (LN I RA 136	122)	nydrophytic vegetation and
Sandy Sandy R	edox (S5)		Oligin Piedm	ont Floo	dplain Soi	ls (F19) (I	/LRA 148) wetland hydro	logy must be present, unless
Stripped	d Matrix (S6)		Red Pa	arent Ma	terial (F21) (MLRA	disturbed or p	roblematic.
Restrictive	e Layer (if observed):							
	Туре:		None			Hydric S	Soil Present?	Yes 🗹 No 🗆
	Depth (inches):							
Remarks:								

Vegetation Photos



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 Sout	thgate	City/County	: Burlington, Alamanc	e Sampling Dat	te: 2018-May-18		
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: V	V-B18-28_UPL-1	
Investigator(s): James Bolduc, Tony Tredway Section, Township, Range:							
Landform (hillslope, ter	rrace, etc.):	Hillslope	Local rel	ief (concave, convex,	none): Convex	Slope (%): 1 to 10	
Subregion (LRR or MLR	A): MLRA	136 of LRR P		Lat: 36.1473394	Long: -79.421267	Datum: WGS84	
Soil Map Unit Name:					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,	or Hydrology s	ignificantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology r	naturally problematic?	(If needed, exp	olain 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 No _ _ Yes No _ _ Yes _ _ No	Is the Sampled Area within a Wetland?	Yes No
Remarks:			
Covertype is UPL. Area is upland, not all three	wetland parameters are pr	esent. Water riding on silty clay loan layer.	

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>		Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Vater Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift 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) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
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):	0			
(includes capillary fringe)				-		
Describe Recorded Data (stream ga	auge, monitoring well, a	aerial photos, previous insp	ections), if	available:		

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

Sampling Point: W-B18-28_UPL-1

The Structure (Distribute 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:			
<u>Iree Stratum</u> (Plot Size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	3 (A)		
1. Quercus phellos	30	Yes	FAC	Are OBL, FACW, or FAC:	5 (A)		
2. Ilex opaca	30	Yes	FACU	Total Number of Dominant Species	7 (B)		
3. <i>Liriodendron tulipifera</i>	10	No	FACU	Across All Strata:			
4. <i>Quercus alba</i>	10	No	FACU	Percent of Dominant Species That	42.9 (A/B)		
5. Acer rubrum	5	No	FAC	Are OBL, FACW, of FAC.			
6.					Multiply Dy:		
7.				OBL species	<u>мицру Бу.</u> v 1 – О		
	85	= Total Cov	er	EACW species 5	$x^{2} = \frac{10}{10}$		
50% of total cover: <u>42.5</u>	20% of to	tal cover:	17	EAC species 65	x 2 - 10		
Sapling/Shrub Stratum (Plot size: <u>15</u>)				EACLI species 120	x 4 - 520		
1. <i>Ilex opaca</i>	30	Yes	FACU	LIPL species	x 4 - <u>520</u>		
2. <i>Carya glabra</i>	20	Yes	FACU	Column Totals 200	$(A) = \frac{1}{725} (B)$		
3. Acer saccharum	20	Yes	FACU		(A) <u>725 (B)</u>		
4. Carpinus caroliniana	5	No	FAC				
5. Acer rubrum	5	No	FAC	Hydrophytic Vegetation Indicators:			
6. <i>Liriodendron tulipifera</i>	5	No	FACU	1- Rapid Test for Hydrophytic	Vegetation		
7. Quercus alba	5	No	FACU	2 - Dominance Test is > 50%			
8.				3 - Prevalence Index is $\leq 3.0^{\circ}$	1 (Dura ida anna antia a		
9.				4 - Morphological Adaptations	(Provide supporting		
	90	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)			
50% of total cover:45	_20% of to	tal cover:	18	Indicators of hydric soil and wetlar			
<u>Herb Stratum</u> (Plot size: <u>5</u>)				present, unless disturbed or proble	matic		
1. Rubus hispidus	5	Yes	FACW	Definitions of Four Vegetation Strat	a:		
2.							
3.				Tree – Woody plants, excluding vine	s. 3 in. (7.6 cm) or more		
4.	·			in diameter at breast height (DBH),	regardless of height.		
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) tall.		
8.							
9.				Herb – All herbaceous (non-woody)	plants, regardless of		
10.	·			size, and woody plants less than 3.2	28 ft tall.		
11.							
····	5	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 ft in		
50% of total cover: 2.5	20% of to	tal cover	1	height.			
Woody Vine Stratum (Plot size: 30)	_ 20 /0 01 00						
1. Smilax rotundifolia	20	Yes	FAC				
2.							
3.				Hydrophytic Vegetation Present?	Yes 🗆 No 🕢		
4	·						
5	·						
	20	= Total Cov	er				
50% of total cover: 10	20% of to	tal cover:	4				
	_20700110						
Remarks: (Include photo numbers here or on a separa	te sheet.)						

SOIL

Sampling Point: W-B18-28_UPL-1

Profile D	escription: (Describe	to the dep	th needed to docur	nent the	indicator	or confir	m the absen	ce of indicators.)	
Depth _	Matrix		Read	ix realure	es Turrat	12		Terretories	Demender
(incries)		<u> </u>	Color (moist)	%	туре	LOC		iexture	Remarks
0 - 4	10YR 3/2	100				<u> </u>	Fir	he Loamy Sand	
4 - 10	2.5Y 6/3	95	7.5YR 5/6	5	C	M		Sandy Loam	
10 - 15	2.5Y 6/1	70	7.5YR 5/6	30	C	M	S	ilty Clay Loam	
		·							
¹ Type: C		Depletion.	RM = Reduced Mat	rix. MS =	Masked	Sand Gra	ns. ²Locati	on: PL = Pore Lining. M =	Matrix.
Hydric So	nil Indicators:	Depiction,			masica		Location Location	Indicators for Problema	ntic Hydric Soils ³
History			Darl	Surface	(57)				ac riyune Jons
Histic E	Epipedon (A2)		Dan Polv	value Belo	ow Surface	e (S8) (M L	RA 147. 148)	2 cm Muck (A10) (M	LRA 147)
Black H	listic (A3)		Thin	Dark Sur	face (S9) (MLRA 147	, 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
Hydrog	gen Sulfide (A4)		Loai	my Gleyec	l Matrix (F	2)		Piedmont Floodplai	n Soils (F19) (MLRA 136,
Stratifi	ed Layers (A5)		_ Dep	leted Mat	rix (F3)			147)	
2 cm N	luck (A10) (LRR N)		Red	ox Dark Sı	urface (F6))		Very Shallow Dark S	urface (TF12)
_ Deplet	ed Below Dark Surface	e (A11)	_ Dep	leted Darl	k Surface ((F7)		Other (Explain in Re	marks)
_ Inick L	Dark Surface (A12)		Ked	ox Depres	SIONS (F8)	- (F12) /I F		26)	
Sandy	Gleved Matrix (S4)	KR IN, MILKA	147, 148) Iron	-Wangane oric Surfor	(E13) (N	5 (FIZ) (LF 11 PA 136	(K N, MILKA T) 122)	Indicators of hydrophy	tic vegetation and
Sandy	Redox (S5)		Oni	mont Flor	odplain So	ils (F19) (122) VI RA 148)	wetland hydrology mus	st be present, unless
Strippe	ed Matrix (S6)		Red	Parent M	aterial (F2	1) (MLRA	127, 147)	disturbed or problemat	tic.
 Postrictiv	e Laver (if observed)					1			
Resulten		• Compac	tod sultay clay loam			Liu alui a C	all Dunnaut?		
	Donth (inchos)	compac		<u> </u>		myuric s	on Present?		
	Depth (inches):		10	_					
Remarks	:								
N1									
NO POSIL	ive indication of hydr	IC SOILS WAS	s observed.						

Hydrology Photos



Vegetation Photos



Soil Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot Sketch

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: 5, Faucette, Alamance Sampling Date: 2018-May-14								
Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B17-17_PFO-1							W-B17-17_PFO-1	
Investigator(s): James Bolduc, Tony Tredway, Karla Fortier Section, Township, Range: Al								
Landform (hillslope, terrace, etc.): Flood Plain			Lo	Local relief (concave, convex, none): Concave Slope (%): 1				
Subregion (LRR or MLR	RA): MLRA	A 136 of LRR P		Lat:	36.1467998	Long: -79.4114211	Datum: WGS84	
Soil Map Unit Name:						NWI classific	ation: PFO	
Are climatic/hydrologic	conditions on	the site typical fo	r this time of year)	Yes 🟒 No 🔄	(If no, explain in Remai	rks.)	
Are Vegetation,	Soil,	or Hydrology	significantly distu	rbed?	Are "Normal C	Circumstances" present?	Yes 🟒 No	
Are Vegetation,	Soil,	or Hydrology	naturally problen	natic?	(If needed, ex	olain 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?	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 pr	resent.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	T F P R T C agery (B7)	rue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Ru Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Chin Muck Surface (C7) Other (Explain in Remarks)	oots (C3) Is (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC Neutral Tact (DE)
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):	6	
(includes capillary fringe)				-
Describe Recorded Data (stream ga	auge, monitoring w	ell, aerial photos, previous inspec	tions), if	available:
Remarks:				
The criterion for wetland hydrology	/ is met.			

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

Sampling Point: W-B17-17_PFO-1

		•						
Tree Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That		л	(A)	
1. Acer rubrum	30	Yes	FAC	Are OBL, FACW, or FAC			(~)	
2. Liquidambar styraciflua	50	Percent cover cannot be greater than a previous	FAC	Total Number of Domi Across All Strata: Percent of Dominant S	nant Species	4	(B)	
		species		Are OBL, FACW, or FAC		100	(A/B)	
3. Carpinus caroliniana	10	No	FAC	Prevalence Index work	sheet:			
4. Betula nigra	10	No	FACW	Total % Cover	of:	<u>Multiply</u>	<u>By:</u>	
5.				OBL species	0	x 1 =	0	
6.				FACW species	55	x 2 =	110	
7				FAC species	165	x 3 =	495	
	100	= Total Cover		FACU species	10	x 4 =	40	
50% of total cover: <u>50</u>	_20% of to	tal cover:	20	UPL species	0	x 5 =	0	
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Column Totals	230	(A)	645 (B)	
1. Acer rubrum	30	Yes	FAC	Prevalence Ir	ndex = B/A =	2.8		
2. <i>Carpinus caroliniana</i>	30	Yes	FAC	Hydrophytic Vegetation	n Indicators:			
3				1- Rapid Test for I	Hydrophytic \	/egetatio	ı	
4				2 - Dominance Te	st is >50%			
5				3 - Prevalence Inc	dex is $\leq 3.0^1$			
6				4 - Morphological	Adaptations	' (Provide	supporting	
7				data in Remarks or on a separate sheet)				
8				Indicators of hydric soil and wetland hydrology must b				
9				present, unless disturbed or problematic				
	60	= Total Cover		Definitions of Four Vegetation Strata:				
50% of total cover: <u>30</u>	_20% of to	tal cover:	12					
Herb Stratum (Plot size: <u>5'</u>)				Tree – Woody plants, e	xcluding vine	s, 3 in. (7.	6 cm) or more	
1. Phalaris arundinacea	45	Yes	FACW	– in diameter at breast height (DBH), regardless of height.				
2. Viburnum dentatum	10	No	FAC					
3. Lonicera japonica	10	No	FACU	Sapling/shrub - Woody	y plants, exclu	uding vine	s, less than 3	
4. Smilax rotundifolia	5	NO	FAC	in. DBH and greater th	an or equal to	o 3.28 ft (l m) tall.	
5.								
o				Herb – All herbaceous	(non-woody)	plants, re	gardless of	
7	. <u> </u>			size, and woody plants	1855 tridri 5.2	o It lall.		
8								
9	. <u> </u>			Woody vines – All woo	dy vines grea	ter than 3	.28 ft in	
10				height.				
11	. <u> </u>							
	70	= Total Cover						
50% of total cover: <u>35</u>	_20% of to	tal cover:	14					
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u>)				Hydrophytic Vegetatic	on Present?	∕es ☑ No		
1								
2								
3								
4.								
5								
	0	= Total Cover						
50% of total cover: <u>0</u>	_20% of to	tal cover:	0					
Remarks: (Include photo numbers here or o	n a separat	te sheet.)						
•	•							
A positive indication of hydrophytic vegetati	on was obs	served (>50% of domir	nant species	indexed as OBL, FACW, o	or FAC).			

SOIL

Sampling Point: W-B17-17_PFO-1

Profile De	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
(inches)	Color (moist)	06	Color (mo	viet) %	Type1			Toyturo	Pemarks	
				16 2				Silt Loom	Remarks	
<u> </u>	101R 5/2	30	7.51R 4/	<u> </u>				Silt Loan	·	
6 - 15	10YR 6/1	/0	7.5YR 4/	/630		IVI		Slit Loam		
		· <u> </u>								
						<u> </u>				
		. <u> </u>								
¹ Type: C =	= Concentration, D = D	epletion	, RM = Reduce	ed Matrix, MS	= Masked S	Sand Graii	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.	
Hydric Sc	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :	
Histosc	l (A1)		-	Dark Surface	e (S7)			2 cm Muck (A10) (A	ALDA 147)	
Histic E	pipedon (A2)		-	_ Polyvalue Be	low Surface	e (S8) (MLF	RA 147, 148)	2 CHI MUCK (ATO) (N	(A16) (M DA 147 149)	
Black H	istic (A3)		-	Thin Dark Su	rface (S9) (MLRA 147,	148)		nin Saile (E19) (MI DA 126	
Hydrog	en Sulfide (A4)		-	_ Loamy Gleye	ed Matrix (F.	2)		Fleamont Floodpla		
2 cm M	uck (A10) (I RR N)		-	Depleted Ma Redox Dark	iurix (F3) Surface (F6)			Very Shallow Dark	Surface (TE12)	
Deplete	ed Below Dark Surface (/	A11)	-	Depleted Da	rk Surface (F7)		Other (Explain in R	emarks)	
Thick D	ark Surface (A12)		-	 Redox Depre	essions (F8)				emanoy	
Sandy I	Mucky Mineral (S1) (LRR	N, MLRA	147, 148) _	_ Iron-Mangar	iese Masses	s (F12) (LRI	R N, MLRA 13	6) _{3Indicators of hydroph}	vtic vegetation and	
Sandy (Gleyed Matrix (S4)		-	_ Umbric Surfa	ace (F13) (N	ILRA 136, 1	22)	wetland hydrology mu	ist be present, unless	
_ Sandy I	Redox (S5)		-	_ Piedmont Flo	odplain So	IIS (F19) (N	1LRA 148) 27 147)	disturbed or problema	atic.	
strippe				_ Red Parent h	/laterial (FZ		27, 147)			
Restrictiv	e Layer (if observed):									
	Type:		None			Hydric S	oil Present?		Yes 🗹 No 🗆	
	Depth (inches):									
Remarks										

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/Cou	nty: 5, Faucette, Alama	nce Sampling Dat	te: 2018-May-14	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W	-B18-17_UPL-1
Investigator(s): Laur	a Giese, Tony	Tredway, Karla Foi	rtier	Section, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local r	elief (concave, convex,	none): Convex	Slope (%): 5 to 10
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P		Lat: 36.1467271	Long: -79.4115103	Datum: WGS84
Soil Map Unit Name:					NWI classifica	tion:
Are climatic/hydrologic	c conditions o	n the site typical fo	or this time of year?	Yes 🟒 No 🔄	(If no, explain in Remark	s.)
Are Vegetation,	Soil,	or Hydrology	_ significantly disturbed	d? Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	_ 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?	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 a	<u>ll that apply)</u>	Secondary Indicators (minimum	of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hyd Oxio Pres Reco Thir Oth agery (B7)	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)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 1)
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-B18-17_UPL-1

Tree Stratum (Plot size: 30')	Absolute	e Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species T	^{'hat} 1	(A)
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Spe	cies 6	(B)
3				- Dercent of Dominant Species T	hat	
4				- Are OBL_EACW or EAC	16.7	(A/B)
5				- Prevalence Index worksheet:		
6				- Total % Cover of:	Multiply	Bv:
7				- OBL species 0	x 1 =	0
	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 35	x3=	105
Sapling/Shrub Stratum (Plot size:15')				FACU species	x 4 =	
1. Acer platanoides	20	Yes	UPL	- UPL species 30	x5=	150
2. <i>Carya glabra</i>	15	Yes	FACU	- Column Totals	(A)	(B)
3. <i>Prunus virginiana</i>	10	Yes	FACU	- Prevalence Index = B	(X)	(8)
4. <i>Ilex opaca</i>		No	FACU			
5				Hydrophytic Vegetation Indicate	ors:	
6				I- Rapid Test for Hydroph	ytic vegetation	1
7.				2 - Dominance Test is > 50	1%	
8.				$=$ 3 - Prevalence Index is ≤ 3	3.U'	
9.				4 - Morphological Adaptat	lons' (Provide	supporting
	45	= Total Cov	ver		Vegetation1 (E)	(niclay
50% of total cover: <u>22.5</u>	20% of to		9	11pdicators of bydric soil and w	etland bydrolo	gy must be
Herb Stratum (Plot size:5')				present, unless disturbed or pr	oblematic	gy must be
1. Viburnum acerifolium	10	Yes	UPL	Definitions of Four Vegetation S	Strata:	
2. Lonicera japonica	10	Yes	FACU			
3. Acer saccharum	5	No	FACU	- Tree – Woody plants, excluding	vines 3 in (7.)	6 cm) or more
4. Euonymus americanus	5	No	FAC	in diameter at breast height (DI	BH), regardles:	s of height.
5.						0
6.				- Sapling/shrub – Woody plants,	excluding vine	s, less than 3
7.				in. DBH and greater than or eq	ual to 3.28 ft (1	l m) tall.
8.				-		
9.				Herb – All herbaceous (non-wo	ody) plants, re	gardless of
10		·		size, and woody plants less tha	n 3.28 ft tall.	
11				-		
···· <u>·</u>	30	= Total Cov	/er	- Woody vines – All woody vines	greater than 3	.28 ft in
50% of total cover: 15	20% of to		6	height.	5	
Woody Vine Stratum (Plot size: 30')				· · · · ·	-	
1. Smilax rotundifolia	30	Yes	FAC			
2				-		
3				- Hydrophytic Vegetation Preser	nt? Yes⊡No.'	2
4				-		
5				-		
J	30	- Total Cov		-		
50% of total cover: 15	20% of to		6			
<u> </u>	_ 20 % 01 10					
Remarks: (Include photo numbers here or on a separa	ite sheet.)					
No positivo indication of hydrophytics activity	bear is -1 (·	included as EAC and dates		
IND POSITIVE INDICATION OF HYDROPHYTIC VEGETATION WAS C	inzervea (≥	:50% OT don	mant speci	es indexed as FACH or drier).		

SOIL

Sampling Point: W-B18-17_UPL-1

Profile De	scription: (Describe t	o the deptł	n needed to docum	ent the i	ndicator o	or confirn	n the absend	ce of indicators.)	
Deptn	Matrix		Redox	K Feature	es Trancit	12		Terretories	Demonto
(inches)		<u> </u>	Color (moist)	%	Туреч	LOC ²		Texture	Remarks
0-4	10YR 3/2	100			·		Fine		
4 - 16	10YR 4/3	100			·		Fi	ne Sandy Loam	
16 - 20	10YR 4/3	70					Fi	ne Sandy Loam	
16 - 20	10YR 5/8	30						Sandy Loam	
		. <u> </u>			· . <u></u>				
					·				
					·				
	Concontration D = [DA - Doducod Matri		Mackad C	and Crain		n DI - Doro Lining M - N	Astrix
Type: C =	Concentration, D = L	Jepietion, F	RNI = Reduced Matri	x, ivis = i	wasked S	and Grai	ns. ² Localio	on: PL = Pore Lining, M = r	
Hydric So	Il Indicators:							Indicators for Problema	tic Hydric Solls ³ :
- Histoso	I (AI)		Dark S	ourface (S	o/)		A 147 140	2 cm Muck (A10) (M	LRA 147)
	orpedon (AZ)		_ Polyva	aue Belo		(20) (IVILH ۸1 DA 117	1/12)	Coast Prairie Redox	(A16) (MLRA 147, 148)
- Black H	en Sulfide (A4)			v Gleved	ace (59) (N Matrix (F2	/ILKA 147,	140)	Piedmont Floodplai	n Soils (F19) (MLRA 136,
Stratifie	d Lavers (A5)		Deple	ted Matr	ix (F3)	.)		147)	
2 cm M	uck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark S	urface (TF12)
_ Deplete	d Below Dark Surface	(A11)	_ Deple	ted Dark	Surface (F	7)		Other (Explain in Re	marks)
Thick D	ark Surface (A12)		Redox	Depress	sions (F8)			、	,
Sandy N	/lucky Mineral (S1) (LRI	R N, MLRA 1	47, 148) Iron-N	langanes	se Masses	(F12) (LR	R N, MLRA 13	6) _{3Indicators of hydrophy}	tic vegetation and
Sandy C	leyed Matrix (S4)		_ Umbr	ic Surface	e (F13) (M	LRA 136, 1	122)	wetland hydrology mus	t be present unless
Sandy F	ledox (S5)		Piedm	iont Floo	dplain Soi	ls (F19) (N	ILRA 148)	disturbed or problemat	ic be present, unless
Strippe	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:									
No positiv	e indication of hydri	soils was	observed.						

Photo of Sample Plot North



Photo of Sample Plot East

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	e City/County: _5, Faucette, Alamance Sampling Date: _ 2018-May-15					
Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-19_PSS-1						
Investigator(s): James Bolduc, Tony Tredway, Jeremy Hummel Section, Township, Range:						
Landform (hillslope, terrace, etc.):	Swamp	Local relief (c	oncave, convex,	none): Concave	Slope (%): 0 to 1	
Subregion (LRR or MLRA): MLRA	136 of LRR P	Lat:	36.1465254	Long: -79.4073648	Datum: WGS84	
Soil Map Unit Name:				NWI classificati	on: PSS	
Are climatic/hydrologic conditions on	the site typical for this time of	f year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)	
Are Vegetation, Soil, o	or Hydrology significantly	/ disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No	
Are Vegetation, Soil,	or Hydrology naturally pr	oblematic?	(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 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)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tru Hy O> Pru Re Th Ot	ue Aquatic Plants (B14) rdrogen Sulfide Odor (C1) kidized Rhizospheres on Living Ro esence of Reduced Iron (C4) cent Iron Reduction in Tilled Soils in Muck Surface (C7) her (Explain in Remarks)	ots (C3) (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	0	
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 inspecti	ons), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met.			

