

**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Leaksville, Rockingha... Sampling Date: 2018-June-08  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-97\_PEM-1  
 Investigator(s): Will Buetow, Jake Brillo, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5403392 Long: -79.6318887 Datum: WGS84  
 Soil Map Unit Name: Clover Sandy loam, 2 to 8 percent slopes 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
<b>Remarks:</b>			
Covertypes is PEM. Area is wetland, all three wetland parameters are present. Area is a depression that holds surface water, located in an old road.			

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input checked="" type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input checked="" type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
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-B18-97 PEM-1

<u>Tree Stratum</u> (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<b>Total % Cover of:</b>	<b>Multiply By:</b>
6. _____	_____	_____	_____	OBL species <u>75</u>	x 1 = <u>75</u>
7. _____	_____	_____	_____	FACW species <u>0</u>	x 2 = <u>0</u>
<u>0</u> = Total Cover				FAC species <u>0</u>	x 3 = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				FACU species <u>0</u>	x 4 = <u>0</u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				UPL species <u>0</u>	x 5 = <u>0</u>
1. _____	_____	_____	_____	Column Totals <u>75</u>	(A) <u>75</u> (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>1</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	✓ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	✓ 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	✓ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
<u>0</u> = Total Cover				<b>Definitions of Four Vegetation Strata:</b>	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>15</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Typha latifolia</u>	<u>40</u>	<u>Yes</u>	<u>OBL</u>	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Scirpus atrovirens</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Panicum sagittata</u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>75</u> = Total Cover					
50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>					
<b>Woody Vine Stratum</b> (Plot size: <u>15</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>0</u> = Total Cover					
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>					
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
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 ≤ 3.00). A positive indication of hydrophytic vegetation was observed (Rapid Test for Hydrophytic Vegetation). plot size was adjusted for wetland size..					





Photo of Sample Plot  
North



Photo of Sample Plot  
East





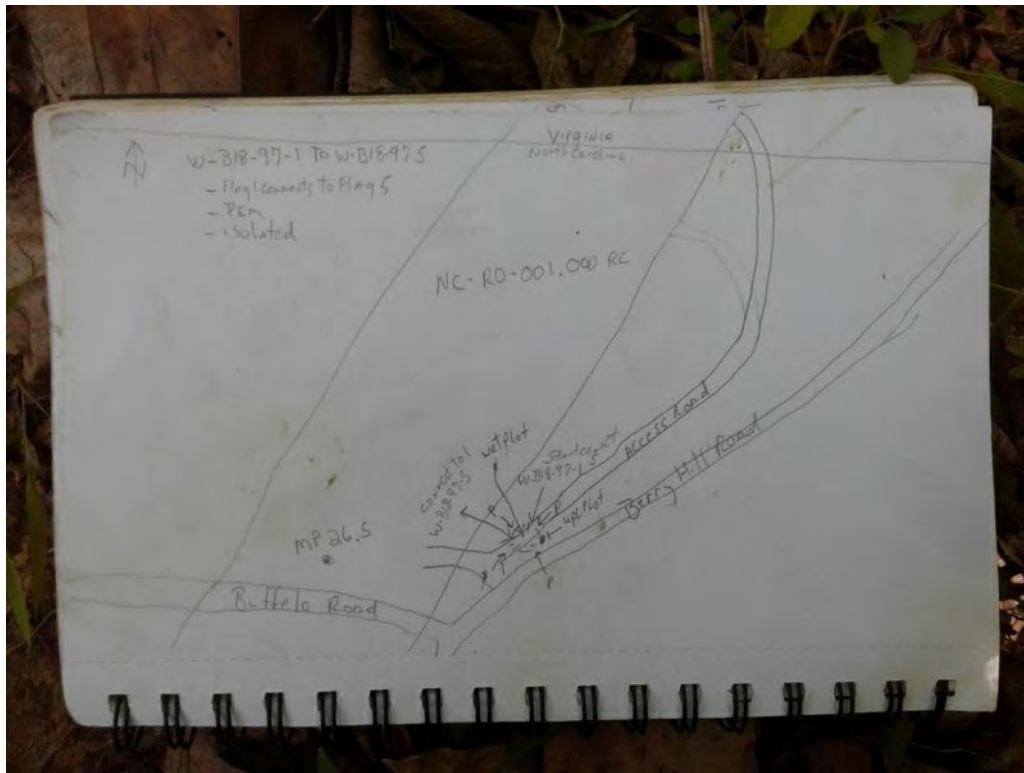
Photo of Sample Plot  
South



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: Leaksville, Rockingha... Sampling Date: 2018-June-08  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-97\_UPL-1  
 Investigator(s): Will Buetow, Jake Brillo, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): flat Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5402449 Long: -79.6318345 Datum: WGS84  
 Soil Map Unit Name: CmB, Clover Sandy loam, 2 to 8 percent slopes 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
No positive indication of wetland hydrology was observed.		

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

Sampling Point: W-B18-97 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <u><i>Pinus taeda</i></u>	40	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:	7 (A)
2. <u><i>Quercus palustris</i></u>	20	Yes	FACW	Total Number of Dominant Species Across All Strata:	10 (B)
3. <u><i>Liriodendron tulipifera</i></u>	20	Yes	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC:	70 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>80</u> = Total Cover	<b>Total % Cover of:</b>
6. _____	_____	_____	_____	50% of total cover: <u>40</u>	<b>Multiply By:</b>
7. _____	_____	_____	_____	20% of total cover: <u>16</u>	OBL species <u>0</u> x 1 = <u>0</u>
				OBL species <u>0</u> x 1 = <u>0</u>	
				FACW species <u>40</u> x 2 = <u>80</u>	
				FACW species <u>40</u> x 2 = <u>80</u>	
				FAC species <u>125</u> x 3 = <u>375</u>	
				FAC species <u>125</u> x 3 = <u>375</u>	
				FACU species <u>50</u> x 4 = <u>200</u>	
				FACU species <u>50</u> x 4 = <u>200</u>	
				UPL species <u>0</u> x 5 = <u>0</u>	
				UPL species <u>0</u> x 5 = <u>0</u>	
				Column Totals <u>215</u> (A) <u>655</u> (B)	
				Column Totals <u>215</u> (A) <u>655</u> (B)	
				Prevalence Index = B/A = <u>3</u>	
				Prevalence Index = B/A = <u>3</u>	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. <u><i>Fraxinus pennsylvanica</i></u>	20	Yes	FACW	____ 1 - Rapid Test for Hydrophytic Vegetation	
2. <u><i>Carpinus caroliniana</i></u>	10	Yes	FAC	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
3. <u><i>Ulmus alata</i></u>	10	Yes	FACU	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
4. <u><i>Carya glabra</i></u>	10	Yes	FACU	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. <u><i>Liquidambar styraciflua</i></u>	10	Yes	FAC	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
6. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
7. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>	
8. _____	_____	_____	_____	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
9. _____	_____	_____	_____	<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Herb Stratum</b> (Plot size: <u>5</u> )					
1. <u><i>Toxicodendron radicans</i></u>	40	Yes	FAC		
2. <u><i>Parthenocissus quinquefolia</i></u>	10	No	FACU		
3. <u><i>Liquidambar styraciflua</i></u>	5	No	FAC		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
				55 = Total Cover	
				50% of total cover: <u>27.5</u>	
				20% of total cover: <u>11</u>	
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. <u><i>Smilax rotundifolia</i></u>	20	Yes	FAC		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
				20 = Total Cover	
				50% of total cover: <u>10</u>	
				20% of total cover: <u>4</u>	
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
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 ≤ 3.00).					

SOIL

Sampling Point: W-B18-97 UPL-1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 4	10YR 3/2	100					Silty Clay Loam	
4 - 10	10YR 3/3	100					Silty Clay Loam	
10 - 19	10YR 3/2	95	10YR 3/6	5	C	M	Silty Clay Loam	

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

<b>Restrictive Layer (if observed):</b> Type: <u>None</u> Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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**Remarks:**

No evidence of frequent ponding, or a water table within 1 foot of the surface was observed.



Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Leaksville, Rockingha... Sampling Date: 2018-June-08  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-98\_PFO-1  
 Investigator(s): Will Buetow, Jake Brillo, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Concave Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5365784 Long: -79.6373658 Datum: WGS84  
 Soil Map Unit Name: CmD, Clover Sandy loam, 8 to 15 percent slopes 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? <span style="float:right;">Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></span>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is PFO. Area is wetland, all three wetland parameters are present. wetland is in old carriage road. Roadside culvert drains into area as well..		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
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-B18-98 PFO-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Fraxinus pennsylvanica</i>	20	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>4</u> (A)
2. <i>Quercus phellos</i>	10	Yes	FAC	Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3. <i>Liquidambar styraciflua</i>	10	Yes	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. <i>Acer rubrum</i>	5	No	FAC		
5. _____					
6. _____					
7. _____					
	<u>45</u>	= Total Cover		<b>Prevalence Index worksheet:</b>	
	50% of total cover: <u>22.5</u>	20% of total cover: <u>9</u>		<b>Total % Cover of:</b>	<b>Multiply By:</b>
				OBL species	<u>0</u> x 1 = <u>0</u>
				FACW species	<u>20</u> x 2 = <u>40</u>
				FAC species	<u>48</u> x 3 = <u>144</u>
				FACU species	<u>5</u> x 4 = <u>20</u>
				UPL species	<u>0</u> x 5 = <u>0</u>
				Column Totals	<u>73</u> (A) <u>204</u> (B)
				Prevalence Index = B/A = <u>2.8</u>	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. <i>Acer rubrum</i>	16	Yes	FAC	____ 1 - Rapid Test for Hydrophytic Vegetation	
2. <i>Ilex opaca</i>	5	No	FACU	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
3. <i>Liquidambar styraciflua</i>	5	No	FAC	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
4. _____				____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. _____				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
6. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
7. _____				<b>Definitions of Four Vegetation Strata:</b>	
8. _____				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
9. _____				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
10. _____				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
11. _____				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
	<u>26</u>	= Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
	50% of total cover: <u>13</u>	20% of total cover: <u>5.2</u>			
<b>Herb Stratum</b> (Plot size: <u>5</u> )					
1. <i>Microstegium vimineum</i>	2	No	FAC		
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
	<u>2</u>	= Total Cover			
	50% of total cover: <u>1</u>	20% of total cover: <u>0.4</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
	<u>0</u>	= Total Cover			
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
<p>A positive indication of hydrophytic vegetation was observed (&gt;50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.00).</p>					

SOIL

Sampling Point: W-B18-98\_PFO-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 3	10YR 2/1	100					Sandy Loam	
3 - 14	10YR 4/1	90	10YR 3/6	10	C	M	Sandy Loam	
14 - 18	10YR 4/4	98	10YR 4/2	2	D	M	Sandy Loam	

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains.    <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)				

<b>Restrictive Layer (if observed):</b>		<b>Hydric Soil Present?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Type: _____	None		
Depth (inches): _____			

Remarks:

Photo of Sample Plot  
North





Photo of Sample Plot  
East





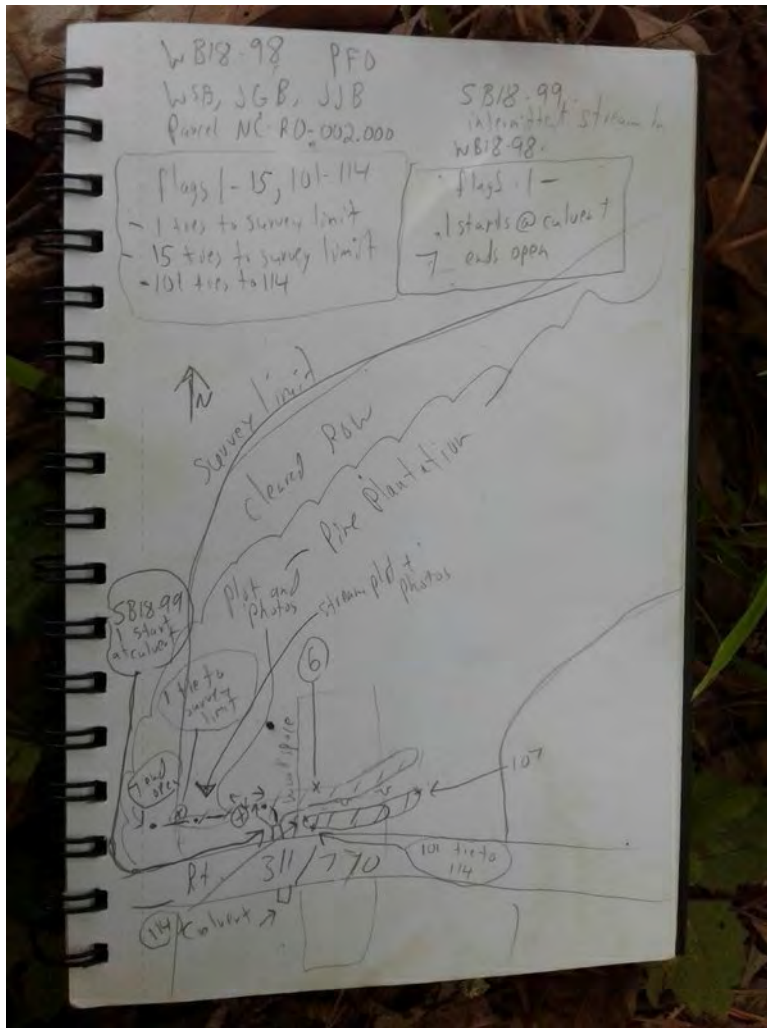
Photo of Sample Plot  
South



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: Leaksville, Rockingha... Sampling Date: 2018-June-08  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-98\_UPL-1  
 Investigator(s): Will Buetow, Jake Brillo, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): flat Slope (%): 1 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5366187 Long: -79.6373666 Datum: WGS84  
 Soil Map Unit Name: CmD, Clover Sandy loam, 8 to 15 percent slopes 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland, not all three wetland parameters are present. Area is pine plantation..		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
No positive indication of wetland hydrology was observed.		

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

Sampling Point: W-B18-98 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>																																								
1. <i>Pinus taeda</i>	40	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)																																								
2. <i>Fagus grandifolia</i>	15	Yes	FACU	Total Number of Dominant Species Across All Strata: <u>4</u> (B)																																								
3. <i>Quercus alba</i>	10	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)																																								
4. _____				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;"><u>Total % Cover of:</u></th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;"><u>Multiply By:</u></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;">0</td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">0</td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">40</td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;">120</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">55</td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;">220</td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">0</td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;">95</td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;">340 (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.6</u></td> </tr> </tbody> </table>		<u>Total % Cover of:</u>		<u>Multiply By:</u>		OBL species	0		x 1 =	0	FACW species	0		x 2 =	0	FAC species	40		x 3 =	120	FACU species	55		x 4 =	220	UPL species	0		x 5 =	0	Column Totals	95	(A)		340 (B)	Prevalence Index = B/A =				<u>3.6</u>
	<u>Total % Cover of:</u>		<u>Multiply By:</u>																																									
OBL species	0		x 1 =		0																																							
FACW species	0		x 2 =		0																																							
FAC species	40		x 3 =		120																																							
FACU species	55		x 4 =		220																																							
UPL species	0		x 5 =		0																																							
Column Totals	95	(A)		340 (B)																																								
Prevalence Index = B/A =				<u>3.6</u>																																								
5. _____																																												
6. _____																																												
7. _____																																												
_____ = Total Cover	65																																											
50% of total cover: <u>32.5</u>		20% of total cover: <u>13</u>																																										
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )																																												
1. <i>Carya glabra</i>	20	Yes	FACU	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is > 50% _____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																																								
2. <i>Fraxinus americana</i>	10	Yes	FACU																																									
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
8. _____																																												
9. _____																																												
_____ = Total Cover	30																																											
50% of total cover: <u>15</u>		20% of total cover: <u>6</u>																																										
<b>Herb Stratum</b> (Plot size: <u>5</u> )																																												
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
8. _____																																												
9. _____																																												
10. _____																																												
11. _____																																												
_____ = Total Cover	0																																											
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																										
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )																																												
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
_____ = Total Cover	0																																											
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																										
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																																												
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																												
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).																																												

SOIL

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 4	10YR 3/2	100					Sandy Loam	
4 - 17	10YR 5/4	100					Fine Loamy Sand	
17 - 18	10YR 5/4	100					Fine Sandy Loam	

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

<b>Hydric Soil Indicators:</b>	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)
	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b>	<b>Hydric Soil Present?</b>
Type: <u>None</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Depth (inches): <u>                    </u>	

**Remarks:**

No positive indication of hydric soils was observed.

Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
West



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Ruffin, Rockingham C... Sampling Date: 2018-May-16  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-22\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy, Doreen Donovan Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5347033 Long: -79.6382507 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is met.					

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

Sampling Point: W-A18-22 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: 30')</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>50</u></td> <td>x 1 = <u>50</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>85</u></td> <td>(A) <u>120</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.4</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>50</u>	x 1 = <u>50</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>85</u>	(A) <u>120</u> (B)	Prevalence Index = B/A = <u>1.4</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>50</u>	x 1 = <u>50</u>																			
FACW species <u>35</u>	x 2 = <u>70</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>85</u>	(A) <u>120</u> (B)																			
Prevalence Index = B/A = <u>1.4</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Herb Stratum (Plot size: 5')</b>																				
1. <i>Carex lurida</i>	25	Yes	OBL																	
2. <i>Ranunculus abortivus</i>	20	Yes	FACW																	
3. <i>Mentha spicata</i>	15	No	FACW																	
4. <i>Glyceria striata</i>	15	No	OBL																	
5. <i>Eleocharis obtusa</i>	10	No	OBL																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>85</u> = Total Cover 50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>																				
<b>Woody Vine Stratum (Plot size: 30')</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input type="checkbox"/>																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																				

SOIL

Sampling Point: W-A18-22\_PEM-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 3	10YR 4/2	95	7.5YR 5/6	5	C	M	Loam	
3 - 17	2.5Y 4/1	80	2.5YR 3/4	20	C	M	Clay Loam	

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b>		<b>Hydric Soil Present?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Type:	None		
Depth (inches):			

Remarks:

A positive indication of hydric soil was observed.



Photo of Sample Plot North



Photo of Sample Plot East





Photo of Sample Plot South

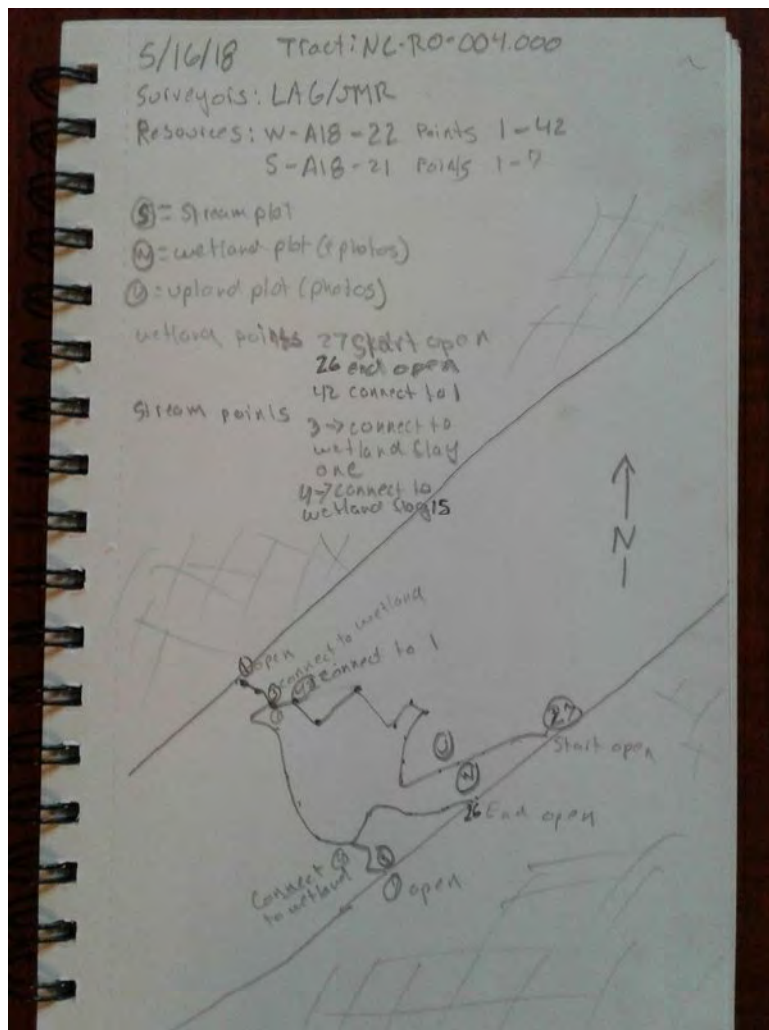


Photo of Sample Plot West



Photo of Sample Plot Sketch

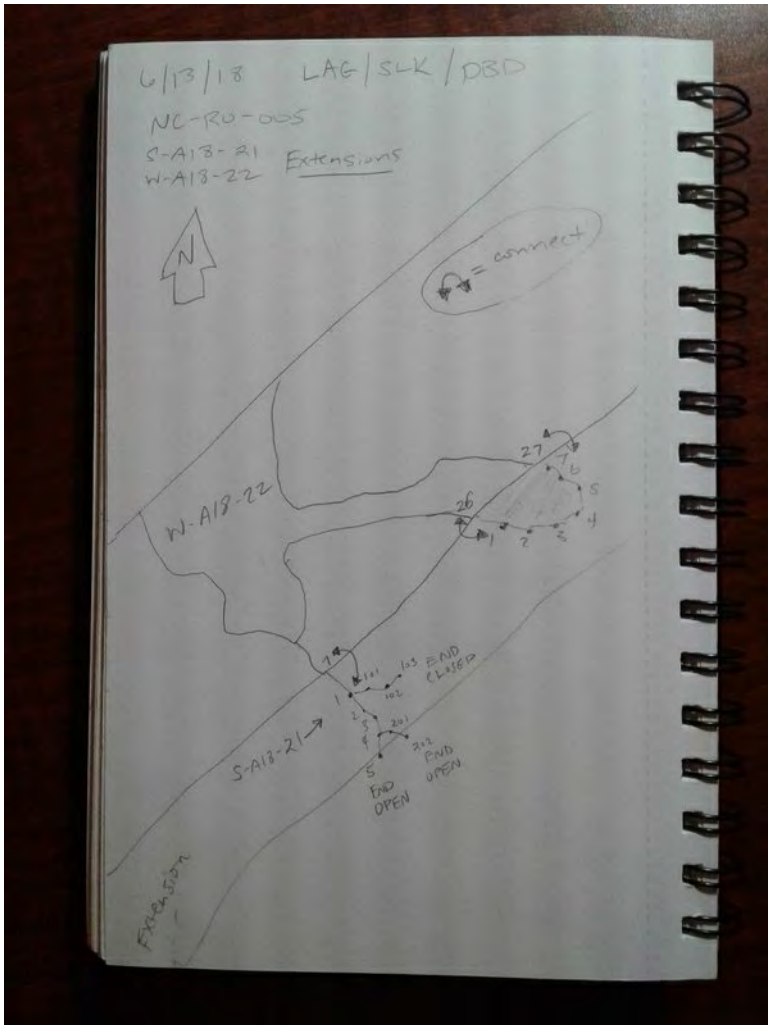












**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Ruffin, Rockingham C... Sampling Date: 2018-May-16  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-22\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Convex Slope (%): 2 to 5  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 36.5347481 Long: -79.6383921 Datum: WGS84  
 Soil Map Unit Name: \_\_\_\_\_ 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, 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-A18-22\_UPL-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	0 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	0 x 1 = 0
7. _____	_____	_____	_____	FACW species	10 x 2 = 20
0 = Total Cover				FAC species	10 x 3 = 30
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				FACU species	60 x 4 = 240
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	0 x 5 = 0
1. _____	_____	_____	_____	Column Totals	80 (A) 290 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>3.6</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	____ 2 - Dominance Test is > 50%	
6. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
0 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Trifolium repens</i>	40	Yes	FACU	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Festuca rubra</i>	20	Yes	FACU	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <i>Ranunculus abortivus</i>	10	No	FACW	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
4. <i>Juncus tenuis</i>	10	No	FAC		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
80 = Total Cover					
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>					
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
0 = Total Cover					
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>					
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					





Photo of Sample Plot  
North



Photo of Sample Plot  
East



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-46\_PFO-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Toe Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5343911 Long: -79.6430158 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	<b>10</b>		
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	<b>6</b>		
(includes capillary fringe)			Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is met.					

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

Sampling Point: W-A18-46 PFO-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: 30)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>75</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>75</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>65</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>130</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>140</u></td> <td>(A)</td> <td style="text-align: center;"><u>205</u></td> <td>(B)</td> </tr> <tr> <td colspan="5" style="text-align: center;">Prevalence Index = B/A = <u>1.5</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>75</u>	x 1 =	<u>75</u>		FACW species	<u>65</u>	x 2 =	<u>130</u>		FAC species	<u>0</u>	x 3 =	<u>0</u>		FACU species	<u>0</u>	x 4 =	<u>0</u>		UPL species	<u>0</u>	x 5 =	<u>0</u>		Column Totals	<u>140</u>	(A)	<u>205</u>	(B)	Prevalence Index = B/A = <u>1.5</u>				
	Total % Cover of:		Multiply By:																																									
OBL species	<u>75</u>	x 1 =	<u>75</u>																																									
FACW species	<u>65</u>	x 2 =	<u>130</u>																																									
FAC species	<u>0</u>	x 3 =	<u>0</u>																																									
FACU species	<u>0</u>	x 4 =	<u>0</u>																																									
UPL species	<u>0</u>	x 5 =	<u>0</u>																																									
Column Totals	<u>140</u>	(A)	<u>205</u>		(B)																																							
Prevalence Index = B/A = <u>1.5</u>																																												
1. <i>Salix nigra</i>	50	Yes	OBL																																									
2. <i>Platanus occidentalis</i>	30	Yes	FACW																																									
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
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80 = Total Cover																																												
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>																																												
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																																												
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
8. _____																																												
9. _____																																												
0 = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Herb Stratum (Plot size: 5')</b>																																												
1. <i>Impatiens capensis</i>	35	Yes	FACW																																									
2. <i>Glyceria striata</i>	25	Yes	OBL																																									
3. _____																																												
4. _____																																												
5. _____																																												
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10. _____																																												
11. _____																																												
60 = Total Cover																																												
50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																																												
<b>Woody Vine Stratum (Plot size: 30')</b>																																												
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
0 = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																																												
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																																												
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																												
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  <div style="height: 100px;"></div>																																												

SOIL

Sampling Point: W-A18-46\_PFO-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 6	7.5YR 4/3	90	7.5YR 4/6	10	C	M/PL	Silt Loam	
6 - 17	10YR 4/2	95	10YR 5/6	5	C	M	Silt Loam	
17 - 22	5Y 4/1	100					Sandy Loam	

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	Hydric Soil Present?
Type: _____ None _____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Depth (inches): _____	

Remarks:

A positive indication of hydric soil was observed.