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

Sampling Point: W-B18-19_PSS-1

<u>Tree Stratum</u> (Plot size: <u>30)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	Λ	(4)
1. Acer rubrum	30	Yes	FAC	Are OBL, FACW, or FAC:	4	(A)
2. Juglans nigra	10	No	FACU	Total Number of Dominant Species	· 4	(B)
3. Carya glabra	10	No	FACU	Across All Strata:	· · ·	(8)
4. <i>Liriodendron tulipifera</i>	5	No	FACU	Percent of Dominant Species That	100	(A/B)
5.				Are OBL, FACW, or FAC:		
6.				Prevalence Index worksheet:		_
7.				<u>Iotal % Cover of:</u>	Multiply	<u>By:</u>
	55	= Total Cover		OBL species 90	x 1 =	90
50% of total cover: 27.5	20% of to	tal cover:	11	FACW species 45	x 2 =	90
Sapling/Shrub Stratum (Plot size: 15')				FAC species 100	x 3 =	300
1. Lindera benzoin	40	Yes	FAC	FACU species 25	x 4 =	100
2. Sambucus nigra	10	No	FAC	UPL species 0	x 5 =	0
3. Salix nigra	10	No	OBL	Column Totals 260	(A)	580 (B)
4. Viburnum dentatum	10	No	FAC	Prevalence Index = B/A =	2.2	
5				Hydrophytic Vegetation Indicators:		
				1- Rapid Test for Hydrophytic	Vegetatior	r
7				2 - Dominance Test is >50%		
»				3 - Prevalence Index is ≤ 3.0 ¹		
o				4 - Morphological Adaptations	s¹ (Provide	supporting
9				data in Remarks or on a separate s	heet)	
	70	= Total Cover		Problematic Hydrophytic Vege	etation ¹ (E	xplain)
50% of total cover: <u>35</u>	20% of to	tal cover:	14	¹ Indicators of hydric soil and wetlar	nd hydrolc	ogy must be
<u>Herb Stratum</u> (Plot size: <u>5</u>)	10	No	EA CIAL	present, unless disturbed or proble	ematic	
1. Arisaema triphyllum	40	Yes	FACW	Definitions of Four Vegetation Strat	ta:	
2. <i>Carex vulpinoidea</i>	80	Percent cover cannot be greater than a previous species	OBL	Tree – Woody plants, excluding vine in diameter at breast height (DBH),	es, 3 in. (7. regardles	6 cm) or more s of height.
3. Boehmeria cylindrica	5	No	FACW	Sanling/shruh - Woody plants excl	uding vine	os less than 3
4.				in. DBH and greater than or equal t	to 3.28 ft (1 m) tall.
5.						· · · · ·) ca
6.				Herb – All herbaceous (non-woodv)) plants, re	gardless of
7.				size, and woody plants less than 3.	28 ft tall.	0
8						
9				boight	ater than 3	5.28 It In
10						<u> </u>
11						
	125	= Total Cover				
50% of total cover: <u>62.5</u>	20% of to	tal cover:	25			
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u>)				Hydrophytic Vegetation Present?	Yes 🗹 No	
1. <i>Smilax rotundifolia</i>	10	Yes	FAC			
2						
3						
4						
5						
	10	= Total Cover				
50% of total cover: <u>5</u>	20% of to	tal cover:	2			
Remarks: (Include photo numbers here o	or on a separa	te sheet.)		-		

SOIL

Sampling Point: W-B18-19_PSS-1

Profile De	escription: (Describe to	o the dept	h needed to docume	ent the i	indicator	or confirn	n the absend	ce of indicators.)	
Depth	Matrix		Redox	Feature	es				. .
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туре	Loc ²		lexture	Remarks
0 - 3	10YR 3/2	98	7.5YR 4/6	2	C	M		Silt Loam	
3 - 15	10YR 5/1	90	7.5YR 4/6	10	C	Μ		Silt Loam	
		<u> </u>			. <u> </u>				
									·
	Concentration D = D		PM - Poducod Matri	v Mc -	Maskod	and Grain	as ² l ocativ	on: PL - Pore Lining M -	Matrix
-Type. C -	- Concentration, D – D	epietion,	RIVI – REGUCEG MALTI	x, ivis –	Maskeu s	Sanu Gran	IS. ² LOCALIC	JII. PL – POIE LIIIIIg, IVI –	- Midli IX.
Hydric So	II Indicators:		Daula		C7)			Indicators for Problem	hatic Hydric Solls ³ :
HISTOSO	I (A1) ninodon (A2)		_ Dark S	surface (S/)	(59) /MIE	A 147 140	2 cm Muck (A10) (MLRA 147)
Black H	pipedoli (A2) istic (A3)		Ροιγνα Thin Γ	aiue beiu)ark Surf	face (S9) (I	(30) (IVILF MI RA 147	148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)	140)	Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		 Deple	ted Matr	rix (F3)			147)	
2 cm M	uck (A10) (LRR N)		Redox	Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (A11)	_ Deple	ted Dark	Surface (F7)		Other (Explain in R	Remarks)
Thick D	ark Surface (A12)		Redox	Depres	sions (F8)	(54.0) (1.5)			
_ Sandy M	Aucky Mineral (S1) (LRR	K N, MLRA	147, 148) Iron-N	langane	se Masses	5 (F12) (LRI	(N, MLKA 13	⁶⁾ 3Indicators of hydroph	nytic vegetation and
Sandy C	Jieyed Matrix (S4)		Umbr	ic Surfac	e (F13) (M	ILKA 136, 1 ile (E19) (N	ZZ) 11 PA 1781	wetland hydrology mu	ust be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	aterial (F21	1) (MI RA 1	27, 147)	disturbed or problem	atic.
Postrictiv	e Lover (if observed):					1	,,		
Resulter			None			Liberal mine C	ail Duanamt?		
	Donth (inchos):		None			myuric 5	on Present?		
	Depth (inches).								
Remarks:									
A positive	e indication of hydric s	oil was ob	oserved.						

Hydrology 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/Cour	ity: 5, Faucette, Alaman	ce Sampling Da	te: 2018-May-15	
Applicant/Owner: N	extEra			State: North C	arolina Sampling Point: V	/-B18-19_UPL-1
Investigator(s): Jame	es Bolduc, Tony	/ Tredway		Section, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local re	lief (concave, convex,	none): Convex	Slope (%): 1 to 3
Subregion (LRR or MLR	RA): MLRA	A 136 of LRR P		Lat: 36.1465996	Long: -79.4072753	Datum: WGS84
Soil Map Unit Name:					NWI classifica	ition: None
Are climatic/hydrologic	conditions on	the site typical fo	r this time of year?	Yes 🟒 No 🔄	(If no, explain in Remar	<s.)< td=""></s.)<>
Are Vegetation,	Soil,	or Hydrology	_significantly disturbed?	Are "Normal C	Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	_ naturally problematic?	(If needed, ex	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. Area is upland, not all thre	e wetland parameters are	present.	

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of on	e is required; check all	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	<u>rone is required; check all that apply</u> True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) I Imagery (B7)		 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 		
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-B18-19_UPL-1

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Iree Stratum</u> (Plot size: <u>30)</u>	% Cover	Species?	Status	Number of Dominant Species That	з	(A)
1. <i>Liriodendron tulipifera</i>	60	Yes	FACU	Are OBL, FACW, or FAC:		
2. Liquidambar styraciflua	20	Yes	FAC	Total Number of Dominant Species	6	(B)
3. Juglans nigra	20	Yes	FACU	Across All Strata.		
4				Are OBL, FACW, or FAC:	50	(A/B)
5		·		Prevalence Index worksheet:		
6				Total % Cover of:	Multiply	<u>By:</u>
7				OBL species 0	x 1 =	0
	100	= Total Cov	er	FACW species 0	x 2 =	0
50% of total cover: <u>50</u>	_ 20% of to	otal cover:	20	FAC species 150	x 3 =	450
Sapling/Shrub Stratum (Plot size: <u>15</u>)	50	Voc	EAC	FACU species 120	x 4 =	480
1. Lindera benzon	20	Voc		UPL species 0	x 5 =	0
	20	165	FACU	Column Totals 270	(A)	930 (B)
3		·		Prevalence Index = B/A =	3.4	
4		·		Hydrophytic Vegetation Indicators:		
6		<u> </u>		1- Rapid Test for Hydrophytic	Vegetatior	ı
7		<u> </u>		2 - Dominance Test is > 50%		
2 · · · · · · · · · · · · · · · · · · ·		<u> </u>		3 - Prevalence Index is ≤ 3.0^1		
o		<u> </u>		4 - Morphological Adaptations	¹ (Provide	supporting
J		= Total Cov	or	data in Remarks or on a separate s	neet)	
50% of total cover: 35	20% of to		1/	Problematic Hydrophytic Vege	etation ¹ (E>	(plain)
Herb Stratum (Plot size: 5')	_ 20 /0 01 10			¹ Indicators of hydric soil and wetlar	1d hydrolo	gy must be
1. Microstegium vimineum	80	Yes	FAC	present, unless disturbed or proble	matic	
2. Lonicera iaponica	10	No	FACU	Definitions of Four Vegetation Strat	d.	
3. Fragaria vesca	10	No	FACU	Tree Woody plants excluding ving	ac 2 in (7)	f cm) or moro
4			1/100	in diameter at breast height (DBH)	regardles	s of height
5.					regui ales.	of freight.
6.				Sapling/shrub – Woody plants, excl	uding vine	s. 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.		· ·				
	100	= Total Cov	er	Woody vines – All woody vines grea	iter than 3	.28 ft in
50% of total cover: 50	20% of to	tal cover:	20	height.		
Woody Vine Stratum (Plot size: <u>30'</u>)						
1.						
2.		·				
3.		·		Hydrophytic Vegetation Present?	Yes N	lo
4.		·				
5.		·				
	0	= Total Cov	er			
50% of total cover: <u>0</u>	20% of to	tal cover:	0			
	te sheet.y					

SOIL

Sampling Point: W-B18-19_UPL-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redox	Feature	es				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type	Loc ²		lexture	Remarks
0 - 4	10YR 4/3	100		·	·			ne Sandy Loam	
4 - 10	7.5YR 4/4	100		· . <u> </u>	·	·	Fi	ne Sandy Loam	
10 - 18	7.5YR 4/3	100			·			Sandy Loam	
					·				
¹ Type: C	= Concentration, D = D	Depletion, F	RM = Reduced Matri	x. MS =	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric Sc	il Indicators:	epiccion, i		.,			20000	Indicators for Problem	atic Hydric Soils ³
Histoso	l (A1)		Dark 9	Surface (57)				ade rigarie Solis .
Histic E	pipedon (A2)		Polyva	lue Belo	w Surface	(S8) (MLI	RA 147, 148)	2 cm Muck (A10) (N	ILRA 147)
Black H	istic (A3)		Thin D	ark Surf	ace (S9) (N	/LRA 147	, 148)	Coast Prairie Redo	(A16) (MLRA 147, 148)
_ Hydrog	en Sulfide (A4)		Loamy	/ Gleyed	Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		_ Deple	ted Matr	ix (F3)			14/)	
_ 2 cm M	uck (A10) (LRR N) I Balana Dank Curfe en (A 1 1)	Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface (ATT)	_ Depler	Doproce	Surface (F	-/)		Other (Explain in R	emarks)
Sandy I	ducky Mineral (S1) (I R F	N. MIRA 1	47.148) Iron-M	langane	se Masses	(F12) (I R	R N. MI RA 13	6)	
Sandy (Gleved Matrix (S4)		Umbri	c Surfac	e (F13) (M	LRA 136,	122)	³ Indicators of hydroph	ytic vegetation and
Sandy I	Redox (S5)		Piedm	ont Floo	dplain Soi	ls (F19) (, /ILRA 148)	wetland hydrology mu	st be present, unless
Strippe	d Matrix (S6)		Red Pa	arent Ma	terial (F21) (MLRA	127, 147)	disturbed or problema	itic.
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric S	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks									
No positive indication of hydric soils was observed.									

Vegetation Photos


Soil Photos



Photo of Sample Plot North



Photo of Sample Plot South



Photo of Sample Plot Sketch

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/County	: Burlington, Alamano	e Sampling Dat	te: 2018-June-13	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-	318-115_PFO-1
Investigator(s): Jose	ph Roy, Jim Bol	duc, Jeremy Humm	el g	Section, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local re	lief (concave, convex,	none): Concave	Slope (%): 1 to 10
Subregion (LRR or MLF	RA): MLRA	A 136 of LRR P		Lat: 36.1462138	Long: -79.4188285	Datum: WGS84
Soil Map Unit Name:	LOE: Louisbu	irg course Sandy loa	im		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	ignificantly disturbed?	Are "Normal C	Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology r	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?	Yes 🖌 No Yes 🖌 No	is the Compled Area within a Wetland?	
Remarks:	res No	is the sampled Area within a wettand?	
Covertype is PFO. Area is wetland, all three v	vetland parameters are pr	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)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tri Hy Ox 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) her (Explain in Remarks)	ots (C3) 5 (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) ✓ Microtopographic Relief (D4) ✓ FAC-Neutral Test (D5)
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)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	F (1)
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. Fraxinus pennsylvanica				Across All Strata:	
4.				Percent of Dominant Species That	100 (A/B)
5				Bravalance Index worksheet:	
6				Total % Cover of	Multiply By:
7				OBL species 0	x 1 = 0
	20	= Total Cov	er	FACW species 20	$x^{2} = 40$
50% of total cover: <u>10</u>	_20% of to	tal cover:	4	FAC species 25	x 3 = 75
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 0	x 4 = 0
1. <u>Acer rubrum</u>	15	Yes	FAC	UPL species 0	x5= 0
2				Column Totals 45	(A) 115 (B)
3				$\frac{1}{2}$	26
4					2.0
5				Hydrophytic Vegetation Indicators:	Vagatation
6				1- Rapid Test for Hydrophytic	regetation
7				2 - Dominance Test is >50%	
8				3 - Prevalence index is $\leq 3.0^{\circ}$	1 (Duesside essencenting
9				4 - Morphological Adaptations	(Provide Supporting
	15	= Total Cov	er	Problematic Hydronbytic Vege	etation ¹ (Explain)
50% of total cover: <u>7.5</u>	_20% of to	tal cover:	3	¹ Indicators of hydric soil and wetlar	id hydrology must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic
1. Woodwardia areolata	5	Yes	FACW	Definitions of Four Vegetation Strat	a:
2. Viola cucullata	5	Yes	FACW		
3.				Tree – Woody plants, excluding vine	es. 3 in. (7.6 cm) or mo
4.				in diameter at breast height (DBH),	regardless of height.
5.					0 0
6.				Sapling/shrub – Woody plants, excl	uding vines, less than i
7.				in. DBH and greater than or equal t	o 3.28 ft (1 m) tall.
8.					
9.				Herb – All herbaceous (non-woody)	plants, regardless of
10.				size, and woody plants less than 3.2	28 ft tall.
11.					
···· <u></u>	10	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 ft in
50% of total cover: 5	20% of to	tal cover	2	height.	
Woody Vine Stratum (Plot size: 30)	_ 20 /0 01 10	tai cover.			
1					
2				•	
2	·			Hydrophytic Vegetation Present?	
л				ingerophytic vegetation resent.	
*					
		- Total Cov	or		
E004 of total covery 0	0 20% of to		0		
50% of total cover: <u>0</u>	_ 20% of to	tal cover:	0		
A positive indication of hydrophytic vegetation was ob-	te sheet.) served (>50)% of domin	ant species	indexed as OBL, FACW, or FAC).	

SOIL

Sampling Point: W-B18-115_PFO-1

	indu in		Redu	k realui	53				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 8	10YR 3/1	100						Sandy Loam	
					·				
					. <u> </u>				
Type: C =	Concentration, D = D	Pepletion, F	RM = Reduced Matr	x, MS =	Masked S	and Grair	s. ² Locatio	on: PL = Pore Lining, M = I	Matrix.
lydric Soi	Indicators:			-				Indicators for Problema	tic Hydric Soils ³ :
_ Histosol	(A1)		Dark	Surface (57)			2 cm Muck (A10) (M)	J DA 147)
_ Histic Ep	ipedon (A2)		Polyv	alue Belo	w Surface	(S8) (MLR	A 147, 148)	2 CITI MUCK (ATO) (IVI	LKA 147) (A16) (MIDA 147 148)
_ Black His	stic (A3)		Thin [Dark Surf	ace (S9) (N	MLRA 147,	148)	Coast Fraine Redox	CATO) (WERE 147, 140)
_ Hydroge	n Sulfide (A4)		Loam	y Gleyed tod Matr	Matrix (F2	<u>')</u>		147)	
2 cm Mu	ick (A10) (LRR N)		Deple Redo	Dark Su	rface (F6)			Verv Shallow Dark S	urface (TF12)
Depleted	d Below Dark Surface (A11)	Deple	ted Dark	Surface (F	-7)		Other (Explain in Re	marks)
_ Thick Da	rk Surface (A12)		Redo	Depres	sions (F8)			、	
_ Sandy M	lucky Mineral (S1) (LRF	R N, MLRA 1	47, 148) Iron-N	/langane:	se Masses	(F12) (LRR	N, MLRA 13	⁵⁾ ³Indicators of hydrophy	tic vegetation and
Sandy G	leyed Matrix (S4) adox (S5)		Umbr Piedo	ic Surfac	e (F13) (M dolain Soi	LRA 136, 1	22) I DA 178)	wetland hydrology mus	t be present, unless
Stripped	Matrix (S6)		Red P	arent Ma	terial (F21) (MLRA 1)	27, 147)	disturbed or problemat	ic.
Restrictive	l aver (if observed):								
	Type:		Bedrock			Hydric Se	nil Present?		Ves 🛙 No 🗆
	Depth (inches):		8	-		i iyane s	Sill Present.		
Pomarks:			-	-					
ternarits.									
A nositive	indication of hydrics	oil was ob	served						
positive									

Photo of Sample Plot North





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, Alaman	ce Sampling Dat	e: 2018-June-13	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-l	318-115_UPL-1
Investigator(s): Jose	ph Roy, Jim Bo	olduc		Section, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local re	lief (concave, convex,	none): Convex	Slope (%): 1 to 10
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.1461367	Long: -79.4187391	Datum: WGS84
Soil Map Unit Name:	LoE: Louisb	urg course Sandy lo	am		NWI classificati	on:
Are climatic/hydrologic	c conditions o	n the site typical for	r this time of year?	Yes 🟒 No 🔄	(lf no, explain in Remarks	.)
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	P Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	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?	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	<u>that apply)</u>	Secondary Indicators (minimum	<u>of two required)</u>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True . Hydro Oxidi Prese Recei Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 11)
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	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-B18-115_UPL-1

Tree Stratum (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksheet:		
1 Carpinus caroliniana	% Cover	Species?	Status	Are OBL. FACW. or FAC:	1	(A)
1. Carpinus caronniana	20		FAC	Total Number of Dominant Species		
3 Carva glabra	15	No	FACU	Across All Strata:	3	(B)
4.			inco	Percent of Dominant Species That	33.3	(A/R)
5.				Are OBL, FACW, or FAC:		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
6.				Prevalence Index worksheet:		
7.		·		<u>Iotal % Cover of:</u>	Multiply By	λ ι
	85	= Total Cov	er	EACW species	x I =	0
50% of total cover: <u>42.5</u>	20% of to	tal cover:	17	FACW species 0	x 2 =	150
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FAC species 50	x 3 =	150
1				LIPL species 0	x 4 =	160
2				Column Totals	x 5	210 (D)
3		<u> </u>		Brovalence Index = B/A =	(A) <u> </u>	510 (B)
4					3.4	
5		<u> </u>		Hydrophytic Vegetation Indicators:	(a matati a m	
6				I- Rapid Test for Hydrophytic	regetation	
7	<u> </u>	<u> </u>				
8				$3 - \text{Prevalence index is } 3.0^{\circ}$	1 (Provido cu	upporting
9				4 - Morphological Adaptations	heet)	hhormal
	0	= Total Cov	er	Problematic Hydrophytic Vege	etation ¹ (Exp	lain)
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	¹ Indicators of hydric soil and wetlan	nd hydrology	/ must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. <i>Polystichum acrostichoides</i>	5	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2						
3				Tree – Woody plants, excluding vine	es, 3 in. (7.6 c	cm) or more
4				in diameter at breast height (DBH),	regardless o	of height.
5						
6				Sapling/shrub – Woody plants, exclu	Juding vines,	less than 3
7		·		In. DBH and greater than or equal to	o 3.28 ft (1 n	n) tall.
8		··········· ·		Harb All barbacaque (pap woody)	plants roga	vrdlace of
9		<u> </u>		size, and woody plants less than 3.2	28 ft tall.	11 01633 01
10		··········· ·				
11		·				0.6.1
	5	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28	8 ft in
50% of total cover: <u>2.5</u>	_20% of to	tal cover:	1			
Woody Vine Stratum (Plot size: <u>30</u>)						
1		· ·				
2.		· ·				
S				- Hydrophytic Vegetation Present?		
4				-		
J		- Total Cov	or			
50% of total cover: 0	20% of to	tal cover	0			
	_ 20 /0 01 10	tai cover.	0			
Remarks: (Include photo numbers here or on a separa	te sheet.)					
No positive indication of hydrophytic vegetation was o	hserved (~	50% of dom	inant speci	es indexed as $FAC - or driver)$		
	oseiveu (≥	5576 OF UUIT	mant speci	es indexed as the of difer.		

SOIL

Sampling Point: W-B18-115_UPL-1

Profile De Depth	escription: (Describe t Matrix	o the dept	h needed to docume Redox	ent the i Featur	ndicator o	or confirm	the absenc	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 2	10YR 2/2	100						Loam	
2 - 8	10YR 4/6	100		·	·		Fir	ne Sandy Loam	
8 - 18	10YR 5/4	100		·	·				
0-10	1011(3/4			·	·	<u> </u>			·
				·	·				·
					·				
					·				
				<u></u>					
					·				
¹ Type: C =	= Concentration, D = [Depletion, l	RM = Reduced Matri	x, MS =	Masked S	and Grair	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histoso	l (A1)		_ Dark S	Surface (S	57)			2 cm Muck (A10) (N	II PA 1/17)
Histic E	pipedon (A2)		Polyva	lue Belo	w Surface	(S8) (MLR	A 147, 148)	Coast Prairie Redox	(A16) (MI PA 147 148)
_ Black H	istic (A3)		Thin D	ark Surf	ace (S9) (N	MLRA 147,	148)	Coast i raine Redo/	in Soils (F19) (MI PA 136
Hydrog	en Sulfide (A4)		_ Loamy	/ Gleyed	Matrix (F2	2)			
Stratifie	ed Layers (A5)		_ Deplet	Dark Su	IX (F3) Irfaco (E6)			Very Shallow Dark 9	Surface (TE12)
2 cm w	ad Below Dark Surface	(Δ11)	Reubx	ted Dark	Surface (FO)	E7)		Very Shahow Dark .	Surface (TFTZ)
Depict	ark Surface (A12)	(/(1))	Depict	Depres	sions (F8)	/)			enidiks)
Sandy I	Mucky Mineral (S1) (LR	R N, MLRA 1	47, 148) Iron-M	langane	se Masses	(F12) (LRF	N, MLRA 13	6) _{2100 d} ianta ya af buylua abu	
Sandy	Gleyed Matrix (S4)		_ Umbri	c Surfac	e (F13) (M	LRA 136, 1	22)	undicators of hydrophy	ytic vegetation and
Sandy I	Redox (S5)		Piedm	ont Floo	dplain Soi	ils (F19) (M	ILRA 148)	disturbed or problems	st be present, unless
Strippe	d Matrix (S6)		Red Pa	arent Ma	iterial (F21) (MLRA 1	27, 147)	disturbed or problema	шс.
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric S	oil Present?		Yes 🗆 No 🗵
	Depth (inches):								
Remarks									
No positi	ve indication of hydri	c soils was	observed.						