Photo of Sample Plot  
North



Photo of Sample Plot  
East





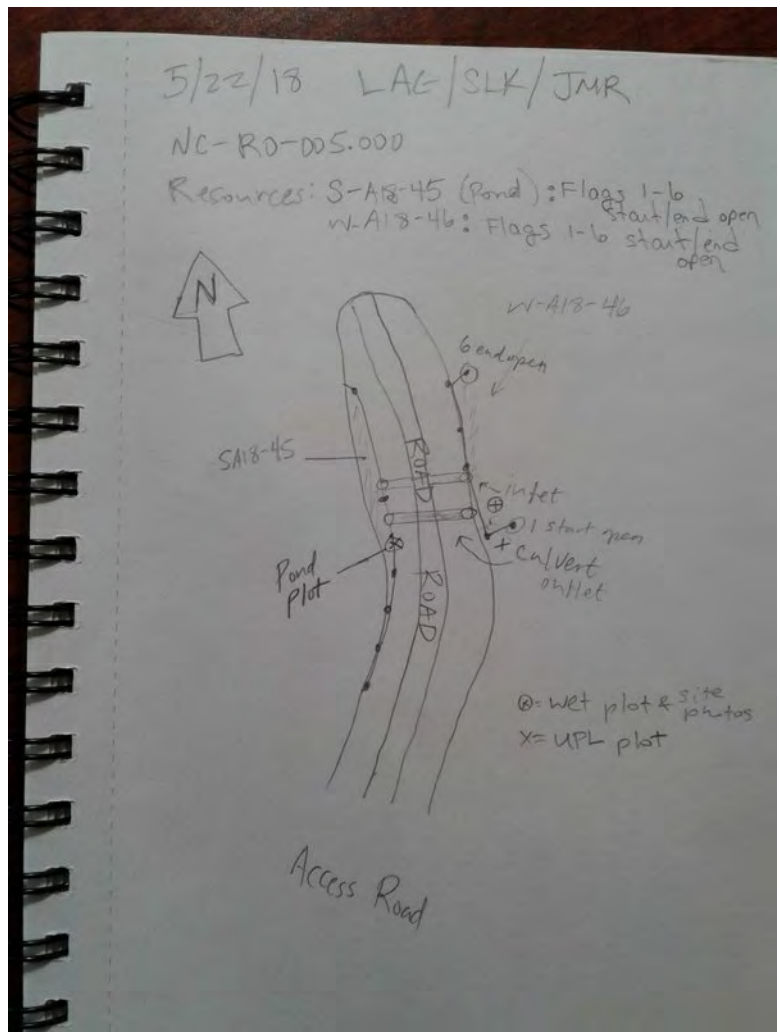
Photo of Sample Plot  
South



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: Ruffin, Rockingham C... Sampling Date: 2018-May-22  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-46\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Convex Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5342291 Long: -79.6425737 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland based on absence of hydric soils and wetland hydrology .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>  The criterion for wetland hydrology is not met.		

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

Sampling Point: W-A18-46 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>62.5</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 10%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>15</u></td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>80</u></td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>240</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>55</u></td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>220</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>150</u></td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;"><u>490</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.3</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>0</u>		x 1 =	<u>0</u>	FACW species	<u>15</u>		x 2 =	<u>30</u>	FAC species	<u>80</u>		x 3 =	<u>240</u>	FACU species	<u>55</u>		x 4 =	<u>220</u>	UPL species	<u>0</u>		x 5 =	<u>0</u>	Column Totals	<u>150</u>	(A)		<u>490</u> (B)	Prevalence Index = B/A =				<u>3.3</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>0</u>		x 1 =		<u>0</u>																																							
FACW species	<u>15</u>		x 2 =		<u>30</u>																																							
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UPL species	<u>0</u>		x 5 =		<u>0</u>																																							
Column Totals	<u>150</u>	(A)			<u>490</u> (B)																																							
Prevalence Index = B/A =					<u>3.3</u>																																							
1. <i>Liriodendron tulipifera</i>	20	Yes	FACU																																									
2. <i>Acer rubrum</i>	20	Yes	FAC																																									
3. <i>Liquidambar styraciflua</i>	20	Yes	FAC																																									
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
<u>60</u> = Total Cover																																												
50% of total cover: <u>30</u>		20% of total cover: <u>12</u>																																										
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																																												
1. <i>Acer rubrum</i>	20	Yes	FAC																																									
2. _____																																												
3. _____																																												
4. _____																																												
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<u>20</u> = Total Cover																																												
50% of total cover: <u>10</u>		20% of total cover: <u>4</u>																																										
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																																												
1. <i>Juniperus virginiana</i>	20	Yes	FACU																																									
2. <i>Apios americana</i>	15	Yes	FACW																																									
3. <i>Rosa multiflora</i>	15	Yes	FACU																																									
4. <i>Toxicodendron radicans</i>	15	Yes	FAC																																									
5. <i>Verbesina alternifolia</i>	5	No	FAC																																									
6. _____																																												
7. _____																																												
8. _____																																												
9. _____																																												
10. _____																																												
11. _____																																												
<u>70</u> = Total Cover																																												
50% of total cover: <u>35</u>		20% of total cover: <u>14</u>																																										
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																																												
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																										
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). Note PI 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: Leaksville, Rockingha... Sampling Date: 2018-May-22  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-44\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.528531 Long: -79.644317 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
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<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>16</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>4</u>	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
The criterion for wetland hydrology is met. Soil is episaturated. Water at 4" in borehole from surface .		

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

Sampling Point: W-A18-44 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: 30)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>35</u></td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>35</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>15</u></td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>25</u></td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>75</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>10</u></td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>85</u></td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;"><u>180</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.1</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>35</u>		x 1 =	<u>35</u>	FACW species	<u>15</u>		x 2 =	<u>30</u>	FAC species	<u>25</u>		x 3 =	<u>75</u>	FACU species	<u>10</u>		x 4 =	<u>40</u>	UPL species	<u>0</u>		x 5 =	<u>0</u>	Column Totals	<u>85</u>	(A)		<u>180</u> (B)	Prevalence Index = B/A =				<u>2.1</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>35</u>		x 1 =		<u>35</u>																																							
FACW species	<u>15</u>		x 2 =		<u>30</u>																																							
FAC species	<u>25</u>		x 3 =		<u>75</u>																																							
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UPL species	<u>0</u>		x 5 =		<u>0</u>																																							
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1. _____	_____	_____	_____																																									
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50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Herb Stratum (Plot size: 5')</b>																																												
1. <u>Juncus effusus</u>	<u>10</u>	Yes	FACW	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																								
2. <u>Galium palustre</u>	<u>10</u>	Yes	OBL																																									
3. <u>Hibiscus moscheutos</u>	<u>10</u>	Yes	OBL																																									
4. <u>Dichanthelium dichotomum</u>	<u>10</u>	Yes	FAC																																									
5. <u>Arthraxon hispidus</u>	<u>10</u>	Yes	FAC																																									
6. <u>Carex lurida</u>	<u>10</u>	Yes	OBL																																									
7. <u>Pycnanthemum virginianum</u>	<u>5</u>	No	FAC																																									
8. <u>Fraxinus pennsylvanica</u>	<u>5</u>	No	FACW																																									
9. <u>Potentilla simplex</u>	<u>5</u>	No	FACU																																									
10. <u>Apocynum cannabinum</u>	<u>5</u>	No	FACU																																									
11. <u>Scirpus atrovirens</u>	<u>5</u>	No	OBL																																									
_____ = Total Cover																																												
50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>																																												
<b>Woody Vine Stratum (Plot size: 30')</b>																																												
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
_____ = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																												
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																												



Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South

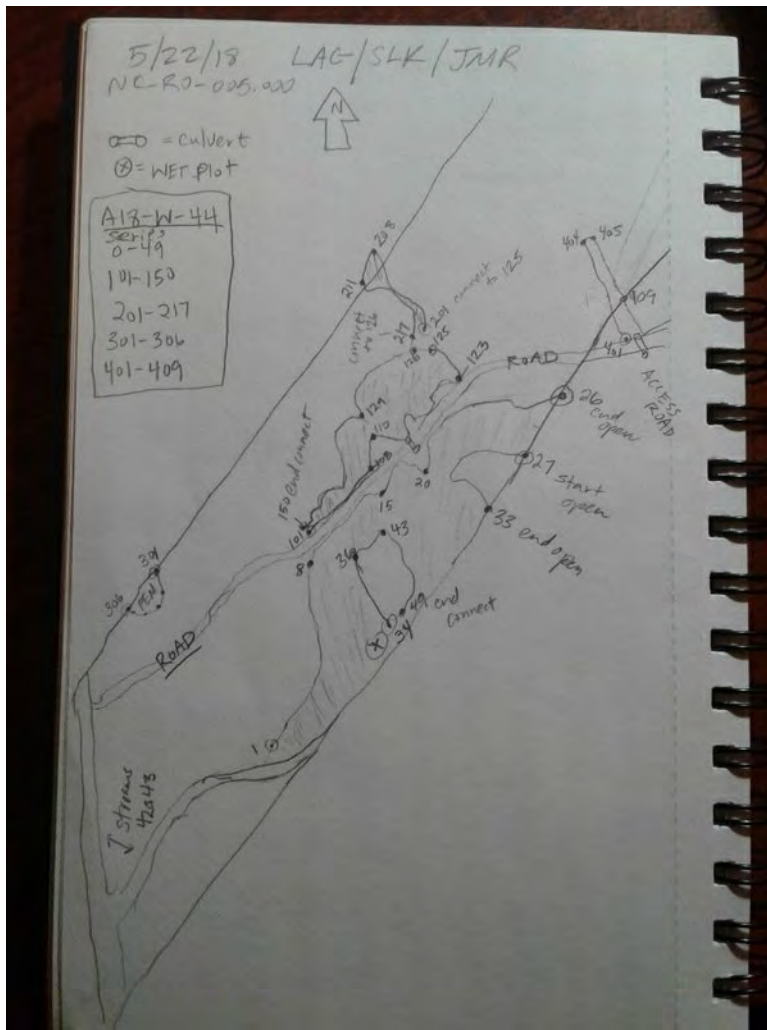


Photo of Sample Plot  
West



Photo of Sample Plot  
Sketch













**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Leaksville, Rockingha... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-44\_PFO-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Toe Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.527938 Long: -79.6450237 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO. Area is wetland, all three wetland parameters are present. Recent heavy rains .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (includes capillary fringe)	Depth (inches): <u>18</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:  The criterion for wetland hydrology is met. Water in borehole within 2" likely from surface.		

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

Sampling Point: W-A18-44 PFO-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Platanus occidentalis</i>	20	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	6 (A)
2. <i>Acer negundo</i>	20	Yes	FAC	Total Number of Dominant Species Across All Strata:	6 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____				<b>Prevalence Index worksheet:</b>	
5. _____				<u>40</u> = Total Cover	
6. _____				50% of total cover: <u>20</u> 20% of total cover: <u>8</u>	
7. _____				<b>Total % Cover of:</b>	
				<b>Multiply By:</b>	
				OBL species	0 x 1 = 0
				FACW species	55 x 2 = 110
				FAC species	30 x 3 = 90
				FACU species	0 x 4 = 0
				UPL species	0 x 5 = 0
				Column Totals	85 (A) 200 (B)
				Prevalence Index = B/A = <u>2.4</u>	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. <i>Fraxinus pennsylvanica</i>	5	Yes	FACW	____ 1 - Rapid Test for Hydrophytic Vegetation	
2. _____				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
3. _____				<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
4. _____				____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. _____				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
6. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
7. _____				<b>Definitions of Four Vegetation Strata:</b>	
8. _____				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
9. _____				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
10. _____				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
11. _____				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )					
1. <i>Carex tribuloides</i>	20	Yes	FACW		
2. <i>Boehmeria cylindrica</i>	10	Yes	FACW		
3. <i>Ulmus rubra</i>	10	Yes	FAC		
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
				0 = Total Cover	
				50% of total cover: <u>20</u> 20% of total cover: <u>8</u>	
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
				0 = Total Cover	
				50% of total cover: <u>0</u> 20% of total cover: <u>0</u>	
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					





Photo of Sample Plot  
North



Photo of Sample Plot  
East





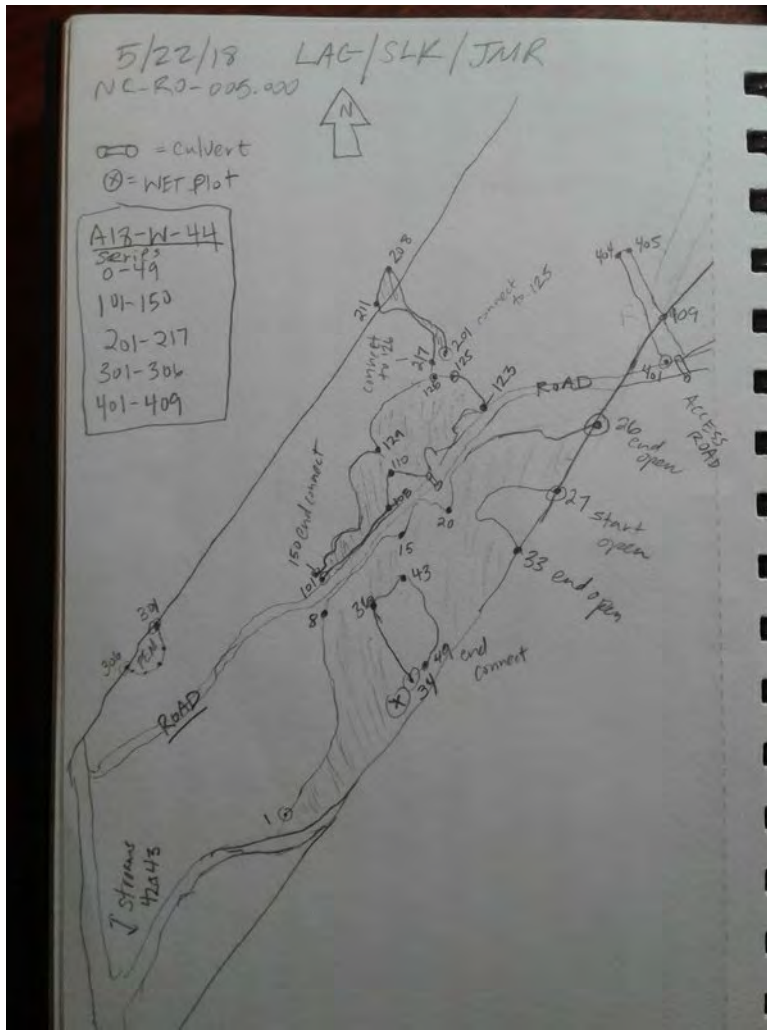
Photo of Sample Plot South



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: Leaksville, Rockingha... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-44\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Convex Slope (%): 5 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5278967 Long: -79.6451168 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL. Area is upland based on absence of hydric soils and wetland hydrology .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>	
Remarks:	
The criterion for wetland hydrology is not met.	



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

Sampling Point: W-A18-44 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	4 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	75 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	0 x 1 = 0
7. _____	_____	_____	_____	FACW species	5 x 2 = 10
	0 = Total Cover			FAC species	70 x 3 = 210
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	50 x 4 = 200
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	0 x 5 = 0
1. <i>Fraxinus pennsylvanica</i>	5	Yes	FACW	Column Totals	125 (A) 420 (B)
2. <i>Liquidambar styraciflua</i>	5	Yes	FAC	Prevalence Index = B/A = <u>3.4</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	✓ 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	10 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>5</u>	20% of total cover: <u>2</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Lonicera japonica</i>	40	Yes	FACU	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Verbesina alternifolia</i>	25	Yes	FAC	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <i>Toxicodendron radicans</i>	20	No	FAC	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4. <i>Carex blanda</i>	10	No	FAC		
5. <i>Rubus allegheniensis</i>	10	No	FACU		
6. <i>Commelina communis</i>	10	No	FAC		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	115 = Total Cover				
	50% of total cover: <u>57.5</u>	20% of total cover: <u>23</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). note PI was not met.					



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: Leaksville, Rockingha... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-44\_UPL-2  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5283168 Long: -79.6448615 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
The criterion for wetland hydrology is not met.		







Photo of Sample Plot  
North



Photo of Sample Plot  
South





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Leaksville, Rockingha... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-41\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5255835 Long: -79.6473279 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present. Recent heavy rains .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met. 4" of surface water after heavy rains .	

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

Sampling Point: W-A18-41 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>		
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>2</u>	(A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>3</u>	(B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>66.7</u>	(A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>		
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>	
6. _____	_____	_____	_____	OBL species	<u>0</u>	x 1 = <u>0</u>
7. _____	_____	_____	_____	FACW species	<u>30</u>	x 2 = <u>60</u>
	<u>0</u> = Total Cover			FAC species	<u>30</u>	x 3 = <u>90</u>
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	<u>20</u>	x 4 = <u>80</u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	<u>0</u>	x 5 = <u>0</u>
1. _____	_____	_____	_____	Column Totals	<u>80</u>	(A) <u>230</u> (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>2.9</u>		
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>		
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation		
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%		
6. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>		
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)		
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
	<u>0</u> = Total Cover			<b>Definitions of Four Vegetation Strata:</b>		
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
1. <u>Rumex crispus</u>	<u>20</u>	Yes	FAC	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
2. <u>Boehmeria cylindrica</u>	<u>20</u>	Yes	FACW	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.		
3. <u>Poaceae</u>	<u>20</u>	Yes	NI	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
4. <u>Acer negundo</u>	<u>10</u>	No	FAC			
5. <u>Galium aparine</u>	<u>10</u>	No	FACU			
6. <u>Solidago canadensis</u>	<u>10</u>	No	FACU			
7. <u>Symphytotrichum lanceolatum</u>	<u>10</u>	No	FACW			
8. _____	_____	_____	_____			
9. _____	_____	_____	_____			
10. _____	_____	_____	_____			
11. _____	_____	_____	_____			
	<u>100</u> = Total Cover					
	50% of total cover: <u>50</u>	20% of total cover: <u>20</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )						
1. _____	_____	_____	_____			
2. _____	_____	_____	_____			
3. _____	_____	_____	_____			
4. _____	_____	_____	_____			
5. _____	_____	_____	_____			
	<u>0</u> = Total Cover					
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>						
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).						





Photo of Sample Plot  
North



Photo of Sample Plot  
East





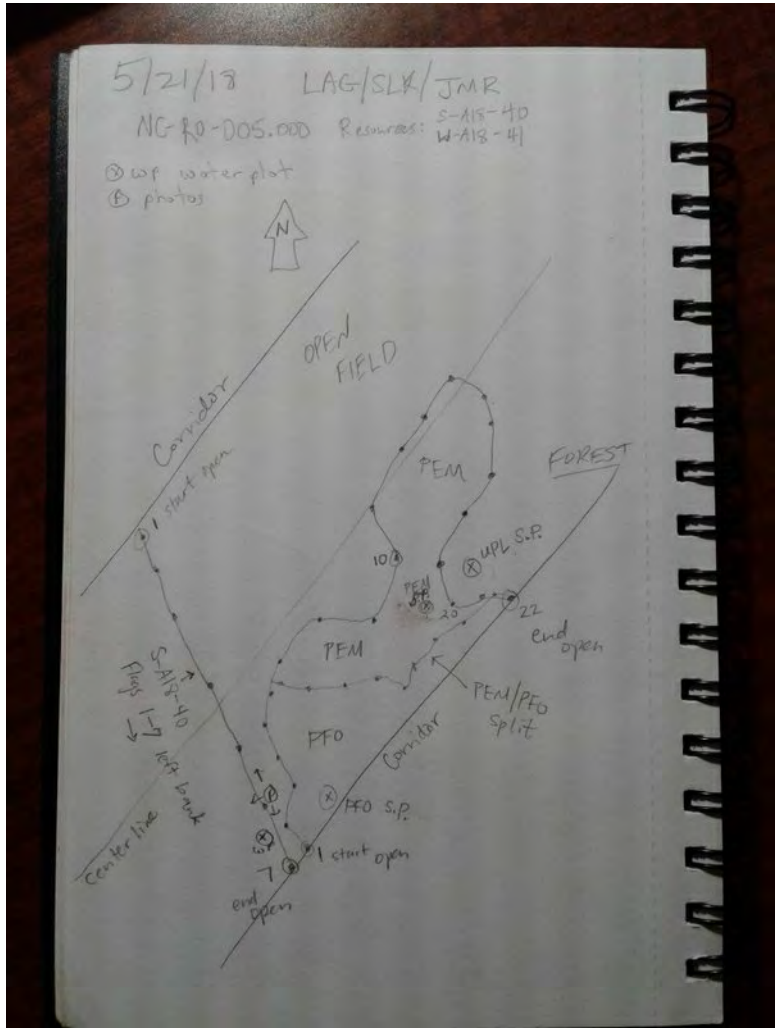
Photo of Sample Plot  
South



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: Leaksville, Rockingha... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-41\_PFO-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5250031 Long: -79.6475219 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is PFO. Area is wetland, all three wetland parameters are present. Recent heavy rains caused flooding.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is met.		

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

Sampling Point: W-A18-41\_PFO-1

	Absolute % Cover	Dominant Species?	Indicator Status																																																	
<b>Tree Stratum (Plot size: 30)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 10%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;">0</td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">110</td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;">220</td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">75</td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;">225</td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">0</td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">0</td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;">185</td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;">445</td> <td style="text-align: center;">(B)</td> </tr> <tr> <td colspan="6" style="text-align: center;">Prevalence Index = B/A = <u>2.4</u></td> </tr> </tbody> </table> <b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		Total % Cover of:		Multiply By:			OBL species	0		x 1 =	0		FACW species	110		x 2 =	220		FAC species	75		x 3 =	225		FACU species	0		x 4 =	0		UPL species	0		x 5 =	0		Column Totals	185	(A)		445	(B)	Prevalence Index = B/A = <u>2.4</u>					
	Total % Cover of:		Multiply By:																																																	
OBL species	0		x 1 =		0																																															
FACW species	110		x 2 =		220																																															
FAC species	75		x 3 =		225																																															
FACU species	0		x 4 =		0																																															
UPL species	0		x 5 =		0																																															
Column Totals	185	(A)			445	(B)																																														
Prevalence Index = B/A = <u>2.4</u>																																																				
1. <i>Acer negundo</i>	60	Yes	FAC																																																	
2. <i>Platanus occidentalis</i>	30	Yes	FACW																																																	
3. _____																																																				
4. _____																																																				
5. _____																																																				
6. _____																																																				
7. _____																																																				
90 = Total Cover																																																				
50% of total cover: <u>45</u>		20% of total cover: <u>18</u>																																																		
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																																																				
1. <i>Acer negundo</i>	10	Yes	FAC																																																	
2. _____																																																				
3. _____																																																				
4. _____																																																				
5. _____																																																				
6. _____																																																				
7. _____																																																				
8. _____																																																				
9. _____																																																				
10 = Total Cover																																																				
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>																																																		
<b>Herb Stratum (Plot size: 5')</b>																																																				
1. <i>Elymus virginicus</i>	70	Yes	FACW																																																	
2. <i>Apios americana</i>	10	No	FACW																																																	
3. <i>Viola sororia</i>	5	No	FAC																																																	
4. _____																																																				
5. _____																																																				
6. _____																																																				
7. _____																																																				
8. _____																																																				
9. _____																																																				
10. _____																																																				
11. _____																																																				
85 = Total Cover																																																				
50% of total cover: <u>42.5</u>		20% of total cover: <u>17</u>																																																		
<b>Woody Vine Stratum (Plot size: 30')</b>																																																				
1. _____																																																				
2. _____																																																				
3. _____																																																				
4. _____																																																				
5. _____																																																				
0 = Total Cover																																																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																																		
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																																				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																																				





Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South

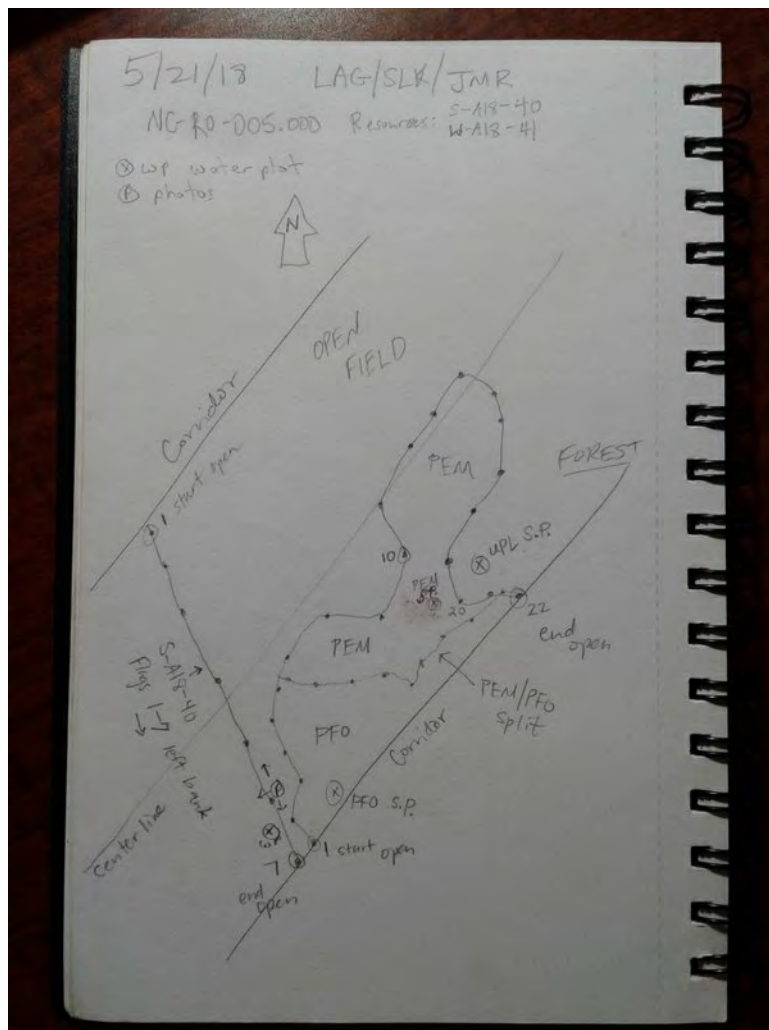


Photo of Sample Plot  
West



Photo of Sample Plot  
Sketch

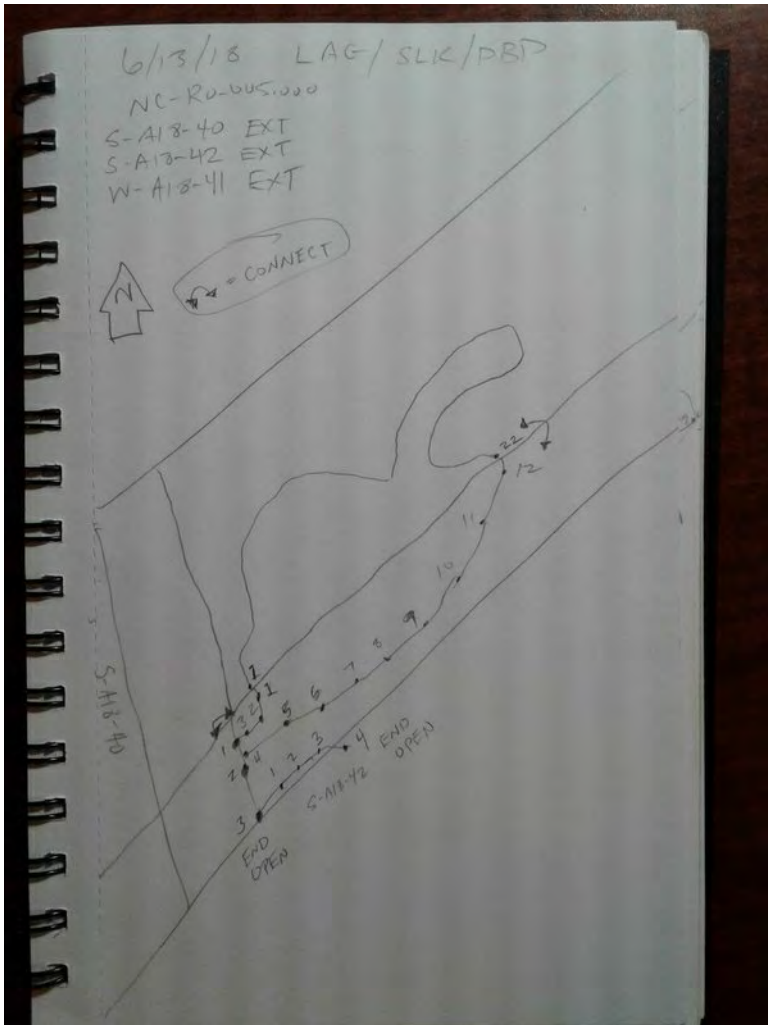












**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Leaksville, Rockingha... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-41\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5258331 Long: -79.6472733 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertype is UPL. Area is upland, not all three wetland parameters are present. Recent heavy rains .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is not met. 4" of surface water after heavy rains .		



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

Sampling Point: W-A18-41 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Apocynum cannabinum</i>	35	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	5 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	20 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>35</u> = Total Cover	<b>Total % Cover of:</b>
6. _____	_____	_____	_____	50% of total cover: <u>17.5</u>	<b>Multiply By:</b>
7. _____	_____	_____	_____	20% of total cover: <u>7</u>	OBL species <u>0</u> x 1 = <u>0</u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				FACW species <u>0</u> x 2 = <u>0</u>	
1. <i>Acer negundo</i>	5	Yes	FAC	FAC species <u>10</u> x 3 = <u>30</u>	
2. _____	_____	_____	_____	FACU species <u>125</u> x 4 = <u>500</u>	
3. _____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>	
4. _____	_____	_____	_____	Column Totals <u>135</u> (A) <u>530</u> (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = <u>3.9</u>	
6. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
7. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
8. _____	_____	_____	_____	____ 2 - Dominance Test is > 50%	
9. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
5 = Total Cover				____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
50% of total cover: <u>2.5</u>				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
20% of total cover: <u>1</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Definitions of Four Vegetation Strata:</b>	
1. <i>Apocynum cannabinum</i>	35	Yes	FACU	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
2. <i>Rubus allegheniensis</i>	35	Yes	FACU	<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
3. <i>Solidago canadensis</i>	20	Yes	FACU	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
4. <i>Rumex crispus</i>	5	No	FAC	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
5. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
95 = Total Cover					
50% of total cover: <u>47.5</u>					
20% of total cover: <u>19</u>					
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
0 = Total Cover					
50% of total cover: <u>0</u>					
20% of total cover: <u>0</u>					
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					



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: Leaksville, Rockingha... Sampling Date: 2018-May-19  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-39\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy, Doreen Donovan Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5201666 Long: -79.6527787 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input checked="" type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  		
Remarks:  The criterion for wetland hydrology is met. 4 inches of surface water after recent heavy rains.		

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

Sampling Point: W-A18-39 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	20 x 1 = 20
7. _____	_____	_____	_____	FACW species	15 x 2 = 30
	0 = Total Cover			FAC species	0 x 3 = 0
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	0 x 4 = 0
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	0 x 5 = 0
1. _____	_____	_____	_____	Column Totals	35 (A) 50 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>1.4</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	✓ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	✓ 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	✓ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	0 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Eleocharis obtusa</u>	20	Yes	OBL	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Ranunculus abortivus</u>	10	Yes	FACW	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Diodia virginiana</u>	5	No	FACW		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	35 = Total Cover				
	50% of total cover: <u>17.5</u>	20% of total cover: <u>7</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					





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

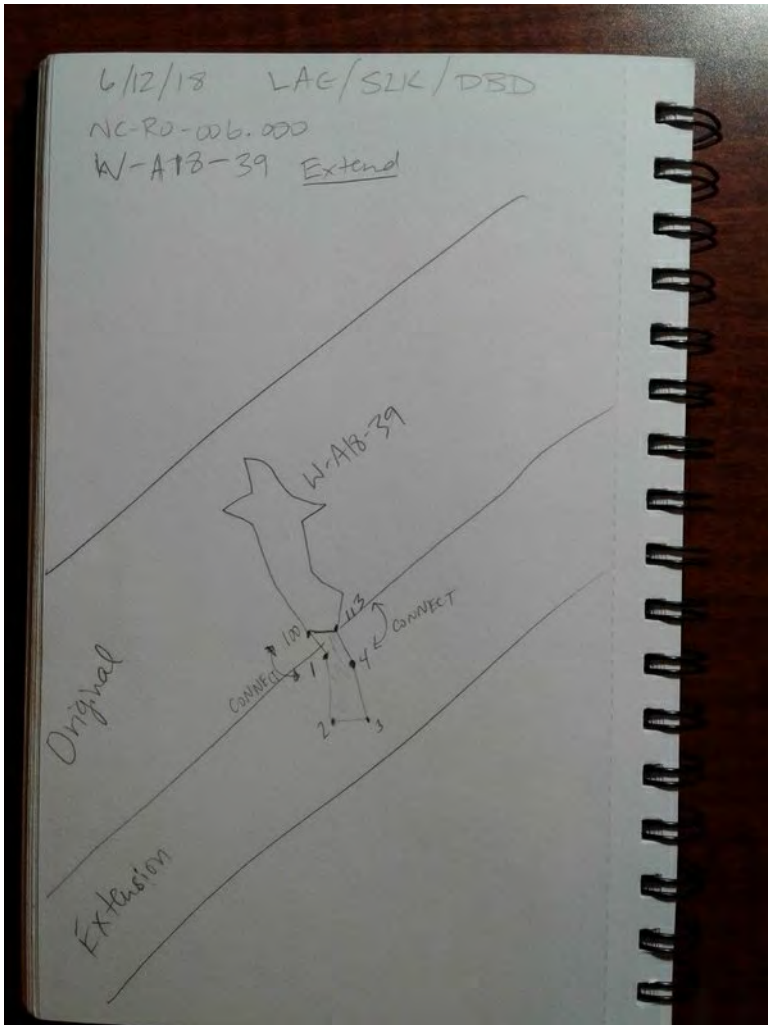














**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Leaksville, Rockingha... Sampling Date: 2018-May-19  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-39\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Convex Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5200411 Long: -79.652844 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  _____ _____	
Remarks:  The criterion for wetland hydrology is not met.	







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: Leaksville, Rockingha... Sampling Date: 2018-May-17  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-26\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy, Doreen Donovan Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5188368 Long: -79.6540585 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met. surface water due to heavy rains previous day .	







Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South

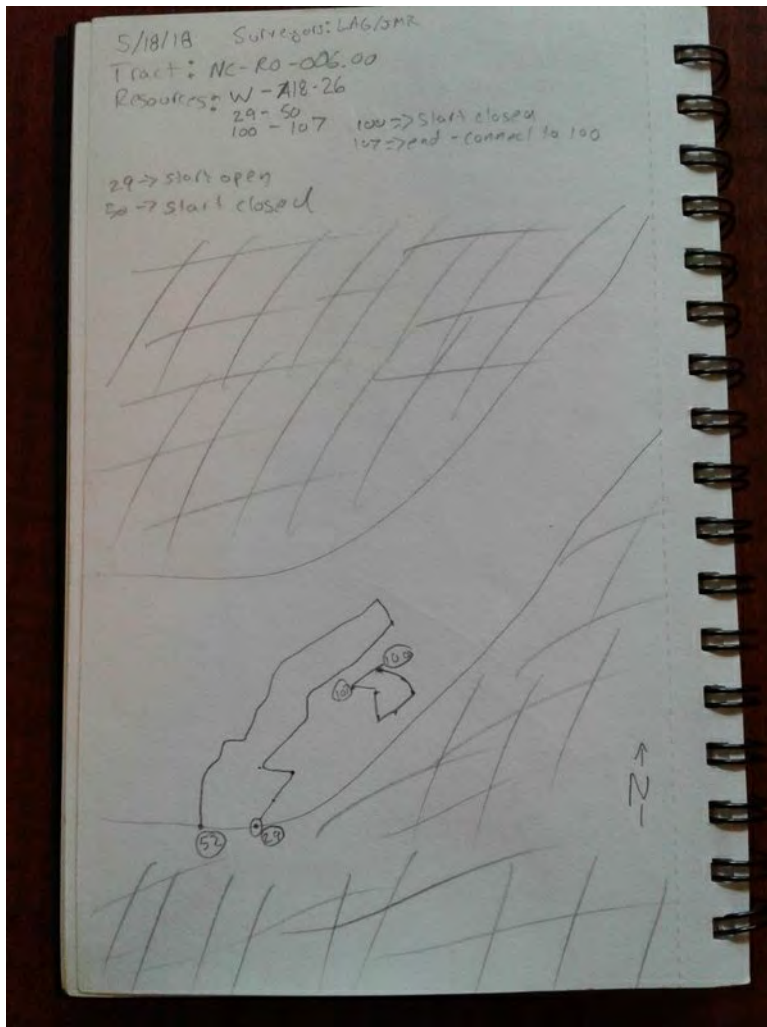


Photo of Sample Plot  
West



Photo of Sample Plot  
Sketch





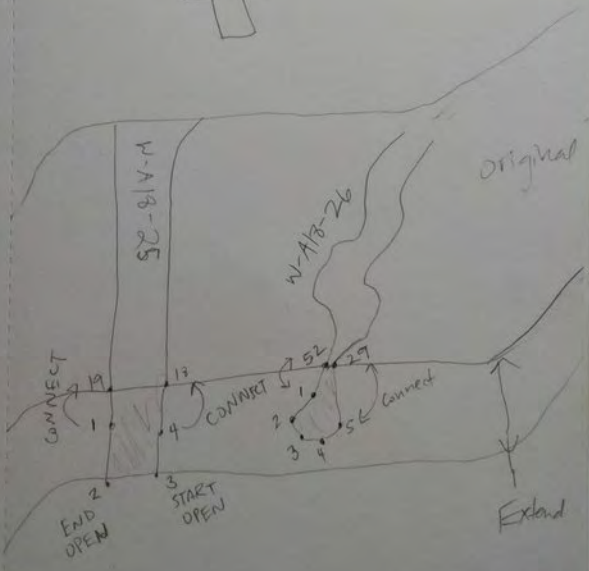








6/12/18 LAG/SLK/DSD  
NC-RD-000.000  
W-A13-25 & W-A13-26 Extend



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Leaksville, Rockingha... Sampling Date: 2018-May-18  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-26\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Convex Slope (%): 1 to 3  
 Subregion (LRR or MLRA): Lat: 36.5190907 Long: -79.6539611 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland, not all three wetland parameters are present. recent heavy rains.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is not met. Water at 4" in borehole due to heavy rains..		

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

Sampling Point: W-A18-26 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	50 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	0 x 1 = 0
7. _____	_____	_____	_____	FACW species	0 x 2 = 0
	0 = Total Cover			FAC species	35 x 3 = 105
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	60 x 4 = 240
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	0 x 5 = 0
1. _____	_____	_____	_____	Column Totals	95 (A) 345 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>3.6</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	____ 2 - Dominance Test is > 50%	
6. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	0 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Erigeron canadensis</u>	30	Yes	FACU	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Dichanthelium clandestinum</u>	30	Yes	FAC	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Geranium maculatum</u>	20	No	FACU	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
4. <u>Oxalis stricta</u>	10	No	FACU		
5. <u>Poaceae</u>	10	No	NI		
6. <u>Triodanis perfoliata</u>	5	No	FAC		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	105 = Total Cover				
	50% of total cover: <u>52.5</u>	20% of total cover: <u>21</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					





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: Eden, Rockingham Co... Sampling Date: 2018-May-17  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-25\_PFO-1  
 Investigator(s): Laura Giese, Joe Roy, Doreen Donovan Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5176074 Long: -79.6547429 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met.	



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

Sampling Point: W-A18-25 PFO-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: 30')</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 10%;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td><u>15</u></td> <td>x 1 =</td> <td><u>15</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td><u>25</u></td> <td>x 2 =</td> <td><u>50</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td></td> <td>x 3 =</td> <td></td> <td></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> <td></td> </tr> <tr> <td>Column Totals</td> <td></td> <td>(A)</td> <td>(B)</td> <td></td> </tr> <tr> <td colspan="5" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>15</u>	x 1 =	<u>15</u>		FACW species	<u>25</u>	x 2 =	<u>50</u>		FAC species		x 3 =			FACU species	<u>0</u>	x 4 =	<u>0</u>		UPL species	<u>0</u>	x 5 =	<u>0</u>		Column Totals		(A)	(B)		Prevalence Index = B/A = _____				
	Total % Cover of:		Multiply By:																																									
OBL species	<u>15</u>	x 1 =	<u>15</u>																																									
FACW species	<u>25</u>	x 2 =	<u>50</u>																																									
FAC species		x 3 =																																										
FACU species	<u>0</u>	x 4 =	<u>0</u>																																									
UPL species	<u>0</u>	x 5 =	<u>0</u>																																									
Column Totals		(A)	(B)																																									
Prevalence Index = B/A = _____																																												
1. <i>Quercus phellos</i>	20	Yes	FAC																																									
2. <i>Gleditsia triacanthos</i>	20	Yes	FAC																																									
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
40 = Total Cover																																												
50% of total cover: <u>20</u> 20% of total cover: <u>8</u>																																												
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																																												
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
8. _____																																												
9. _____																																												
0 = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Herb Stratum (Plot size: 5')</b>																																												
1. <i>Juncus effusus</i>	15	Yes	FACW																																									
2. <i>Scirpus atrovirens</i>	15	Yes	OBL																																									
3. <i>Campsis radicans</i>	10	Yes	FAC																																									
4. <i>Carex sp.</i>		No	NI																																									
5. <i>Quercus phellos</i>	5	No	FAC																																									
6. _____																																												
7. _____																																												
8. _____																																												
9. _____																																												
10. _____																																												
11. _____																																												
45 = Total Cover																																												
50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>																																												
<b>Woody Vine Stratum (Plot size: 30')</b>																																												
1. <i>Smilax rotundifolia</i>		Bad	FAC																																									
2. <i>Vitis riparia</i>	10	Yes	FACW																																									
3. _____																																												
4. _____																																												
5. _____																																												
10 = Total Cover																																												
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																																												
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																								



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: Eden, Rockingham Co... Sampling Date: 2018-May-17  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-25\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Convex Slope (%): 0 to 1  
 Subregion (LRR or MLRA): Lat: 36.517708 Long: -79.6546008 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland, two out of three parameters absent.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>  The criterion for wetland hydrology is not met. soils episaturates from 11-15, heavy rains night before.		

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

Sampling Point: W-A18-25 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: 30')</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>80</u></td> <td>x 3 =</td> <td></td> <td style="text-align: center;"><u>240</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>40</u></td> <td>x 4 =</td> <td></td> <td style="text-align: center;"><u>160</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>120</u></td> <td>(A)</td> <td></td> <td style="text-align: center;"><u>400</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.3</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>0</u>	x 1 =		<u>0</u>	FACW species	<u>0</u>	x 2 =		<u>0</u>	FAC species	<u>80</u>	x 3 =		<u>240</u>	FACU species	<u>40</u>	x 4 =		<u>160</u>	UPL species	<u>0</u>	x 5 =		<u>0</u>	Column Totals	<u>120</u>	(A)		<u>400</u> (B)	Prevalence Index = B/A =				<u>3.3</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>0</u>	x 1 =			<u>0</u>																																							
FACW species	<u>0</u>	x 2 =			<u>0</u>																																							
FAC species	<u>80</u>	x 3 =			<u>240</u>																																							
FACU species	<u>40</u>	x 4 =			<u>160</u>																																							
UPL species	<u>0</u>	x 5 =			<u>0</u>																																							
Column Totals	<u>120</u>	(A)			<u>400</u> (B)																																							
Prevalence Index = B/A =					<u>3.3</u>																																							
1. <i>Pinus taeda</i>	60	Yes	FAC																																									
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
<u>60</u> = Total Cover																																												
50% of total cover: <u>30</u>		20% of total cover: <u>12</u>																																										
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																																												
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
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8. _____																																												
9. _____																																												
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																										
<b>Herb Stratum (Plot size: 5')</b>																																												
1. <i>Hypericum prolificum</i>	20	Yes	FACU																																									
2. <i>Rubus allegheniensis</i>	20	Yes	FACU																																									
3. <i>Microstegium vimineum</i>	10	No	FAC																																									
4. <i>Campsis radicans</i>	10	No	FAC																																									
5. _____																																												
6. _____																																												
7. _____																																												
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<b>Woody Vine Stratum (Plot size: 30')</b>																																												
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																										
<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is > 50% ___ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																																												
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																												
Remarks: (Include photo numbers here or on a separate sheet.)																																												





Photo of Sample Plot  
North



Photo of Sample Plot  
East



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-17  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-28\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): Lat: 36.5171791 Long: -79.6586895 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met.	



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

Sampling Point: W-A18-28 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u>	(A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u>	(B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u>	(A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>0</u> = Total Cover	
6. _____	_____	_____	_____	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>
7. _____	_____	_____	_____	<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )	
1. <u>Pinus taeda</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
	<u>20</u> = Total Cover				
	50% of total cover: <u>10</u>	20% of total cover: <u>4</u>			
<b>Herb Stratum</b> (Plot size: <u>5'</u> )					
1. <u>Juncus effusus</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>		
2. <u>Carex lurida</u>	<u>10</u>	<u>Yes</u>	<u>OBL</u>		
3. <u>Dichanthelium clandestinum</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>		
4. <u>Lonicera japonica</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>		
5. <u>Ludwigia palustris</u>	<u>5</u>	<u>No</u>	<u>OBL</u>		
6. <u>Eupatorium perfoliatum</u>	<u>5</u>	<u>No</u>	<u>FACW</u>		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	<u>70</u> = Total Cover				
	50% of total cover: <u>35</u>	20% of total cover: <u>14</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	<u>0</u> = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					

<b>Dominance Test worksheet:</b>	
Number of Dominant Species That Are OBL, FACW, or FAC:	<u>4</u> (A)
Total Number of Dominant Species Across All Strata:	<u>5</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>80</u> (A/B)

<b>Prevalence Index worksheet:</b>	
<u>0</u> = Total Cover	
50% of total cover: <u>0</u>	20% of total cover: <u>0</u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )	
1. <u>Pinus taeda</u>	<u>20</u> Yes <u>FAC</u>
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
	<u>20</u> = Total Cover
	50% of total cover: <u>10</u> 20% of total cover: <u>4</u>

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤ 3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes  No



Photo of Sample Plot  
North



Photo of Sample Plot  
East





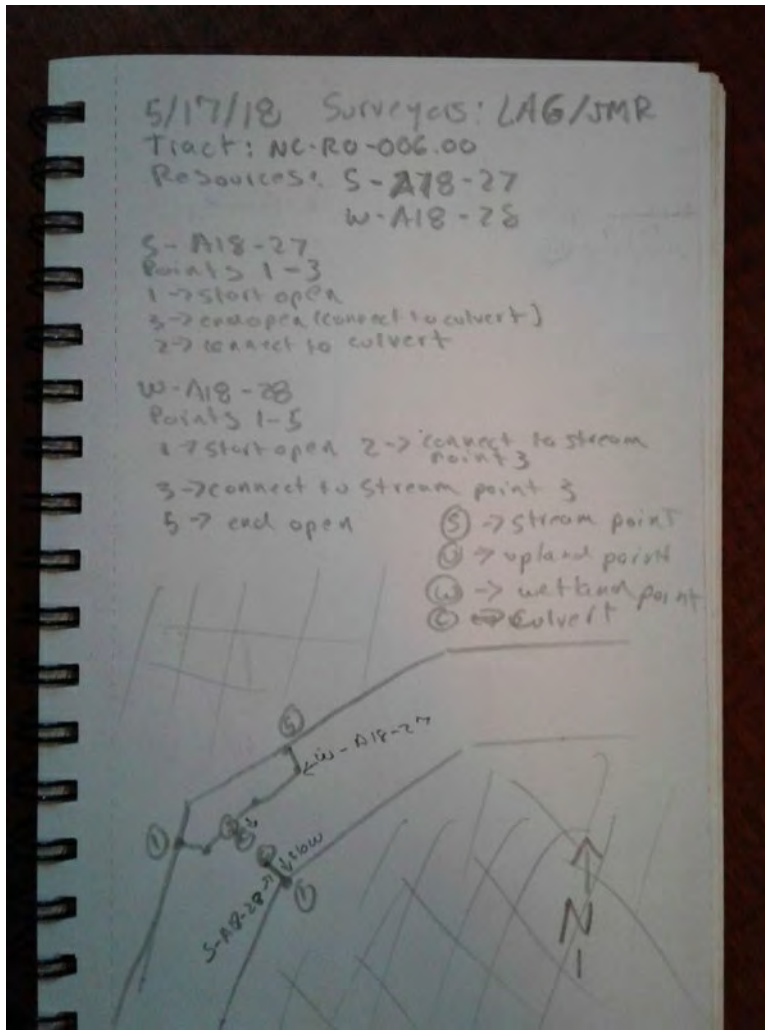
Photo of Sample Plot  
South



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: Eden, Rockingham Co... Sampling Date: 2018-May-17  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-28\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Convex Slope (%): 2 to 5  
 Subregion (LRR or MLRA): Lat: 36.5171835 Long: -79.6586827 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>				
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)					
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)					
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)					
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)					
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)					
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)					
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)					
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)					
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)					
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)					
		<input type="checkbox"/> FAC-Neutral Test (D5)					
<b>Field Observations:</b>			<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):				_____	
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):				_____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):				_____	
Describe Recorded Data (stream gauge, 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-A18-28 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____	4 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____	25 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species _____	x 1 = _____
7. _____	_____	_____	_____	FACW species _____	x 2 = _____
	0 = Total Cover			FAC species _____	x 3 = _____
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species _____	x 4 = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species _____	x 5 = _____
1. <i>Pinus taeda</i>	20	Yes	FAC	Column Totals _____	(A) 220 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>3.7</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	____ 2 - Dominance Test is > 50%	
6. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	20 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>10</u>	20% of total cover: <u>4</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Lespedeza cuneata</i>	30	Yes	FACU	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Potentilla simplex</i>	10	Yes	FACU	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <i>UNKNOWN</i>	10	Yes	NI		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	50 = Total Cover				
	50% of total cover: <u>25</u>	20% of total cover: <u>10</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					



Photo of Sample Plot  
North



Photo of Sample Plot  
East





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-18  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-30\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Concave Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5169636 Long: -79.6563919 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present. Recent heavy rains.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u> (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met. 2" surface water after heavy rains.	

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

Sampling Point: W-A18-30 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: 30)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>30</u></td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>25</u></td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>50</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>20</u></td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>5</u></td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>80</u></td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;"><u>160</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>30</u>		x 1 =	<u>30</u>	FACW species	<u>25</u>		x 2 =	<u>50</u>	FAC species	<u>20</u>		x 3 =	<u>60</u>	FACU species	<u>5</u>		x 4 =	<u>20</u>	UPL species	<u>0</u>		x 5 =	<u>0</u>	Column Totals	<u>80</u>	(A)		<u>160</u> (B)	Prevalence Index = B/A =				<u>2</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>30</u>		x 1 =		<u>30</u>																																							
FACW species	<u>25</u>		x 2 =		<u>50</u>																																							
FAC species	<u>20</u>		x 3 =		<u>60</u>																																							
FACU species	<u>5</u>		x 4 =		<u>20</u>																																							
UPL species	<u>0</u>		x 5 =		<u>0</u>																																							
Column Totals	<u>80</u>	(A)			<u>160</u> (B)																																							
Prevalence Index = B/A =					<u>2</u>																																							
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
_____ = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																																												
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
_____ = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Herb Stratum (Plot size: 5')</b>																																												
1. <i>Carex vulpinoidea</i>	30	Yes	OBL	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is >50% ✓ 3 - Prevalence Index is ≤ 3.0' ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																																								
2. <i>Juncus effusus</i>	20	Yes	FACW																																									
3. <i>Juncus tenuis</i>	20	Yes	FAC																																									
4. <i>Chamaecrista fasciculata</i>	5	No	FACU																																									
5. <i>Bidens frondosa</i>	5	No	FACW																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
10. _____	_____	_____	_____																																									
11. _____	_____	_____	_____																																									
_____ = Total Cover																																												
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>																																												
<b>Woody Vine Stratum (Plot size: 30')</b>																																												
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
_____ = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																												
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																												





Photo of Sample Plot  
North



Photo of Sample Plot  
East





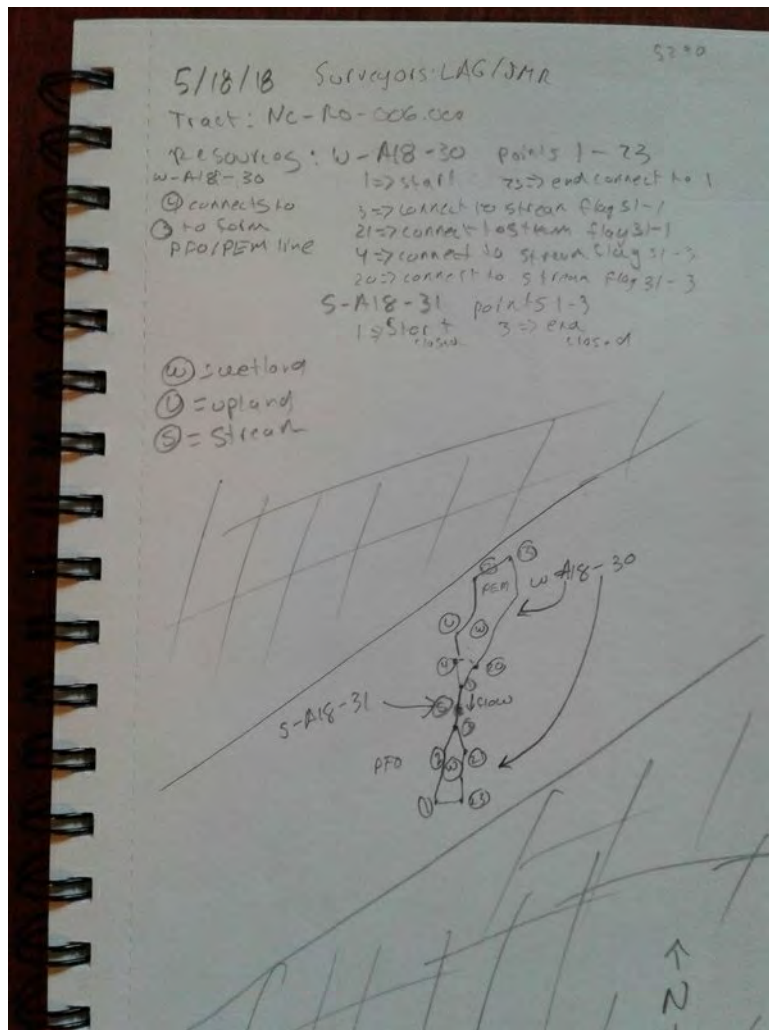
Photo of Sample Plot  
South



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: Eden, Rockingham Co... Sampling Date: 2018-May-18  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-30\_PFO-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5166379 Long: -79.6564069 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO. Area is wetland, all three wetland parameters are present. Recent heavy rains.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input checked="" type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  			
Remarks:  The criterion for wetland hydrology is met. Aerial photography depicts a darker signature (i.e. potential depression or relic scar) at this location, which suggests the potential for this area to be a wetland.			

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

Sampling Point: W-A18-30 PFO-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>75</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	<u>15</u> x 1 = <u>15</u>
7. _____	_____	_____	_____	FACW species	<u>5</u> x 2 = <u>10</u>
	<u>0</u> = Total Cover			FAC species	<u>5</u> x 3 = <u>15</u>
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	<u>5</u> x 4 = <u>20</u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	<u>0</u> x 5 = <u>0</u>
1. _____	_____	_____	_____	Column Totals	<u>30</u> (A) <u>60</u> (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>2</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	<u>0</u> = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Carex vulpinoidea</u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Pycnanthemum tenuifolium</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Lonicera japonica</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4. <u>Quercus phellos</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	<u>30</u> = Total Cover				
	50% of total cover: <u>15</u>	20% of total cover: <u>6</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	<u>0</u> = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). trees are on edge of wetland soil.					