Photo of Sample Plot North



Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/Count	ty: Burlington, Alamanc	e Sampling Dat	e: 2018-June-04	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-B	18-81_PEM-1
Investigator(s): Will	Buetow, Simo	n King, Jim Bolduc		Section, Township, Rar	nge:	
Landform (hillslope, te	errace, etc.):	drainage	Local re	lief (concave, convex,	none): Concave	Slope (%): 1 to 10
Subregion (LRR or ML	RA): MLR	A 136 of LRR P		Lat: 36.1392081	Long: -79.3914995	Datum: WGS84
Soil Map Unit Name:	HeB, Helena	Sandy loam, 2 to 6	percent slopes		NWI classification	on:
Are climatic/hydrologi	c conditions o	n the site typical for	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks.))
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Normal Ci	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If needed, exp	lain 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? 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 or	Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required)								
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial In Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True A Hydro Oxidi: Prese Recer Thin N Other nagery (B7)	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 In Stunted or Stressed Plants (IC Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) magery (C9))1)					
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): 3	_						
(includes capillary fringe)									
Describe Recorded Data (stream g	auge, monitoring well, a	erial photos, previous inspections), if	available:						
Remarks:									
A positive indication of wetland hy	drology was observed (p	primary and secondary indicators wer	e present).						

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

Sampling Point: W-B18-81_PEM-1

	A In	Densinent	In discount	Dominance Test workshoot		
Tree Stratum (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance Test worksneet:		
	% Cover	species	Status	Are OBL_EACW or EAC	3	(A)
1				Total Number of Dominant Species		
2				Across All Strata	4	(B)
3				Percent of Dominant Species That		
4				Are OBL FACW or FAC:	75	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multinly	Bv:
7				OBL species 40	<u>v 1 =</u>	
	0	= Total Cove	er	EACW species 15	×2-	30
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	EAC species 10	×2- ×2-	20
Sapling/Shrub Stratum (Plot size: <u>15</u>)					× 5	
1. Fraxinus pennsylvanica	5	Yes	FACW		x 4 =	40
2. Rubus allegheniensis	5	Yes	FACU		x 5 = _	0
3.		·		Column lotals 75	(A) _	140 (B)
4.				Prevalence Index = B/A =	1.9	
5				Hydrophytic Vegetation Indicators:		
6		<u> </u>		1- Rapid Test for Hydrophytic	Vegetatior	٦
7				2 - Dominance Test is >50%		
/				$▲$ 3 - Prevalence Index is $\le 3.0^1$		
o				4 - Morphological Adaptations	s¹ (Provide	supporting
9				data in Remarks or on a separate s	heet)	
	10	= lotal Cove	er	Problematic Hydrophytic Vege	etation ¹ (E	xplain)
50% of total cover: <u>5</u>	_ 20% of to	otal cover:	2	¹ Indicators of hydric soil and wetlar	าd hydrolc	ogy must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. <u>Carex vulpinoidea</u>	20	Yes	OBL	Definitions of Four Vegetation Strat	:a:	
2. <i>Carex lurida</i>	20	Yes	OBL			
3. <i>Fraxinus pennsylvanica</i>	10	No	FACW	Tree – Woody plants, excluding vine	es, 3 in. (7.	6 cm) or more
4. Juncus tenuis	10	No	FAC	in diameter at breast height (DBH),	regardles	s of height.
5. <i>Lonicera japonica</i>	5	No	FACU			
6	_			Sapling/shrub – Woody plants, excl	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.	28 ft tall.	
11.						
· · · ·	65	= Total Cove	ar	Woody vines – All woody vines grea	ater than 3	8.28 ft in
50% of total cover: 32.5	20% of to		13	height.		
Woody Vino Stratum (Plot cize: 20)	_ 20% 01 to	lai cover.				
1						
1		<u> </u>				
2.					V 🗖 N	_
3		<u> </u>		Hydrophylic vegetation Present?	res ⊡ 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 ob hydrophytic vegetation was observed (Prevalence Inde	te sheet.) served (>50 ex is ≤ 3.00	0% of domina).	ant species	indexed as OBL, FACW, or FAC). A po	sitive indic	ation of

SOIL

Sampling Point: W-B18-81_PEM-1

Profile De Depth	escription: (Describe to Matrix	the dep	oth needed t	o documo Redo	ent the i k Feature	ndicator (es	or confirn	n the absend	e of indicators.)	
(inches)	Color (moist)	%	Color (n	noist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 4	10YR 3/1	100	i	i	·				Sandy Loam	
4 - 19	10YR 4/1	90	5YR 4	1/6	10	С	М	Sa	ndy Clay Loam	
		<u> </u>								
		<u> </u>								
		<u> </u>								
					·	·				
					·	·	<u> </u>			
						·				
¹ Type: C =	Concentration D = D	enletion	RM = Redu	red Matri	x MS =	Masked S	and Grain	ns ² l ocatio	n:Pl = Pore Lining M =	Matrix
Hydric So	il Indicators:	epietion	, RM – Redu		IX, WIJ – I	Maskeu 2		is. Locatic	Indicators for Problem:	atic Hydric Soils3:
Histoso				Dark	Surface (9	57)				aue rigarie 5015
Histic E	pipedon (A2)			Polyva	alue Belo	w Surface	(S8) (MLF	A 147, 148)	2 cm Muck (A10) (M	LRA 147)
Black H	istic (A3)			Thin D	Dark Surf	ace (S9) (MLRA 147,	148)	Coast Prairie Redox	: (A16) (MLRA 147, 148)
_ Hydrog	en Sulfide (A4)			_ Loam	y Gleyed	Matrix (F2	2)		Piedmont Floodplai	n Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)			_∕ Deple	ted Matr	ix (F3)			14/)	((7540)
_ 2 cm M	UCK (A10) (LRR N) Id Bolow Dark Surface (/	\11)		Redox	Dark Su	Surface (F6)	E7)		Very Shallow Dark S	Surface (TFTZ)
Deplete Thick D	ark Surface (A12)	NII)		Depie Redox	Depress	sions (F8)	F7)		Other (Explain in Re	emarks)
Sandy N	Jucky Mineral (S1) (LRR	N, MLRA	147, 148)	Iron-N	/angane:	se Masses	; (F12) (LRI	R N, MLRA 13	6)	tic vogatation and
Sandy C	Gleyed Matrix (S4)			_ Umbr	ic Surfac	e (F13) (M	ILRA 136, 1	22)	wetland bydrology mus	t be present upless
Sandy F	Redox (S5)			_ Piedm	nont Floo	dplain Soi	ils (F19) (N	ILRA 148)	disturbed or problemat	tic
Strippe	d Matrix (S6)			Red P	arent Ma	iterial (F21	i) (MLRA 1	27, 147)		
Restrictiv	e Layer (if observed):									
	Туре:		None				Hydric S	oil 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

Photo of Sample Plot Sketch



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Burli			nty: Burlington, Alamand	se Sampling Da	te: 2018-June-04	
Applicant/Owner: N	lextEra			State: North C	arolina Sampling Point: V	V-B18-81_PFO-1
Investigator(s): Will	Buetow, Simo	n King, Jim bolduc		Section, Township, Ra	nge:	
Landform (hillslope, te	errace, etc.):	drainage	Local re	lief (concave, convex	none): Concave	Slope (%): 1 to 10
Subregion (LRR or MLI	RA): MLR	A 136 of LRR P		Lat: 36.1391308	Long: -79.3909482	Datum: WGS84
Soil Map Unit Name:	HeB, Helena	Sandy loan, 2 to 6	percent slopes		NWI classifica	ation:
Are climatic/hydrologi	c conditions o	n the site typical fo	or this time of year?	Yes 🟒 No 🔄	(If no, explain in Remar	ks.)
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	_ significantly disturbed? _ naturally problematic?	Are "Normal ((If needed, ex	Circumstances" present? plain any answers in Rema	Yes 🟒 No Irks.)

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?	Ves / 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	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / Hydro Oxidi Prese Recer Thin I Other	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3 ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
			FAC-Neutral Test (D5)
Field Observations: Surface Water Present?	Yes No 🖌	Depth (inches):	- Wetland Lludzalam Brasant2 - Vac. (No.
Saturation Present?	Yes No	Depth (inches): 4	
(includes capillary fringe)			
Describe Recorded Data (stream g	auge, monitoring well, a	erial photos, previous inspections), if	available:
Remarks: A positive indication of wetland hyd	drology was observed (p	primary and secondary indicators wer	e present).

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

Sampling Point: W-B18-81_PFO-1

Tree Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:	
	% Cover	Species?	Status	Number of Dominant Species That	5 (A)
1. Acer rubrum	40	Yes	FAC	Total Number of Dominant Species	
2. Fraxinus pennsylvanica	20	Yes	FACW	Across All Strata:	6 (B)
3. Liquidambar styracifiua	10	<u>N0</u>	FAC	Percent of Dominant Species That	
4. Ulmus americana	10	NO	FACW	Are OBL, FACW, or FAC:	83.3 (A/B)
5. Quercus alba	5	NO	FACU	Prevalence Index worksheet:	
b	·			Total % Cover of:	Multiply By:
7		Tatal Ca		OBL species 0	x 1 =0
	85		er 47	FACW species 40	x 2 = 80
50% of total cover: <u>42.5</u>	_ 20% of to	tal cover:		FAC species 110	x 3 = 330
Sapling/Shrub Stratum (Plot size:15)	20	Vac	FAC	FACU species 15	x 4 = 60
	<u> </u>		FAC	UPL species 0	x 5 = 0
2. Quercus alba	· <u> </u>		FACU	Column Totals 165	(A) 470 (B)
3. Quercus phenos	<u> </u>		FAC	Prevalence Index = B/A =	2.8
4. Fraxinus pennsylvanica		NO	FACW	Hydrophytic Vegetation Indicators:	
5	·	<u> </u>		1- Rapid Test for Hydrophytic V	'egetation
b	·			2 - Dominance Test is >50%	-
7	·			\checkmark 3 - Prevalence Index is ≤ 3.0 ¹	
8	·			4 - Morphological Adaptations	(Provide supporting
9				data in Remarks or on a separate sh	eet)
	45	= lotal Cov	er	Problematic Hydrophytic Vege	ation ¹ (Explain)
50% of total cover: <u>22.5</u>	_20% of to	tal cover:	9	¹ Indicators of hydric soil and wetlan	d hydrology must be
Herb Stratum (Plot size: <u>5</u>)	_		EA CL	present, unless disturbed or problem	natic
1. Lonicera japonica		Yes	FACU	Definitions of Four Vegetation Strata	1:
2. Fraxinus pennsylvanica	5	Yes	FACW		
3	·	. <u> </u>		Tree – Woody plants, excluding vine	s, 3 in. (7.6 cm) or mo
4.	·	. <u> </u>		in diameter at breast height (DBH), i	egardless of height.
5.					
6.				Sapling/shrub - Woody plants, exclu	ding vines, less than
7	·			In. DBH and greater than or equal to) 5.20 It (1 III) tall.
8	·			Herb All berbaceous (pop woody)	plants regardless of
9	·			size, and woody plants less than 3.2	8 ft tall.
10					
11					
	10	= Total Cov	er	Woody vines – All woody vines great	er than 3.28 ft in
50% of total cover: <u>5</u>	_ 20% of to	tal cover:	2	neight.	
Woody Vine Stratum (Plot size: <u>30</u>)					
1. <i>Smilax rotundifolia</i>	25	Yes	FAC		
2	·				
3	·			Hydrophytic Vegetation Present?	es 🗹 No 🗆
4					
5					
	25	= Total Cov	er		
50% of total cover: <u>12.5</u>	_ 20% of to	tal cover:	5		
Remarks: (Include photo numbers here or on a separat	te sheet.)				
A positive indication of hydrophytic vegetation was obs hydrophytic vegetation was observed (Prevalence Inde	served (>50 x is ≤ 3.00)	1% of domir).	iant species	indexed as UBL, FACW, or FAC). A pos	tive indication of

SOIL

Sampling Point: W-B18-81_PFO-1

Profile De Depth	scription: (Describe t Matrix	o the dep	th needed to docume Redox	ent the i Featur	indicator es	or confirm the absen	ce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	2.5Y 2.5/1	100				· <u> </u>	Sandy Loam	
3 - 18	10YR 5/1	90	5YR 4/6	10	C		Sandy Loam	
	101110/1							
······································								
						· ·		
		· ·				· ·		
·		· ·				<u> </u>		
		· ·				·		
		· ·				<u> </u>		
		· ·						
	<u> </u>	· · · · · ·						
'Type: C =	Concentration, $D = I$	Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Grains. ² Locat	on: PL = Pore Lining, M =	Matrix.
Hydric Soi	I Indicators:		Daula		CT)		Indicators for Problem	atic Hydric Soils ³ :
HISTOSOI Histic En	(AT) vinedon (A2)		Dark S	ourrace (Jue Belc	57) w Surface	(S8) (MI RA 147 148)	2 cm Muck (A10) (N	ILRA 147)
Black His	stic (A3)		T biyve	ark Surf	face (S9) (MLRA 147, 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy	/ Gleyed	Matrix (F	2)	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratified	d Layers (A5)		_∕ Deplet	ted Matr	rix (F3)		147)	
_ 2 cm Mu	ick (A10) (LRR N) d Bolow Dark Surface	(A11)	Redox	Dark Su	urface (F6)	F7)	Very Shallow Dark S	Surface (TF12)
Thick Da	ark Surface (A12)	(ATT)	Depie	Depres	sions (F8)	F7)	Other (Explain in Re	emarks)
Sandy M	lucky Mineral (S1) (LR	R N, MLRA	147, 148) Iron-M	langane	se Masses	s (F12) (LRR N, MLRA 1	36),	
Sandy G	leyed Matrix (S4)		_ Umbri	c Surfac	e (F13) (N	ILRA 136, 122)	wetland bydrology mu	st be present upless
Sandy R	edox (S5)		Piedm	ont Floc	odplain So	ils (F19) (MLRA 148)	disturbed or problema	tic
Stripped	Matrix (S6)		Red Pa	arent Ma	aterial (F2	1) (MLRA 127, 147)		
Restrictive	Layer (if observed):							
	Туре:		None			Hydric Soil Present)	Yes 🗵 No 🗆
	Depth (inches):							
Remarks:								
A 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



WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sou	thgate	City/Count	ty: Burlington, Alamance	Sampling Date	e: 2018-June-04			
Applicant/Owner: N	extEra			State: North Ca	rolina Sampling Point: W-E	318-81_UPL-1		
Investigator(s): Will	Buetow, Simoi	n King, Jim Bolduc	Se	ection, Township, Ran	ge:			
Landform (hillslope, te	rrace, etc.):	Hillslope	Local reli	ef (concave, convex, i	none): flat	Slope (%): 2 to 5		
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P	L	at: 36.1391929	Long: -79.3909538	Datum: WGS84		
Soil Map Unit Name:	HeB, Helena	Sandy loan, 2 to 6	percent slopes		NWI classification	on:		
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	significantly disturbed?	Are "Normal Ci	rcumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology	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.

Yes No _		
Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
	Yes No _ ∠ Yes No _ ∠	Yes No Is the Sampled Area within a Wetland?

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	e is required; check	Secondary Indicators (minimum of two required)	
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tru Hy Ox Pru Re Th Ot	ue Aquatic Plants (B14) rdrogen Sulfide Odor (C1) cidized Rhizospheres on Living Roo esence of Reduced Iron (C4) cent Iron Reduction in Tilled Soils (in Muck Surface (C7) her (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) EAC-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):	
(includes capillary fringe)			
Describe Recorded Data (stream ga	uge, monitoring we	ll, aerial photos, previous inspectio	ns), if available:
Remarks:			
No positive indication of wetland hy	/drology was observ	ed.	

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

Sampling Point: W-B18-81_UPL-1

Tr	ee Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
		% Cover	Species?	Status	Number of Dominant Species That	5	(A)
1.	Quercus virginiana	20	Yes	FACU	Total Number of Dominant Species		
2.	Acer rubrum	E	No.	FAC	Across All Strata:	8	(B)
э. 1	Liquidambar styraciflua	 	No	FAC	Percent of Dominant Species That	62.5	(A (D)
4. 5			110	TAC	Are OBL, FACW, or FAC:	02.5	(AV D)
5. 6			·		Prevalence Index worksheet:		
0. 7			·		<u>Total % Cover of:</u>	<u>Multiply E</u>	<u>By:</u>
<i>.</i>		50	= Total Cov	≏r	OBL species 0	x 1 =	0
	50% of total cover: 25	20% of to	tal cover:	10	FACW species 10	x 2 =	20
Sa	pling/Shrub Stratum (Plot size: 15)				FAC species 45	x 3 =	135
1.	<i>Carpinus caroliniana</i>	10	Yes	FAC	FACU species 40	x 4 =	160
2.	Acer rubrum	5	Yes	FAC	UPL species 0	x 5 =	0
3.	Fraxinus pennsylvanica	5	Yes	FACW	Column Totals 95	(A)	315 (B)
4.	<i>Vaccinium corymbosum</i>	5	Yes	FACW	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 $\leq 3.0^{1}$		
9.					4 - Morphological Adaptations	,1 (Provide s	supporting
		25	= Total Cov	er	Broblematic Hydrophytic Vere	ieel)	alain)
	50% of total cover: <u>12.5</u>	20% of to	tal cover:	5	Indicators of hydric soil and wetlar		y must he
He	<u>erb Stratum</u> (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	y masc be
1.	Hemerocallis fulva	15	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2.	Prunus serotina	5	Yes	FACU	6		
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, 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)	plants, reg	ardless of
10	·				size, and woody plants less than 5.2	20 IT LAII.	
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.		
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			
Re	marks: (Include photo numbers here or on a separat	erved (>50	1% of domin	ant species	indexed as OBL, FACW, or FAC).		

SOIL

Sampling Point: W-B18-81_UPL-1

Profile De	escription: (Describe t	o the dept	th needed to docume	nt the i	ndicator	or confirr	n the absence	of indicators.)	
Depth	Matrix	·	Redox	Feature	es Tranci	12		T	Deveender
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туреч	LOC ²		lexture	Remarks
0 - 4	10YR 3/2	100			·		Sa	indy Loam	
4 - 14	10YR 4/3	100					Lc	amy Sand	
14 - 18	10YR 4/2	80	10YR 4/4	20	C	Μ	Sand	dy Clay Loam	
					·				
					·				·
					·				
		· ·			·				·
17	Concentration D. 1		DIA De du se d'Aletri	MC			21+	Di Deve Linine M	N A - turk u
'Type: C =	= Concentration, D = L	Depletion,	RM = Reduced Matrix	(, IVIS =	Masked S	and Grai	ns. ² Location	: PL = Pore Lining, IVI =	Matrix.
Hydric So	il Indicators:						I	ndicators for Problema	atic Hydric Soils ³ :
Histoso	I (A1)		_ Dark S	urface (S	S7)			2 cm Muck (A10) (M	ILRA 147)
Histic E	pipedon (A2)		_ Polyva	lue Belo	w Surface	(S8) (MLF	RA 147, 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
Black H	ISTIC (A3)		_ Inin D	ark Surf	ace (S9) (I Matrix (E	VILRA 147,	148)	 Piedmont Floodplai	in Soils (F19) (MLRA 136.
Hyur Og Stratifie	ell Sullide (A4)		_ LOally	od Matr	iviau ix (F2	<u>~</u>)	-	 147)	
2 cm M	uck (A10) (LRR N)		Depice Redox	Dark Su	rface (F6)			Very Shallow Dark S	Surface (TF12)
Deplete	d Below Dark Surface ((A11)	Deplet	ed Dark	Surface (I	F7)	-	Other (Explain in Re	emarks)
Thick D	ark Surface (A12)		Redox	Depress	sions (F8)		-		
Sandy M	/lucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-M	anganes	se Masses	(F12) (LR	R N, MLRA 136)	Indicators of hydrophy	utic vegetation and
Sandy (Gleyed Matrix (S4)		_ Umbri	Surface	e (F13) (M	ILRA 136, ⁻	122)	violators of hydrophy	st be present unless
Sandy F	Redox (S5)		Piedm	ont Floo	dplain Soi	ils (F19) (N	/ILRA 148)	wettand nydrology mu	st be present, unless
Strippe	d Matrix (S6)		Red Pa	rent Ma	iterial (F21	I) (MLRA 1	27, 147)	disturbed or problema	tic.
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric S	oil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks:									
No positi	ve indication of hydrig	- coile was	obsorved						
No positi		. 50115 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 Southgate		City/Coun	ty: Burlington, Alamand	e Sampli	ing Date: 2018	8-June-04	
Applicant/Owner: N	lextEra			State: No	orth Carolina	Sampling Point: W-E	318-82_PFO-1
Investigator(s): Will Buetow, Simon King, Jim Bolduc Section, Township, Range:							
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (Slope (%): 2 to 5	
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.13844	Long:	-79.3891494	Datum: WGS84
Soil Map Unit Name:	HeC, Helena	sandy loam, 6 to 1	0 percent slopes			NWI classificati	on:
Are climatic/hydrologic	c conditions or	the site typical for	r this time of year?	Yes 🟒	No (If no	, explain in Remarks	.)
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "No	rmal Circumst	ances" present?	Yes No 🟒
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If need	ed, explain 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 _	ls the Sampled Area within a Wetland?	Yes No
Remarks:			
Covertype is PFO. Area is wetland, all three we	tland parameters are pres	ent. Area has been impacted from logging	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	<u>e is required; check al</u>	<u>l that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydi Oxic Pres Rece Thin Othe	e Aquatic Plants (B14) rogen Sulfide Odor (C1) dized Rhizospheres on Living Ro sence of Reduced Iron (C4) ent Iron Reduction in Tilled Soils Muck Surface (C7) er (Explain in Remarks)	ots (C3) (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) ✓ Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) ✓ FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	3	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 inspecti	ons), if	available:
Remarks:				
A positive indication of wetland hyd	drology was observed	(primary and secondary indicate	ors wer	e present).

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

Sampling Point: W-B18-82_PFO-1

				1			
<u>Tree Stratum</u> (Plot size: <u>30)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	-		
1. Fraxinus pennsylvanica	30	Yes	FACW	Are OBL, FACW, or FAC:	8	(A)	
2. Acer rubrum	20	Yes	FAC	Total Number of Dominant Species	8	(B)	
3. Liquidambar styraciflua	20	Yes	FAC	Across All Strata:		(D)	
4.			-	Percent of Dominant Species That	100	(A/B)	
5.				Are OBL, FACW, or FAC:			
6.				Prevalence Index worksheet:		_	
7.				- <u>Total % Cover of:</u>	Multiply I	<u>By:</u>	
	70	= Total Cov	er	- OBL species 11	x1=	11	
50% of total cover: 35	20% of to	- tal cover:	14	FACW species 65	x2=	130	
Sapling/Shrub Stratum (Plot size: 15)				FAC species 105	x 3 =	315	
1. Acer rubrum	10	Yes	FAC	FACU species 0	x 4 =	0	
2. Fraxinus pennsylvanica	10	Yes	FACW	UPL species 0	x 5 =	0	
3. Liquidambar styraciflua	5	No	FAC	Column Totals 181	(A)	456 (B)	
4. Vaccinium corymbosum	5	No	FACW	Prevalence Index = B/A =	2.5		
5. Ouercus phellos	5	No	FAC	Hydrophytic Vegetation Indicators:			
6.			-	1- Rapid Test for Hydrophytic	Vegetation		
7.				∠ 2 - Dominance Test is >50%			
8				\checkmark 3 - Prevalence Index is $\leq 3.0^1$			
9				4 - Morphological Adaptations	¹ (Provide s	supporting	
	35	= Total Cov	er	- data in Remarks or on a separate s	heet)		
50% of total cover: 17.5	20% of to	tal cover:	7	Problematic Hydrophytic Vege	etation ¹ (Ex	plain)	
Herb Stratum (Plot size: 5)	2070 01 10			¹ Indicators of hydric soil and wetlar	nd hydrolog	gy must be	
1 Microstegium vimineum	30	Ves	FAC	present, unless disturbed or proble	matic		
2 Bidens frondosa		Voc	FACW	Definitions of Four Vegetation Strat	a:		
3 Dichanthelium clandestinum	15	Voc	FAC	- The second sec			
Scirpus strovirons	6	No		in diameter at broast beight (DRH)	es, 3 In. (7.6	o cm) or more	
4. <u>Sciipus au ovirens</u>		No			regardiess	or neight.	
		No		- Sanling/shrub - Woody plants excl	uding vines	less than 3	
		NU	FACIN	in DBH and greater than or equal t	o 3 28 ft (1)	m) tall	
/				-	0.0120.10()		
o				Herb – All herbaceous (non-woody)	plants, reg	ardless of	
5				size, and woody plants less than 3.2	28 ft tall.		
		<u> </u>		-			
11		Tatal Car			tor than 2	20 ft in	
	76	= lotal Cov	er	height	iter than 5.	201111	
50% of total cover: <u>38</u>	20% of to	ital cover:	15.2				
Woody Vine Stratum (Plot size: <u>30</u>)							
1				-			
2.				-		-	
3				- Hydrophytic vegetation Present?	Yes ⊡ No L		
4.				-			
5				-			
	0	= Total Cov	er				
50% of total cover:0	20% of to	ital cover:	0				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).							

SOIL

Sampling Point: W-B18-82_PFO-1

Profile De	escription: (Describe to Matrix	o the dep	th needed to docume Redex	ent the i	indicator (or confirm	n the absence of indicators.)			
(inches)	Color (moist)	06	Color (moist)	reatur	Type1	L oc²	Texture	Pomarks		
		100		90	туре	LUC-	Mucky Sandy Loam	Remarks		
2 4	101R 3/2		10\/D 2/2	10			Sandy Loam			
2-4	10YR 3/1	90	10YR 3/2	10	<u> </u>		Sandy Loam			
4 - 11	10YR 5/1	90	10YR 4/6	10	<u> </u>	M	Sandy Clay Loam			
11 - 18	10YR 5/4	100					Sandy Clay Loam	abrupt boundary.		
¹ Type: C =	- Concentration, D = D	epletion	, RM = Reduced Matri	x, MS =	Masked S	and Grai	ns. ² Location: PL = Pore Lining, M	= Matrix.		
Hvdric So	il Indicators:			,			Indicators for Proble	matic Hydric Soils ³ :		
Histoso	I (A1)		Dark S	urface (S7)					
Histic E	pipedon (A2)		Polyva	lue Belo	ow Surface	(S8) (MLF	A 147, 148)2 cm Muck (A10)	(MLRA 147)		
Black H	istic (A3)			ark Surf	face (S9) (I	/LRA 147,	148) — Coast Prairie Red	lox (A16) (MLRA 147, 148)		
Hydrog	en Sulfide (A4)		Loamy	Gleyed	Matrix (F2	2)	Piedmont Floodp	lain Soils (F19) (MLRA 136,		
Stratifie	ed Layers (A5)		Deplet	ed Matr	rix (F3)		147)			
_ 2 cm M	uck (A10) (LRR N)		Redox	Dark Su	urface (F6)		Very Shallow Dar	k Surface (TF12)		
_ Deplete	d Below Dark Surface (A11)	_ Deplet	ed Dark	Surface (l	-7)	Other (Explain in	Remarks)		
Thick D	ark Surface (A12)		Redox	Depres	sions (F8)					
Sandy M	Mucky Mineral (S1) (LRR	N, MLRA	147, 148) Iron-N	langane	se Masses	(F12) (LR	R N, MLRA 136) _{3Indicators of bydror}	obytic vegetation and		
Sandy (Gleyed Matrix (S4)		_ Umbri	c Surfac	e (F13) (M	LRA 136, 1	122)	bust be precept upless		
Sandy F	Redox (S5)		Piedm	ont Floc	odplain Soi	ls (F19) (N	ILRA 148) wetland hydrology fr	iust be present, unless		
Strippe	d Matrix (S6)		Red Pa	arent Ma	aterial (F21) (MLRA 1	27, 147) disturbed or probler	natic.		
Restrictiv	e Layer (if observed):									
	Туре:		None			Hydric S	oil Present?	Yes 🗹 No 🗆		
	Depth (inches):									
Remarks:										
A positive	indication of hydric s	oil was o	bserved. The soil is co	ompacte	ed from p	ast loggir	g			

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	: Burlington, Alamance	Sampling Da	ite: 2018-June-04	
Applicant/Owner: N	extEra			State: North C	arolina Sampling Point: W-	B18-82_UPL-1
Investigator(s): Will	Buetow, Simon	King, Jim Bolduc	Se	ction, Township, Ra	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local relie	ef (concave, convex,	, none): flat	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLRA	A 136 of LRR P	L	.at: 36.138361	Long: -79.3892534	Datum: WGS84
Soil Map Unit Name:	HeC, Helena	Sandy loam, 6 to 10	percent slopes		NWI classificat	ion:
Are climatic/hydrologic	conditions on	the site typical for t	this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	5.)
Are Vegetation,	Soil,	or Hydrology s	ignificantly disturbed?	Are "Normal (Circumstances" present?	Yes No 🟒
Are Vegetation,	Soil,	or Hydrology r	naturally problematic?	(If needed, ex	plain any answers in Remarl	<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 present. Ditches/drain tiles observed. Area has been compacted and disturbed from past logging..

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	Secondary Indicators (minimum of two required)			
			 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) (C6) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 	
Aquatic Fauna (B13)				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):	
(includes capillary fringe)				
Describe Recorded Data (stream ga	iuge, mo	nitoring v	well, aerial photos, previous inspecti	ons), if available:
Remarks:				
No positive indication of wetland h	ydrology	was obse	erved.	

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

Sampling Point: W-B18-82_UPL-1

Tree Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That		
1. <i>Ouercus alba</i>	40	Yes	FACU	Are OBL, FACW, or FAC:	3 (A)
2. Liquidambar styraciflua	20	Yes	FAC	Total Number of Dominant Species	5 (B	3
3. Juniperus virginiana	10	No	FACU	Across All Strata:)
4. Carya glabra	10	No	FACU	Percent of Dominant Species That	60 (A	/B)
5.	·	·		Are OBL, FACW, or FAC:		
6.	<u> </u>	·		Prevalence Index worksheet:		
7.				<u>Iotal % Cover of:</u>		
	80	= Total Cov	er		x1= <u>0</u>	
50% of total cover: <u>40</u>	20% of to	tal cover:	16	EAC species 0	x2- 0	
Sapling/Shrub Stratum (Plot size: <u>15</u>)				EACLI species 70	x 4	
1				IIPL species 70	x 4 - <u>280</u>	<u> </u>
2				Column Totals	$x_{3} = 0$	(P)
3					(A) <u>370</u>	(D)
4						
5				Hydrophytic Vegetation Indicators:	/	
6					egetation	
7				∠ 2 - Dominance Test is >50%		
8					1 (Provide suppor	ting
9				data in Remarks or on a separate st	(Provide suppor	ung
	0	= Total Cov	er	Problematic Hydrophytic Vege	tation ¹ (Explain)	
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	¹ Indicators of hydric soil and wetlan	d hvdrology mus	t be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. Vaccinium angustifolium	10	Yes	FACU	Definitions of Four Vegetation Strat	a:	
2. <i>Rubus idaeus</i>	5	Yes	FAC	_		
3. <u>Vitis rotundifolia</u>	5	Yes	FAC	Tree – Woody plants, excluding vine	s, 3 in. (7.6 cm) o	r more
4				in diameter at breast height (DBH),	regardless of heig	ght.
5	<u></u> .					
6				Sapling/shrub – Woody plants, exclu	iding vines, less t	han 3
7				in. DBH and greater than or equal to	3.28 ft (1 m) tall	•
8						6
9				Herb – All nerbaceous (non-woody)	plants, regardles:	S OT
10				size, and woody plants less than 3.2	o it tall.	
11						
	20	= Total Cov	er	Woody vines – All woody vines grea	er than 3.28 ft in:	
50% of total cover: <u>10</u>	_20% of to	tal cover:	4	height.		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)						
1						
2						
3				Hydrophytic Vegetation Present?	′es 🗹 No 🗆	
4						
5	. <u> </u>					
	0	= Total Cov	er			
50% of total cover:0	_ 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	ninant specie	es indexed as FAC– or drier).		

SOIL

Sampling Point: W-B18-82_UPL-1

Profile De	scription: (Describe t	o the dept	h needed to docume	ent the i	ndicator	or confir	m the absen	ce of indicators.)	
Depth	Matrix		Redox	Feature	es Trans 1	1 2		Tarter	Descenter
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туреч	LOC ²		lexture	Remarks
0-3	10YR 2/2	100						Sandy Loam	
3 - 10	10YR 5/3	100						ne Sandy Loam	
10 - 14	10YR 5/3	90	10YR 4/4	10	C	M		Sandy Loam	
14 - 10	10YR 4/2	80	7.5YR 3/4	20	D	M		Sandy Loam	
. <u> </u>									
. <u> </u>									
. <u> </u>									
¹ Type: C =	Concentration, D = [Depletion,	RM = Reduced Matri	x, MS =	Masked S	and Gra	ins. ² Locati	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
_ Histoso	l (A1)		Dark S	Surface (S	S7)			2 cm Muck (A10) (N	II RA 147)
Histic Ep	pipedon (A2)		Polyva	alue Belo	w Surface	(S8) (ML	.RA 147, 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
Black Hi	istic (A3) an Sulfida (A4)		Thin D	ark Surf	ace (S9) (N	MLRA 147	7, 148)	Piedmont Floodpla	in Soils (F19) (MLRA 136 .
Hyurogo Stratifie	d Lavers (A5)		Loang	y Gleyeu ted Matr	iviau ix (F2 ix (F3)	-)		147)	
2 cm Mi	uck (A10) (LRR N)		Redox	Dark Su	irface (F6)			Very Shallow Dark S	Surface (TF12)
_ Deplete	d Below Dark Surface	(A11)	_ Deple	ted Dark	Surface (I	-7)		Other (Explain in Re	emarks)
Thick Da	ark Surface (A12)		Redox	Depress	sions (F8)			· ·	
Sandy N	Aucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-N	langane:	se Masses	(F12) (LI	RR N, MLRA 13	⁶⁾ 3Indicators of hydroph	ytic vegetation and
Sandy G	edox (S5)		Unbri Piedm	ic Suriaci	dolain Soi	LKA 130, ls (F19) (MIRA 148)	wetland hydrology mu	st be present, unless
Stripped	d Matrix (S6)		Red Pa	arent Ma	iterial (F21) (MLRA	127, 147)	disturbed or problema	itic.
Restrictive	e Laver (if observed):								
	Type:		None			Hydric	Soil Present?		Yes 🗆 No 🗵
	Depth (inches):					liyane	Son riesene.		
Pomarks:									
Remarks.									
No positiv	e indication of hydric	c soils was	observed.						

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/Count	ty: Burlington, Alamanc	e Sampling Dat	t e: 2018-June-05	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W-l	318-84_PFO-1
Investigator(s): Will	Buetow, Jake I	Brillo, Jim Bolduc		Section, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local re	lief (concave, convex,	none): Undulating	Slope (%): 1 to 10
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.1348534	Long: -79.3775376	Datum: WGS84
Soil Map Unit Name:	HeC, Helena	Sandy loam, 6 to 1	0 percent slopes		NWI classificati	on:
Are climatic/hydrologi	c conditions o	n the site typical for	r this time of year?	Yes 🟒 No 🔄	(If no, explain in Remarks	.)
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	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 PFO. Area is wetland, all three v	vetland parameters are pi	resent.	

Wetland Hydrology Indicators:			
Primary Indicators (minimum of or	ne is required; checl	<u>k all that apply)</u>	Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	T P P R T C nagery (B7)	rue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Root Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Thin Muck Surface (C7) Other (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 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):	5
(includes capillary fringe)			
Describe Recorded Data (stream g	auge, monitoring w	ell, aerial photos, previous inspectio	ns), if available:
Remarks:			
A positive indication of wetland hy	drology was observ	ed (primary and secondary indicator	rs were present).

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

Sampling Point: W-B18-84_PFO-1

Tree Stratum (Plot size: <u>30)</u>	Absolute	Dominant	Indicator	Dominance lest worksheet:	
	% Cover	Species?	Status	Number of Dominant Species That	7 (A)
1. Acer rubrum	25	Yes	FAC	Total Number of Dominant Species	
2. Liquidambar styraciflua	20	Yes	FAC	Across All Strata:	9 (B)
3. <u>Nyssa sylvatica</u>	20	Yes	FAC	Percent of Dominant Species That	·
4. Liriodendron tulipifera	15	No	FACU	Are OBL FACW or FAC	77.8 (A/B)
5. <i>Carya glabra</i>	10	No	FACU	Prevalence Index worksheet:	
6. <i>Ulmus americana</i>	10	No	FACW	Total % Cover of	Multiply By:
7. Quercus phellos	10	No	FAC	OBL species	$\times 1 = 0$
	110	= Total Cov	er	EACW species 20	x 2 = 40
50% of total cover: <u>55</u>	_20% of to	tal cover:	22	EAC species 105	x 2 = 40
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACIl species 105	x 3 = <u> </u>
1. Acer rubrum	15	Yes	FAC	FACU Species 40	x 4 = 160
2. Carya glabra	10	Yes	FACU	UPL species 0	x 5 = 0
3. <i>Ulmus americana</i>	10	Yes	FACW	Column Totals 165	(A) 515 (B)
4				Prevalence Index = B/A =	3.1
5	·			Hydrophytic Vegetation Indicators:	
S	·			1- Rapid Test for Hydrophytic	√egetation
7				2 - Dominance Test is >50%	
7	·			3 - Prevalence Index is ≤ 3.0^1	
8.				4 - Morphological Adaptations	¹ (Provide supporting
9		<u> </u>		data in Remarks or on a separate s	neet)
	35	= Total Cov	er	Problematic Hydrophytic Vege	tation ¹ (Explain)
50% of total cover: <u>17.5</u>	_20% of to	tal cover:	7	¹ Indicators of hydric soil and wetlar	nd hydrology must be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic
1. <u>Vitis rotundifolia</u>	10	Yes	FAC	Definitions of Four Vegetation Strat	a:
2. <i>Lonicera japonica</i>	5	Yes	FACU		
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, 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)	plants, regardless of
10	·			size, and woody plants less than 3.2	28 ft tall.
10	·				
11	·				to a the set 0, 00 ft in
	15	= Total Cov	er	woody vines – All woody vines grea	ter than 3.28 ft in
50% of total cover: <u>7.5</u>	_20% of to	tal cover:	3	neight.	
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)					
1. <i>Smilax rotundifolia</i>	5	Yes	FAC		
2	. <u> </u>				
3.				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆
4.					
5.					
	5	= Total Cov	er		
50% of total cover: 2.5	20% of to	tal cover:	1		
Remarks: (Include photo numbers here or on a separat	te sheet.)				
A positive indication of hydrophytic vegetation was obs	served (>50	% of domin	ant species	indexed as OBL, FACW, or FAC).	

SOIL

Sampling Point: W-B18-84_PFO-1

Color (moist) % Color (moist) % Type: Loc3 Texture Remarks 04 10YR 4/1 100	Depth	Matrix		Redo	x Feature	es				
0.4 107R 3/1 100 Sandy Loam 6-10 107R 4/2 100 Sandy Loam 10-18 107R 5/2 90 107R 3/6 5 C M Sandy Loam 10-18 107R 5/2 90 107R 3/6 10 C M Clay Loam 10-18 107R 5/2 90 107R 3/6 10 C M Clay Loam 10-18 107R 5/2 90 107R 3/6 10 C M Clay Loam 10-18 107R 5/2 90 107R 3/6 10 C M Clay Loam 10-18 107R 5/2 90 107R 3/6 10 C M Clay Loam 10-18 107R 3/6 10 C M Clay Loam Indicators Indicato	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
4 - 6 10 107R 4/2 100	0 - 4	10YR 3/1	100						Sandy Loam	
6.10 10YR 4/1 95 10YR 3/6 5 C M Sandy Clay Leam 10.18 10YR 5/2 90 10YR 3/6 10 C M Clay Leam 10.18 10YR 5/2 90 10YR 3/6 10 C M Clay Leam 10.18 10YR 5/2 90 10YR 3/6 10 C M Clay Leam 10.18 10YR 5/2 90 10YR 3/6 10 C M Clay Leam 10.18 10YR 5/1 10 Dark Surface (S7) Indicators for Problematic Hydric Solis* 148tocs (A1) 10 Ark Surface (S7) 2 cm Muck (A10) (MLRA 147, 148) - C cast Prablematic Hydric Solis* 1490 organ Sulface (A1) 10 ark Surface (S1) 10 ark Surface (S1) - C cast Prablematic Hydric Solis* 1491 Organ Sulface (A2) 2 cm Muck (A10) (MLRA 147, 148) - Peidmont Floodplain Solis (F19) (MLRA 148, 147, 148) 1492 Organ Sulface (A2) 2 cm Muck (A10) (MLRA 147, 148) - Very Shallow Dark Surface (F12) 1404 Organ Sulface (A11) Depited Dark Surface (F12) - Very Shallow Dark Surface (F12)	4 - 6	10YR 4/2	100						Sandy Loam	
10 - 18 UYR 5/2 90 10YR 3/6 10 C M Clay Leam 10 - 18 UYR 5/2 90 10YR 3/6 10 C M Clay Leam 10 - 18 UYR 5/2 90 10YR 3/6 10 C M Clay Leam 10 - 18 UYR 5/2 90 10YR 3/6 10 C M Clay Leam 10 - 18 UYR 5/2 90 10YR 3/6 10 C M Clay Leam 10 - 18 UYR 5/2 90 10YR 3/6 10 Clay Leam UYR 3/6 UYR 3/6 <t< td=""><td>6 - 10</td><td>10YR 4/1</td><td>95</td><td>10YR 3/6</td><td>5</td><td>С</td><td>М</td><td>Sa</td><td>ndy Clay Loam</td><td></td></t<>	6 - 10	10YR 4/1	95	10YR 3/6	5	С	М	Sa	ndy Clay Loam	
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. A Location: PL = Pore Lining, M = Matrix. "Iditators in the indicators: Indicators in the indicators indicators in the indicators in the indicators in the indicators in the indicators indicators in the indicators indindicators indicators indindicators indicators indicat	10 - 18	10YR 5/2	90	10YR 3/6	10	С	М		Clay Loam	
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Ydric Soll Indicators:	<u> </u>		<u> </u>			. <u> </u>				
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. 2Location: PL = Pore Lining, M = Matrix. "Histoc Spilecton (A2) Dark Surface (57) "Histoc Spilecton (A2) Tin Dark Surface (59) (MLRA 147, 148) "Got Histic (A3) Tin Dark Surface (57) "Histoc Spilecton (A2) Depleted Below Surface (59) (MLRA 147, 148) "Got Histic (A3) Tin Dark Surface (57) "Jeff Soil Indicators: Depleted Matrix (F3) "Got Mutch (A10) Cost Problematic Hydric Soils*: "Jeff Soil Mutch (A10) Depleted Matrix (F3) "Cost Problematic Hydric Soil Mutch (A10) Polyaule Below Dark Surface (F12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F12) Depleted Below Dark Surface (A12) Redox Depressions (F6) Sandy Below Matrix (S4) Unbric Surface (F12) (MLRA 136, 122) Sandy Below (S5) Red Parent Material (F21) (MLRA 137, 148) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 147, 147) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Wetand Hydrology must be present, unless disturbed or problematic. Type: None Depth (inches): Hydric Soil Present? Yes N no A posit						. <u> </u>				
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. type: C = Concentration, D = Depletion, RM = Reduced Matrix, G2 Histos (L1)										
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains, *Location: PL = Pore Lining, M = Matrix. Histosol (A1)										
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains, *Location: PL = Pore Lining, M = Marix. Histocators for Problematic Hydric Soils*: Histocators for Problematic Hydric Soils*: Back Histic (A)										
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. location: PL = Pore Lining.M = Matrix"/>location: PL = Pore Lining.M = Matrix. Indicators: Indicators: Indicators: Indicators for Problematic Hydric Soils?: location: PL = Pore Lining.M = Matrix"/>location: PL = Pore Lining.M = Matrix. Indicators: Indicators: Indicators: Indicators for Problematic Hydric Soils?: location: PL = Pore Lining.M = Matrix"/>location: PL = Pore Lining.M = Matrix. Indicators: Indicators: Indicators: Indicators for Problematic Hydric Soils?: location: PL = Pore Lining.M = Matrix"/>location: PL = Pore Lining.M = Matrix. Indicators: Indicators: Indicators: Indicators for Problematic Hydric Soils?: location: PL = Pore Lining.M = Matrix"/>location: PL = Pore Lining.M = Matrix. Indicators: Indicators: Indicators: Indicators for Problematic Hydric Soils?: location: PL = Pore Lining.M = Matrix"/>location: PL = Pore Lining.M = Matrix. Indicators: Indicators: Indicators: Indicators: Indicators for Problematic Hydric Soils?: location: PleadmontFloadplains: Soils (F19"/// MLRA 126, 123 Indicators: Indicators: Indicators: Indicators for Problematic Hydric Soil Present? Indicators for Problematic. Indicators: Indicators: Indicators: Indicators for Problematic Hydric Soil Present? Indicators for Problematic. Indicators: Indicators: Indicators for Problematic. Indicators for Problematic. Indicators: Indicators for Problematic.						·				
tydric Soil Indicators: Indicators for Problematic Hydric Soils?: Histos Epipedon (A2) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147, 148) Black Histis (A3) Thin Dark Surface (S9) (MLRA 147, 148) 2 cm Muck (A10) (MLRA 147, 148) Stratified Layers (A5) Z opoleted Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136 2 cm Muck (A10) (URN N) Redox Dark Surface (F7) Other (Explain in Remarks) 2 mark (A10) Remarks (F7) Other (Explain in Remarks) 2 sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 126, 122) Other (Explain in Remarks) 3 sandy Gleyed Matrix (S5) Red Parent Material (F21) (MLRA 126, 122) Wetland hydrology must be present, unless distributive dor problematic. Yappei (inches): None Hydric Soil Present? Yes ⊠ No □ Deptitive indication of hydric soil was observed. Apositive indication of hydric soil was observed. Yes ⊠ No □	Type: C =	Concentration, D = [Depletion,	RM = Reduced Matr	ix, MS =	Masked S	Sand Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Histoc Epipedion (A2) Dark Surface (57)	Hydric Soil	Indicators:							Indicators for Problema	atic Hydric Soils ³ :
Histic Epipedon (A2) Polyvalue Below Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 137, 148) Stratified Layers (A5) 2 Depited Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 147, 148) 2 cm Muck (A10) (URR N) Redox Dark Surface (F0) Uery Shallow Dark Surface (TF12) Depited Below Dark Surface (A11) Depited Dark Surface (F7) Other (Explain in Remarks) Sandy Gleyed Matrix (S4) Iron-Manganese Masses (F12) (URR N, MLRA 136) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Gleyer (ff observed): Red Parent Material (F21) (MLRA 127, 147) Werls Coil Present? Yers I's I's I's I's I's I's I's I's I's I'	_ Histosol	(A1)		_ Dark	Surface (S	S7)			2 cm Muck (A10) (M	- I DA 1/17)
Black Histic (A3)	Histic Ep	ipedon (A2)		Polyv	alue Belo	w Surface	e (S8) (ML	RA 147, 148)	Coast Prairie Redox	(A16) (MI RA 147 148)
	Black His	stic (A3)		Thin [Dark Surf	ace (S9) (I	MLRA 147	, 148)	Piedmont Floodplai	n Soils (F19) (MI RA 136
	Hydroge Stratified	n Suifide (A4)		Loam Z Deple	y Gleyed ted Matr	iviatrix (F2	2)		147)	(130) (113) (112) (112)
	2 cm Mu	ick (A10) (LRR N)		Redox	k Dark Su	irface (F6)			Very Shallow Dark S	Surface (TF12)
_Thick Dark Surface (A12) 	Depleted	d Below Dark Surface	(A11)	_ Deple	eted Dark	Surface (F7)		Other (Explain in Re	emarks)
_ Sandy Glevel Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) disturbed or problematic	Thick Da	rk Surface (A12)		Redo	k Depress	sions (F8)				
	Sandy M	lucky Mineral (S1) (LR loved Matrix (S4)	R N, MLRA	147, 148) Iron-N	Manganes	se Masses	5 (F12) (LR	R N, MLRA 13	6) ₃ Indicators of hydrophy	tic vegetation and
stripped Matrix (56) Red Parent Material (F21) (MLRA 127, 147) disturbed or problematic. Restrictive Layer (if observed): Type: Hydric Soil Present? Yes I No Depth (inches): Red Parent Material (F21) (MLRA 127, 147) Remarks: A positive indication of hydric soil was observed.	_ Sandy G	edox (S5)		Ombr Piedn	nont Floo	dolain So	ils (F19) (I	122) VI RA 148)	wetland hydrology mus	st be present, unless
Restrictive Layer (if observed): Type: Depth (inches): Remarks: A positive indication of hydric soil was observed.	Stripped	Matrix (S6)		Red P	arent Ma	iterial (F21	1) (MLRA	127, 147)	disturbed or problema	tic.
Type: None Hydric Soil Present? Yes I No I Depth (inches): Yes No I Remarks:	Restrictive	Laver (if observed):								
Depth (inches):	7	Type:		None			Hvdric S	Soil Present?		Yes 🛛 No 🗆
Remarks:	[Depth (inches):			-		,			
A positive indication of hydric soil was observed.	Remarks:				-					
A positive indication of hydric soil was observed.										
A positive indication of hydric soil was observed.										
A positive indication of hydric soil was observed.										
A positive indication of hydric soil was observed.										
A positive indication of hydric soil was observed.										
A positive indication of hydric soil was observed.										
A positive indication of hydric soil was observed.										
A positive indication of hydric soil was observed.										
A positive indication of hydric soil was observed.										
A positive indication of hydric soil was observed.										
	A positive	indication of hydric	soil was o	bserved.						