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: Eden, Rockingham Co... Sampling Date: 2018-May-18  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-30\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Convex Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5170716 Long: -79.6564823 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Area is upland, not all three wetland parameters are present. Recent heavy rains.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is not met.					







Photo of Sample Plot  
North



Photo of Sample Plot  
West





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-19  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-33\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 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: 36.5165095 Long: -79.6568687 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present. Recent heavy rains .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>  _____ _____	
Remarks:  The criterion for wetland hydrology is met. 2" surface water after heavy rains.	







Photo of Sample Plot  
North



Photo of Sample Plot  
East





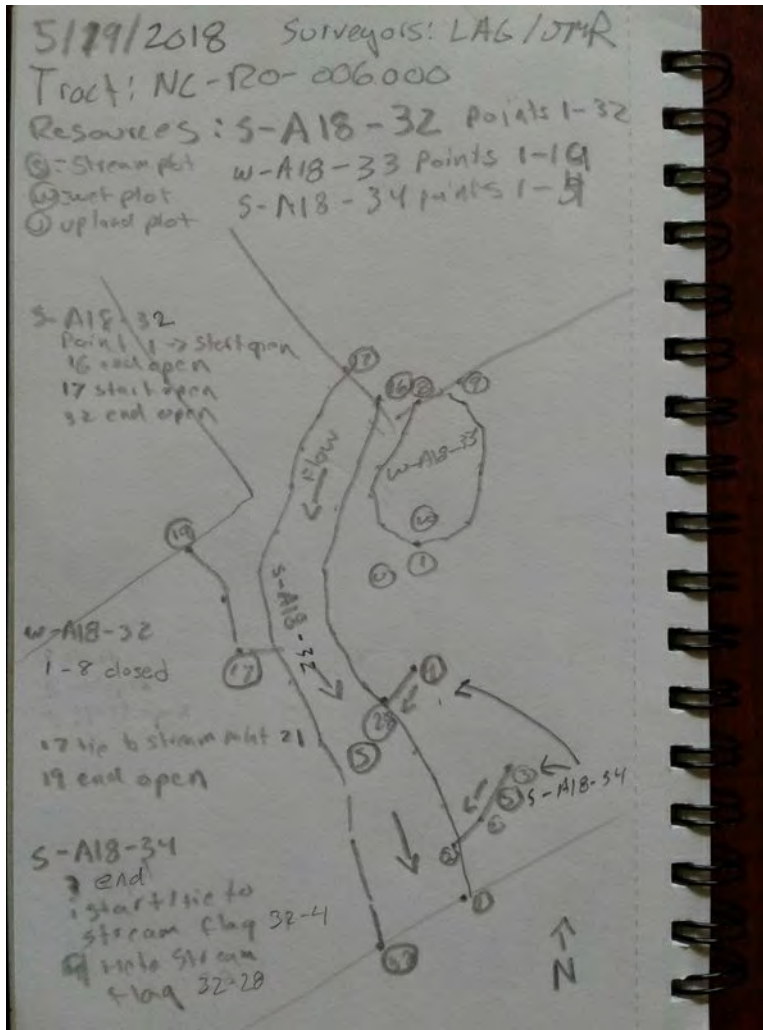
Photo of Sample Plot  
South



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: Eden, Rockingham Co... Sampling Date: 2018-May-19  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-33\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): flat Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5165313 Long: -79.6569544 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Area is upland, not all three wetland parameters are present. Recent heavy rains .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Sediment Deposits (B2)					<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Drift Deposits (B3)					<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Algal Mat or Crust (B4)					<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)			Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  					
Remarks:  The criterion for wetland hydrology is not met. One (1) secondary indicator was present, however, due to the absence of two (2) or more secondary indicators, the hydrology criterion has not been met. No standing water after heavy rains .					

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

Sampling Point: W-A18-33 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	0 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	0 x 1 = 0
7. _____	_____	_____	_____	FACW species	10 x 2 = 20
	0 = Total Cover			FAC species	5 x 3 = 15
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	50 x 4 = 200
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	10 x 5 = 50
1. _____	_____	_____	_____	Column Totals	75 (A) 285 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>3.8</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	____ 2 - Dominance Test is > 50%	
6. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	0 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Elymus repens</i>	25	Yes	FACU	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Rubus allegheniensis</i>	15	Yes	FACU	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <i>Solidago canadensis</i>	10	No	FACU	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
4. <i>Cassia fasciculata</i>	10	No	UPL		
5. <i>Bidens frondosa</i>	10	No	FACW		
6. <i>Juncus tenuis</i>	5	No	FAC		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	75 = Total Cover				
	50% of total cover: <u>37.5</u>	20% of total cover: <u>15</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					





Photo of Sample Plot  
North



Photo of Sample Plot  
East



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-19  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-35\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5161564 Long: -79.6567307 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>15</u> (includes capillary fringe)			Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  					
Remarks:  The criterion for wetland hydrology is met.					

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

Sampling Point: W-A18-35 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____	3 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____	66.7 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species _____	x 1 = _____
7. _____	_____	_____	_____	FACW species _____	x 2 = _____
_____ = Total Cover				FAC species _____	x 3 = _____
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				FACU species _____	x 4 = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species _____	x 5 = _____
1. _____	_____	_____	_____	Column Totals _____	(A) 195 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>2.6</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Carex lurida</u>	15	Yes	OBL	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Boehmeria cylindrica</u>	15	Yes	FACW	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Lonicera japonica</u>	15	Yes	FACU	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4. <u>Rubus allegheniensis</u>	10	No	FACU		
5. <u>Juncus effusus</u>	10	No	FACW		
6. <u>Microstegium vimineum</u>	10	No	FAC		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
_____ = Total Cover					
50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>					
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover					
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>					
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
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 ≤ 3.00).					





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: Eden, Rockingham Co... Sampling Date: 2018-May-19  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-35\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Knoll Local relief (concave, convex, none): Convex Slope (%): 1 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5160349 Long: -79.6570266 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____ Depth (inches): _____ Depth (inches): _____ <b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, 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-A18-35 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																									
<b>Tree Stratum (Plot size: 30)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%; text-align: center;">Total % Cover of:</th> <th style="width: 25%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1 = <u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2 = <u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;">x 3 = <u>30</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>70</u></td> <td style="text-align: center;">x 4 = <u>280</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>85</u></td> <td style="text-align: center;">(A) <u>335</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Prevalence Index = B/A = <u>3.9</u></td> </tr> </tbody> </table>		Total % Cover of:	Multiply By:	OBL species	<u>0</u>	x 1 = <u>0</u>	FACW species	<u>0</u>	x 2 = <u>0</u>	FAC species	<u>10</u>	x 3 = <u>30</u>	FACU species	<u>70</u>	x 4 = <u>280</u>	UPL species	<u>5</u>	x 5 = <u>25</u>	Column Totals	<u>85</u>	(A) <u>335</u> (B)	Prevalence Index = B/A = <u>3.9</u>		
	Total % Cover of:	Multiply By:																										
OBL species	<u>0</u>	x 1 = <u>0</u>																										
FACW species	<u>0</u>	x 2 = <u>0</u>																										
FAC species	<u>10</u>	x 3 = <u>30</u>																										
FACU species	<u>70</u>	x 4 = <u>280</u>																										
UPL species	<u>5</u>	x 5 = <u>25</u>																										
Column Totals	<u>85</u>	(A) <u>335</u> (B)																										
Prevalence Index = B/A = <u>3.9</u>																												
1. _____	_____	_____	_____																									
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
_____ = Total Cover	<u>0</u>																											
50% of total cover: <u>0</u>	<u>0</u>	20% of total cover: <u>0</u>																										
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																												
1. _____	_____	_____	_____																									
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
9. _____	_____	_____	_____																									
_____ = Total Cover	<u>0</u>																											
50% of total cover: <u>0</u>	<u>0</u>	20% of total cover: <u>0</u>																										
<b>Herb Stratum (Plot size: 5')</b>																												
1. <i>Lonicera japonica</i>	50	Yes	FACU																									
2. <i>Rubus allegheniensis</i>	20	Yes	FACU																									
3. <i>Dichanthelium clandestinum</i>	10	No	FAC																									
4. <i>Pueraria montana</i>	5	No	UPL																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
9. _____	_____	_____	_____																									
10. _____	_____	_____	_____																									
11. _____	_____	_____	_____																									
_____ = Total Cover	<u>85</u>																											
50% of total cover: <u>42.5</u>	<u>42.5</u>	20% of total cover: <u>17</u>																										
<b>Woody Vine Stratum (Plot size: 30')</b>																												
1. _____	_____	_____	_____																									
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
_____ = Total Cover	<u>0</u>																											
50% of total cover: <u>0</u>	<u>0</u>	20% of total cover: <u>0</u>																										
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC- or drier).																												





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: Leaksville, Rockingha... Sampling Date: 2018-May-19  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-38\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Undulating Slope (%): 5 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5135282 Long: -79.6603877 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>17</u>	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
The criterion for wetland hydrology is met.		



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

Sampling Point: W-A18-38 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	20 x 1 = 20
7. _____	_____	_____	_____	FACW species	20 x 2 = 40
0 = Total Cover				FAC species	25 x 3 = 75
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				FACU species	0 x 4 = 0
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	0 x 5 = 0
1. _____	_____	_____	_____	Column Totals	65 (A) 135 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>2.1</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
0 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Juncus effusus</u>	20	Yes	FACW	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Dichanthelium dichotomum</u>	15	Yes	FAC	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Carex lurida</u>	10	No	OBL	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4. <u>Persicaria sagittata</u>	10	No	OBL		
5. <u>Dichanthelium clandestinum</u>	10	No	FAC		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
65 = Total Cover					
50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>					
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
0 = Total Cover					
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>					
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					



Photo of Sample Plot  
North



Photo of Sample Plot  
East





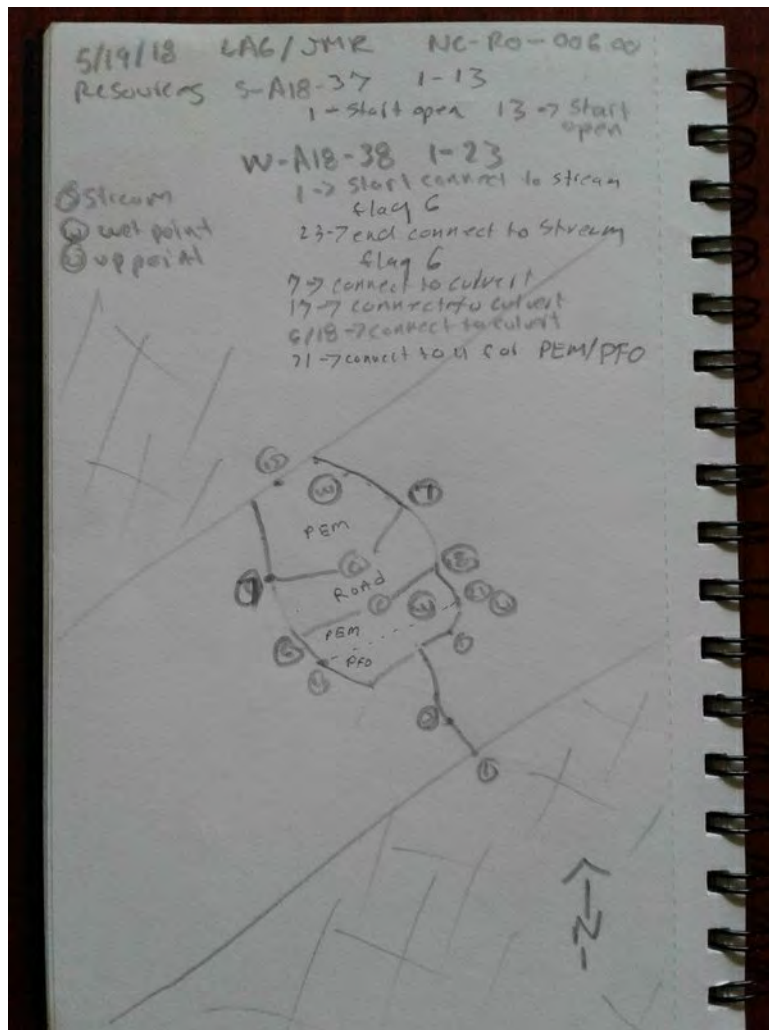
Photo of Sample Plot  
South



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: Leaksville, Rockingha... Sampling Date: 2018-May-19  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-38\_PFO-2  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Concave Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5132356 Long: -79.660024 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		
Covertypes is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>11</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
The criterion for wetland hydrology is met.		



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

Sampling Point: W-A18-38 PFO-2

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <u><i>Acer rubrum</i></u>	<u>30</u>	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>5</u> (A)
2. <u><i>Pinus taeda</i></u>	<u>20</u>	Yes	FAC	Total Number of Dominant Species Across All Strata:	<u>5</u> (B)
3. <u><i>Nyssa sylvatica</i></u>	<u>5</u>	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. <u><i>Carya glabra</i></u>	<u>5</u>	No	FACU		
5. _____					
6. _____					
7. _____					
	<u>60</u> = Total Cover				
	50% of total cover: <u>30</u>	20% of total cover: <u>12</u>			
<b><u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u>)</b>					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
	<u>0</u> = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b><u>Herb Stratum</u> (Plot size: <u>5'</u>)</b>					
1. <u><i>Microstegium vimineum</i></u>	<u>35</u>	Yes	FAC		
2. <u><i>Carex crinita</i></u>	<u>20</u>	Yes	OBL		
3. <u><i>Glyceria striata</i></u>	<u>20</u>	Yes	OBL		
4. <u><i>Uvularia sessilifolia</i></u>	<u>5</u>	No	FAC		
5. <u><i>Rubus allegheniensis</i></u>	<u>5</u>	No	FACU		
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
	<u>85</u> = Total Cover				
	50% of total cover: <u>42.5</u>	20% of total cover: <u>17</u>			
<b><u>Woody Vine Stratum</u> (Plot size: <u>30'</u>)</b>					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
	<u>0</u> = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
<p>A positive indication of hydrophytic vegetation was observed (&gt;50% of dominant species indexed as OBL, FACW, or FAC).</p>					

**Prevalence Index worksheet:**

<u>Total % Cover of:</u>	<u>Multiply By:</u>
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>95</u>	x 3 = <u>285</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals <u>145</u>	(A) <u>365</u> (B)
Prevalence Index = B/A = <u>2.5</u>	

**Hydrophytic Vegetation Indicators:**

\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤ 3.0<sup>1</sup>

\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No



Photo of Sample Plot  
North



Photo of Sample Plot  
East





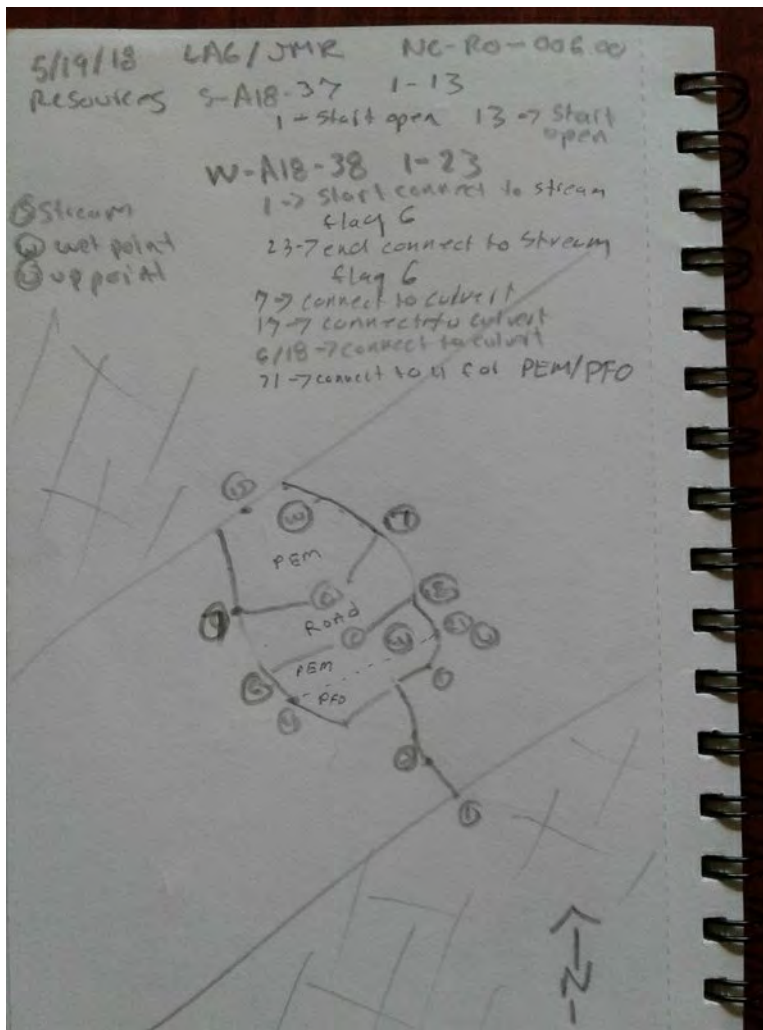
Photo of Sample Plot  
South



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: Leaksville, Rockingha... Sampling Date: 2018-May-19  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-38\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Convex Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5133815 Long: -79.6603804 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
Describe Recorded Data (stream gauge, 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-A18-38 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Quercus alba</i>	20	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>4</u> (A)
2. <i>Pinus taeda</i>	20	Yes	FAC	Total Number of Dominant Species Across All Strata:	<u>9</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>44.4</u> (A/B)
4. _____				<b>Prevalence Index worksheet:</b>	
5. _____				<u>40</u> = Total Cover	
6. _____				50% of total cover: <u>20</u> 20% of total cover: <u>8</u>	
7. _____				<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )	
1. <i>Liquidambar styraciflua</i>	10	Yes	FAC		
2. <i>Rhus glabra</i>	10	Yes	UPL		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
				<u>20</u> = Total Cover	
				50% of total cover: <u>10</u> 20% of total cover: <u>4</u>	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )					
1. <i>Rubus allegheniensis</i>	20	Yes	FACU		
2. <i>Lonicera japonica</i>	10	Yes	FACU		
3. <i>Quercus phellos</i>	10	Yes	FAC		
4. <i>Liquidambar styraciflua</i>	10	Yes	FAC		
5. <i>Quercus alba</i>	10	Yes	FACU		
6. <i>Potentilla simplex</i>		No	FACU		
7. _____	5				
8. _____					
9. _____					
10. _____					
11. _____					
				<u>65</u> = Total Cover	
				50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>	
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
				<u>0</u> = Total Cover	
				50% of total cover: <u>0</u> 20% of total cover: <u>0</u>	
<p><b>Remarks:</b> (Include photo numbers here or on a separate sheet.)</p> <p>No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC- or drier).</p>					

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is > 50%

\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No



Photo of Sample Plot  
North



Photo of Sample Plot  
South





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-23  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-48\_PEM-1  
 Investigator(s): James Bolduc, Tony Tredway, Heather patti Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5084706 Long: -79.6654263 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
<b>Remarks:</b>			
Covertypes is PEM. Area is wetland, all three wetland parameters are present. portions of wetland are located within existing pipeline ROW.			

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>			
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	<u>3</u>
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	<u>0</u>
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	<u>0</u>
(includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>			
<b>Remarks:</b>			

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

Sampling Point: W-B18-48 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>10</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>80</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>160</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>70</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>210</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>160</u></td> <td>(A)</td> <td style="text-align: center;"><u>380</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>2.4</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:	OBL species	<u>10</u>	x 1 =	<u>10</u>	FACW species	<u>80</u>	x 2 =	<u>160</u>	FAC species	<u>70</u>	x 3 =	<u>210</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals	<u>160</u>	(A)	<u>380</u> (B)	Prevalence Index = B/A = <u>2.4</u>			
	Total % Cover of:		Multiply By:																																	
OBL species	<u>10</u>	x 1 =	<u>10</u>																																	
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Column Totals	<u>160</u>	(A)	<u>380</u> (B)																																	
Prevalence Index = B/A = <u>2.4</u>																																				
1. <i>Liquidambar styraciflua</i>	30	Yes	FAC																																	
2. <i>Quercus phellos</i>	10	Yes	FAC																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
<u>40</u> = Total Cover																																				
50% of total cover: <u>20</u> 20% of total cover: <u>8</u>																																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																				
1. <i>Liquidambar styraciflua</i>	10	Yes	FAC																																	
2. <i>Quercus phellos</i>	10	Yes	FAC																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
9. _____																																				
<u>20</u> = Total Cover																																				
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																				
1. <i>Juncus effusus</i>	80	Yes	FACW																																	
2. <i>Dichanthelium clandestinum</i>	10	No	FAC																																	
3. <i>Carex lurida</i>	10	No	OBL																																	
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
9. _____																																				
10. _____																																				
11. _____																																				
<u>100</u> = Total Cover																																				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>																																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Hydrophytic Vegetation Indicators:</b>																																				
____ 1 - Rapid Test for Hydrophytic Vegetation																																				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%																																				
<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>																																				
____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)																																				
____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																																				
<b>Definitions of Four Vegetation Strata:</b>																																				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.																																				
<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.																																				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.																																				
<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																				





Hydrology Photos



Vegetation Photos





Soil Photos



Photo of Sample Plot North





Photo of Sample Plot  
East



Photo of Sample Plot  
South

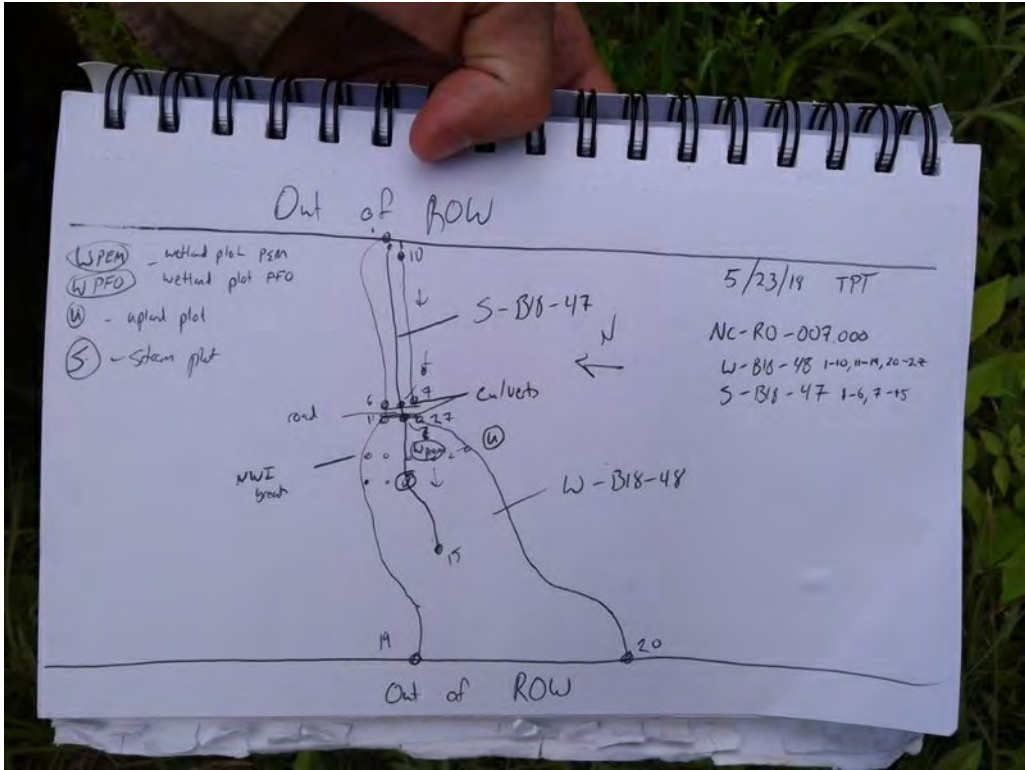




Photo of Sample Plot West



Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-23  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-48\_PFO-2  
 Investigator(s): James Bolduc, Tony Tredway, Heather patti Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5083307 Long: -79.6653432 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		
Covertypes is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: W-B18-48\_PFO-2

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>190</u></td> <td>x 3 = <u>570</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>210</u></td> <td>(A) <u>630</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>190</u>	x 3 = <u>570</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>210</u>	(A) <u>630</u> (B)	Prevalence Index = B/A = <u>3</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
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Column Totals <u>210</u>	(A) <u>630</u> (B)																			
Prevalence Index = B/A = <u>3</u>																				
1. <i>Liquidambar styraciflua</i>	80	Yes	FAC																	
2. <i>Pinus taeda</i>	10	No	FAC																	
3. <i>Carya glabra</i>	5	No	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
<u>95</u> = Total Cover																				
50% of total cover: <u>47.5</u>		20% of total cover: <u>19</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																				
1. <i>Liquidambar styraciflua</i>	10	Yes	FAC																	
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
<u>10</u> = Total Cover																				
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>																		
<b>Herb Stratum (Plot size: <u>5</u>)</b>																				
1. <i>Microstegium vimineum</i>	90	Yes	FAC																	
2. <i>Boehmeria cylindrica</i>	5	No	FACW																	
3. <i>Parthenocissus quinquefolia</i>	5	No	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
<u>100</u> = Total Cover																				
50% of total cover: <u>50</u>		20% of total cover: <u>20</u>																		
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																				
1. <i>Lonicera villosa</i>	5	Yes	FACW																	
2. _____																				
3. _____																				
4. _____																				
5. _____																				
<u>5</u> = Total Cover																				
50% of total cover: <u>2.5</u>		20% of total cover: <u>1</u>																		
<b>Hydrophytic Vegetation Indicators:</b> ___ 1- Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																				
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)    																				





Vegetation Photos



Soil Photos





Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South

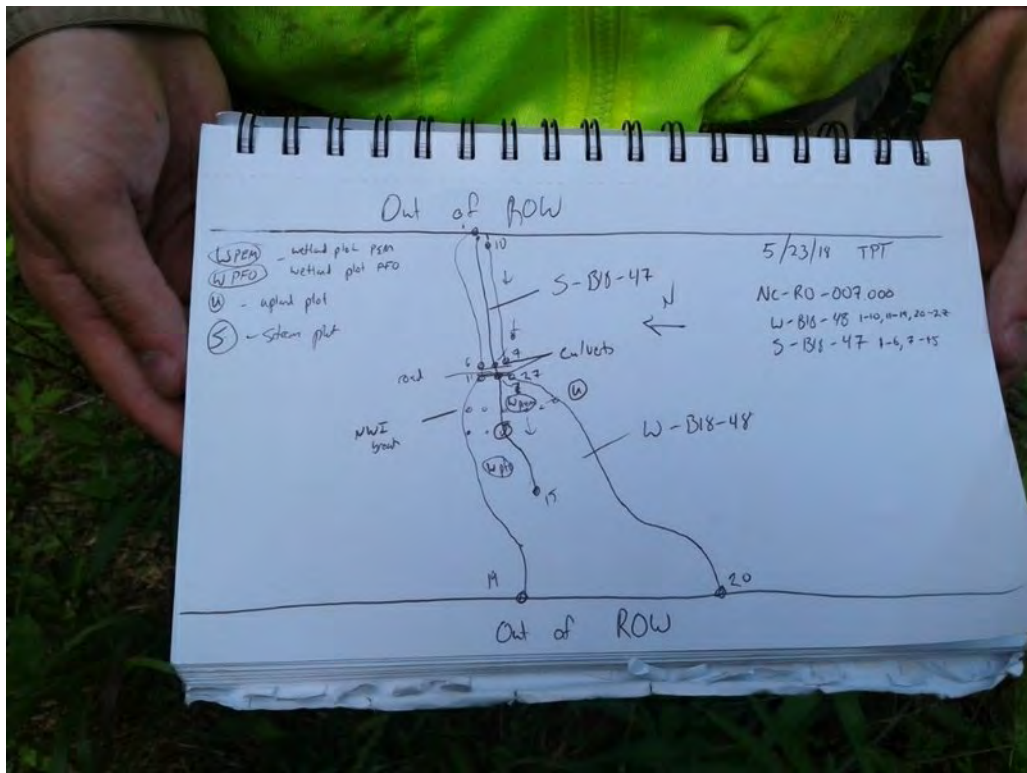


Photo of Sample Plot  
West



Photo of Sample Plot  
Sketch

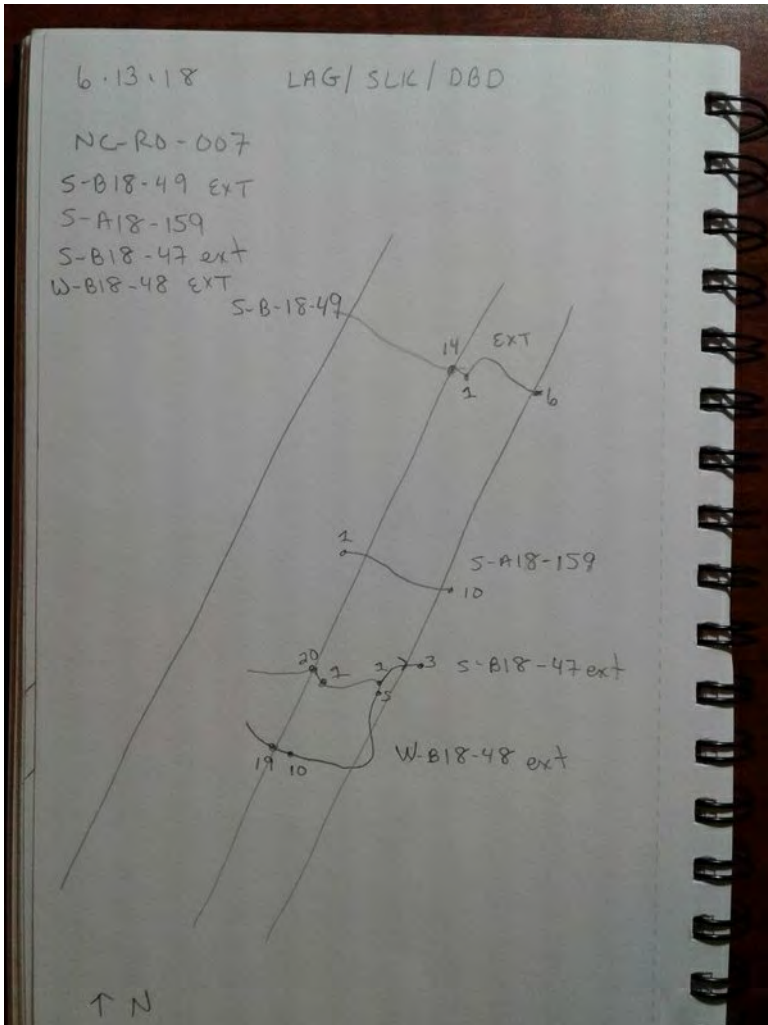












**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-23  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-48\_UPL-1  
 Investigator(s): James Bolduc, Tony Tredway, Heather patti Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 1 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5083577 Long: -79.6652664 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertypes is UPL, existing pipeline ROW.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>			Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

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

Sampling Point: W-B18-48 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																																				
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">_____</td> <td>x 3 =</td> <td style="text-align: center;">_____</td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">_____</td> <td>x 4 =</td> <td style="text-align: center;">_____</td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;">_____</td> <td>(A)</td> <td style="text-align: center;">_____</td> <td>(B)</td> </tr> </tbody> </table> Prevalence Index = B/A = _____  <b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Total % Cover of:		Multiply By:		OBL species	<u>0</u>	x 1 =	<u>0</u>		FACW species	<u>0</u>	x 2 =	<u>0</u>		FAC species	_____	x 3 =	_____		FACU species	_____	x 4 =	_____		UPL species	<u>0</u>	x 5 =	<u>0</u>		Column Totals	_____	(A)	_____	(B)
	Total % Cover of:		Multiply By:																																				
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FACW species	<u>0</u>	x 2 =	<u>0</u>																																				
FAC species	_____	x 3 =	_____																																				
FACU species	_____	x 4 =	_____																																				
UPL species	<u>0</u>	x 5 =	<u>0</u>																																				
Column Totals	_____	(A)	_____		(B)																																		
1. <i>Pinus taeda</i>	30	Yes	FAC																																				
2. <i>Liquidambar styraciflua</i>	30	Yes	FAC																																				
3. <i>Quercus phellos</i>		No	FAC																																				
4. _____																																							
5. _____																																							
6. _____																																							
7. _____																																							
_____ = Total Cover																																							
50% of total cover: <u>30</u>		20% of total cover: <u>12</u>																																					
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																							
1. <i>Acer rubrum</i>	20	Yes	FAC																																				
2. _____																																							
3. _____																																							
4. _____																																							
5. _____																																							
6. _____																																							
7. _____																																							
8. _____																																							
9. _____																																							
_____ = Total Cover																																							
50% of total cover: <u>10</u>		20% of total cover: <u>4</u>																																					
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																							
1. <i>Solidago altissima</i>	80	Yes	FACU																																				
2. <i>Fragaria vesca</i>	20	Yes	FACU																																				
3. <i>Festuca rubra</i>		No	FACU																																				
4. _____																																							
5. _____																																							
6. _____																																							
7. _____																																							
8. _____																																							
9. _____																																							
10. _____																																							
11. _____																																							
_____ = Total Cover																																							
50% of total cover: <u>50</u>		20% of total cover: <u>20</u>																																					
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																							
1. _____																																							
2. _____																																							
3. _____																																							
4. _____																																							
5. _____																																							
_____ = Total Cover																																							
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																					
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																							
The hydrophytic vegetation criterion has been met. However, due to the absence of wetland hydrology and/or hydric soils, this data point is within a non-wetland.																																							





Photo of Sample Plot North



Photo of Sample Plot East





Photo of Sample Plot  
South

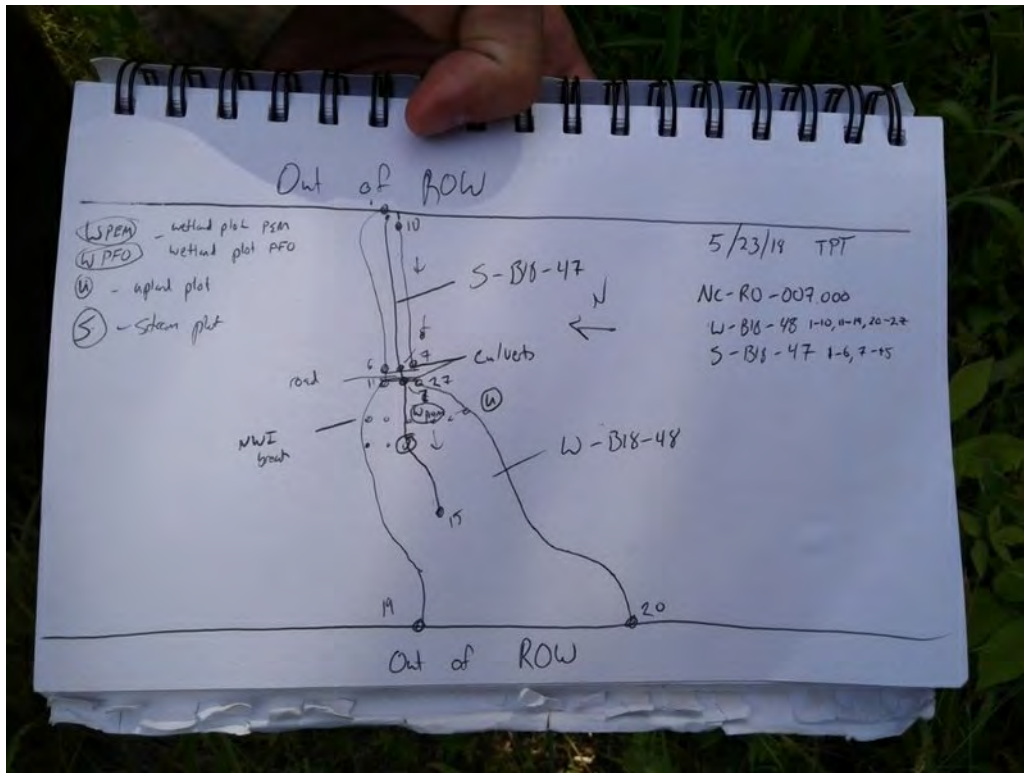


Photo of Sample Plot  
West





Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-23  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-49\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Toe Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5039453 Long: -79.6708928 Datum: WGS84  
 Soil Map Unit Name: NWI classification: PEM

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, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                ___ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> 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)	<b>Secondary Indicators (minimum of two required)</b> ___ 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) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes ___ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes ___ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No ___                              Depth (inches): <u>0</u> (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met. Soil is episaturated. 0-2" saturated.	

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

Sampling Point: W-A18-49 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: 30)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>70</u></td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>70</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>50</u></td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>100</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>120</u></td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;"><u>170</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.4</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>70</u>		x 1 =	<u>70</u>	FACW species	<u>50</u>		x 2 =	<u>100</u>	FAC species	<u>0</u>		x 3 =	<u>0</u>	FACU species	<u>0</u>		x 4 =	<u>0</u>	UPL species	<u>0</u>		x 5 =	<u>0</u>	Column Totals	<u>120</u>	(A)		<u>170</u> (B)	Prevalence Index = B/A =				<u>1.4</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>70</u>		x 1 =		<u>70</u>																																							
FACW species	<u>50</u>		x 2 =		<u>100</u>																																							
FAC species	<u>0</u>		x 3 =		<u>0</u>																																							
FACU species	<u>0</u>		x 4 =		<u>0</u>																																							
UPL species	<u>0</u>		x 5 =		<u>0</u>																																							
Column Totals	<u>120</u>	(A)			<u>170</u> (B)																																							
Prevalence Index = B/A =					<u>1.4</u>																																							
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Sapling/Shrub Stratum (Plot size: 15')</b>				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input type="checkbox"/>																																								
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Herb Stratum (Plot size: 5')</b>																																												
1. <i>Juncus acuminatus</i>	35	Yes	OBL																																									
2. <i>Bidens frondosa</i>	30	Yes	FACW																																									
3. <i>Carex scoparia</i>	20	No	FACW																																									
4. <i>Eleocharis palustris</i>	10	No	OBL																																									
5. <i>Scirpus atrovirens</i>	10	No	OBL																																									
6. <i>Panicum sagittata</i>	10	No	OBL																																									
7. <i>Salix nigra</i>	5	No	OBL																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
10. _____	_____	_____	_____																																									
11. _____	_____	_____	_____																																									
<u>120</u> = Total Cover																																												
50% of total cover: <u>60</u> 20% of total cover: <u>24</u>																																												
<b>Woody Vine Stratum (Plot size: 30')</b>																																												
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																												





Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot South

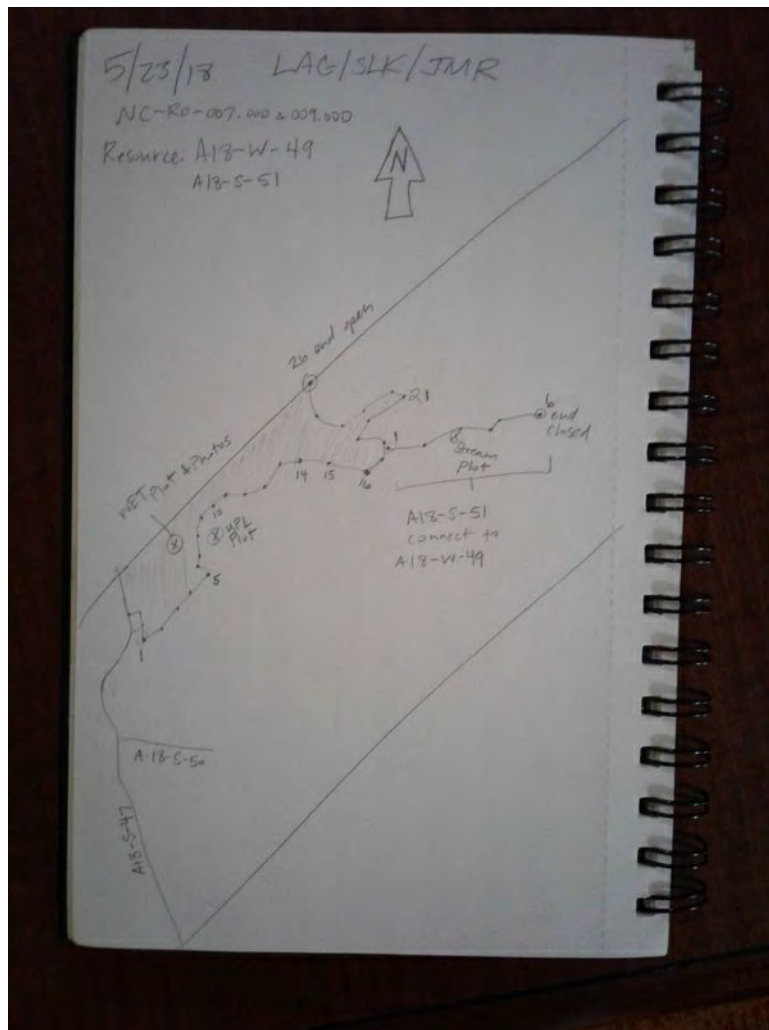


Photo of Sample Plot West





Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-23  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-49\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Convex Slope (%): 5 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.5040522 Long: -79.6700149 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Iron Deposits (B5)					
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)					
<input type="checkbox"/> Water-Stained Leaves (B9)					
<input type="checkbox"/> Aquatic Fauna (B13)					
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)			Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, 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-A18-49 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><b>Total % Cover of:</b></td> <td style="text-align: center;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>65</u></td> <td>x 4 = <u>260</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>65</u></td> <td>(A) <u>260</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>65</u>	x 4 = <u>260</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>65</u>	(A) <u>260</u> (B)	Prevalence Index = B/A = <u>4</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>65</u>	x 4 = <u>260</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>65</u>	(A) <u>260</u> (B)																			
Prevalence Index = B/A = <u>4</u>																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover	<u>0</u>																			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is > 50% ___ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic <b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover	<u>0</u>																			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<u>Herb Stratum</u> (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <i>Lespedeza cuneata</i>	30	Yes	FACU																	
2. <i>Solidago canadensis</i>	20	Yes	FACU																	
3. <i>Poaceae</i>	20	Yes	NI																	
4. <i>Rubus allegheniensis</i>	15	No	FACU																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ = Total Cover	<u>85</u>																			
50% of total cover: <u>42.5</u>		20% of total cover: <u>17</u>																		
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover	<u>0</u>																			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																				
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).																				





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: Eden, Rockingham Co... Sampling Date: 2018-May-23  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-48\_PFO-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.503316 Long: -79.6703664 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  _____ _____	
Remarks:  The criterion for wetland hydrology is met.	



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

Sampling Point: W-A18-48 PFO-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: 30)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>60</u></td> <td>(A) <u>100</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.7</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>60</u>	(A) <u>100</u> (B)	Prevalence Index = B/A = <u>1.7</u>	
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Column Totals <u>60</u>	(A) <u>100</u> (B)																			
Prevalence Index = B/A = <u>1.7</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Herb Stratum (Plot size: 5')</b>																				
1. <i>Glyceria striata</i>	30	Yes	OBL																	
2. <i>Boehmeria cylindrica</i>	10	Yes	FACW																	
3. <i>Pilea pumila</i>	10	Yes	FACW																	
4. <i>Microstegium vimineum</i>	10	Yes	FAC																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
60 = Total Cover																				
50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																				
<b>Woody Vine Stratum (Plot size: 30')</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). Trees are on the edge..																				



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: Eden, Rockingham Co... Sampling Date: 2018-May-23  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-48\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King 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: 36.5034154 Long: -79.6703823 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL. Area is upland based on absence of hydric soils and wetland hydrology .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	
The criterion for wetland hydrology is not met. Note PI not met, likely old drainage.	



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

Sampling Point: W-A18-48 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 15%; text-align: center;">Total % Cover of:</th> <th style="width: 15%;"></th> <th style="width: 15%; text-align: center;">Multiply By:</th> <th style="width: 25%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>10</u></td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>35</u></td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>105</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>60</u></td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>240</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>105</u></td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;"><u>365</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.5</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>0</u>		x 1 =	<u>0</u>	FACW species	<u>10</u>		x 2 =	<u>20</u>	FAC species	<u>35</u>		x 3 =	<u>105</u>	FACU species	<u>60</u>		x 4 =	<u>240</u>	UPL species	<u>0</u>		x 5 =	<u>0</u>	Column Totals	<u>105</u>	(A)		<u>365</u> (B)	Prevalence Index = B/A =				<u>3.5</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>0</u>		x 1 =		<u>0</u>																																							
FACW species	<u>10</u>		x 2 =		<u>20</u>																																							
FAC species	<u>35</u>		x 3 =		<u>105</u>																																							
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UPL species	<u>0</u>		x 5 =		<u>0</u>																																							
Column Totals	<u>105</u>	(A)			<u>365</u> (B)																																							
Prevalence Index = B/A =					<u>3.5</u>																																							
1. <u><i>Ulmus rubra</i></u>	<u>5</u>	Yes	FAC																																									
2. <u><i>Fraxinus pennsylvanica</i></u>	<u>5</u>	Yes	FACW																																									
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
<u>10</u> = Total Cover																																												
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																																												
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																																												
1. <u><i>Carpinus caroliniana</i></u>	<u>10</u>	Yes	FAC																																									
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
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<u>10</u> = Total Cover																																												
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																																												
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																																												
1. <u><i>Glechoma hederacea</i></u>	<u>40</u>	Yes	FACU																																									
2. <u><i>Ligustrum sinense</i></u>	<u>10</u>	No	FACU																																									
3. <u><i>Boehmeria cylindrica</i></u>	<u>5</u>	No	FACW																																									
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
8. _____																																												
9. _____																																												
10. _____																																												
11. _____																																												
<u>55</u> = Total Cover																																												
50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>																																												
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																																												
1. <u><i>Smilax rotundifolia</i></u>	<u>20</u>	Yes	FAC																																									
2. <u><i>Lonicera japonica</i></u>	<u>10</u>	Yes	FACU																																									
3. _____																																												
4. _____																																												
5. _____																																												
<u>30</u> = Total Cover																																												
50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																																												
<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																																												
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																																												
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																												
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																												



Photo of Sample Plot  
North



Photo of Sample Plot  
South





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-15  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-20\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Concave Slope (%): 2 to 5  
 Subregion (LRR or MLRA): Lat: 36.5020022 Long: -79.6767683 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met. Soil is episaturated. saturated from 0 to 2 inches.	

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

Sampling Point: W-A18-20 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: 30')</b>																																												
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>65</u></td> <td>x 1 =</td> <td></td> <td style="text-align: center;"><u>65</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>15</u></td> <td>x 2 =</td> <td></td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td>x 3 =</td> <td></td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>85</u></td> <td>(A)</td> <td></td> <td style="text-align: center;"><u>110</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.3</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>65</u>	x 1 =		<u>65</u>	FACW species	<u>15</u>	x 2 =		<u>30</u>	FAC species	<u>5</u>	x 3 =		<u>15</u>	FACU species	<u>0</u>	x 4 =		<u>0</u>	UPL species	<u>0</u>	x 5 =		<u>0</u>	Column Totals	<u>85</u>	(A)		<u>110</u> (B)	Prevalence Index = B/A =				<u>1.3</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>65</u>	x 1 =			<u>65</u>																																							
FACW species	<u>15</u>	x 2 =			<u>30</u>																																							
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Prevalence Index = B/A =				<u>1.3</u>																																								
2. _____	_____	_____	_____																																									
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_____ = Total Cover																																												
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																										
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																																												
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																								
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
_____ = Total Cover																																												
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																										
<b>Herb Stratum (Plot size: 5')</b>																																												
1. <u>Carex lurida</u>	<u>35</u>	Yes	OBL																																									
2. <u>Glyceria striata</u>	<u>15</u>	Yes	OBL																																									
3. <u>Agrostis gigantea</u>	<u>10</u>	No	FACW																																									
4. <u>Juncus acuminatus</u>	<u>10</u>	No	OBL																																									
5. <u>Juncus effusus</u>	<u>5</u>	No	FACW																																									
6. <u>Scirpus atrovirens</u>	<u>5</u>	No	OBL																																									
7. <u>Holcus lanatus</u>	<u>5</u>	No	FAC																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
10. _____	_____	_____	_____																																									
11. _____	_____	_____	_____																																									
_____ = Total Cover																																												
50% of total cover: <u>42.5</u>		20% of total cover: <u>17</u>																																										
<b>Woody Vine Stratum (Plot size: 30')</b>																																												
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
_____ = 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.)																																												





Photo of Sample Plot North



Photo of Sample Plot East





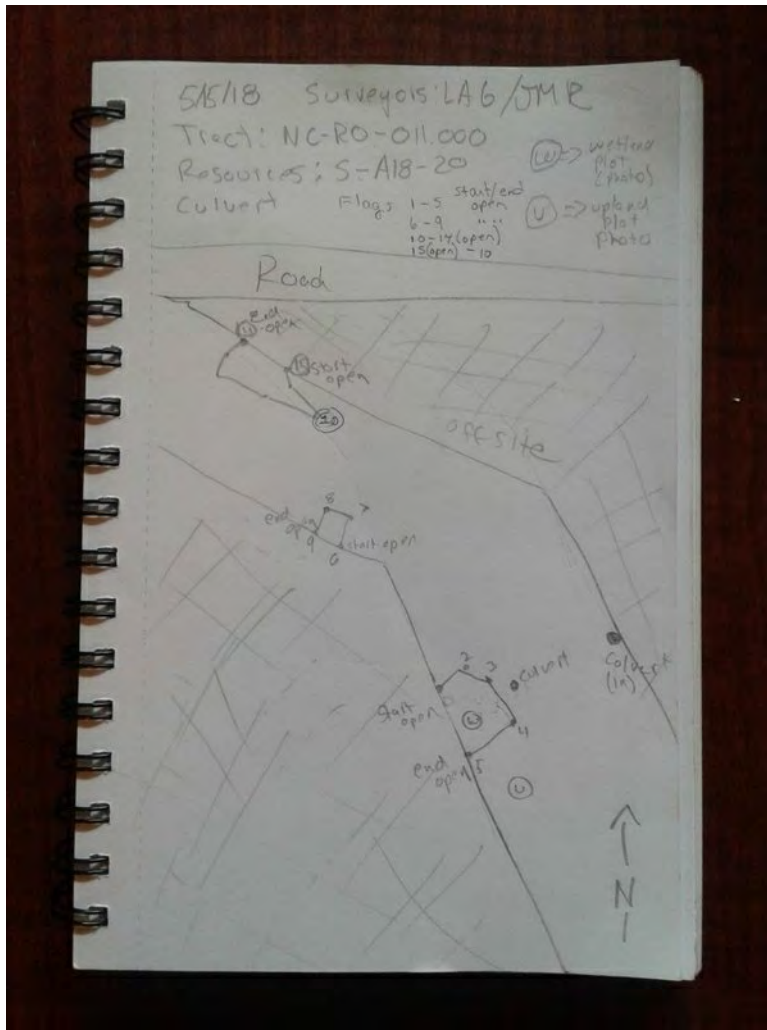
Photo of Sample Plot South



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: Eden, Rockingham Co... Sampling Date: 2018-May-15  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-20\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Convex Slope (%): 2 to 5  
 Subregion (LRR or MLRA): Lat: 36.5040315 Long: -79.6768609 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland, not all three wetland parameters are present. Circumstances are not normal due to mowing of vegetation.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is not met.		

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

Sampling Point: W-A18-20 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	0 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	0 x 1 = 0
7. _____	_____	_____	_____	FACW species	0 x 2 = 0
0 = Total Cover				FAC species	0 x 3 = 0
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				FACU species	60 x 4 = 240
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	20 x 5 = 100
1. _____	_____	_____	_____	Column Totals	80 (A) 340 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>4.3</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	____ 2 - Dominance Test is > 50%	
6. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
0 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Trifolium repens</i>	55	Yes	FACU	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Plantago lanceolata</i>	20	Yes	UPL	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <i>Salvia lyrata</i>	5	No	FACU	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
80 = Total Cover					
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>					
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
0 = Total Cover					
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>					
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					





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: Leaksville, Rockingha... Sampling Date: 2018-May-15  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-18\_PFO-2  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4999373 Long: -79.6737323 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  		
Remarks:  The criterion for wetland hydrology is met.		