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	y: Burlington, Alamanc	e Sampling Dat	e: 2018-June-05	
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-E	18-84_UPL-1
Investigator(s): Will	Buetow, Jake E	srillo, Jim Bolduc		Section, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local re	lief (concave, convex,	none): Convex	Slope (%): 1 to 10
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P		Lat: 36.1348208	Long: -79.3774495	Datum: WGS84
Soil Map Unit Name:	HeB, Helena	Sandy loam, 2 to 6 إ	percent slopes		NWI classification	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 Ci	ircumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology r	naturally problematic?	(If needed, exp	lain 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 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	Primary Indicators (minimum of one is required; check all that apply)					
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hyc Oxie Pree Rec Thin Oth agery (B7)	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)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 			
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:						
No positive indication of wetland hy	γdrology was observe	ed.				

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

Sampling Point: W-B18-84_UPL-1

	-					
Tree Stratum (Plot size: 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>nee stratum</u> (Plot size. <u>50)</u>	% Cover	Species?	Status	Number of Dominant Species That	4	(A)
1. Liquidambar styraciflua	30	Yes	FAC	Are OBL, FACW, or FAC:		-
2. <i>Carya glabra</i>	30	Yes	FACU	Total Number of Dominant Species	6	(B)
3. <i>Pinus taeda</i>	25	Yes	FAC	Across All Strata:		-
4. <i>Quercus alba</i>	10	No	FACU	Are OBL_EACW or EAC	66.7	(A/B)
5. <u>Acer rubrum</u>	10	No	FAC	Prevalence Index worksheet:		
6				Total % Cover of:	Multiply By:	
7				OBL species 0	x 1 =	0
	105	= Total Cov	er	FACW species 0	x 2 =	0
50% of total cover: <u>52.5</u>	_20% of to	otal cover:	21	FAC species 181	x 3 =	543
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FACU species 55	x 4 =	220
1. Acer rubrum	106	Yes	FAC	UPL species 0	x 5 =	0
2. Prunus serotina	10	No	FACU	Column Totals 236	(A) 76	3 (B)
3. Liquidambar styraciflua	5	No	FAC	Prevalence Index = B/A =	3.2	0 (0)
4	- <u> </u>			Hydrophytic Vogotation Indicators:		
5				1 Papid Test for Hydrophytic V	logetation	
6				1 2 - Dominance Test is >50%	egetation	
7				3 - Prevalence Index is < 3.01		
8				4 - Morphological Adaptations	1 (Provide supr	orting
9				data in Remarks or on a separate sh	ieet)	Jorang
	121	= Total Cov	er	Problematic Hydrophytic Vege	tation ¹ (Explain	n)
50% of total cover: <u>60.5</u>	_20% of to	otal cover:	24.2	¹ Indicators of hydric soil and wetlan	.d hydrology m	ust be
Herb Stratum (Plot size: <u>5</u>)				present, unless disturbed or proble	matic	
1. <u>Vitis rotundifolia</u>	5	Yes	FAC	Definitions of Four Vegetation Strat	a:	
2. <i>Lonicera japonica</i>	5	Yes	FACU			
3				Tree – Woody plants, excluding vine	s, 3 in. (7.6 cm) or more
4				in diameter at breast height (DBH),	regardless of h	neight.
5						
6				Sapling/shrub – Woody plants, exclu	uding vines, les	s than 3
7				in. DBH and greater than or equal to	3.28 ft (1 m) f	tall.
8						
9				Herb – All herbaceous (non-woody)	plants, regard	less of
10				size, and woody plants less than 3.2	8 It tall.	
11						
	10	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 f	t in
50% of total cover: <u>5</u>	_20% of to	otal cover:	2	height.		
Woody Vine Stratum (Plot size: <u>30</u>)						
1	<u> </u>					
2	<u> </u>					
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 senara	te sheet)					
Remarks. (include photo numbers here of on a separa	te sneet.j					
A positive indication of hydrophytic vegetation was ob	served (>50)% of domin	ant species	indexed as OBL. FACW. or FAC).		
, , , , , , , , , , , , , , , , , , , ,				·····, ·····,		

SOIL

Sampling Point: W-B18-84_UPL-1

Profile De Depth	scription: (Describe t Matrix	the dept	th needed to docume Redox	nt the i Feature	ndicator	or confir	m the absend	ce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 4	10YR 3/2	100						Sandy Loam	
4 - 12	10YR 4/2	100			·			Sandy Loam	
12 - 18	10YR 5/2	85	10YR 3/6	15	С	М		Clav Loam	
					·				
					·				
					·				
					·	<u> </u>			·
		· ·							
		· ·			·	·			·
		· ·			·	<u> </u>			
1Type: C =	Concentration D = [Dopletion	PM - Poducod Matrix	/ MS -	Maskad	and Gra		n: Pl - Pore Lining M -	Matrix
Type. C =	il Indicators	Jepletion,	RIVI – Reduced Matri	(, IVIS –	Maskeu s	anu Gra	InsLocatio	Indicators for Droblem	Mall IX.
Hydric Sol			Darks	urfaco (57)			indicators for Problem	auc Hydric Solis ³ :
Histic Er	pipedon (A2)		Dalk 3 Polvva	lue Belo	w Surface	(S8) (M L	RA 147. 148)	2 cm Muck (A10) (N	ILRA 147)
Black Hi	stic (A3)		Thin D	ark Surf	ace (S9) (I	MLRA 147	, 148)	Coast Prairie Redox	k (A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy	Gleyed	Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_ Deplet	ed Matr	ix (F3)			147)	
_ 2 cm Mu	Jck (A10) (LRR N)	(1 1)	Redox	Dark Su	rface (F6)	-71		Very Shallow Dark	Surface (TF12)
_ Depiete	u Below Dark Surface	(ATT)	Depier	Denres	sions (F8)	F7)		Other (Explain in Re	emarks)
Sandy M	lucky Mineral (S1) (LR	R N, MLRA	147, 148) Iron-M	langane	se Masses	; (F12) (LF	R N, MLRA 13	6)	, tio vo cototio o opel
Sandy G	ileyed Matrix (S4)		_ Umbri	c Surfac	e (F13) (M	ILRA 136,	122)	wetland bydrology mu	ytic vegetation and
Sandy R	edox (S5)		Piedm	ont Floo	dplain So	ils (F19) (MLRA 148)	disturbed or problems	ist be present, uniess
Stripped	d Matrix (S6)		Red Pa	rent Ma	iterial (F21) (MLRA	127, 147)		
Restrictive	e Layer (if observed):								
	Туре:		None			Hydric S	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks:									
No positiv	e 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

Project/Site: MVP Sou	thgate	City/Count	y: 5, Faucette, Alamano	ce Samp	oling Date: 201	8-June-22	
Applicant/Owner: N	extEra			State:	North Carolina	Sampling Point: W-	A18-179_PFO-1
Investigator(s): Laura Giese, Jake Brillo, Susan Thebert Section, Township, Range:							
Landform (hillslope, te	rrace, etc.):	Terrace	Local re	lief (concave,	convex, none):	Concave	Slope (%): 0 to 1
Subregion (LRR or MLF	RA): MLRA	136 of LRR P		Lat: 36.1226	279 Long	:-79.372764	Datum: WGS84
Soil Map Unit Name:	Enon Sandy lo	oam (EnD) 10 to 15	percent slopes			NWI classificat	ion:
Are climatic/hydrologic	conditions on	the site typical for	this time of year?	Yes 🖌	_ No (If no	o, explain in Remarks	5.)
Are Vegetation,	Soil, c	or Hydrology :	significantly disturbed?	Are "N	ormal Circums	tances" present?	Yes 🟒 No
Are Vegetation,	Soil, c	or Hydrology	naturally problematic?	(If nee	ded, explain an	y 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? Wetland Hydrology Present?	Yes _✔_ No Yes _✔_ No Yes _✔_ No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Remarks:		<u>.</u>	
Covertype is PFO. Area is wetland, all three v	vetland parameters are pr	resent.	

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	Secondary Indicators (minimum	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / Hydro Oxidi: Prese Recer Thin M Other agery (B7)	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 In Stunted or Stressed Plants (IC Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) < CAC Neutral Tast (D5)	Surface (B8) 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 met.			

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

Sampling Point: W-A18-179_PFO-1

Trop Stratum (Plot size: 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	6	(A)
1. Acer rubrum	15	Yes	FAC	Are OBL, FACW, or FAC:		0.0
2. Liquidambar styraciflua	15	Yes	FAC	Total Number of Dominant Species	6	(B)
3. <i>Ulmus americana</i>	10	Yes	FACW	Across All Strata:		
4. Betula nigra	10	Yes	FACW	Percent of Dominant Species That	100	(A/B)
5.				Are OBL, FACW, of FAC:		
6.				Tetal % Cover of	Multiply D	
7.				OPL species		<u>у.</u> Эг
	50	= Total Cov	er		x I =	25
50% of total cover: <u>25</u>	20% of to	tal cover:	10	FACW species 25	x 2 =	50
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FAC species 45	× 3 =	135
1.				FACU species 0	x 4 =	0
2.		·		UPL species 0	x 5 =	0
3.				Column Totals 95	(A)	210 (B)
4.	·			Prevalence Index = B/A =	2.2	
5.	·	· ·		Hydrophytic Vegetation Indicators:		
6	·	·		1- Rapid Test for Hydrophytic	Vegetation	
7	·	·		2 - Dominance Test is >50%		
/	·	·		\checkmark 3 - Prevalence Index is ≤ 3.0 ¹		
o	·	·		4 - Morphological Adaptations	s¹ (Provide s	upporting
9				data in Remarks or on a separate s	heet)	
	0	= lotal Cov	er	Problematic Hydrophytic Vege	etation ¹ (Exp	olain)
50% of total cover: <u>0</u>	_20% of to	tal cover:	0	¹ Indicators of hydric soil and wetlar	nd hydrolog	y must be
<u>Herb Stratum</u> (Plot size: <u>5</u>)				present, unless disturbed or proble	ematic	
1. <u>Carex crinita</u>	25	Yes	OBL	Definitions of Four Vegetation Strat	ta:	
2. <i>Carex tribuloides</i>	5	No	FACW			
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		<u> </u>		Sapling/shrub – Woody plants, excl	uding vines,	less than 3
7				in. DBH and greater than or equal t	to 3.28 ft (1 i	m) tall.
8						
9.				Herb – All herbaceous (non-woody)) plants, reg	ardless of
10.				size, and woody plants less than 3.2	28 ft tall.	
11.		·				
	30	= Total Cov	er	Woody vines – All woody vines grea	ater than 3.2	8 ft in
50% of total cover: 15	20% of to	tal cover:	6	height.		
Woody Vine Stratum (Plot size: 30)						
1. Smilax rotundifolia	15	Yes	FAC			
2						
	·	·		Hydrophytic Vegetation Present?	Yes 🖓 No 🗆	
	·	·				
т. 	·	<u> </u>				
J	15	- Total Cav	or			
	10		2			
50% OF LOCAL COVER:	_20% 01 to	tal cover:				
Remarks: (Include photo numbers here or on a separa	te sheet.)					
A positive indication of hydrophytic vegetation was obs	served (>50	% of domin	ant species	indexed as OBL, FACW, or FAC).		

SOIL

Sampling Point: W-A18-179_PFO-1

Profile De	escription: (Describe t	o the dep	th needed to docum	ent the i	ndicator	or confir	m the absen	ce of indicators.)	
Depth	Matrix		Redox	Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 6	10YR 4/2	85	10YR 5/8	10	C	Μ		Silt Loam	
0 - 6			5Y 5/1	5	D	Μ			
6 - 15	10YR 5/1	90	10YR 5/8	10	С	Μ		Sandy Loam	
15 - 20	N 5/	90	10YR 4/4	10	С	Μ		Loamy Sand	
				· - <u></u>	·				
					·				·
					·				
17	Concentration D. F							Di Di Lining M	Maturia
'Type: C =	= Concentration, D = L	pepietion,	RM = Reduced Matri	x, IVIS =	Masked S	and Gra	Ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	natic Hydric Soils ³ :
Histoso	I (A1)		_ Dark S	Surface (S	57) 		DA 147 140)	2 cm Muck (A10) (N	/ILRA 147)
HISUC E	istic (A3)		POlyva Thin [alue Belo Dark Surf		(58) (IVIL 11 PA 1/17	KA 147, 148) 178)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hvdrog	en Sulfide (A4)		Loam	v Gleved	Matrix (F2	2)	, 140)	Piedmont Floodpla	ain Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		 ∕ Deple	ted Matr	ix (F3)	,		147)	
2 cm M	uck (A10) (LRR N)		Redo>	d Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
Deplete	d Below Dark Surface (A11)	_ Deple	ted Dark	Surface (l	F7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redo>	Depress	sions (F8)				
Sandy N	/lucky Mineral (S1) (LRF	R N, MLRA	147, 148) Iron-N	/langanes	se Masses	(F12) (LF	R N, MLRA 13	⁶⁶⁾₃Indicators of hydroph	nytic vegetation and
Sandy C	Gleyed Matrix (S4)		Umbr	ic Surfac	e (F13) (M	LRA 136,	122)	wetland hydrology mu	ist be present, unless
Sandy F	Redox (S5)		Piedm	iont Floo	dplain Soi	ils (F19) (MLRA 148)	disturbed or problem	atic.
Strippe	d Matrix (S6)		Red P	arent Ma	iterial (F21) (MLRA	127, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric S	Soil Present?		Yes 🗹 No 🗆
	Depth (inches):								
Remarks:									
A positive	indication of hvdric s	oil was ol	oserved.						
	,								

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: 5, Faucette, Alamano	e Sam	pling Date: 2	018-June-22	
Applicant/Owner: N	lextEra			State:	North Carolin	a Sampling Point: W-	A18-179_UPL-1
Investigator(s): Laura Giese, Jake Brillo Section, Township, Range:							
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0 to 1							
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.1230)76 Loi	n g: -79.3724367	Datum: WGS84
Soil Map Unit Name:	Enon Sandy	loam (EnD) 10 to 1	5 percent slopes			NWI classificati	on:
Are climatic/hydrologic	c conditions o	n the site typical for	r this time of year?	Yes 🟒	No (If	no, explain in Remarks	.)
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "N	Iormal Circun	nstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If nee	eded, explain	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.	

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Tr. Hy Ox Pra Re Th Oti	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)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) EAC-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):	
(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-A18-179_UPL-1

	-					
Tree Stratum (Plot size: <u>30)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1. Liriodendron tulipifera	15	Yes	FACU	Are OBL, FACW, or FAC:	3	(A)
2. Fagus grandifolia	15	Yes	FACU	Total Number of Dominant Species	6	(B)
3. Liguidambar styraciflua	10	Yes	FAC	Across All Strata:		(D)
4.	·			Percent of Dominant Species That	50	(A/B)
5.	·	·		Are OBL, FACW, or FAC:		
6.				Prevalence Index worksheet:		_
7.				<u>Iotal % Cover of:</u>	Multiply I	<u>By:</u>
	40	= Total Cov	er	OBL species 0	x 1 =	0
50% of total cover: <u>20</u>	20% of to	tal cover:	8	FACW species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size:15)				FAC species 40	× 3 =	120
1. <i>Carpinus caroliniana</i>	15	Yes	FAC	FACU species 35	× 4 =	140
2.				UPL species 0	x 5 =	0
3.		·		Column lotals 75	(A)	260 (B)
4.		·		Prevalence Index = B/A =	3.5	
5.				Hydrophytic Vegetation Indicators:		
6.		·		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	¹ (Provide s	supporting
	15	= Total Cov	er	data in Remarks or on a separate si	ieet)	ulaia)
50% of total cover: 7.5	20% of to	tal cover:	3	Problematic Hydrophytic Vege	d bydrolog	piain) numust bo
Herb Stratum (Plot size: <u>5</u>)	-			present unless disturbed or proble	matic	gy must be
1. Microstegium vimineum	15	Yes	FAC	Definitions of Four Vegetation Strat		
2. Lonicera japonica	5	Yes	FACU		α.	
3.	·			Tree - Woody plants, excluding vine	s 3 in (7 f	cm) or more
4.				in diameter at breast height (DBH).	regardless	of height.
5.	·				-8	
6.	·			- Sapling/shrub – Woody plants, exclu	uding vines	s, 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, reg	ardless of
10		·		size, and woody plants less than 3.2	28 ft tall.	
11	·					
	20	= Total Cov	ar	- Woody vines – All woody vines grea	ter than 3.	28 ft in
50% of total cover: 10	20% of to	tal cover:	1	height.		
Woody Vine Stratum (Plot size: 30)	_2070 01 10	tai cover.				
1.						
2	·	·				
3		·		- Hydrophytic Vegetation Present?	Yes 🗆 No 🖟	7
4						-
5		·		•		
	0	= Total Cov	≏r	-		
50% of total cover: 0	20% of to	tal cover	0			
No positive indication of hydrophytic vegetation was of	oserved (≥	50% of dom	inant specie	es indexed as FAC– or drier).		

SOIL

Sampling Point: W-A18-179_UPL-1

Profile Description: (Describe t	o the dept	h needed to docume	ent the i	ndicator	or confirr	n the absen	ce of indicators.)	
Depth Matrix		Redox	Feature	es			_	
(inches) Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
<u>0-8</u> <u>10YR 3/2</u>	100						Silt Loam	·
<u>8 - 20</u> 2.5Y 6/4	100						Sandy Loam	
								·
				·				
·				·				
·				·				
$\frac{1}{1}$	Depletion, I	RM = Reduced Matri	x. MS =	Masked S	and Grai	ns. ²l ocati	on: PL = Pore Lining, M =	Matrix
Hydric Soil Indicators:	septetion, i		λ, 1115	mashea			Indicators for Problem	atic Hydric Soils ³
Histosol (A1)		Dark	Surface (57)				auc riyuric Julis".
Histic Epipedon (A2)		Dark 3	alue Belo	w Surface	(S8) (MI F	RA 147, 148)	2 cm Muck (A10) (N	/ILRA 147)
Black Histic (A3)		Thin D	ark Surf	ace (S9) (MLRA 147	148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hydrogen Sulfide (A4)		Loamy	Gleyed	Matrix (F2	<u>2)</u>	.,	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratified Layers (A5)		_ Deple	ted Matr	ix (F3)			147)	
2 cm Muck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
Depleted Below Dark Surface	(A11)	_ Deple	ted Dark	Surface (I	F7)		Other (Explain in R	emarks)
Thick Dark Surface (A12)		Redox	Depress	sions (F8)				
Sandy Mucky Mineral (S1) (LRI	R N, MLRA 1	47, 148) Iron-N	langane	se Masses	(F12) (LR	R N, MLRA 13	36) ₃ Indicators of hydroph	vtic vegetation and
Sandy Gleyed Matrix (S4)		Umbri	ic Surfac	e (F13) (M	LRA 136,	122)	wetland hydrology mu	ist be present, unless
Sandy Redox (S5)		Piedm	iont Floo	dplain So	ils (F19) (N	/LRA 148)	disturbed or problem	atic.
Stripped Matrix (S6)		Red P	arent Ma	iterial (F21) (MLRA 1	27, 147)		
Restrictive Layer (if observed):								
Туре:		None			Hydric S	oil Present?	•	Yes 🗆 No 🗹
Depth (inches):			-					
Remarks:								
No positive indication of hydrid	c soils was	observed.						