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

Sampling Point: W-A18-18\_PFO-2

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <u>Platanus occidentalis</u>	30	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	6 (A)
2. <u>Fraxinus pennsylvanica</u>	10	No	FACW	Total Number of Dominant Species Across All Strata:	7 (B)
3. <u>Liquidambar styraciflua</u>	10	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:	85.7 (A/B)
4. <u>Acer rubrum</u>	5	No	FAC		
5. _____					
6. _____					
7. _____					
	55	= Total Cover		<b>Prevalence Index worksheet:</b>	
	50% of total cover: <u>27.5</u>	20% of total cover: <u>11</u>		<b>Total % Cover of:</b>	<b>Multiply By:</b>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				OBL species	0 x 1 = 0
1. <u>Ulmus americana</u>	10	Yes	FACW	FACW species	90 x 2 = 180
2. <u>Acer negundo</u>	5	Yes	FAC	FAC species	25 x 3 = 75
3. <u>Liquidambar styraciflua</u>	5	Yes	FAC	FACU species	10 x 4 = 40
4. _____				UPL species	0 x 5 = 0
5. _____				Column Totals	125 (A) 295 (B)
6. _____				Prevalence Index = B/A =	<u>2.4</u>
7. _____				<b>Hydrophytic Vegetation Indicators:</b>	
8. _____				____ 1 - Rapid Test for Hydrophytic Vegetation	
9. _____				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
	20	= Total Cover		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
	50% of total cover: <u>10</u>	20% of total cover: <u>4</u>		____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
1. <u>Carex normalis</u>	30	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
2. <u>Carex squarrosa</u>	10	Yes	FACW	<b>Definitions of Four Vegetation Strata:</b>	
3. <u>Lonicera japonica</u>	10	Yes	FACU	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
4. _____				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
5. _____				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
6. _____				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
	50	= Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
	50% of total cover: <u>25</u>	20% of total cover: <u>10</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
	0	= Total Cover			
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					





Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South

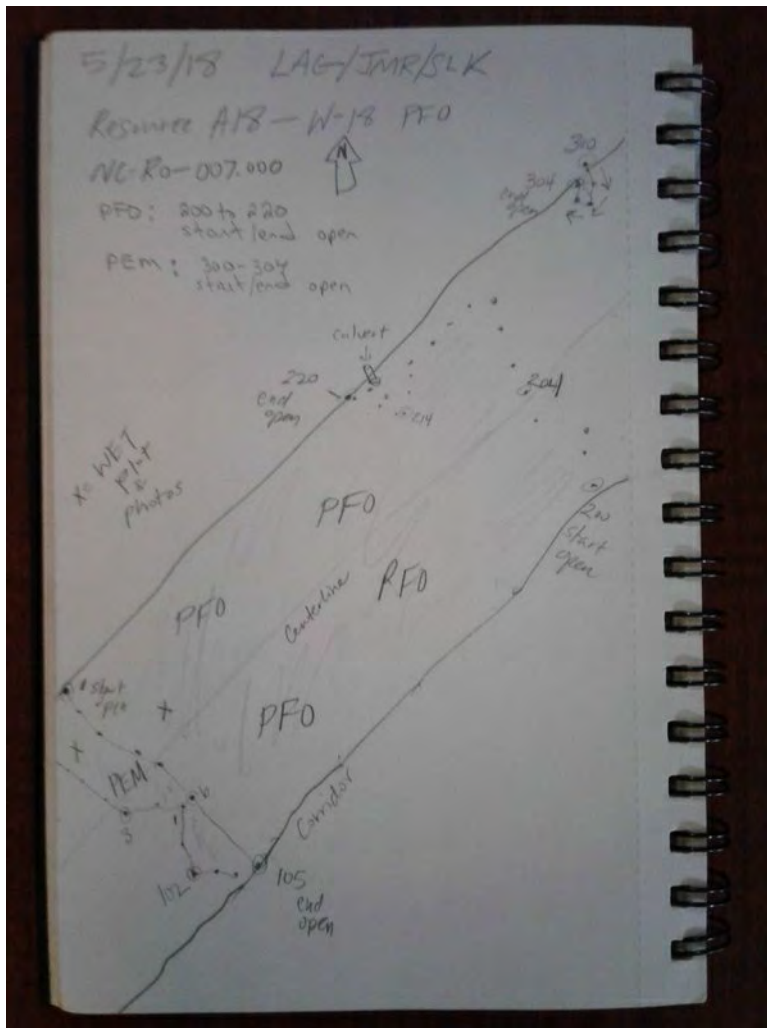


Photo of Sample Plot  
West



Photo of Sample Plot  
Sketch



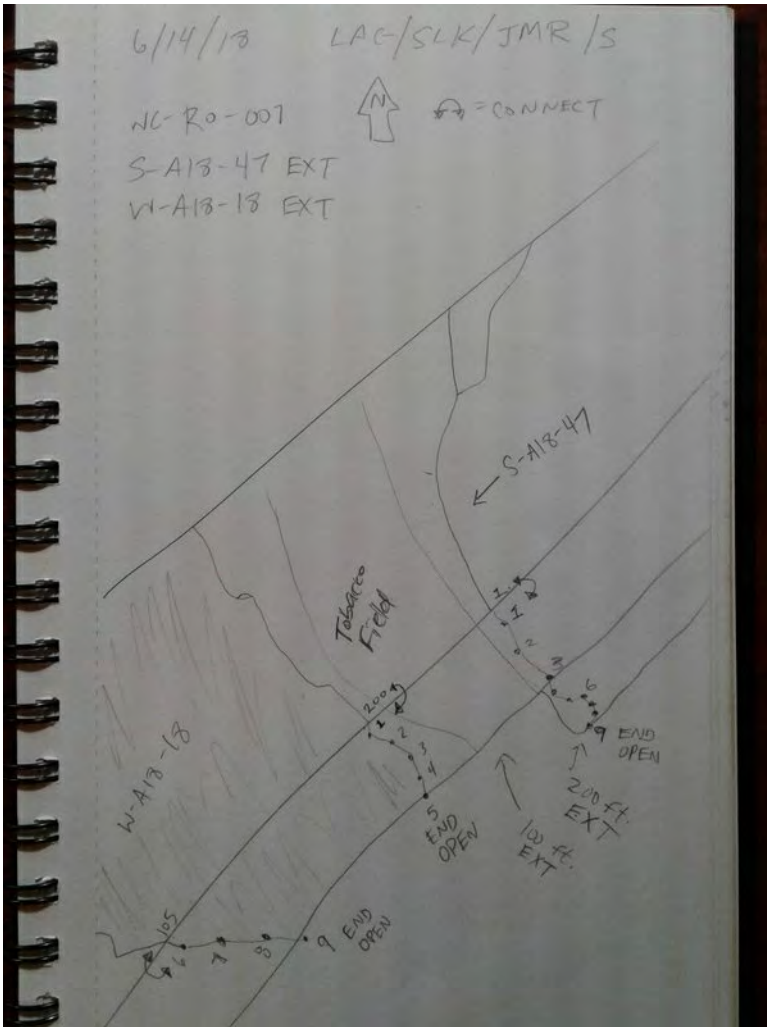




north









**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Leaksville, Rockingha... Sampling Date: 2018-May-15  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-18\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.499619 Long: -79.6744944 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertype is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  _____ _____	
Remarks:  The criterion for wetland hydrology is met.	

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

Sampling Point: W-A18-18 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	5 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	5 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	30 x 1 = 30
7. _____	_____	_____	_____	FACW species	35 x 2 = 70
	0 = Total Cover			FAC species	0 x 3 = 0
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	0 x 4 = 0
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	0 x 5 = 0
1. _____	_____	_____	_____	Column Totals	65 (A) 100 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>1.5</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	✓ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	✓ 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	✓ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	0 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Juncus effusus</u>	25	Yes	FACW	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Alisma subcordatum</u>	10	Yes	OBL	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Carex lurida</u>	10	Yes	OBL	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4. <u>Juncus acuminatus</u>	10	Yes	OBL		
5. <u>Carex scoparia</u>	10	Yes	FACW		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	65 = Total Cover				
	50% of total cover: <u>32.5</u>	20% of total cover: <u>13</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					





Photo of Sample Plot  
North



Photo of Sample Plot  
East





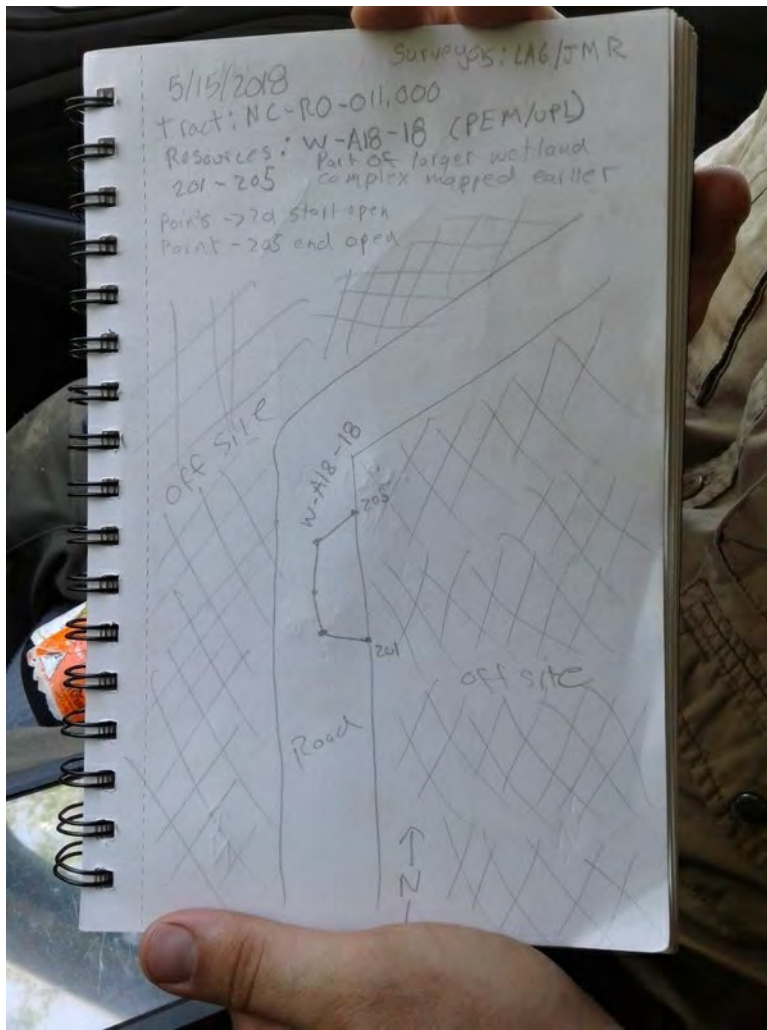
Photo of Sample Plot  
South



Photo of Sample Plot  
West



Photo of Sample Plot  
Sketch





5/15/2018

Surveys; LAG/SMR

Tract: NC-RO-011000

Resources: W-A18-18 (PEM/UP)

Ⓜ => wetland plot (photos)

1 => start open

Ⓢ => upland plot (photos)

6 => End open

Tract: NC-RO-00700

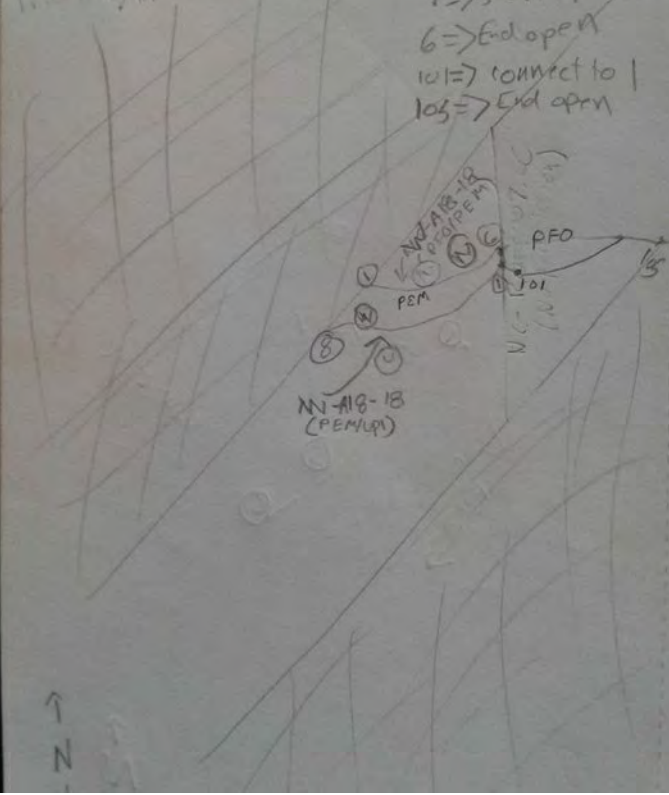
W-A18-18 (PEM/PFO)

1 => start open

6 => End open

101 => connect to 1

103 => End open



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Leaksville, Rockingha... Sampling Date: 2018-May-15  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-18\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 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: 36.4995511 Long: -79.6743513 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, 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-A18-18 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum (Plot size: 30')</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:20%;">Total % Cover of:</th> <th style="width:20%;"></th> <th style="width:20%;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: right;"><u>0</u></td> <td>x 1 =</td> <td style="text-align: right;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: right;"><u>0</u></td> <td>x 2 =</td> <td style="text-align: right;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: right;"><u>0</u></td> <td>x 3 =</td> <td style="text-align: right;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: right;"><u>35</u></td> <td>x 4 =</td> <td style="text-align: right;"><u>140</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: right;"><u>45</u></td> <td>x 5 =</td> <td style="text-align: right;"><u>225</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: right;"><u>80</u></td> <td>(A)</td> <td style="text-align: right;"><u>365</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: right;"><u>4.6</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:	OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>35</u>	x 4 =	<u>140</u>	UPL species	<u>45</u>	x 5 =	<u>225</u>	Column Totals	<u>80</u>	(A)	<u>365</u> (B)	Prevalence Index = B/A =			<u>4.6</u>
	Total % Cover of:		Multiply By:																																	
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
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Column Totals	<u>80</u>	(A)	<u>365</u> (B)																																	
Prevalence Index = B/A =			<u>4.6</u>																																	
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																		
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																		
<b>Herb Stratum (Plot size: 5')</b>																																				
1. <i>Trifolium dubium</i>	30	Yes	UPL																																	
2. <i>Festuca rubra</i>	15	Yes	FACU																																	
3. <i>Trifolium repens</i>	15	Yes	FACU																																	
4. <i>Plantago lanceolata</i>	15	Yes	UPL																																	
5. <i>Salvia lyrata</i>	5	No	FACU																																	
6. <i>Poaceae</i>	5	No	NI																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
<u>85</u> = Total Cover																																				
50% of total cover: <u>42.5</u>		20% of total cover: <u>17</u>																																		
<b>Woody Vine Stratum (Plot size: 30')</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																		
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>   No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC- or drier).																																				





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: Ruffin, Rockingham C... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-40\_PEM-1  
 Investigator(s): James Bolduc, Tony Tredway Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4970342 Long: -79.6767633 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Circumstances are not normal due to agricultural activities.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	



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

Sampling Point: W-B18-40 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>10</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>50</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>100</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>25</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>75</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>85</u></td> <td>(A)</td> <td style="text-align: center;"><u>185</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>2.2</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:	OBL species	<u>10</u>	x 1 =	<u>10</u>	FACW species	<u>50</u>	x 2 =	<u>100</u>	FAC species	<u>25</u>	x 3 =	<u>75</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals	<u>85</u>	(A)	<u>185</u> (B)	Prevalence Index = B/A = <u>2.2</u>			
	Total % Cover of:		Multiply By:																																	
OBL species	<u>10</u>	x 1 =	<u>10</u>																																	
FACW species	<u>50</u>	x 2 =	<u>100</u>																																	
FAC species	<u>25</u>	x 3 =	<u>75</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals	<u>85</u>	(A)	<u>185</u> (B)																																	
Prevalence Index = B/A = <u>2.2</u>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																				
1. <u>Juncus effusus</u>	<u>50</u>	Yes	FACW																																	
2. <u>Toxicodendron radicans</u>	<u>20</u>	Yes	FAC																																	
3. <u>Carex vulpinoidea</u>	<u>10</u>	No	OBL																																	
4. <u>Arthraxon hispidus</u>	<u>5</u>	No	FAC																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
<u>85</u> = Total Cover																																				
50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>																																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																																				
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  <div style="height: 100px;"></div>																																				



Hydrology Photos



Vegetation Photos





Soil Photos



Photo of Sample Plot North





Photo of Sample Plot East



Photo of Sample Plot South

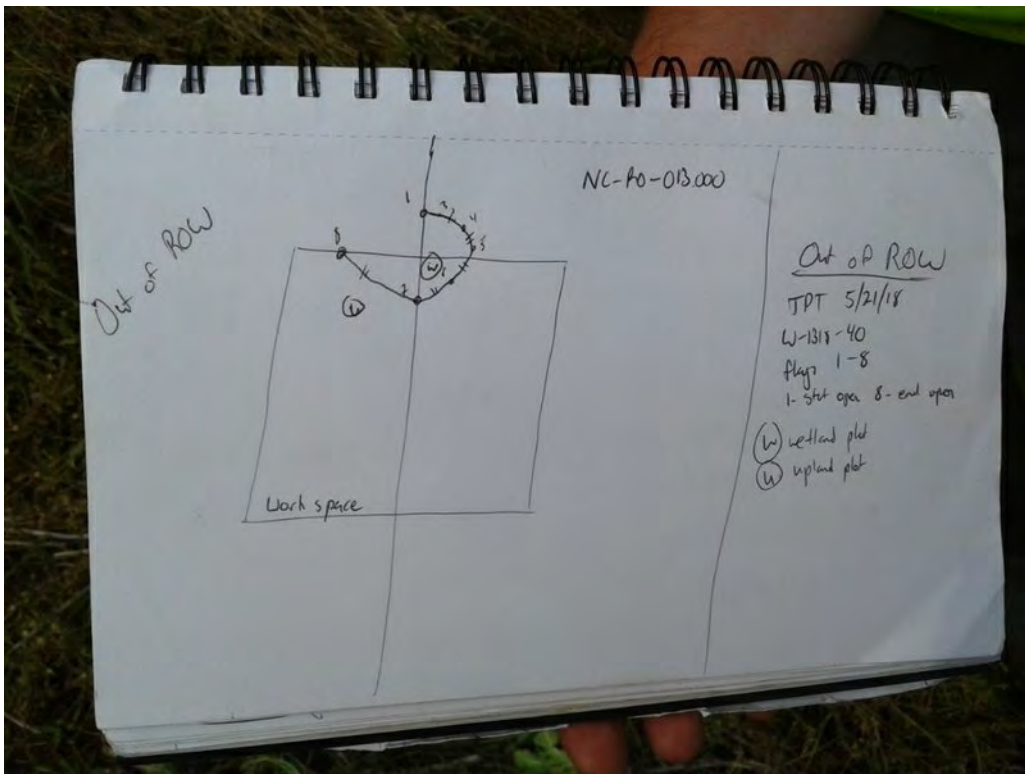




Photo of Sample Plot West



Photo of Sample Plot Sketch





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Ruffin, Rockingham C... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-40\_UPL-1  
 Investigator(s): James Bolduc, Tony Tredway Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): None Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4970874 Long: -79.6772199 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertypes is UPL. Circumstances are not normal due to agricultural activities.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  _____ _____	
Remarks:  _____ _____	







Vegetation Photos



Soil Photos





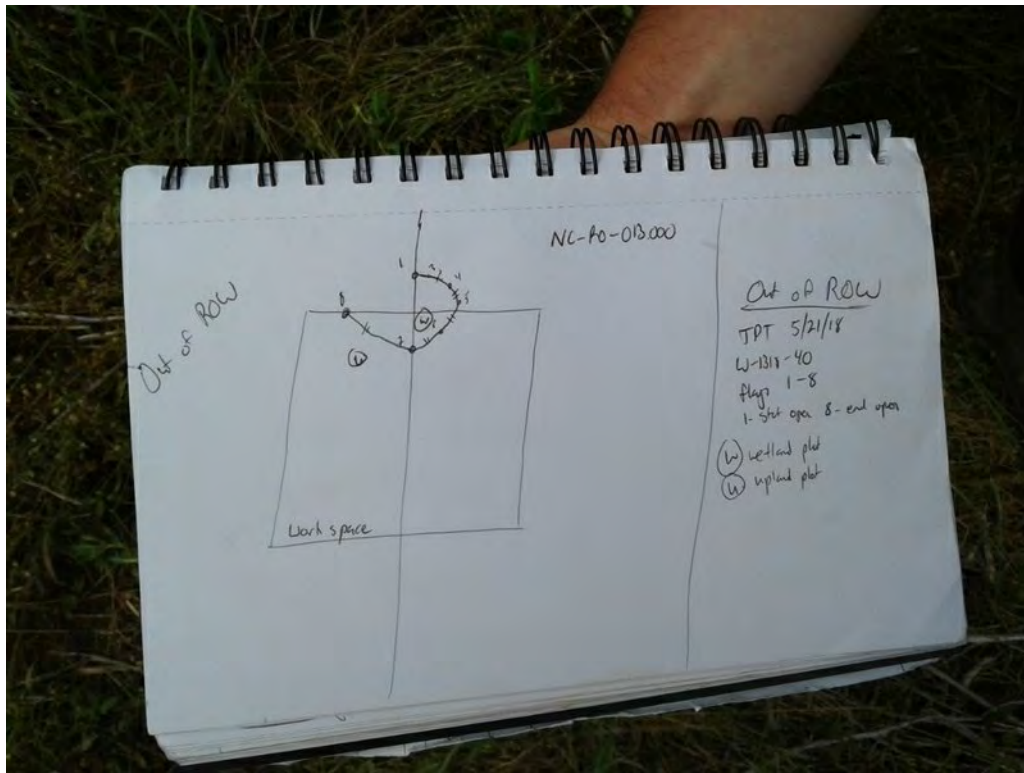
Photo of Sample Plot  
North



Photo of Sample Plot  
South



Photo of Sample Plot Sketch





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Ruffin, Rockingham C... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-39\_PEM-1  
 Investigator(s): James Bolduc, Tony Tredway Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4959728 Long: -79.6780286 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
<b>Remarks:</b>			
Covertypes is PEM. Area is wetland, all three wetland parameters are present. Circumstances are not normal due to agricultural activities.			

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>			
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	5
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	0
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	0
(includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>			
<b>Remarks:</b>  The criterion for wetland hydrology is met.			

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

Sampling Point: W-B18-39 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>100</u></td> <td>x 1 = <u>100</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>100</u></td> <td>(A) <u>100</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1</u></td> </tr> </table> <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>100</u>	x 1 = <u>100</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>100</u>	(A) <u>100</u> (B)	Prevalence Index = B/A = <u>1</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>100</u>	x 1 = <u>100</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>100</u>	(A) <u>100</u> (B)																			
Prevalence Index = B/A = <u>1</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____	<u>0</u> = Total Cover	_____	_____																	
50% of total cover: <u>0</u>	_____	20% of total cover: <u>0</u>	_____																	
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____	<u>0</u> = Total Cover	_____	_____																	
50% of total cover: <u>0</u>	_____	20% of total cover: <u>0</u>	_____																	
<b>Herb Stratum (Plot size: <u>5</u>)</b>																				
1. <i>Ludwigia peploides</i>	100	Yes	OBL																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____	<u>100</u> = Total Cover	_____	_____																	
50% of total cover: <u>50</u>	_____	20% of total cover: <u>20</u>	_____																	
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____	<u>0</u> = 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.)																				





Hydrology Photos





Vegetation Photos



Soil Photos





Photo of Sample Plot  
North



Photo of Sample Plot  
East





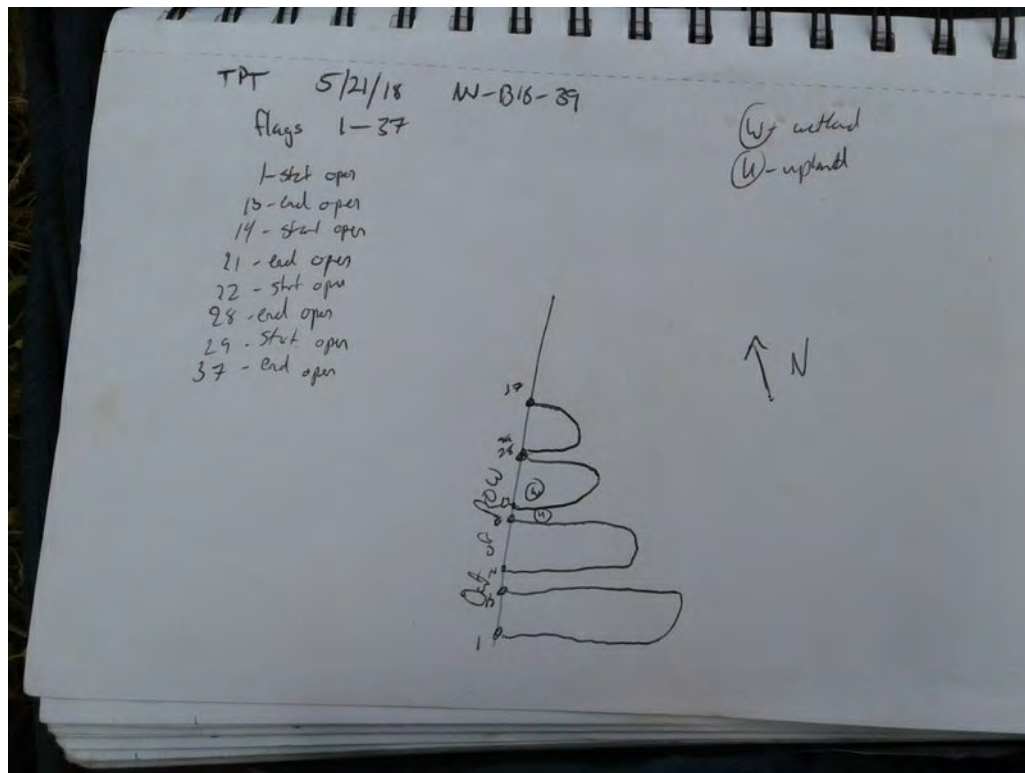
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Ruffin, Rockingham C... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-39\_UPL-1  
 Investigator(s): James Bolduc, Tony Tredway Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Convex Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4960579 Long: -79.6777479 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Circumstances are not normal due to agricultural activities.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  _____ _____ _____	
Remarks:  _____ _____ _____	



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

Sampling Point: W-B18-39 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>																				
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><b>Total % Cover of:</b></td> <td style="text-align: center;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>50</u></td> <td>(A) <u>200</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>50</u>	(A) <u>200</u> (B)	Prevalence Index = B/A = <u>4</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>50</u>	x 4 = <u>200</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>50</u>	(A) <u>200</u> (B)																			
Prevalence Index = B/A = <u>4</u>																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ____ 1 - Rapid Test for Hydrophytic Vegetation ____ 2 - Dominance Test is > 50% ____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																				
1. <i>Erigeron canadensis</i>	50	Yes	FACU																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>0</u> = 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.)																				



Vegetation Photos



Soil Photos





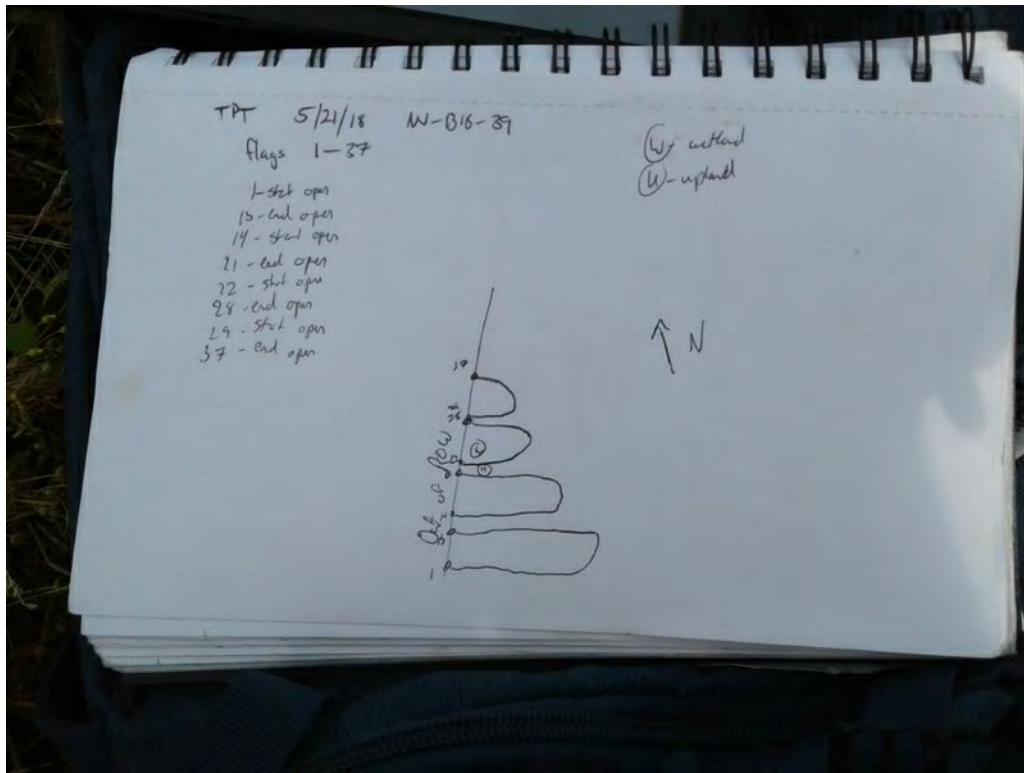
Photo of Sample Plot North



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: Eden, Rockingham Co... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-36\_PFO-1  
 Investigator(s): James Bolduc, Tony Tredway, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): None Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4950912 Long: -79.6786881 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO. area is wetland with some upland inclusions.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met.	