Photo of Sample Plot North



Photo of Sample Plot East

Project/Site: MVP Sou	thgate	City/Count	y: Burlington, Alamano	se Sampling Dat	te: 2018-May-10	
Applicant/Owner: N	lextEra			State: North Ca	arolina Sampling Point: W	-B18-5_PFO-1
Investigator(s): Jame	es Bolduc, Ton	y Tredway, Karla Fo	rtier S	Section, Township, Rai	nge:	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local re	lief (concave, convex,	none): Convex	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): MLR/	A 136 of LRR P		Lat: 36.1001062	Long: -79.3893178	Datum: WGS84
Soil Map Unit Name:					NWI classificat	tion: PFO
Are climatic/hydrologic	c conditions or	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	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 PFO.			

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	F F F T 0	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Thin Muck Surface (C7) Other (Explain in Remarks)	oots (C3) s (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC-Neutral Test (D5)
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 inspect	ions), 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>Iree 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	Iotal Number of Dominant Species	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:	<u>Multiply I</u>	<u>By:</u>
7		- Total Cov	or	OBL species 0	x 1 =	0
50% of total cover: 25	20% of to		10	FACW species 120	x 2 =	240
Sapling/Shrub Stratum (Plot size: 15')	_2070 01 10	tai cover.		FAC species 90	x 3 =	270
1. Carpinus caroliniana	40	Yes	FAC	FACU species <u>30</u>	x 4 =	120
2. Acer rubrum	30	Yes	FAC	UPL species 0	x 5 =	0
3. <i>Cornus florida</i>	10	No	FACU	Column lotals 240	(A) _	630 (B)
4.				Prevalence Index = B/A =	2.6	
5				Hydrophytic Vegetation Indicators:	\/	
6				I- Rapid Test for Hydrophytic	vegetation	
7				\checkmark 2 - Dominance Test is >50%		
8				4 - Morphological Adaptation	s ¹ (Provide :	supporting
9				data in Remarks or on a separate s	heet)	
	80	= Total Cov	er	Problematic Hydrophytic Veg	etation ¹ (Ex	plain)
50% of total cover: <u>40</u>	_20% of to	tal cover:	16	¹ Indicators of hydric soil and wetla	าd hydroloรู	gy must be
Herb Stratum (Plot Size: <u>5</u>)	00	Voc		present, unless disturbed or proble	ematic	
1. Leersid Virginica	10	No		Definitions of Four Vegetation Strat	:a:	
3		110	IAC	Tree Weedy plants evoluting vin	ac 2 in (7 (
4				in diameter at breast height (DBH)	regardless	of height
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	plants, reg	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	tal cover:	20	height.		
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u>)						
1. Toxicodendron radicans	10	Yes	FAC			
2.	·	<u> </u>		Lludrophytic Vogotation Procent?		7
3.	·			Hydrophytic vegetation Present?		
4	·	<u> </u>				
J	10	= Total Cov	er			
50% of total cover: 5	20% of to	tal cover:	2			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL

Sampling Point: W-B18-5_PFO-1

Profile D	escription: (Describe to Matrix	o the dept	th needed to docume	ent the i	indicator	or confirr	n the absen	ce of indicators.)	
(inchoc)	Widerix Color (moist)	04	Color (moist)		Turnel	1.0.02		Toyturo	Domorka
(incres)		<u> </u>			Туре			Cilture	Remarks
0 - 5	10YR 3/2	98	7.5YR 5/6	2		M		Silt Loam	
5 - 15	10YR 5/1	70	7.5YR 5/6	30	C	M		Silt Loam	
		· ·							
		· ·							
		· ·							<u></u>
¹ Type: C	= Concentration, D = D	Depletion,	RM = Reduced Matri	x, MS =	Masked S	Sand Grai	ns. ² Locatio	on: PL = Pore Lining, M =	= Matrix.
Hydric So	il Indicators:							Indicators for Problen	natic Hydric Soils ³ :
_ Histoso	ol (A1)		_ Dark S	Surface ((S7)			2 cm Muck (A10) (MI RA 147)
Histic E	pipedon (A2)		Polyva	alue Belo	ow Surface	e (S8) (ML	RA 147, 148)	Coast Prairie Redo	(A16) (MI RA 147 148)
Black H	istic (A3)		Thin D	ark Sur	face (S9) (MLRA 147,	, 148)	Diedmont Floodal	ain Soils (F19) (MI PA 136
Hydrog	en Sulfide (A4)		_ Loamy	Gleyed	d Matrix (F2	2)		1 reamone nooupi	
Stratifi	a Layers (A5)				rix (F3) urfaco (E6)			Vory Shallow Dark	Surface (TE12)
2 CIT IV	uck (ATU) (LKK N) ad Below Dark Surface ((411)	Redux	tod Dark	k Surface (FO)	((57)			Surface (TFTZ)
Depiet	ark Surface (A12)	AU)	Deple Redox	Denres	sions (F8)	. /)		Other (Explain in F	(emarks)
Sandy	Mucky Mineral (S1) (LRF	R N. MLRA	147. 148) Iron-M	langane	ese Masses	s (F12) (LR	R N. MLRA 13	6)	
Sandy	Gleved Matrix (S4)	•	Umbri	ic Surfac	ce (F13) (N	ILRA 136,	122)	³ Indicators of hydropi	hytic vegetation and
Sandy	Redox (S5)		Piedm	ont Floo	odplain So	ils (F19) (N	/ILRA 148)	wetland hydrology m	ust be present, unless
Strippe	d Matrix (S6)		Red Pa	arent Ma	aterial (F2 ⁻	1) (MLRA 1	27, 147)	disturbed or problem	atic.
Restrictiv	e Layer (if observed):								
	Туре:		None			Hydric S	oil Present?		Yes 🛛 No 🗆
	Depth (inches):					-			
Remarks									
A positiv	indication of hydric a	oil was of	soniad						
Apositiv			userveu.						
l									

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

Project/Site: MVP Southgate	City/County: Burlington, Alamance	Sampling Date: 201	3-May-10	
Applicant/Owner: NextEra		State: North Carolina	Sampling Point: W-B1	8-5_UPL-1
Investigator(s): James Bolduc, Tony Tree	lway, Karla Fortier Section	on, Township, Range:		
Landform (hillslope, terrace, etc.): Hillslope	Islope Local relief (c	concave, convex, none):	Convex	Slope (%): 5 to 10
Subregion (LRR or MLRA): MLRA 136	of LRR P Lat:	36.1001062 Long:	-79.3893178	Datum: WGS84
Soil Map Unit Name:			NWI classification	: 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	<pre>/drology significantly disturbed?</pre>	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?	Yes No 🟒 Yes No 🟒		
Wetland Hydrology Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Remarks:			
Covertype is UPL. no issues.			

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all	<u>that apply)</u>	Secondary Indicators (minimum	of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagement (B9) Aquatic Fauna (B13) 	True Hydri Oxidi Prese Recei Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) ized Rhizospheres on Living Roots (ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 1)
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	aerial photos, previous inspections),	, if available:	
Remarks:				
No positive indication of wetland hy	/drology was observed			
Sampling Point: W-B18-5_UPL-1

Tara Shushana (Dish sinan 20)	Absolute	Dominant	Indicator	Dominance Test worksheet:				
<u>Iree Stratum</u> (Plot size: <u>30</u>)	% Cover Species? S		Status	Number of Dominant Species That				
1. Juglans nigra	30	Yes	FACU	Are OBL, FACW, or FAC:		(~)		
2. Carpinus caroliniana	30	Yes	FAC	Total Number of Dominant Species	6	(B)		
3.				Across All Strata:				
4.				Percent of Dominant Species That	50	(A/B)		
5.				Brevelence Index worksheet:	·			
6				Total % Cover of:	Multiply	Byr.		
7				OBL species	<u>v 1 =</u>	<u>by.</u> 0		
	60	= Total Cov	rer	FACW species 10	×2=	20		
50% of total cover: <u>30</u>	50% of total cover: <u>30</u> 20% of total cover: <u>12</u>		12	FAC species 60	×3=	180		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				FACIL species 150	× 4 =	600		
1. <i>Cercis canadensis</i>	30	Yes	FACU	IIPL species 0	×4- ×5-	000		
2. <i>Carpinus caroliniana</i>	20	Yes	FAC	Column Totals	(4)	800 (P)		
3	·			$\frac{220}{Provalence Index = R/A = }$	36	800 (B)		
4								
5				Hydrophytic Vegetation Indicators:				
6				1- Rapid Test for Hydrophytic	vegetatior	1		
7				2 - Dominance Test is > 50%				
8.				$3 - Prevalence index is \leq 3.0^{\circ}$	1 (D			
9.				4 - Morphological Adaptations	boot)	supporting		
	50	= Total Cov	ver	Problematic Hydrophytic Vegetation ¹ (Explain)				
50% of total cover: <u>25</u>	20% of total cover:		10	¹ Indicators of hydric soil and wetland hydrology must				
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbed or proble	matic	89		
1. <i>Polystichum acrostichoides</i>	90	Yes	FACU	Definitions of Four Vegetation Strat	a:			
2. Leersia virginica	10	No	FACW	6				
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, excl	uding vine	s, less than 3		
7.				in. DBH and greater than or equal t	o 3.28 ft (1	l 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.								
	100	= Total Cov	rer	Woody vines - All woody vines grea	iter than 3	.28 ft in		
50% of total cover: <u>50</u>	20% of to	tal cover:	20	height.				
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u>)								
1. Toxicodendron radicans	10	Yes	FAC					
2.								
3.				Hydrophytic Vegetation Present?	Yes 🗆 No 🛛	\checkmark		
4.								
5.								
	10	= Total Cov	rer					
50% of total cover: <u>5</u>	_ 20% of to	tal cover:	2					
Remarks: (Include photo numbers here or on a separa	te sheet.)							

Sampling Point: W-B18-5_UPL-1

Profile D	escription: (Describe to	o the depth	n needed to docume	ent the i	ndicator o	or confirr	n the absen	ce of indicators.)	
Depth	Matrix		Redox	Featur	es				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type	Loc ²		lexture	Remarks
0 - 4	10YR 3/3	100						Silt Loam	
4 - 15	10YR 5/6	100						Silt Loam	
		· <u> </u>		·	·				
				·	·				
		· <u> </u>		·	·				
					·				
¹ Type: C	= Concentration, D = D	Depletion, F	RM = Reduced Matri	x, MS =	Masked S	and Grai	ns. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	oil Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histos	ol (A1)		Dark 9	Surface (57)				
Histic E	pipedon (A2)		Polyva	alue Belo	w Surface	(S8) (MLF	RA 147, 148)	2 cm Muck (A10) (N	/ILRA 147)
Black H	listic (A3)		Thin D	ark Surf	ace (S9) (N	/LRA 147	. 148)	Coast Prairie Redo:	x (A16) (MLRA 147, 148)
 Hydrog	gen Sulfide (A4)		Loamy	y Gleyed	Matrix (F2	<u>2</u>)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifi	ed Layers (A5)		_ Deple	ted Matr	ix (F3)			147)	
_ 2 cm N	luck (A10) (LRR N)		Redox	Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplet	ed Below Dark Surface (A11)	_ Deple	ted Dark	Surface (F	-7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)		Redox	Depres	sions (F8)				
Sandy	Mucky Mineral (S1) (LRF	R N, MLRA 1	47, 148) Iron-N	langane	se Masses	(F12) (LR	R N, MLRA 13	⁶⁶⁾ Indicators of hydroph	vtic vegetation and
Sandy	Gleyed Matrix (S4)		Umbri	ic Surfac	e (F13) (M	LRA 136,	122)	wetland hydrology mu	ist be present, unless
Sandy	Redox (S5)		_ Piedm	iont Floo	dplain Soi	ls (F19) (N	/LRA 148)	disturbed or problema	atic.
Strippe	ed Matrix (S6)		Red Pa	arent Ma	iterial (F21) (MLRA 1	27, 147)		
Restrictiv	ve Layer (if observed):								
	Туре:		None			Hydric S	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):			-					
Remarks	:								
No posit	ive indication of bydric	s coils was a	absorved						
NO POSIC	ive mulcation of figuric	. 50115 Was (Juseiveu.						

Hydrology Photos



Vegetation Photos

Soil Photos



Eastern Mountains and Piedmont -- Version 2.0 Adapted by TRC

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 Sout	thgate	City/Coun	ty: Haw River, Alamance	Sampling Dat	e: 2018-May-12	
Applicant/Owner: N	extEra			State: North Ca	arolina Sampling Point: V	V-A18-13_PEM-1
Investigator(s): Laur	a Giese, Simo	n King	Se	ection, Township, Rar	nge:	
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local relie	ef (concave, convex,	none): Flat	Slope (%): 0 to 1
Subregion (LRR or MLR	A): MLR	A 136 of LRR P	L	at: 36.0958528	Long: -79.3700864	Datum: WGS84
Soil Map Unit Name:					NWI classifica	ation:
Are climatic/hydrologic	conditions o	n the site typical for	r this time of year?	Yes 🟒 No 🔄	(If no, explain in Remar	ks.)
Are Vegetation,	Soil,	or Hydrology	significantly disturbed?	Are "Normal C	ircumstances" present?	Yes No 🟒
Are Vegetation,	Soil,	or Hydrology	naturally problematic?	(If needed, exp	olain any answers in Rema	irks.)

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 vegetation.	tland parameters are prese	ent. Circumstances are not normal due to mowing of	

HYDROLOGY

Wetland Hydrology Indicators:							
Primary Indicators (minimum of or	<u>e is requ</u>	ired; o	<u>check all th</u>	at apply)	Secondary Indicators (minimum of two required)		
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		uatic Plants (B14) en Sulfide Odor (C1) d Rhizospheres on Living Roots (C3) ce of Reduced Iron (C4) Iron Reduction in Tilled Soils (C6) uck Surface (C7)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) 				
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13)	iagery (B	7)	Other (Explain in Remarks)	 Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 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):			
(includes capillary fringe)					-		
Describe Recorded Data (stream g	auge, mo	nitorii	ng well, aer	ial photos, previous inspections), if	available:		
Remarks: The criterion for wetland hydrolog	y is met.						

Sampling Point: W-A18-13_PEM-1

				1		
Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species 1	^{hat} 4	(A)
1				Are OBL, FACW, or FAC:		
2				Across All Strata:	cies 5	(B)
4.		·		Percent of Dominant Species T	nat 80	(A/B)
5.				Are OBL, FACW, or FAC:		
6.				Prevalence Index worksheet:		_
7.	- <u> </u>	·		Iotal % Cover of:	Multiply	<u>By:</u>
	0	= Total Cov	er	TACIN apacias	X I =	35
50% of total cover: <u>0</u>	20% of to	_ otal cover:	00	FACW species 10	x 2 =	20
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				FAC species 10	x 3 =	30
1				FACO species 10	X 4 =	40
2.				Column Totals	× 5 =	0
3.				Column locals 65	(A)	125 (B)
4.				Prevalence Index = B	A = <u>1.9</u>	
5.				Hydrophytic Vegetation Indicat	ors:	
6.				1- Rapid Test for Hydroph	ytic Vegetatior	٦
7.				2 - Dominance lest is >50	%	
8.				3 - Prevalence index is ≤ 3	3.U'	
9.				data in Remarks or on a senara	IONS' (Provide	supporting
	0	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)		
50% of total cover: <u>0</u>	_20% of to	otal cover:	0	¹ Indicators of hydric soil and w	etland hydrolc	ogy must be
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbed or pr	oblematic	8)
1. Symphyotrichum puniceum	25	Yes	OBL	Definitions of Four Vegetation	Strata:	
2. <i>Poa annua</i>	10	Yes	FACU			
3. <i>Juncus acuminatus</i>	10	Yes	OBL	Tree – Woody plants, excluding	vines, 3 in. (7.	6 cm) or more
4. Juncus tenuis	10	Yes	FAC	in diameter at breast height (D	3H), regardles:	s of height.
5. <i>Alopecurus carolinianus</i>	10	Yes	FACW			
6				Sapling/shrub – Woody plants,	excluding vine	s, less than 3
7				in. DBH and greater than or eq	ual to 3.28 ft (1	1 m) tall.
8						
9				Herb – All herbaceous (non-wo	ody) plants, re	gardless of
10				size, and woody plants less tha	n 3.28 it tall.	
11				_		
	65	= Total Cov	er	Woody vines – All woody vines	greater than 3	.28 ft in
50% of total cover: <u>32.5</u>	_20% of to	otal cover:	13	height.		
Woody Vine Stratum (Plot size: <u>30'</u>)						
1						
2						
3				Hydrophytic Vegetation Preser	nt? 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.)					
A positive indication of hydrophytic vegetation was ob-	served (>50	0% of domir	ant species	indexed as OBL, FACW, or FAC).		

Sampling Point: W-A18-13_PEM-1

Profile De	escription: (Describe to	o the dep	th needed to docume	ent the i	ndicator	or confir	rm the absend	e of indicators.)	
Depth	Matrix		Redox	<pre>< Feature</pre>	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 5	2.5Y 5/2	90	7.5YR 4/6	10	С	М		Clay Loam	
5 - 11	10YR 4/3	45	2.5Y 5/1	10	D	М		Clay	
5 - 11	2.5YR 4/6	45							
11 - 20	5YR 4/6	95	2.5Y 5/2	5	D	М		Clay Loam	
								-	
·		·		·					
									·
<u> </u>				·					
1Turnet C -	Concontration D = D		DM - Doducod Matri		Mackad	and Cra	inc 21 ocatio	PL - Doro Liping M-	Matrix
Type: C =	Concentration, D = L	epietion,	RM = Reduced Matri	IX, IVIS = I	wasked S	and Gra	ains. ² Locatio	on: PL = Pore Lining, M =	
Hydric So	Il Indicators:		Daula					Indicators for Problem	atic Hydric Soils ³ :
HISTOSOI	I (A1) Dipodop (A2)		_ Dark S	Surface (S	5/) W Surfaco	(59) (MI	DA 147 149)	2 cm Muck (A10) (N	ILRA 147)
Black Hi	istic (A3)		Polyva Thin F	aiue Beio Dark Surf	ace (S9) (I	MIRA 14	7 148)	Coast Prairie Redo	x (A16) (MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	<u>2)</u>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		Deple	ted Matri	ix (F3)	-		147)	
_ 2 cm Mu	uck (A10) (LRR N)		Redox	Cark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface (A11)	_ Deple	ted Dark	Surface (I	F7)		Other (Explain in R	emarks)
_ Thick Da	ark Surface (A12) Auchy Minoral (S1) (I PE		Redox	(Depress	sions (F8)	(E12) (]		5)	
Sandy G	Gleved Matrix (S4)	IN, WILKA	147, 140) ITOTI-N	ic Surface	e (F13) (M	IRA 136	122)	⁹ Indicators of hydroph	ytic vegetation and
Sandy R	ledox (S5)		Onior Piedm	nont Floo	dplain Soi	ils (F19) ((MLRA 148)	wetland hydrology mu	st be present, unless
Stripped	d Matrix (S6)		Red P	arent Ma	terial (F21) (MLRA	127, 147)	disturbed or problema	atic.
Restrictive	e Layer (if observed):								
	Type:		None			Hydric	Soil Present?		Yes 🛛 No 🗆
	Depth (inches):								
Pemarks:									
Remarks.									
A positive	indication of hydric s	oil was o	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

5/12/18 Surveyors. LAG /SLK Tract: NC-A1-151.000 Wetland: WF-A18-13 PEM UPLSAMPLE NB ait and connect W-418-13 Flags 1-8 closed 9-13 closed 14-21 closed Data points

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate	City/County: Ha	w River, Alamance Sampling [Date: 2018-May-12	
Applicant/Owner: NextEra		State: North	Carolina Sampling Point: W	-A18-13_UPL-1
Investigator(s): Laura Giese, Si	mon King	Section, Township, F	Range:	
Landform (hillslope, terrace, etc.)	: Flood Plain	Local relief (concave, conve	ex, none): None	Slope (%): 0 to 1
Subregion (LRR or MLRA):	ILRA 136 of LRR P	Lat: 36.09568	Long: -79.3689515	Datum: WGS84
Soil Map Unit Name:			NWI classificat	tion:
Are climatic/hydrologic condition	s on the site typical for this ti	ime of year? Yes 🟒 No	(If no, explain in Remark	s.)
Are Vegetation, Soil,	or Hydrology signifi	cantly disturbed? Are "Norma	l Circumstances" present?	Yes No 🟒
Are Vegetation, Soil,	or Hydrology natura	ally problematic? (If needed, e	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?	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 based on abse mowing of vegetation.	nce of hydric soils and wetla	and hydrology. Circumstances are not normal due to	

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of or	ne is requ	ired;	check all	<u>that apply)</u>	Secondary Indicators (minimum of two required)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		- - - -	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) 		
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13)	nagery (B	7)	Othe	r (Explain in Remarks)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 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):	
(includes capillary fringe)				-	
Describe Recorded Data (stream g	auge, mo	nitori	ng well, a	aerial photos, previous inspect	ions), if available:
Remarks: The criterion for wetland hydrolog	y is not n	net.			

Sampling Point: W-A18-13_UPL-1

	· · ·						
Tree Stratum (Plot size: 30')	Absolute	e Dominant	Indicator	Dominance Test works	heet:		
	% Cover	Species?	Status	Number of Dominant S	pecies That	2	(A)
1				Are OBL, FACW, or FAC			
2				Across All Strata:	hant Species	3	(B)
4.				Percent of Dominant S	pecies That	66.7	(A/B)
5.				Brouslance Index work	choot:		<u> </u>
6.					of:	Multiply	Di e
7					0	<u>v 1 –</u>	<u>ру.</u> О
	0	= Total Cov	er	EACW species	55	× 2 -	110
50% of total cover: <u>0</u>	20% of to	otal cover:	0	EAC species	0	×2- ×2-	0
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				EACLI species	15	× 4 -	60
1					0	× 4	00
2				Column Totals	70	× 5	170 (D)
3.					70 	(A) _	170 (B)
4.				Prevalence In	dex = B/A =	2.4	
5.	_			Hydrophytic Vegetation	n Indicators:		
6.	_			1- Rapid Test for H	lydrophytic \	/egetation	
7.				2 - Dominance Te	st is >50%		
8.				3 - Prevalence Ind	lex is $\leq 3.0^1$		
9.				4 - Morphological	Adaptations	¹ (Provide	supporting
	0	= Total Cov	er	Problematic Hydrophytic Vegetation1 (Explain)			(m.l.n.)
50% of total cover: 0	20% of to	_ otal cover:	0	Problematic Hydr	il and wotlan	d bydrolo	piain) su must be
Herb Stratum (Plot size: <u>5'</u>)	_			nresent unless disturb	ed or proble	matic	gy must be
1. Lysimachia nummularia	30	Yes	FACW	Definitions of Four Veg	etation Strat	a .	
2. Poa annua	15	Yes	FACU	Deminions of Four Veg		u.	
3. Cyperus strigosus	15	Yes	FACW	Tree - Woody plants, e	xcluding vine	s 3 in (7 f	5 cm) or more
4. Symphyotrichum lanceolatum	10	No	FACW	in diameter at breast h	eight (DBH).	regardless	of height.
5.							
6.				Sapling/shrub - Woody	plants, exclu	uding vines	s, less than 3
7.				in. DBH and greater the	an or equal t	o 3.28 ft (1	m) tall.
8.							
9.				Herb – All herbaceous	(non-woody)	plants, reg	gardless of
10.				size, and woody plants	less than 3.2	8 ft tall.	
11.							
···· <u> </u>	70	= Total Cov	er	Woody vines – All wood	dv vines grea	ter than 3.	.28 ft in
50% of total cover: 35	20% of to		14	height.	, 0		
Woody Vine Stratum (Plot size: 30')	_ 20 /0 01 00						
1.							
2.							
3				Hydrophytic Vegetatio	n Present?	Yes 🛛 No 🛛	7
4.				, , , , , , , , , , , , , , , , , , ,			
5.							
	0	= Total Cov	er				
50% of total cover: 0	20% of to		0				
				1			
Remarks: (Include photo numbers here or on a separa	te sheet.)						
A positive indication of hydrophytic vegetation was ab	sonuad (SE)	10% of domin		indexed as OPL EACWA	r EAC)		
positive indication of right ophytic vegetation was ob	sei veu (~50		ant species	Indexed as ODL, FACW, U			
1							

Sampling Point: W-A18-13_UPL-1

Profile De	scription: (Describe to	o the dep	th needed to docum	ent the i	ndicator	or confir	m the absen	ce of indicators.)	
Depth	Matrix		Redo	x Feature	es - 1			- .	
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type'	LOC ²		lexture	Remarks
0-3	10YR 4/3	95	7.5YR 4/6		<u> </u>	M		Clay Loam	
3 - 9	10YR 4/3	90	2.5Y 5/1	5	D	M		Clay Loam	
3 - 9			7.5YR 4/4	5	C	M			
9 - 20	10YR 4/3	40	2.5Y 5/1	10	D	M		Clay Loam	
9 - 20	5YR 4/6	40	7.5YR 5/8	10	C	M		Clay Loam	
				<u> </u>	<u> </u>				
					·				
¹ Type: C =	Concentration, D = D	Depletion,	RM = Reduced Matr	ix, MS =	Masked S	and Gra	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:	•						Indicators for Problem	atic Hydric Soils ³ :
Histoso	l (A1)		Dark	Surface (S7)			2 M	U DA 147)
Histic E	pipedon (A2)		Polyv	alue Belo	w Surface	(S8) (ML	RA 147, 148)	2 cm Muck (A10) (N	ILRA 147)
Black H	istic (A3)		_ Thin I	Dark Surf	ace (S9) (I	MLRA 147	', 148)	Coast Prairie Redo>	(A16) (MLRA 147, 148)
_ Hydrog	en Sulfide (A4)		_ Loam	y Gleyed	Matrix (F2	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_ Deple	eted Matr	ix (F3)			14/)	
_ 2 cm M	uck (A10) (LRR N) d Delevy Derk Surface (A 1 1 \	Redo:	k Dark Su	irface (F6)	-71		Very Shallow Dark S	Surface (TF12)
_ Depiete	u Below Dark Surface (ark Surface (A12)	ATT)	_ Depie	v Depres	sions (E8)	F7)		Other (Explain in Re	emarks)
Sandy M	Aucky Mineral (S1) (LRF	R N. MLRA	147. 148) Iron-N	Vangane	se Masses	; (F12) (LF	R N. MLRA 13	6)	
Sandy C	Gleved Matrix (S4)	,	Umbr	ic Surfac	e (F13) (M	ILRA 136,	122)	³ Indicators of hydroph	ytic vegetation and
Sandy F	edox (S5)		Piedn	nont Floo	dplain So	ils (F19) (I	MLRA 148)	wetland hydrology mu	st be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	aterial (F21) (MLRA	127, 147)	disturbed or problema	tic.
Restrictiv	e Layer (if observed):								
	Туре:		None	-		Hydric	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):			-					
Remarks:									
No positiv	e indication of hydric	soils was	s observed.						



Photo of Sample Plot South

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sout	hgate	City/County	: Haw River, Alamance	Sampling D	ate: 2018-May-12	
Applicant/Owner: Ne	extEra			State: North	Carolina Sampling Point: W-	A18-14_PEM-1
Investigator(s): Laura	a Giese, Simon	King	Secti	on, Township, R	ange:	
Landform (hillslope, ter	race, etc.):	Flood Plain	Local relief (concave, conve	k, none): Flat	Slope (%): 0 to 1
Subregion (LRR or MLR/	A): MLRA	136 of LRR P	Lat:	36.0942526	Long: -79.3694646	Datum: WGS84
Soil Map Unit Name:					NWI classificat	ion:
Are climatic/hydrologic	conditions on	the site typical for	this time of year?	Yes 🟒 No _	(If no, explain in Remarks	5.)
Are Vegetation,	Soil,	or Hydrology s	significantly disturbed?	Are "Normal	Circumstances" present?	Yes No 🟒
Are Vegetation,	Soil,	or Hydrology r	naturally problematic?	(If needed, e	xplain any answers in Remarl	<s.)< td=""></s.)<>

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

Hydrophytic Vegetation Present? Hydric Soil Present? Watland Hydrology Brocont?	Yes No Yes No	Is the Sampled Area within a Wetland?	Yes 🖌 No
Remarks:	res NO		
Covertype is PEM. Area is wetland, all three we vegetation.	tland parameters are prese	nt. Circumstances are not normal due to mowing of	

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of or	Secondary Indicators (minimum of two required)				
				 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) 	
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13)	agery (B7)	Other (E	xplain in Remarks)	 Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) 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	1	Depth (inches):	
(includes capillary fringe)					-
Describe Recorded Data (stream g	iuge, mon	itorin	ıg well, aer	ial photos, previous inspections), if	available:
Remarks: The criterion for wetland hydrolog	ı is met.				

Sampling Point: W-A18-14_PEM-1

Tree Stratum (Plot size: 30')	Absolute	Dominant	Indicator	Dominance Test works	neet:		
	% Cover	Species?	Status	Number of Dominant S	pecies That	2	(A)
1				Total Number of Domin	ant Spacias		
2		·		Across All Strata:	iant species	2	(B)
3		·		Percent of Dominant Sp	pecies That	100	(4 (D)
4		·		Are OBL, FACW, or FAC:		100	(A/B)
6		· ·		Prevalence Index works	sheet:		
7.		·		Total % Cover	<u>of:</u>	Multiply	<u>By:</u>
···	0	= Total Cov	er	OBL species	30	x 1 =	30
50% of total cover: 0	20% of to		0	FACW species	25	x 2 =	50
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				FAC species	0	x 3 =	0
1.				FACU species	10	× 4 =	40
2.				UPL species	0	x 5 =	0
3.					65	(A) _	120 (B)
4.				Prevalence In	dex = B/A =	1.8	
5.				Hydrophytic Vegetation	Indicators:		
6.				1- Rapid Test for F	lydrophytic \	Vegetation	
7.				2 - Dominance les	st is >50%		
8				3 - Prevalence Ind	$ex \ IS \leq 3.0^{\circ}$	1 (Drovida	currenting
9				data in Remarks or on a	Auaptations a senarate st	reet)	supporting
	0	= Total Cov	er	Problematic Hydro	ophytic Vege	etation ¹ (Ex	plain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	¹ Indicators of hydric so	il and wetlan	d hydrolo	gy must be
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturb	ed or proble	matic	
1. <u>Eleocharis obtusa</u>	30	Yes	OBL	Definitions of Four Veg	etation Strat	a:	
2. Lysimachia nummularia	20	Yes	FACW				
3. <u>Poa annua</u>	10	No	FACU	Tree – Woody plants, ex	cluding vine	es, 3 in. (7.6	5 cm) or more
4. <u>Alopecurus carolinianus</u>	5	No	FACW	in diameter at breast h	eight (DBH),	regardless	of height.
5							
6.		·		Sapling/snrub - Woody	plants, exclu	uding vines	s, less than 3
/				in. Don and greater the	an or equal t	0 5.20 It (1	iii) tali.
8				Herb – All herbaceous (non-woody)	plants, res	ardless of
9		·		size, and woody plants	less than 3.2	28 ft tall.	J
		·					
11	65	- Total Cov	or	Woody vines - All wood	ly vines grea	tor than 3	28 ft in
50% of total cover: 32.5	20% of to		12	height.	ly vines grea	ter than 5.	2010111
Woody Vine Stratum (Plot size: 30')	_ 20% 01 tt	otal cover.	15				
1.							
2.							
3				Hydrophytic Vegetation	n Present?	Yes 🗹 No 🛛	1
4.		·		J			
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			
Remarks. (include photo numbers here of on a separa	te sneet.)						
A positive indication of hydrophytic vegetation was ob	served (>50	0% of domin	ant species	indexed as OBL, FACW, o	r FAC).		
				. ,			

Sampling Point: W-A18-14_PEM-1

Profile De	escription: (Describe to	o the dep	th needed to docum	ent the i	ndicator	or confir	m the absenc	e of indicators.)	
(inchos)	Color (moist)	04	Color (moist)			Loc2		Toyturo	Bomarke
		90	7 5VD 4/6	<u>70</u>	<u>Type</u>	 			Remarks
3 0	2 5V 5/2	95	7.51R 4/0	10	<u> </u>	N		Ludiii Do Sandy Loam	
0 15	10/0 //2	90	2 EV E/1	10	<u> </u>		Fit		
9-15	2 EV E/2	90	2.51 5/1	10		N	FII		Mp concretions
15-20	2.51 5/5	60					FII		
15 - 20	7.5YR 4/6		7.5YR 4/6	10	<u> </u>	IVI		Sandy Loam	
					·				
					·	<u> </u>			
·					·				
				<u> </u>	·				
1T								DI - Deve Lining M -	Matuix
'Type: C =	= Concentration, D = L	epletion,	RIVI = Reduced Matr	IX, IVIS =	Masked S	and Gra	Ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hyaric Sc	li indicators:		Dark	Surface (57)			Indicators for Problem	atic Hydric Solis ³ :
Histic F	pipedon (A2)		Dark Polyv	alue Belo	sz) w Surface	(S8) (MI	RA 147, 148)	2 cm Muck (A10) (N	ILRA 147)
Black H	istic (A3)		Thin I	Dark Surf	ace (S9) (I	MLRA 147	, 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)		Piedmont Floodplai	in Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		_∕ Deple	ted Matr	ix (F3)			147)	
_ 2 cm M	uck (A10) (LRR N) od Bolow Dark Surface (A 1 1)	Redo:	k Dark Su	rface (F6)	-7)		Very Shallow Dark S	Surface (TF12)
Deplete Thick D	ark Surface (A12)	ATT)	Depie	v Denress	sions (F8)	-/)		Other (Explain in Re	emarks)
Sandy I	Mucky Mineral (S1) (LRF	R N, MLRA	147, 148) Iron-1	Vanganes	se Masses	(F12) (LF	R N, MLRA 13	6) _{210 dianta ya} af huduan hu	
Sandy (Gleyed Matrix (S4)		_ Umbr	ic Surfac	e (F13) (M	LRA 136,	122)	wetland bydrology mu	st be present upless
Sandy F	Redox (S5)		Piedn	nont Floo	dplain Soi	ils (F19) (MLRA 148)	disturbed or problema	tic
Strippe	d Matrix (S6)		Red P	arent Ma	iterial (F21) (MLRA	127, 147)		
Restrictiv	e Layer (if observed):								
	Туре:		None	-		Hydric	Soil Present?		Yes 🗹 No 🗆
	Depth (inches):			-					
Remarks	:								
A positive	e indication of hydric s	oil was o	bserved.						

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: Haw River, Alamance	Sampling Date: 20)18-May-12	
Applicant/Owner: NextEra		State: North Carolin	a Sampling Point: W-A1	18-14_UPL-1
Investigator(s): Laura Giese, Simon H	King So	ection, Township, Range:		
Landform (hillslope, terrace, etc.):	Flood Plain Local reli	ief (concave, convex, none	: Flat	Slope (%): 0 to 1
Subregion (LRR or MLRA): MLRA	136 of LRR P	Lat: 36.0960034 Lor	g: -79.3691353	Datum: WGS84
Soil Map Unit Name:			NWI classification	n:
Are climatic/hydrologic conditions on t	the site typical for this time of year?	Yes 🟒 No (If	no, explain in Remarks.)	
Are Vegetation, Soil, or	r Hydrology significantly disturbed?	Are "Normal Circum	stances" present?	Yes No 🟒
Are Vegetation, Soil, or	r Hydrology naturally problematic?	(If needed, explain a	iny 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 w	vetland parameters are pre	esent. Circumstances are not normal due to mowing of		
vegetation.				

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of or	ne is requir	ed; c	heck all th	at apply)	Secondary Indicators (minimum of two required)	
				 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) 		
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13)	nagery (B7)		Other (I	Explain in Remarks)	 Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	
Field Observations:						
Surface Water Present?	Yes	No	1	Depth (inches):		
Water Table Present?	Yes	No	✓	Depth (inches):	Wetland Hydrology Present? Yes No	
Saturation Present?	Yes	No	1	Depth (inches):		
(includes capillary fringe)					—	
Describe Recorded Data (stream g	auge, mon	itorir	ng well, aer	ial photos, previous inspections),	if available:	
Remarks: The criterion for wetland hydrolog	y is not me	t.				

Sampling Point: W-A18-14_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				Across All Strata	1 (B)
3		·		Percent of Dominant Species That	
4		·		Are OBL, FACW, or FAC:	0 (A/B)
5		·		Prevalence Index worksheet:	. <u></u>
6		<u> </u>		Total % Cover of:	Multiply By:
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 5	x 3 = 15
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				FACU species 85	x 4 = 340
1				UPL species 0	x 5 = 0
2				Column Totals 90	(A) 355 (B)
3		·		Prevalence Index = B/A =	3.9
4	·			Hydrophytic Vegetation Indicators:	
5.		·		1- Rapid Test for Hydrophytic	Vegetation
6	·			2 - Dominance Test is > 50%	0
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	heet)
	0	= Total Cov	er	Problematic Hydrophytic Vege	etation ¹ (Explain)
50% of total cover: <u>0</u>	_ 20% of to	otal cover:	0	¹ Indicators of hydric soil and wetlar	າd hydrology must be
Herb Stratum (Plot size: <u>5'</u>)				present, unless disturbed or proble	matic
1. <u>Glechoma hederacea</u>	50	Yes	FACU	Definitions of Four Vegetation Strat	a:
2. Trifolium repens	15	No	FACU		
3. <u>Festuca rubra</u>	15	No	FACU	Tree – Woody plants, excluding vine	es, 3 in. (7.6 cm) or mo
4. <u>Oxalis stricta</u>	5	No	FACU	in diameter at breast height (DBH),	regardless of height.
5. <u>Rumex crispus</u>	5	No	FAC		
6				Sapling/shrub – Woody plants, excl	uding vines, less than
7		·		In. DBH and greater than or equal t	0 3.28 π (T m) tall.
8				Harb All borbaccous (pop woody)	plants regardless of
9				size and woody plants less than 3	28 ft tall
10				size, and woody plants less than s.	
11					
	90	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.28 ft in
50% of total cover: <u>45</u>	_ 20% of to	otal cover:	18	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 No positive indication of hydrophytic vegetation was o	t e sheet.) oserved (≥	50% of dom	inant specie	es indexed as FAC– or drier).	

Sampling Point: W-A18-14_UPL-1

Profile De	escription: (Describe t	o the dep	th needed to docume	ent the i	ndicator	or confirm	n the absence o	of indicators.)	
Depth	Matrix		Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 3	10YR 4/3	100						Loam	
3 - 6	10YR 5/4	93	7.5YR 4/6	5	С	Μ		Loam	
3 - 6			10YR 5/2	2	D	Μ			
6 - 16	10YR 4/4	98	7.5YR 4/6	2	С	М		Loam	
16 - 22	10YR 4/4	90	10YR 5/8	5	С	М	Sa	ndy Loam	
16 - 22			2.5Y 5/2	5	D	М			
					·				
				·	·				
¹ Type: C =	Concentration. D = [Depletion,	RM = Reduced Matri	x. MS =	Masked S	and Grai	ns. ² Location:	PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:			,			<u> </u>	ndicators for Problema	ntic Hydric Soils ³
Histoso			Dark 9	Surface (57)				die Hydrie Solis .
Histic E	pipedon (A2)		Dark S	alue Belo	w Surface	(S8) (MLF	RA 147, 148) -	2 cm Muck (A10) (M	LRA 147)
Black H	istic (A3)		Thin D	Dark Surf	ace (S9) (N	(USB) (<u>1</u> /ILRA 147,	148) -	Coast Prairie Redox	(A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loamy	y Gleyed	Matrix (F2	.)	-	Piedmont Floodplai	n Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_ Deple	ted Matr	ix (F3)		1	47)	
2 cm M	uck (A10) (LRR N)		Redox	Dark Su	rface (F6)		-	Very Shallow Dark S	urface (TF12)
_ Deplete	d Below Dark Surface (A11)	_ Deple	ted Dark	Surface (F	7)	-	Other (Explain in Re	marks)
Thick D	ark Surface (A12)		Redox	Depress	sions (F8)				
_ Sandy M	Aucky Mineral (S1) (LRF	R N, MLRA	147, 148) Iron-N	langane:	se Masses	(F12) (LR	R N, MLRA 136) ₃	Indicators of hydrophy	tic vegetation and
_ Sandy C	bleyed Matrix (S4)		Umbr	IC Surface	e (F13) (M delain Soi	LRA 136, 1 Lc (F10) (N	122) 41 DA 149) V	vetland hydrology mus	st be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	terial (F21) (MIRA 1	(12.07 + 140)	listurbed or problema	tic.
	e Laver (if observed):						27, 147)		
	Type:		None			Hydric S	oil Present?		
	Denth (inches):			-		i iyunc s	on rresent:		
	Depth (inches).			-					
Remarks: No positi	ve indication of hydric	soils was	observed.						



Photo of Sample Plot East

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: MVP Sour	thgate	City/Count	y: 13, Haw River, Alam	an Sampling Dat	e: 2018-May-26	
Applicant/Owner: N	extEra			State: North Ca	rolina Sampling Point: W	-A18-67_PFO-1
Investigator(s): Laur	a Giese, Joe R	оу		Section, Township, Ran	ige:	
Landform (hillslope, te	rrace, etc.):	Flood Plain	Local re	lief (concave, convex, i	none): Concave	Slope (%): 0 to 1
Subregion (LRR or MLR	RA): MLR	A 136 of LRR P		Lat: 36.062615	Long: -79.3614676	Datum: WGS84
Soil Map Unit Name:					NWI classifica	tion:
Are climatic/hydrologic	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 Ci	rcumstances" 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? 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 pi	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)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True . Hydro Oxidi Prese Recen Thin Othe	Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Living ence of Reduced Iron (C4) nt Iron Reduction in Tilled S Muck Surface (C7) r (Explain in Remarks)	Roots (C3 oils (C6)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) (EAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes 🟒 No	Depth (inches):	9	– Wetland Hydrology Present? Yes _∠_ No
Saturation Present?	Yes 🟒 No	Depth (inches):	9	_
(includes capillary fringe)				-
Describe Recorded Data (stream g	auge, monitoring well, a	aerial photos, previous insp	ections), if	available:
Remarks:				
The criterion for wetland hydrolog	y is met.			

Sampling Point: W-A18-67_PFO-1

Tree Stratum (Plot size: 30')	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	2	(B)
3				Across All Strata:		
4.				Percent of Dominant Species That	100	(A/B)
5.				Are OBL, FACW, or FAC:	·	
6.				Prevalence Index worksheet:		_
7.				<u>Total % Cover of:</u>	Multiply	<u>By:</u>
···		= Total Co	ver	OBL species 35	x 1 =	35
50% of total cover: 0	20% of to		0	FACW species 50	x 2 =	100
Sapling/Shrub Stratum (Plot size: 15')	_ 2070 01 00	cover.		FAC species 0	x 3 =	0
<u></u>				FACU species 0	x 4 =	0
·				UPL species 0	x 5 =	0
2.				Column Totals 85	(A)	135 (B)
3				Prevalence Index = B/A =	1.6	
4				Hydrophytic Vegetation Indicators:		
5				 1- Rapid Test for Hydrophytic 	Vegetation	
6				2 - Dominance Test is >50%	Vegetation	
7				\checkmark 2 = Dominance rest is > 50%		
8				▲ Merphological Adaptation	1 (Drouida	currenting
9.				data in Remarks or on a separate s	boot)	supporting
	0	= Total Co	ver	Broblematic Hydrophytic Veg	neer) atation1 (Ev	nlain)
50% of total cover:0	20% of to	tal cover:	0	Indicators of hydric coil and wotla		piani)
Herb Stratum (Plot size: 5')	_			present unless disturbed or proble	matic	gy must be
1. Elvmus riparius	25	Yes	FACW	Definitions of Four Vegetation Stra		
2 Saururus cernuus	25	Yes	OBL	Definitions of Four Vegetation Stra	ld.	
3 Carey tribulaides	15	No	FACW	The state of the s		
5. Chicaria striata	10	No		in diameter at broast bright (DBU)	es, 3 In. (7.6	o cm) or more
4. Olycena striata	10				regardiess	or neight.
	10	NO	FACW			
b				in DBU and greater than or equal	uuing vines	m) tall
7				In. DBH and greater than or equal	10 5.26 11 (1	III) tall.
8				Lierh All barbasagus (pap woodu) plants ros	rardlace of
9				size and woody plants less than 3) piants, reg 28 ft tall	gar diess of
10				size, and woody plants less than 5.	20 11 1411.	
11						
	85	= Total Co	ver	Woody vines – All woody vines gree	ater than 3.	28 ft in
50% of total cover: <u>42.5</u>	20% of to	tal cover:	17	height.		
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u>)						
1.						
2.						
3.				Hydrophytic Vegetation Present?	Yes 🗹 No 🗆	C
4						
т						
		- Total Co	vor			
	2004 after		0			
	_ 20% 01 tt	otal cover.	0			
A positive indication of hydrophytic vegetation was ob wetland boundary.	served (>50	0% of domi	nant species	indexed as OBL, FACW, or FAC). Tree	s are on the	e edge of the

Sampling Point: W-A18-67_PFO-1

Profile De	escription: (Describe to	o the dep	oth needed to docum	ent the i	indicator	or confirm	the absen	ce of indicators.)	
Depth	Matrix		Redox	x Feature	es			_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 5	2.5Y 4/1	85	2.5YR 4/6	15	C	M/PL		Silt Loam	
5 - 19	10YR 5/2	85	5YR 4/6	10	C	M		Silt Loam	
5 - 19			10YR 5/1	5	D	Μ			
									· · · · · · · · · · · · · · · · · · ·
				·	·				·
1Type: C	= Concentration D = D)enletion	RM = Reduced Matr	ix MS =	Masked	Sand Grain	s ² l ocati	on PI = Pore Lining M =	Matrix
Hydric Sc	vil Indicators:	repletion	, KM – Keddeed Maar	1, 1015 -	WIDSKEU .		S. LOCALIN	Indicators for Problem	atic Hydric Soils3:
Histoso			Dark	Surface (57)				auc Hyuric Solis".
Histic E	pipedon (A2)		Dark	alue Belo	ow Surface	e (S8) (MLRA	4 147, 148)	2 cm Muck (A10) (N	/ILRA 147)
Black H	istic (A3)		Thin [Dark Surf	face (S9) (MLRA 147, 1	148)	Coast Prairie Redo:	x (A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F	2)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	ed Layers (A5)		_∕ Deple	eted Matr	rix (F3)			147)	
_ 2 cm M	uck (A10) (LRR N)		Redox	x Dark Su	urface (F6)			Very Shallow Dark	Surface (TF12)
_ Deplete	ed Below Dark Surface (A11)	_ Deple	ted Dark	(Surface (sions (E8)	F7)		Other (Explain in R	emarks)
_ Thick D	Mucky Mineral (S1) (I RF	R N. MI RA	Keuo	Mangane	se Masse	s (F12) (I RR	N. MI RA 13	6)	
Sandy (Gleved Matrix (S4)	,	Umbr	ric Surfac	e (F13) (N	ILRA 136, 12	22)	³ Indicators of hydroph	ytic vegetation and
Sandy I	Redox (S5)		Piedn	nont Floo	dplain So	ils (F19) (M I	LRA 148)	wetland hydrology mu	ist be present, unless
Strippe	d Matrix (S6)		Red P	arent Ma	aterial (F2	1) (MLRA 1 2	27, 147)	disturbed or problema	atic.
Restrictiv	e Layer (if observed):								
	Туре:		None	_		Hydric So	il Present?		Yes 🗵 No 🗆
	Depth (inches):			-					
Remarks									
A positive	e indication of hydric s	soil was o	bserved.						