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

Sampling Point: W-B18-36 PFO-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Liquidambar styraciflua</i>	40	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:	7 (A)
2. <i>Fraxinus caroliniana</i>	20	Yes	OBL	Total Number of Dominant Species Across All Strata:	8 (B)
3. <i>Quercus phellos</i>	20	Yes	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:	87.5 (A/B)
4. _____					
5. _____					
6. _____					
7. _____					
	80 = Total Cover				
	50% of total cover: <u>40</u>	20% of total cover: <u>16</u>			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15</u> )				<b>Prevalence Index worksheet:</b>	
1. <i>Liquidambar styraciflua</i>	30	Yes	FAC	<b>Total % Cover of:</b>	<b>Multiply By:</b>
2. <i>Ulmus americana</i>	10	Yes	FACW	OBL species	20 x 1 = 20
3. _____				FACW species	20 x 2 = 40
4. _____				FAC species	125 x 3 = 375
5. _____				FACU species	20 x 4 = 80
6. _____				UPL species	0 x 5 = 0
7. _____				Column Totals	185 (A) 515 (B)
8. _____				Prevalence Index = B/A = <u>2.8</u>	
9. _____					
	40 = Total Cover			<b>Hydrophytic Vegetation Indicators:</b>	
	50% of total cover: <u>20</u>	20% of total cover: <u>8</u>		___ 1- Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
<u>Herb Stratum</u> (Plot size: <u>5</u> )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
1. <i>Toxicodendron radicans</i>	20	Yes	FAC	<b>Definitions of Four Vegetation Strata:</b>	
2. <i>Parthenocissus quinquefolia</i>	15	Yes	FACU	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
3. <i>Rubus hispidus</i>	10	No	FACW	<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
4. <i>Acer rubrum</i>	5	No	FAC	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
5. <i>Lonicera japonica</i>	5	No	FACU	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
	55 = Total Cover			<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
	50% of total cover: <u>27.5</u>	20% of total cover: <u>11</u>			
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )					
1. <i>Toxicodendron radicans</i>	10	Yes	FAC		
2. _____					
3. _____					
4. _____					
5. _____					
	10 = Total Cover				
	50% of total cover: <u>5</u>	20% of total cover: <u>2</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					



Hydrology Photos





Vegetation Photos



Soil Photos





Photo of Sample Plot  
North





Photo of Sample Plot  
East





Photo of Sample Plot  
South



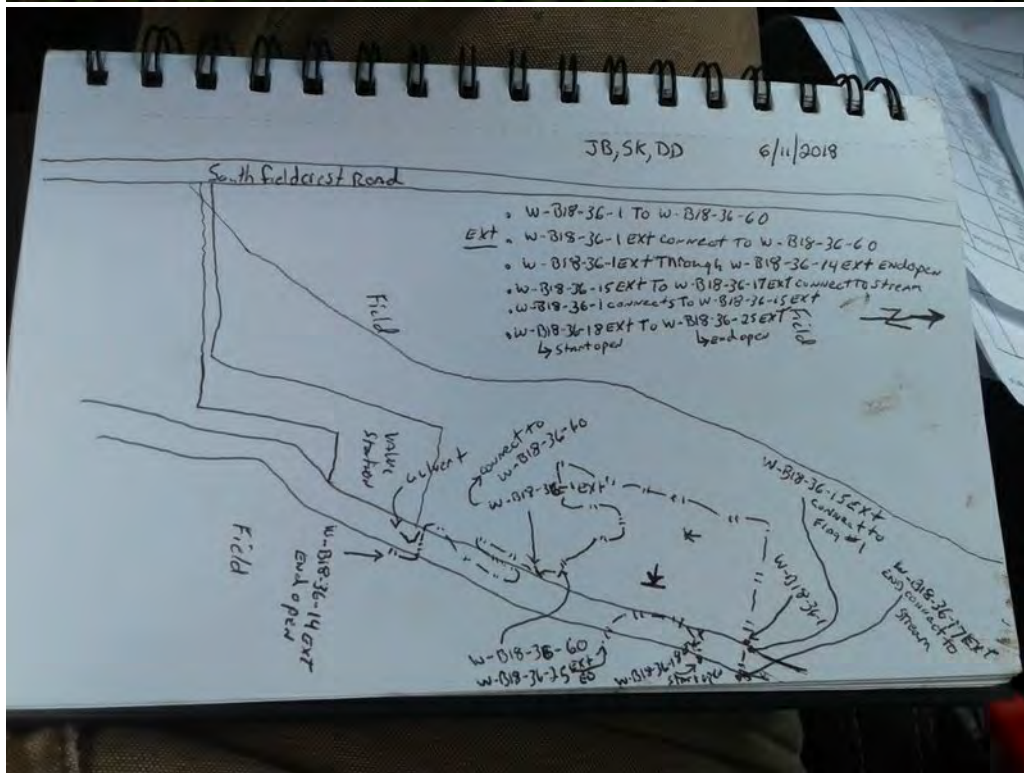
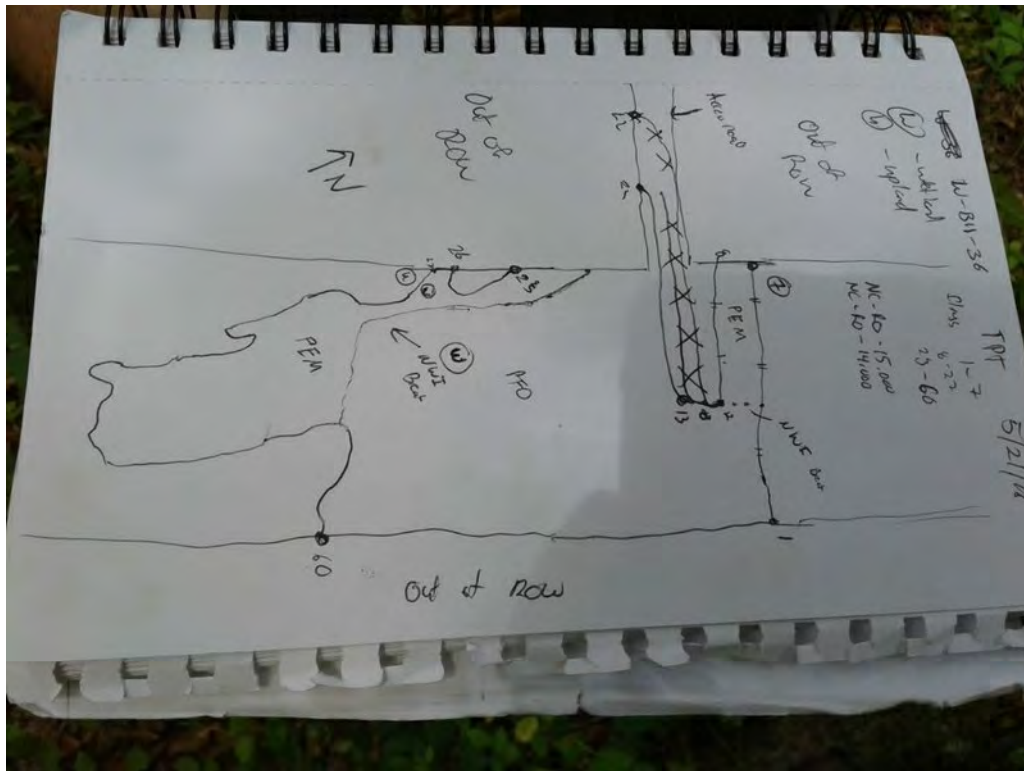


Photo of Sample Plot  
West





Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-36\_PEM-1  
 Investigator(s): James Bolduc, Tony Tredway Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4950179 Long: -79.6792357 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Circumstances are not normal due to agricultural activities.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<u>Secondary Indicators (minimum of two required)</u>
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  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 Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-36\_UPL-1  
 Investigator(s): James Bolduc, Tony Tredway Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Convex Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4949357 Long: -79.6791859 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Circumstances are not normal due to agricultural activities.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  _____ _____	
Remarks:  _____ _____	

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

Sampling Point: W-B18-36 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>																																																				
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>90</u></td> <td>x 4 =</td> <td></td> <td style="text-align: center;"><u>360</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>10</u></td> <td>x 5 =</td> <td></td> <td style="text-align: center;"><u>50</u></td> <td></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>100</u></td> <td>(A)</td> <td></td> <td style="text-align: center;"><u>410</u></td> <td>(B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>4.1</u></td> <td></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:			OBL species	<u>0</u>	x 1 =		<u>0</u>		FACW species	<u>0</u>	x 2 =		<u>0</u>		FAC species	<u>0</u>	x 3 =		<u>0</u>		FACU species	<u>90</u>	x 4 =		<u>360</u>		UPL species	<u>10</u>	x 5 =		<u>50</u>		Column Totals	<u>100</u>	(A)		<u>410</u>	(B)	Prevalence Index = B/A =				<u>4.1</u>	
	Total % Cover of:		Multiply By:																																																	
OBL species	<u>0</u>	x 1 =			<u>0</u>																																															
FACW species	<u>0</u>	x 2 =			<u>0</u>																																															
FAC species	<u>0</u>	x 3 =			<u>0</u>																																															
FACU species	<u>90</u>	x 4 =			<u>360</u>																																															
UPL species	<u>10</u>	x 5 =			<u>50</u>																																															
Column Totals	<u>100</u>	(A)		<u>410</u>	(B)																																															
Prevalence Index = B/A =				<u>4.1</u>																																																
2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
<u>0</u> = Total Cover																																																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																																		
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ____ 1 - Rapid Test for Hydrophytic Vegetation ____ 2 - Dominance Test is > 50% ____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																																
2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
8. _____	_____	_____	_____																																																	
9. _____	_____	_____	_____																																																	
<u>0</u> = Total Cover																																																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																																		
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																																				
1. <i>Trifolium repens</i>	90	Yes	FACU																																																	
2. <i>Trifolium dubium</i>	10	No	UPL																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
8. _____	_____	_____	_____																																																	
9. _____	_____	_____	_____																																																	
10. _____	_____	_____	_____																																																	
11. _____	_____	_____	_____																																																	
<u>100</u> = Total Cover																																																				
50% of total cover: <u>50</u>		20% of total cover: <u>20</u>																																																		
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																																				
1. _____	_____	_____	_____																																																	
2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
<u>0</u> = 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.)																																																				





Vegetation Photos



Soil Photos





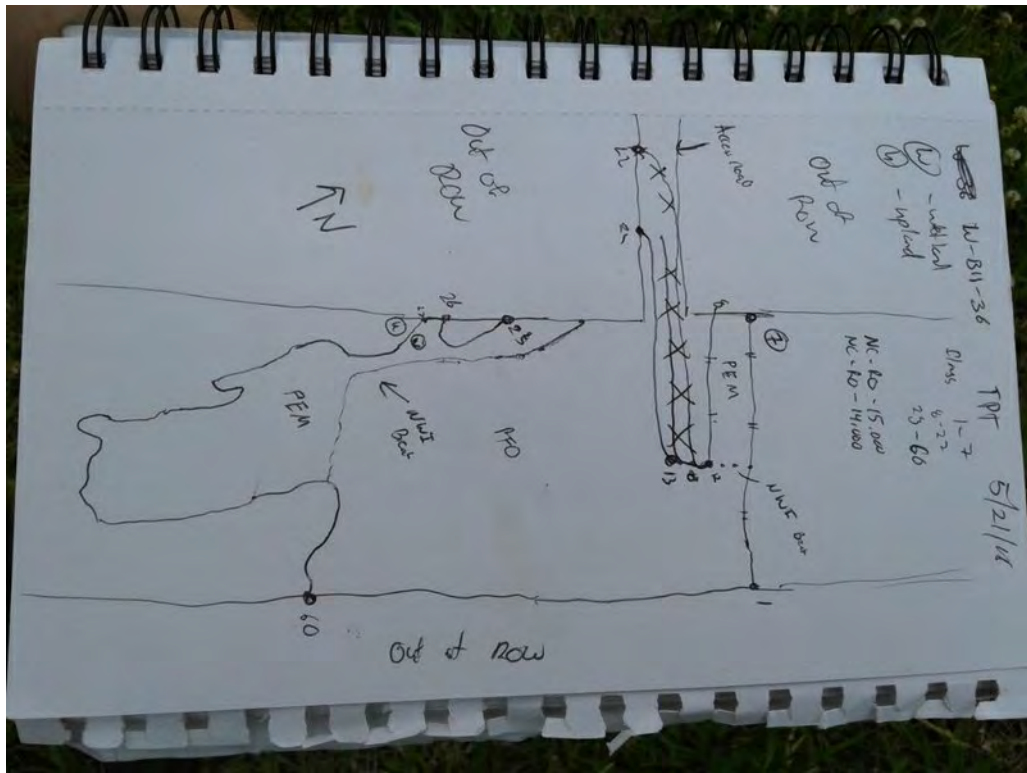
Photo of Sample Plot North



Photo of Sample Plot South



Photo of Sample Plot Sketch





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-37\_PEM-1  
 Investigator(s): James Bolduc, Tony Tredway Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4948368 Long: -79.6793951 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Circumstances are not normal due to agricultural activities.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input checked="" type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met.	

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

Sampling Point: W-B18-37 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____	1 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____	100 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species _____	x 1 = _____
7. _____	_____	_____	_____	FACW species _____	x 2 = _____
_____ = Total Cover				FAC species _____	x 3 = _____
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				FACU species _____	x 4 = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				UPL species _____	x 5 = _____
1. _____	_____	_____	_____	Column Totals _____	(A) _____ (B) _____
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>1.1</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	✓ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	✓ 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	✓ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Eleocharis palustris</u>	90	Yes	OBL	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Carex vulpinoidea</u>	10	No	OBL	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Juncus effusus</u>	10	No	FACW	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4. <u>Carex lurida</u>	5	No	OBL		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
_____ = Total Cover					
50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>					
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover					
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>					
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					





Hydrology Photos



Vegetation Photos





Soil Photos



Photo of Sample Plot North





Photo of Sample Plot East



Photo of Sample Plot South

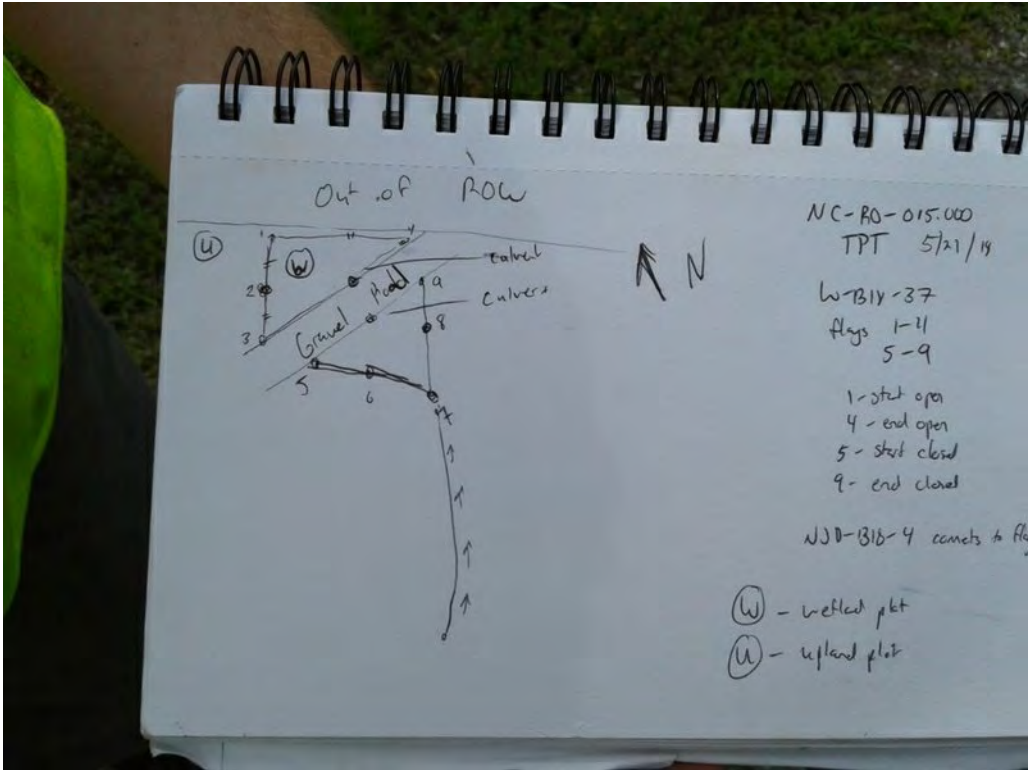




Photo of Sample Plot West



Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-37\_UPL-1  
 Investigator(s): James Bolduc, Tony Tredway Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Convex Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4948247 Long: -79.6794881 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Circumstances are not normal due to agricultural activities.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
Describe Recorded Data (stream gauge, 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-B18-37 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>50</u></td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>200</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>50</u></td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>250</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>100</u></td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;"><u>450</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>4.5</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>0</u>		x 1 =	<u>0</u>	FACW species	<u>0</u>		x 2 =	<u>0</u>	FAC species	<u>0</u>		x 3 =	<u>0</u>	FACU species	<u>50</u>		x 4 =	<u>200</u>	UPL species	<u>50</u>		x 5 =	<u>250</u>	Column Totals	<u>100</u>	(A)		<u>450</u> (B)	Prevalence Index = B/A =				<u>4.5</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>0</u>		x 1 =		<u>0</u>																																							
FACW species	<u>0</u>		x 2 =		<u>0</u>																																							
FAC species	<u>0</u>		x 3 =		<u>0</u>																																							
FACU species	<u>50</u>		x 4 =		<u>200</u>																																							
UPL species	<u>50</u>		x 5 =		<u>250</u>																																							
Column Totals	<u>100</u>	(A)			<u>450</u> (B)																																							
Prevalence Index = B/A =					<u>4.5</u>																																							
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
	<u>0</u> = Total Cover																																											
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																																										
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																												
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
	<u>0</u> = Total Cover																																											
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																																										
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																												
1. <i>Trifolium repens</i>	50	Yes	FACU																																									
2. <i>Trifolium dubium</i>	50	Yes	UPL																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
10. _____	_____	_____	_____																																									
11. _____	_____	_____	_____																																									
	<u>100</u> = Total Cover																																											
	50% of total cover: <u>50</u>	20% of total cover: <u>20</u>																																										
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																												
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
	<u>0</u> = Total Cover																																											
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																																										
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																												

**Hydrophytic Vegetation Indicators:**

\_\_\_\_ 1- Rapid Test for Hydrophytic Vegetation

\_\_\_\_ 2 - Dominance Test is > 50%

\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>

\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No



Vegetation Photos





Soil Photos



Photo of Sample Plot North





Photo of Sample Plot East



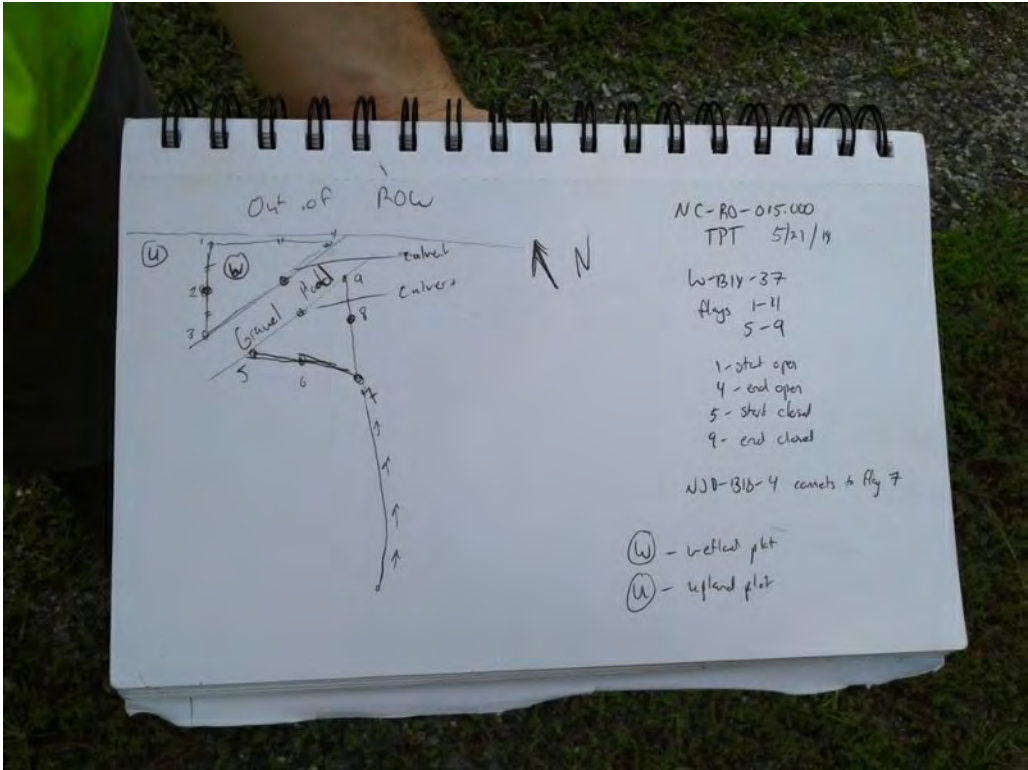
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-19  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-34\_PFO-1  
 Investigator(s): James Bolduc, Tony Tredway, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.493247 Long: -79.680088 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No ___	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No ___
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No ___	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No ___	
Remarks:  Covertypes is PFO. area flooded due to rain event.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1)      ___ True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> 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) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> ___ 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) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input checked="" type="checkbox"/> No ___      Depth (inches): <u>12</u> Water Table Present? Yes <input checked="" type="checkbox"/> No ___      Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No ___      Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No ___
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met.	

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

Sampling Point: W-B18-34 PFO-1

	Absolute % Cover	Dominant Species?	Indicator Status																																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>88.9</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 10%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;">0</td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">45</td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;">90</td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">200</td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;">600</td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;">40</td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">0</td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;">255</td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;">730</td> <td style="text-align: center;">(B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.9</u></td> <td></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:			OBL species	0		x 1 =	0		FACW species	45		x 2 =	90		FAC species	200		x 3 =	600		FACU species	10		x 4 =	40		UPL species	0		x 5 =	0		Column Totals	255	(A)		730	(B)	Prevalence Index = B/A =				<u>2.9</u>	
	Total % Cover of:		Multiply By:																																																	
OBL species	0		x 1 =		0																																															
FACW species	45		x 2 =		90																																															
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Column Totals	255	(A)			730	(B)																																														
Prevalence Index = B/A =					<u>2.9</u>																																															
1. <i>Quercus phellos</i>	40	Yes	FAC																																																	
2. <i>Ulmus americana</i>	30	Yes	FACW																																																	
3. <i>Acer rubrum</i>	10	No	FAC																																																	
4. _____																																																				
5. _____																																																				
6. _____																																																				
7. _____																																																				
80 = Total Cover																																																				
50% of total cover: <u>40</u>		20% of total cover: <u>16</u>																																																		
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																																				
1. <i>Quercus phellos</i>	20	Yes	FAC																																																	
2. <i>Ulmus americana</i>	10	Yes	FACW																																																	
3. <i>Acer rubrum</i>	10	Yes	FAC																																																	
4. <i>Juniperus virginiana</i>	10	Yes	FACU																																																	
5. _____																																																				
6. _____																																																				
7. _____																																																				
8. _____																																																				
9. _____																																																				
50 = Total Cover																																																				
50% of total cover: <u>25</u>		20% of total cover: <u>10</u>																																																		
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																																				
1. <i>Toxicodendron radicans</i>	95	Yes	FAC																																																	
2. <i>Rubus hispidus</i>	5	No	FACW																																																	
3. _____																																																				
4. _____																																																				
5. _____																																																				
6. _____																																																				
7. _____																																																				
8. _____																																																				
9. _____																																																				
10. _____																																																				
11. _____																																																				
100 = Total Cover																																																				
50% of total cover: <u>50</u>		20% of total cover: <u>20</u>																																																		
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																																				
1. <i>Toxicodendron radicans</i>	20	Yes	FAC																																																	
2. <i>Smilax rotundifolia</i>	5	Yes	FAC																																																	
3. _____																																																				
4. _____																																																				
5. _____																																																				
25 = Total Cover																																																				
50% of total cover: <u>12.5</u>		20% of total cover: <u>5</u>																																																		
<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																																																				
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																																																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																																				





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 Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-19  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-34\_UPL-1  
 Investigator(s): James Bolduc, Tony Tredway Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Convex Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4932555 Long: -79.679985 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes ___ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes ___ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes ___ No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes ___ No <input checked="" type="checkbox"/>		
<b>Remarks:</b>			
Covertypes is UPL. Area is upland, not all three wetland parameters are present. Circumstances are not normal due to mowing of vegetation.			

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes ___ No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes ___ No <input checked="" type="checkbox"/>
Water Table Present? Yes ___ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes ___ No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is not met.		







Vegetation Photos



Soil Photos





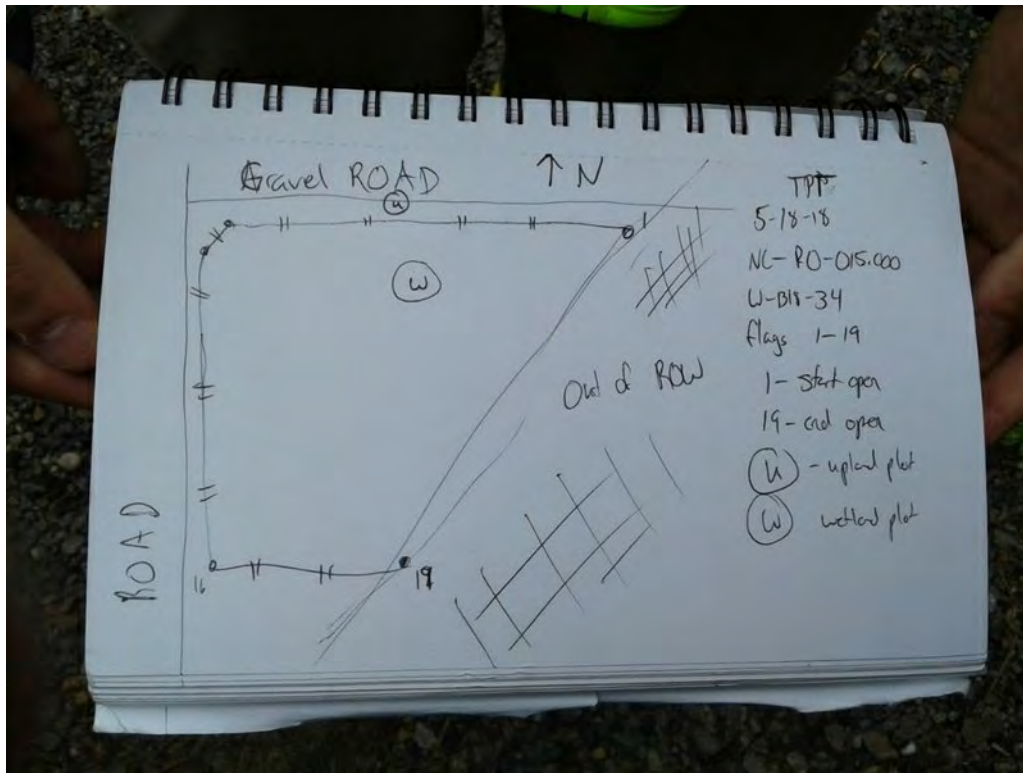
Photo of Sample Plot  
North



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: Eden, Rockingham Co... Sampling Date: 2018-May-24  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-54\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy 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: 36.4902047 Long: -79.6846711 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertype is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
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<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input checked="" type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is met.					