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: 13,	Haw River, Alaman	Sampling Dat	e: 2018-May-26			
Applicant/Owner: N	lextEra			State: North Ca	rolina Sampling Point: W-	A18-67_UPL-1		
nvestigator(s): Laura Giese, Joe Roy Section, Township, Range:								
Landform (hillslope, te	errace, etc.):	Flood Plain	Local relief (c	oncave, convex, i	none): Concave	Slope (%): 0 to 1		
Subregion (LRR or MLF	RA):		Lat:	36.062914	Long: -79.3615706	Datum: WGS84		
Soil Map Unit Name:					NWI classificat	ion:		
Are climatic/hydrologi	c conditions o	n the site typical for this ti	me of year?	Yes 🟒 No _	(If no, explain in Remarks	5.)		
Are Vegetation,	Soil,	or Hydrology signified	cantly disturbed?	Are "Normal Ci	ircumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology natura	ally problematic?	(If needed, exp	lain any answers in Remarl	<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 based on al	osence of hydric soils and	wetland hydrology.	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	e is required; check al	<u>ll that apply)</u>	Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hyd Oxio Pres Reco Thir Oth agery (B7)	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)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) C EAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes No 🟒	Depth (inches):	
Water Table Present?	Yes No 🟒	Depth (inches):	— Wetland Hydrology Present? Yes № _∠
Saturation Present?	Yes No 🟒	Depth (inches):	
(includes capillary fringe)			
Describe Recorded Data (stream ga	uge, monitoring well,	aerial photos, previous inspections), i	favailable:
Remarks:			
The criterion for wetland hydrology	is not met.		

Sampling Point: W-A18-67_UPL-1

	-			1		
Tree Stratum (Plot size: <u>30')</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	2	(4)
1. Acer negundo	35	Yes	FAC	Are OBL, FACW, or FAC:		(A)
2. Fraxinus pennsylvanica	25	Yes	FACW	Total Number of Dominant Species	4	(B)
3. Liquidambar styraciflua	5	No	FAC	Across All Strata:		(2)
4.				Percent of Dominant Species That	75	(A/B)
5.				Are OBL, FACW, or FAC:		
6.				Total % Cover of	Multiply	Dv.e
7.					<u>v 1 –</u>	<u>ру.</u> О
	65	= Total Cov	er	EACW species 65	× 7 -	130
50% of total cover: <u>32.5</u>	_20% of to	tal cover:	13	FAC species 40	×2- ×3-	120
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				EACLI species 75	× 4 -	200
1				LIPL species 75	× 4	
2.				Column Totals	× >	
3.					(A) _	550 (B)
4.				Prevalence Index = B/A =	<u>3.1</u>	
5.	. <u> </u>			Hydrophytic Vegetation Indicators:		
6.				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	¹ (Provide s	supporting
	0	= Total Cov	er	data in Remarks or on a separate s	neet)	
50% of total cover: 0	20% of to		0	Problematic Hydrophytic Vege	etation' (Ex	piain)
Herb Stratum (Plot size: 5')				indicators of nydric soil and wettan	ia nyaroiog	gy must be
1. <i>Glechoma hederacea</i>	60	Yes	FACU	Definitions of Four Vegetation Strat		
2. Elvmus riparius	25	Yes	FACW		a.	
3. Ligustrum sinense	15	No	FACU	Tree – Woody plants, excluding vine	as 3 in (7 f	cm) or more
4. Carex tribuloides	10	No	FACW	in diameter at breast height (DBH)	regardless	of height
5 Boehmeria cylindrica	5	No	FACW		reguratess	or neight.
6				- Sapling/shrub – Woody plants, excl	uding vines	s. 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, reg	ardless of
10				size, and woody plants less than 3.2	28 ft tall.	
11						
· · · · · · · · · · · · · · · · · · ·	115	- Total Cov	or	- Woody vines - All woody vines grea	ater than 3	28 ft in
FOW of total covery F7 F	2004 of to		21	height.	iter than 5.	201111
50% Of total cover. <u>57.5</u>	_ 20% 01 10	otal cover.	25			
<u>woody vine stratum</u> (Plot size. <u></u>)						
1				-		
2.				Lludrophytic Vagatation Dracont?		7
S						
4		·				
S		Tabal Car				
	0		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:	te sheet.) served (>50	0% of domin	ant species	indexed as OBL, FACW, or FAC).		

Sampling Point: W-A18-67_UPL-1

	scription. (Describe t	o the dept	in needed to docum	ent the I	nuicator (m the absenc	e of mulcators.)	
Depth _	Matrix		Redox	k Feature	es				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0 - 2	10YR 3/3	100		·				Silt Loam	
2 - 13	10YR 4/3	100						Clay Loam	
13 - 19	10YR 4/3	93	7.5YR 3/4	5	C	Μ		Clay Loam	
13 - 19			10YR 5/2	2	D	М			
19 - 22	7.5YR 4/4	80	7.5YR 3/4	10	С	М		Clay Loam	
19 - 22			2.5Y 5/2	10	D	М			
·									
¹ Type: C =	Concentration, D = [Depletion,	RM = Reduced Matri	x, MS = I	Masked S	and Grai	ins. ² Locatio	n: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:	- I <i>(</i>		7 -				Indicators for Problema	atic Hydric Soils ³ :
Histoso	l (A1)		Dark	Surface (S	57)				
Histic Ep	pipedon (A2)		Polyva	alue Belo	, w Surface	(S8) (ML	RA 147, 148)	2 cm Muck (A10) (M	ILRA 147)
Black Hi	istic (A3)		Thin D	Dark Surf	ace (S9) (N	/ILRA 147	, 148)	Coast Prairie Redox	(A16) (MLRA 147, 148)
_ Hydroge	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	.)		Piedmont Floodpla	in Soils (F19) (MLRA 136,
Stratifie	d Layers (A5)		_ Deple	ted Matr	ix (F3)			147)	
_ 2 cm IVIL	uck (ATU) (LKK N) Id Below Dark Surface ((411)	Redo> Deple	Dark Su	FTACE (F6) Surface (F	7)		Very Shallow Dark 3	Surface (TFTZ)
Thick Da	ark Surface (A12)	(АП)	Depie Redox	Depress	sions (F8)	/)		Other (Explain in Re	emarks)
Sandy N	/lucky Mineral (S1) (LRI	R N, MLRA	147, 148) Iron-N	/langanes	e Masses	(F12) (LR	R N, MLRA 13	5)	tio vogetetio prod
Sandy G	Gleyed Matrix (S4)		Umbr	ic Surface	e (F13) (M	LRA 136,	122)	wetland bydrology mu	st be present upless
Sandy R	Redox (S5)		Piedm	nont Floo	dplain Soi	ls (F19) (I	MLRA 148)	disturbed or problema	tic
Stripped	d Matrix (S6)		Red P	arent Ma	terial (F21) (MLRA	127, 147)	distanced of problema	
Restrictive	e Layer (if observed):								
	Туре:		None	•		Hydric S	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):			-					
Remarks:									
No positi	re indication of hydri	r soils was	observed						
No positiv	ve indication of hydrio	c soils was	observed.						
No positiv	ve indication of hydrid	c soils was	observed.						
No positiv	ve indication of hydrid	c soils was	observed.						
No positiv	ve indication of hydrid	c soils was	observed.						
No positiv	<i>v</i> e indication of hydrio	c soils was	observed.						
No positiv	ve indication of hydrid	c soils was	observed.						
No positiv	ve indication of hydrid	c soils was	observed.						
No positiv	ve indication of hydrio	c soils was	observed.						
No positiv	ve indication of hydrid	c soils was	observed.						
No positiv	ve indication of hydrid	c soils was	observed.						
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:	Graham, Alamance C	m, Alamance Co Sampling Date: 2018-June-04				
Applicant/Owner: N	lextEra			State: North C	arolina Sampling Point: V	V-A18-111_PEM-1		
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:								
Landform (hillslope, te	rrace, etc.):	Depression	Local rel	ief (concave, convex,	none): Concave	Slope (%): 0 to 1		
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.0462266	Long: -79.3659625	Datum: WGS84		
Soil Map Unit Name:	Cullen Clay L	₋oam			NWI classifica	ation:		
Are climatic/hydrologic	c conditions or	n the site typical for t	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remar	ks.)		
Are Vegetation,	Soil,	or Hydrology si	gnificantly disturbed?	Are "Normal O	Circumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, ex	olain any answers in Rema	irks.)		

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	ne is required; check all t	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True / 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)	 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 In Stunted or Stressed Plants (ID Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) <!-- CFAC-Neutral Test (D5)</li--> 	Surface (B8) 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), if	available:	
Remarks:				
The criterion for wetland hydrolog	y is met.			

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

Sampling Point: W-A18-111_PEM-1

	-						
Trop Stratum (Plot size: 20)	Absolute	Dominant	Indicator	Dominance Test works	sheet:		
	% Cover	Species?	Status	Number of Dominant	Species That	2	(A)
1				Are OBL, FACW, or FAC	:		(/)
2	·			Total Number of Domi Across All Strata:	nant Species	3	(B)
4	·			Percent of Dominant S	pecies That	66.7	(A/B)
5	<u> </u>			Prevalence Index work	 rshaat		
6	<u> </u>			Total % Cover	of	Multiply	Bv:
7	<u> </u>			OBL species	<u>60</u>	x 1 =	<u></u> 60
	0	= Total Cov	rer	FACW species	45	x 2 =	90
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>)				FACLI species	45	× 4 =	180
1	<u> </u>					×	0
2				Column Totals	150	× J = (^)	220 (P)
3				Drevelance l		(A)	330 (B)
4.				Prevalence i	ndex = B/A =		
5.				Hydrophytic Vegetatio	n Indicators:		
6.				1- Rapid Test for	Hydrophytic	Vegetatior	ו
7.				2 - Dominance Te	est is >50%		
8.	·			3 - Prevalence Inc	dex is $\leq 3.0^1$		
9.				4 - Morphologica	l Adaptations	¹ (Provide	supporting
	0	= Total Cov	er	data in Remarks or on	a separate si	neet)	
50% of total cover: 0	20% of to	tal cover:	0	Problematic Hyd	rophytic Vege	etation' (E	xplain)
Herb Stratum (Plot size: 5)					oll and wetlar	ia nyaroic matic	igy must be
1. Juncus effusus	45	Yes	FACW	Definitions of Four Ver	tetation Strat	a .	
2. <i>Carex stipata</i>	30	Yes	OBL	Definitions of Four Veg	setation Strat	a.	
3. <i>Festuca rubra</i>	25	Yes	FACU	Tree - Woody plants e	veluding vine	s 3 in (7	6 cm) or more
4. Carex lunulina	15	No	OBI	in diameter at breast h	neight (DBH)	regardles	s of height
5 Scirpus atrovirens	10	No	OBL			regulates	of freight.
6 Trifolium pratense	10	No	FACU	Sapling/shrub - Wood	v plants, exclu	uding vine	s. less than 3
7 Trifolium renens	10	No	FACU	in. DBH and greater th	an or equal t	o 3.28 ft (1 m) tall.
8 Symphyotrichum puniceum	5	No	OBI	0			
		110		Herb – All herbaceous	(non-woody)	plants, re	gardless of
10	·			size, and woody plants	s less than 3.2	8 ft tall.	
11	·						
11	150	- Tatal Ca		Woody vines All woo	dy vinos grop	tor than 3	28 ft in
	150		20	height	uy vines grea		.2010111
S0% of total cover. <u>75</u>	_ 20% 01 to	otal cover.					
<u>woody vine stratum</u> (Plot size. <u></u>)							
1	·						
2.	·			Lludrophytic Vogotati	n Drocont2		
з. 	·				JII Flesent:		
4.	·	<u> </u>					
S							
	0	= lotal 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.)						
Fallow field. A positive indication of hydrophytic vegeta	ition was o	bserved (>5	0% of domir	nant species indexed as	OBL, FACW, o	r FAC).	

SOIL

Sampling Point: W-A18-111_PEM-1

Profile De	scription: (Describe t	o the dep	th needed to docume	ent the i	ndicator	or confir	m the absend	e of indicators.)	
(inchos)	Color (maint)	04	Color (moist)			Loc2		Toxturo	Bomarke
		70			Type.				ReffidEKS
0-3	101R 4/2		101R 4/4	45	<u> </u>			Loam	
0-3	10YR 5/8							Loam	
3-8	10YR 4/2		10YR 4/4	25	<u> </u>	M		Clay Loam	
3 - 8	10YR 5/8	5			·				
8 - 16	10YR 4/2	80	10YR 4/4	15	C	M		Clay Loam	
8 - 16	10YR 5/8	5							
¹ Type: C =	Concentration, D = D	epletion,	RM = Reduced Matri	x, MS =	Masked S	and Gra	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histoso	l (A1)		Dark S	Surface (S	57)			2 cm Muck (A10) (N	
Histic Ep	oipedon (A2)		Polyva	alue Belo	w Surface	(S8) (ML	.RA 147, 148)	2 CHI MUCK (ATO) (IV	((A16) (M) DA 147 149)
Black Hi	stic (A3)		Thin D	ark Surf	ace (S9) (I	MLRA 147	7, 148)	Coast Prairie Reuo	(A10) (IVILKA 147, 146)
Hydroge	en Sulfide (A4)		_ Loamy	/ Gleyed	Matrix (F2	2)			III 30115 (F19) (IVILICA 130,
_ Stratifie	a Layers (A5) Jock (A10) (LPP N)		Deplet	Dark Su	IX (F3) Irfaco (E6)			Very Shallow Dark 9	Surface (TE12)
Deplete	d Below Dark Surface (A11)	Redux Deplet	ted Dark	Surface (I	F7)		Other (Explain in Re	emarks)
Thick Da	ark Surface (A12)		Redox	Depress	sions (F8)				
Sandy N	lucky Mineral (S1) (LRF	R N, MLRA	147, 148) Iron-M	langanes	se Masses	(F12) (LI	RR N, MLRA 13	6) _{3Indicators of hydroph}	vtic vegetation and
Sandy G	ileyed Matrix (S4)		Umbri	ic Surfac	e (F13) (M	LRA 136,	122)	wetland hydrology mu	st be present, unless
Sandy R	edox (S5)		Piedm	iont Floo	dplain Soi	ils (F19) (MLRA 148)	disturbed or problema	tic.
Restrictive	E Laver (if observed):			arent ivia	iteriai (FZ		127, 147)		
	Type:		None			Hydric	Soil Present?		Yes 🛙 No 🗆
	Depth (inches):								
Domorker	D optil (intened)								
A positive historical	indication of hydric s filling or grading.	oil was o	bserved. Soil disturbe	ed, altho	ugh not s	significar	ntly enough to	o obscure hydric soil indi	cators, as a result of

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 C	m, Alamance Co Sampling Date: 2018-June-04				
Applicant/Owner: N	lextEra			State: North C	arolina Sampling Point: V	V-A18-111_UPL-1		
Investigator(s): Laura Giese, Jeff Vandeveer , Nate Renaudin Section, Township, Range:								
Landform (hillslope, te	rrace, etc.):	Depression	Local rel	ief (concave, convex,	none): Concave	Slope (%): 0 to 1		
Subregion (LRR or MLF	RA): MLR	A 136 of LRR P		Lat: 36.0461808	Long: -79.3660653	Datum: WGS84		
Soil Map Unit Name:	Cullen Clay L	oam			NWI classifica	ation:		
Are climatic/hydrologic	c conditions or	n the site typical for t	his time of year?	Yes 🟒 No 🔄	(If no, explain in Remar	·ks.)		
Are Vegetation,	Soil,	or Hydrology si	gnificantly disturbed?	Are "Normal (Circumstances" present?	Yes 🟒 No		
Are Vegetation,	Soil,	or Hydrology n	aturally problematic?	(If needed, ex	plain 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?	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	Secondary Indicators (minimum	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Aquatic Fauna (B13) 	True Hydr Oxid Press Rece Thin Othe	Aquatic Plants (B14) rogen Sulfide Odor (C1) lized Rhizospheres on Living Roots (C ence of Reduced Iron (C4) ent Iron Reduction in Tilled Soils (C6) Muck Surface (C7) er (Explain in Remarks)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial In Stunted or Stressed Plants (D Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	Surface (B8) nagery (C9) 11)
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), i	f available:	
Remarks:				
The criterion for wetland hydrology	is not met.			

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

Sampling Point: W-A18-111_UPL-1

Tree Stratum (Plot size: 30)	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	5	(B)	
3				Across All Strata:			
4.				Percent of Dominant Species That	40	(A/B)	
5				Are OBL, FACW, of FAC.			
6.					Multiply P	h.e.	
7.				OBL species		<u>.</u>	
	0	= Total Cov	er	EACW species	×1- ×2-	0	
50% of total cover: <u>0</u>	20% of to	tal cover:	0	EAC species 15	×2- ×2-	16	
Sapling/Shrub Stratum (Plot size: <u>15</u>)				FAC species 15	x 5	45	
1.				FACU Species 60	x 4 =	240	
2.		·		UPL species 0	x 5 =	0	
3.					(A)	(B)	
4.				Prevalence Index = B/A =			
5.	·			Hydrophytic Vegetation Indicators:			
6				1- Rapid Test for Hydrophytic V	Vegetation		
7	·			2 - Dominance Test is > 50%			
×	·	·		<u>3</u> - Prevalence Index is $\leq 3.0^{1}$			
0	·	<u> </u>		4 - Morphological Adaptations	¹ (Provide s	upporting	
2.		- Total Cau		data in Remarks or on a separate sh	neet)		
	0		er	Problematic Hydrophytic Vege	etation ¹ (Exp	olain)	
50% of total cover: <u>0</u>	_ 20% of to	tal cover:		¹ Indicators of hydric soil and wetlan	id hydrolog	y must be	
Herb Stratum (Plot size: <u>5</u>)	20		0.51	present, unless disturbed or proble	matic		
1. Symphyotrichum puniceum	20	Yes	OBL	Definitions of Four Vegetation Strat	a:		
2. <i>Festuca rubra</i>	20	Yes	FACU				
3. Juncus tenuis	15	Yes	FAC	Tree – Woody plants, excluding vine	es, 3 in. (7.6	cm) or more	
4. <u>Trifolium pratense</u>	15	Yes	FACU	in diameter at breast height (DBH),	regardless	of height.	
5. <i>Trifolium repens</i>	15	Yes	FACU				
6. <i>Carex stipata</i>	10	No	OBL	Sapling/shrub – Woody plants, exclu	uding vines,	, less than 3	
7. <i>Dactylis glomerata</i>	10	No	FACU	In. DBH and greater than or equal to	o 3.28 ft (1	m) tall.	
8. Symphyotrichum puniceum		No	OBL				
9				Herb – All herbaceous (non-woody)	plants, reg	ardless of	
10.				size, and woody plants less than 3.2	28 ft tall.		
11.							
	105	= Total Cov	er	Woody vines – All woody vines grea	ter than 3.2	28 ft in	
50% of total cover: <u>52.5</u>	20% of to	tal cover:	21	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: 0	20% of to	tal cover:	0				
	_ 20 /0 01 00						
Fallow field. No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).							

SOIL

Sampling Point: W-A18-111_UPL-1

Profile De	scription: (Describe t	to the dept	th needed to docum	ent the i	ndicator	or confir	m the absenc	e of indicators.)	
Depth	Matrix		Redox	< Feature	es T			- .	
(inches)	Color (moist)		Color (moist)		Type	Loc ²		lexture	Remarks
0-8	10YR 4/4		10YR 4/2	17	<u> </u>	M		Silt	
0 - 8	10YR 5/8	3						Loam	
8 - 16	10YR 4/4	90	10YR 4/2	7	C	M		Loam	<u></u>
8 - 16	10YR 5/8	3		·					
16 - 20	10YR 4/2	60	10YR 4/4	35	C	M		Clay Loam	
16 - 20	10YR 5/8	5							
¹ Type: C =	Concentration, D = [Depletion,	RM = Reduced Matr	ix, MS =	Masked S	and Gra	ins. ² Locatio	on: PL = Pore Lining, M =	Matrix.
Hydric So	il Indicators:	•						Indicators for Problem	natic Hydric Soils ³ :
Histoso	l (A1)		Dark	Surface (S7)			2 M	4 DA 4 47)
Histic Ep	pipedon (A2)		Polyva	alue Belo	w Surface	(S8) (ML	RA 147, 148)	2 cm Muck (ATU) (M	MLRA 147)
Black Hi	istic (A3)		Thin [Dark Surf	ace (S9) (N	MLRA 147	7, 148)	Coast Prairie Redo	X (A16) (MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loam	y Gleyed	Matrix (F2	2)			ain Solis (F19) (MLRA 136,
Stratifie	d Layers (A5)		_ Deple	ted Matr	ix (F3)			147) Vory Shallow Dark	Surface (TE12)
	d Below Dark Surface	(Δ 11)	Reub	ted Dark	Surface (I	E7)		Very Shanow Dark	Surface (TFTZ)
Thick Da	ark Surface (A12)	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Bepie Redox	Cord Dank	sions (F8)	,,			erriarks)
Sandy N	/lucky Mineral (S1) (LRI	R N, MLRA		, Aangane:	se Masses	(F12) (LI	RR N, MLRA 13	6)	outic vogotation and
Sandy G	leyed Matrix (S4)		_ Umbr	ic Surfac	e (F13) (M	LRA 136,	122)	wetland bydrology m	ist be present unless
Sandy R	edox (S5)		Piedn	nont Floo	dplain Soi	ils (F19) (MLRA 148)	disturbed or problem	atic
Stripped	d Matrix (S6)		Red P	arent Ma	iterial (F21) (MLRA	127, 147)	distarbed of problem	
Restrictive	e Layer (if observed):								
	Туре:		None	-		Hydric	Soil Present?		Yes 🗆 No 🗹
	Depth (inches):								
Remarks:									
No positiv	a indication of hydrid	e coile wae	abconvod						
No positiv	e indication of hydric	c solis was	observed.						

Photo of Sample Plot North



Photo of Sample Plot East