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

Sampling Point: W-A18-54 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: 30')</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>65</u></td> <td>x 1 = <u>65</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>85</u></td> <td>(A) <u>115</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.4</u></td> </tr> </table> <b>Hydrophytic Vegetation Indicators:</b> ___ 1- Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0' ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>65</u>	x 1 = <u>65</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>85</u>	(A) <u>115</u> (B)	Prevalence Index = B/A = <u>1.4</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>65</u>	x 1 = <u>65</u>																			
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Column Totals <u>85</u>	(A) <u>115</u> (B)																			
Prevalence Index = B/A = <u>1.4</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<b>Herb Stratum (Plot size: 5')</b>																				
1. <i>Juncus acuminatus</i>	45	Yes	OBL																	
2. <i>Holcus lanatus</i>	10	Yes	FAC																	
3. <i>Leersia oryzoides</i>	10	Yes	OBL																	
4. <i>Carex lurida</i>	5	No	OBL																	
5. <i>Juncus effusus</i>	5	No	FACW																	
6. <i>Carex stipata</i>	5	No	OBL																	
7. <i>Solidago gigantea</i>	5	No	FACW																	
8. <i>Carex sp.</i>	5	No	NI																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>45</u>		20% of total cover: <u>18</u>																		
<b>Woody Vine Stratum (Plot size: 30')</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = 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.)																				



Photo of Sample Plot North



Photo of Sample Plot East





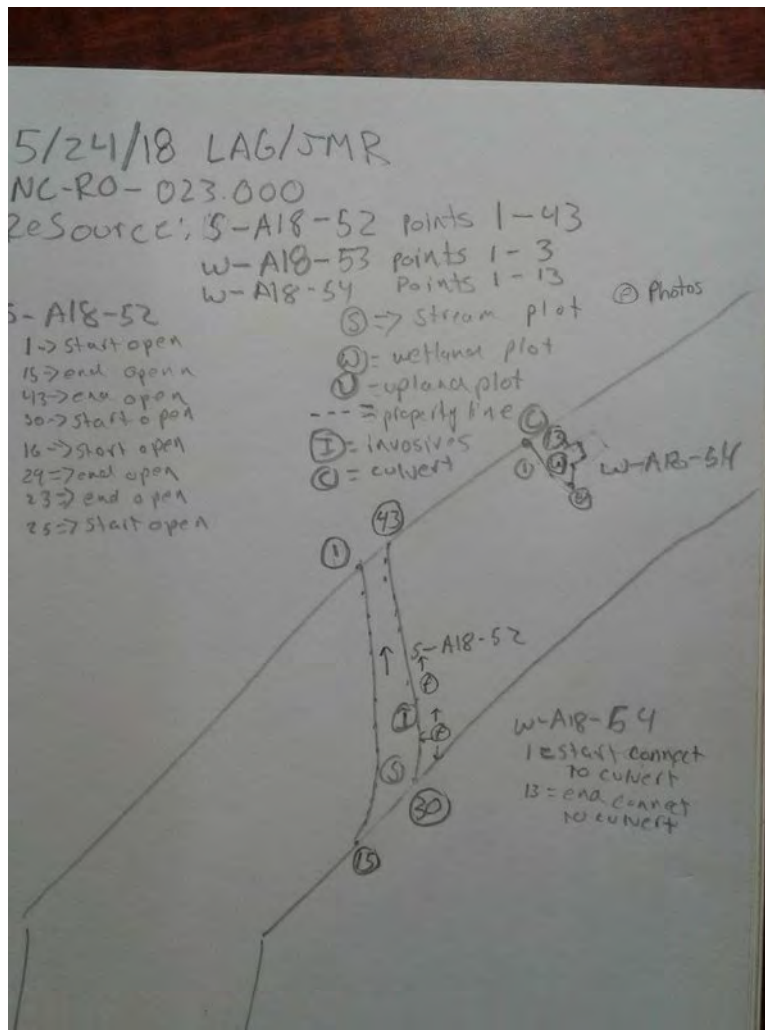
Photo of Sample Plot South



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: Eden, Rockingham Co... Sampling Date: 2018-May-24  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-54\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy Section, Township, Range:  
 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: 36.4907734 Long: -79.6832874 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (includes capillary fringe)	Depth (inches): <u>15</u>	
Describe Recorded Data (stream gauge, 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-A18-54 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: 30')</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;"></th> <th style="width:10%; text-align: center;">Total % Cover of:</th> <th style="width:10%;"></th> <th style="width:10%; text-align: center;">Multiply By:</th> <th style="width:10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>10</u></td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>50</u></td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>150</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>40</u></td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>160</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>100</u></td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;"><u>330</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.3</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>0</u>		x 1 =	<u>0</u>	FACW species	<u>10</u>		x 2 =	<u>20</u>	FAC species	<u>50</u>		x 3 =	<u>150</u>	FACU species	<u>40</u>		x 4 =	<u>160</u>	UPL species	<u>0</u>		x 5 =	<u>0</u>	Column Totals	<u>100</u>	(A)		<u>330</u> (B)	Prevalence Index = B/A =				<u>3.3</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>0</u>		x 1 =		<u>0</u>																																							
FACW species	<u>10</u>		x 2 =		<u>20</u>																																							
FAC species	<u>50</u>		x 3 =		<u>150</u>																																							
FACU species	<u>40</u>		x 4 =		<u>160</u>																																							
UPL species	<u>0</u>		x 5 =		<u>0</u>																																							
Column Totals	<u>100</u>	(A)			<u>330</u> (B)																																							
Prevalence Index = B/A =					<u>3.3</u>																																							
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																																												
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Herb Stratum (Plot size: 5')</b>																																												
1. <u>Campsis radicans</u>	<u>30</u>	Yes	FAC																																									
2. <u>Lonicera japonica</u>	<u>30</u>	Yes	FACU																																									
3. <u>Solidago gigantea</u>	<u>10</u>	No	FACW																																									
4. <u>Toxicodendron radicans</u>	<u>10</u>	No	FAC																																									
5. <u>Rubus allegheniensis</u>	<u>10</u>	No	FACU																																									
6. <u>Juncus tenuis</u>	<u>10</u>	No	FAC																																									
7. _____	_____	_____	_____																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
10. _____	_____	_____	_____																																									
11. _____	_____	_____	_____																																									
<u>100</u> = Total Cover																																												
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>																																												
<b>Woody Vine Stratum (Plot size: 30')</b>																																												
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																												

**Hydrophytic Vegetation Indicators:**

\_\_\_\_ 1- Rapid Test for Hydrophytic Vegetation

\_\_\_\_ 2 - Dominance Test is > 50%

\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>

\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No



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: Eden, Rockingham Co... Sampling Date: 2018-May-24  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-53\_PEM-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4875466 Long: -79.6848797 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		
Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>14</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>10</u>	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
The criterion for wetland hydrology is met.		

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

Sampling Point: W-A18-53 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____	1 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____	100 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species _____	x 1 = _____
7. _____	_____	_____	_____	FACW species _____	x 2 = _____
_____ = Total Cover				FAC species _____	x 3 = _____
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				FACU species _____	x 4 = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species _____	x 5 = _____
1. _____	_____	_____	_____	Column Totals _____	(A) 295 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>2.8</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Microstegium vimineum</u>	85	Yes	FAC	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Dichanthelium clandestinum</u>	5	No	FAC	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Persicaria sagittata</u>	5	No	OBL	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4. <u>Impatiens capensis</u>	5	No	FACW		
5. <u>Boehmeria cylindrica</u>	5	No	FACW		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
_____ = Total Cover					
50% of total cover: <u>52.5</u> 20% of total cover: <u>21</u>					
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover					
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>					
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					





Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South

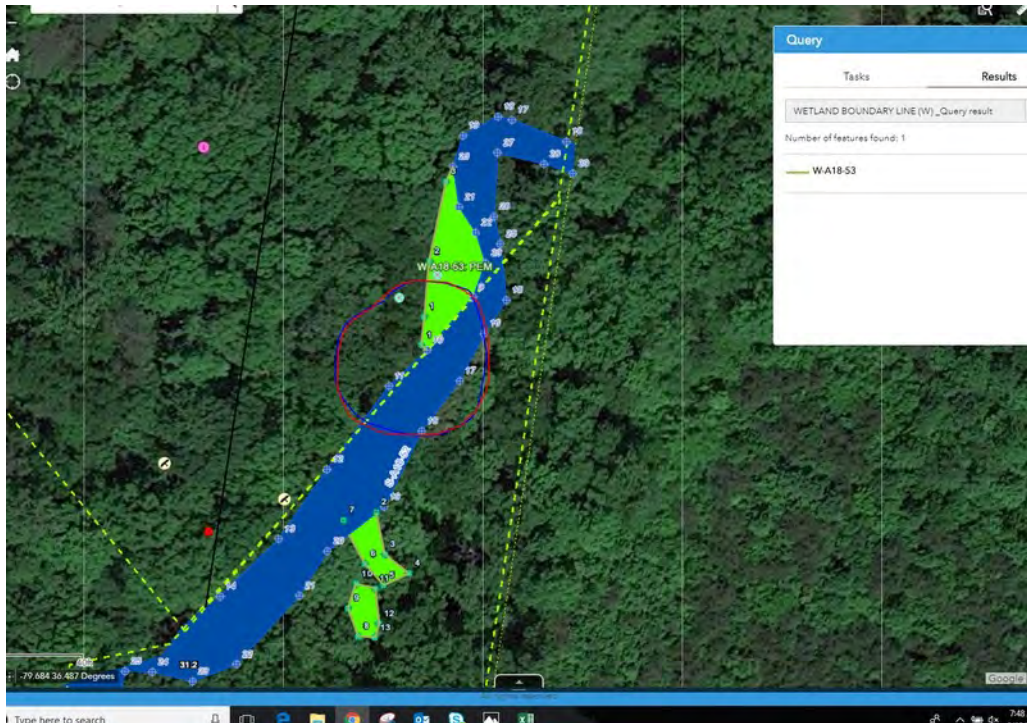
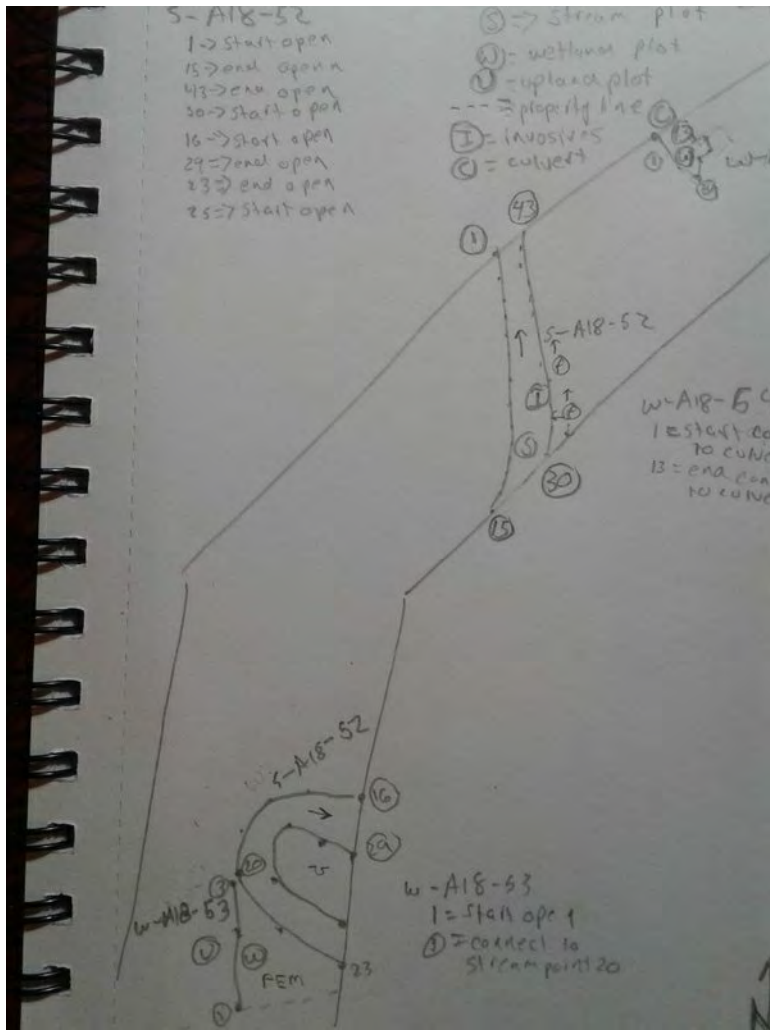


Photo of Sample Plot  
West



Photo of Sample Plot  
Sketch







**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-May-24  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-53\_UPL-1  
 Investigator(s): Laura Giese, Joe Roy, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): flat Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4875009 Long: -79.6849924 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is not met.		

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

Sampling Point: W-A18-53 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	4 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	50 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	0 x 1 = 0
7. _____	_____	_____	_____	FACW species	35 x 2 = 70
	0 = Total Cover			FAC species	25 x 3 = 75
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	25 x 4 = 100
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	0 x 5 = 0
1. <i>Liquidambar styraciflua</i>	25	Yes	FAC	Column Totals	85 (A) 245 (B)
2. <i>Fagus grandifolia</i>	10	Yes	FACU	Prevalence Index = B/A =	<u>2.9</u>
3. <i>Hamamelis virginiana</i>	5	No	FACU	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	___ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	___ 2 - Dominance Test is > 50%	
6. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	40 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>20</u>	20% of total cover: <u>8</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Apios americana</i>	35	Yes	FACW	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Quercus rubra</i>	10	Yes	FACU	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	45 = Total Cover				
	50% of total cover: <u>22.5</u>	20% of total cover: <u>9</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					





Photo of Sample Plot  
North



Photo of Sample Plot  
South



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Sampling Date: 2018-June-08  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-103\_PEM-1  
 Investigator(s): Will Buetow, Jake Brillo, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): hillside seep and floodplain Local relief (concave, convex, none): Concave Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4860202 Long: -79.6853448 Datum: WGS84  
 Soil Map Unit Name: FpE, Fairview-Poplar forest complex, 15 to 35 percent slopes 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>3</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
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-B18-103 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>15</u></td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>65</u></td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>130</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>10</u></td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>90</u></td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;"><u>175</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.9</u></td> </tr> </tbody> </table> <b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Total % Cover of:		Multiply By:		OBL species	<u>15</u>		x 1 =	<u>15</u>	FACW species	<u>65</u>		x 2 =	<u>130</u>	FAC species	<u>10</u>		x 3 =	<u>30</u>	FACU species	<u>0</u>		x 4 =	<u>0</u>	UPL species	<u>0</u>		x 5 =	<u>0</u>	Column Totals	<u>90</u>	(A)		<u>175</u> (B)	Prevalence Index = B/A =				<u>1.9</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>15</u>		x 1 =		<u>15</u>																																							
FACW species	<u>65</u>		x 2 =		<u>130</u>																																							
FAC species	<u>10</u>		x 3 =		<u>30</u>																																							
FACU species	<u>0</u>		x 4 =		<u>0</u>																																							
UPL species	<u>0</u>		x 5 =		<u>0</u>																																							
Column Totals	<u>90</u>	(A)			<u>175</u> (B)																																							
Prevalence Index = B/A =					<u>1.9</u>																																							
1. <i>Fraxinus pennsylvanica</i>	10	Yes	FACW																																									
2. <i>Carpinus caroliniana</i>	5	Yes	FAC																																									
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
<u>15</u> = Total Cover																																												
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>																																												
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																												
1. <i>Fraxinus pennsylvanica</i>	15	Yes	FACW																																									
2. <i>Lindera benzoin</i>	5	Yes	FAC																																									
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
8. _____																																												
9. _____																																												
<u>20</u> = Total Cover																																												
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																																												
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																												
1. <i>Impatiens capensis</i>	30	Yes	FACW																																									
2. <i>Carex crinita</i>	15	Yes	OBL																																									
3. <i>Arisaema triphyllum</i>	10	No	FACW																																									
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
8. _____																																												
9. _____																																												
10. _____																																												
11. _____																																												
<u>55</u> = Total Cover																																												
50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>																																												
<b>Woody Vine Stratum (Plot size: <u>15</u>)</b>																																												
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  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 ≤ 3.00).																																												



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: Eden, Rockingham Sampling Date: 2018-June-08  
 Applicant/Owner: NextEra State: N.C. Sampling Point: W-B18-103\_UPL-1  
 Investigator(s): Will Buetow, Jake Brillo, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): flat Slope (%): 10 to 15  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.486084 Long: -79.685366 Datum: WGS84  
 Soil Map Unit Name: FpE, Fairview-poplar forest complex, 15 to 25 percent slopes 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial 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-B18-103\_UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																									
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16.7</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%; text-align: center;">Total % Cover of:</th> <th style="width: 25%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1 = <u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2 = <u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;">x 3 = <u>75</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>95</u></td> <td style="text-align: center;">x 4 = <u>380</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>120</u></td> <td style="text-align: center;">(A) <u>455</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Prevalence Index = B/A = <u>3.8</u></td> </tr> </tbody> </table>		Total % Cover of:	Multiply By:	OBL species	<u>0</u>	x 1 = <u>0</u>	FACW species	<u>0</u>	x 2 = <u>0</u>	FAC species	<u>25</u>	x 3 = <u>75</u>	FACU species	<u>95</u>	x 4 = <u>380</u>	UPL species	<u>0</u>	x 5 = <u>0</u>	Column Totals	<u>120</u>	(A) <u>455</u> (B)	Prevalence Index = B/A = <u>3.8</u>		
	Total % Cover of:	Multiply By:																										
OBL species	<u>0</u>	x 1 = <u>0</u>																										
FACW species	<u>0</u>	x 2 = <u>0</u>																										
FAC species	<u>25</u>	x 3 = <u>75</u>																										
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UPL species	<u>0</u>	x 5 = <u>0</u>																										
Column Totals	<u>120</u>	(A) <u>455</u> (B)																										
Prevalence Index = B/A = <u>3.8</u>																												
1. <i>Carya glabra</i>	30	Yes	FACU																									
2. <i>Liriodendron tulipifera</i>	20	Yes	FACU																									
3. <i>Acer rubrum</i>	10	No	FAC																									
4. <i>Quercus alba</i>	10	No	FACU																									
5. _____																												
6. _____																												
7. _____																												
<u>70</u> = Total Cover																												
50% of total cover: <u>35</u>		20% of total cover: <u>14</u>																										
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																												
1. <i>Carpinus caroliniana</i>	15	Yes	FAC																									
2. <i>Fagus grandifolia</i>	15	Yes	FACU																									
3. <i>Kalmia latifolia</i>	15	Yes	FACU																									
4. _____																												
5. _____																												
6. _____																												
7. _____																												
8. _____																												
9. _____																												
<u>45</u> = Total Cover																												
50% of total cover: <u>22.5</u>		20% of total cover: <u>9</u>																										
<b>Herb Stratum (Plot size: <u>5</u>)</b>																												
1. <i>Polystichum acrostichoides</i>	5	Yes	FACU																									
2. _____																												
3. _____																												
4. _____																												
5. _____																												
6. _____																												
7. _____																												
8. _____																												
9. _____																												
10. _____																												
11. _____																												
<u>5</u> = Total Cover																												
50% of total cover: <u>2.5</u>		20% of total cover: <u>1</u>																										
<b>Woody Vine Stratum (Plot size: <u>15</u>)</b>																												
1. _____																												
2. _____																												
3. _____																												
4. _____																												
5. _____																												
<u>0</u> = Total Cover																												
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																										
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC- or drier).																												



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 Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-June-08  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-141\_PFO-2  
 Investigator(s): Laura Giese, Jeff Vandever, Nate Renaudin Section, Township, Range:  
 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: 36.4773331 Long: -79.6958008 Datum: WGS84  
 Soil Map Unit Name: Fairview-poplar forest complex (FpE) 15 to 25 percent slopes 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b>			<b>Secondary Indicators (minimum of two required)</b>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is met.					

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

Sampling Point: W-A18-141\_PFO-2

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. <i>Betula nigra</i>	30	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">5 (A)</span>
2. <i>Liriodendron tulipifera</i>	10	Yes	FACU	Total Number of Dominant Species Across All Strata: <span style="float: right;">6 (B)</span>
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">83.3 (A/B)</span>
4. _____				
5. _____				
6. _____				
7. _____				
40 = Total Cover				<b>Prevalence Index worksheet:</b>
50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				<b>Total % Cover of:</b>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				<b>Multiply By:</b>
1. <i>Carpinus caroliniana</i>	40	Yes	FAC	OBL species <span style="float: right;">0 x 1 = 0</span>
2. <i>Liquidambar styraciflua</i>	10	Yes	FAC	FACW species <span style="float: right;">35 x 2 = 70</span>
3. _____				FAC species <span style="float: right;">60 x 3 = 180</span>
4. _____				FACU species <span style="float: right;">10 x 4 = 40</span>
5. _____				UPL species <span style="float: right;">0 x 5 = 0</span>
6. _____				Column Totals <span style="float: right;">105 (A) 290 (B)</span>
7. _____				Prevalence Index = B/A = <u>2.8</u>
8. _____				
9. _____				
50 = Total Cover				<b>Hydrophytic Vegetation Indicators:</b>
50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				____ 1 - Rapid Test for Hydrophytic Vegetation
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
1. <i>Liquidambar styraciflua</i>	10	Yes	FAC	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
2. <i>Circaea alpina</i>	5	Yes	FACW	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
3. _____				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
4. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
15 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
1. _____				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2. _____				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
3. _____				
4. _____				
5. _____				
0 = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				

**Remarks: (Include photo numbers here or on a separate sheet.)**

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).





Soil Photos



Photo of Sample Plot North





Photo of Sample Plot  
East



Photo of Sample Plot  
South

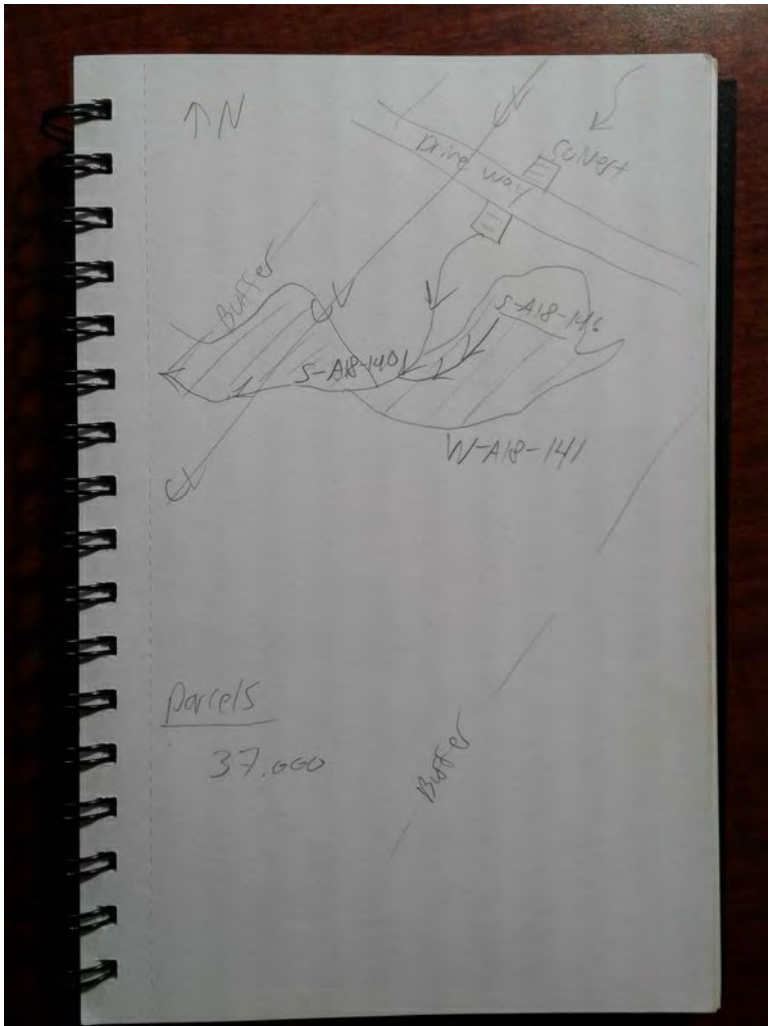




Photo of Sample Plot West



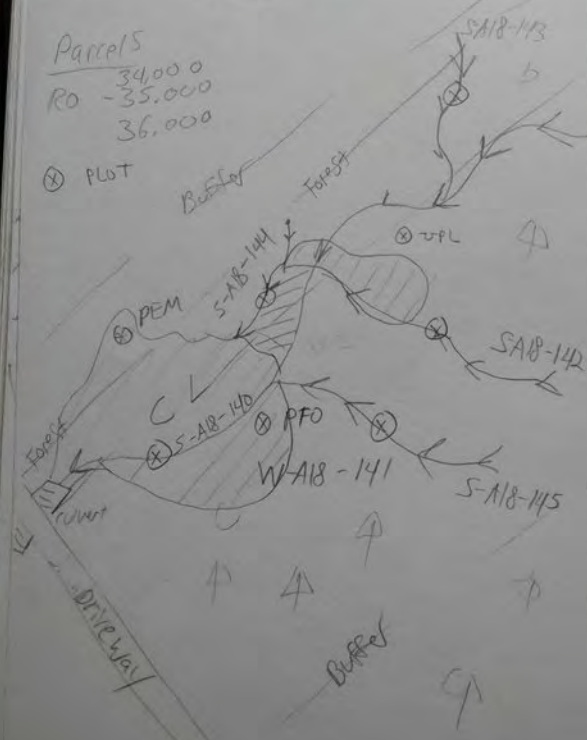
Photo of Sample Plot Sketch



W LAG NPR JOV  
6.8.18

Parcels  
34,000  
RO - 35,000  
36,000

⊗ PLOT



Continued  
on next  
page →

**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-June-08  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-141\_PEM-1  
 Investigator(s): Laura Giese, Jeff Vandever, 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: 36.4771121 Long: -79.6962746 Datum: WGS84  
 Soil Map Unit Name: Fairview-poplar forest complex (FpE) 15 to 25 percent slopes 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		
Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
The criterion for wetland hydrology is met.		



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

Sampling Point: W-A18-141 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>65</u></td> <td>x 1 =</td> <td></td> <td style="text-align: center;"><u>65</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>40</u></td> <td>x 2 =</td> <td></td> <td style="text-align: center;"><u>80</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>105</u></td> <td>(A)</td> <td></td> <td style="text-align: center;"><u>145</u></td> <td>(B)</td> </tr> <tr> <td colspan="6" style="text-align: center;">Prevalence Index = B/A = <u>1.4</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:			OBL species	<u>65</u>	x 1 =		<u>65</u>		FACW species	<u>40</u>	x 2 =		<u>80</u>		FAC species	<u>0</u>	x 3 =		<u>0</u>		FACU species	<u>0</u>	x 4 =		<u>0</u>		UPL species	<u>0</u>	x 5 =		<u>0</u>		Column Totals	<u>105</u>	(A)		<u>145</u>	(B)	Prevalence Index = B/A = <u>1.4</u>					
	Total % Cover of:		Multiply By:																																																	
OBL species	<u>65</u>	x 1 =			<u>65</u>																																															
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FACU species	<u>0</u>	x 4 =			<u>0</u>																																															
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<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																																				
1. _____	_____	_____	_____																																																	
2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
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50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																																				
1. <u>Boehmeria cylindrica</u>	<u>25</u>	Yes	FACW																																																	
2. <u>Leersia oryzoides</u>	<u>25</u>	Yes	OBL																																																	
3. <u>Bidens frondosa</u>	<u>15</u>	Yes	FACW																																																	
4. <u>Panicum sagittata</u>	<u>15</u>	Yes	OBL																																																	
5. <u>Carex lurida</u>	<u>10</u>	No	OBL																																																	
6. <u>Scirpus atrovirens</u>	<u>10</u>	No	OBL																																																	
7. <u>Mimulus ringens</u>	<u>5</u>	No	OBL																																																	
8. _____	_____	_____	_____																																																	
9. _____	_____	_____	_____																																																	
10. _____	_____	_____	_____																																																	
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1. _____	_____	_____	_____																																																	
2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
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<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																																				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																																				



Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South



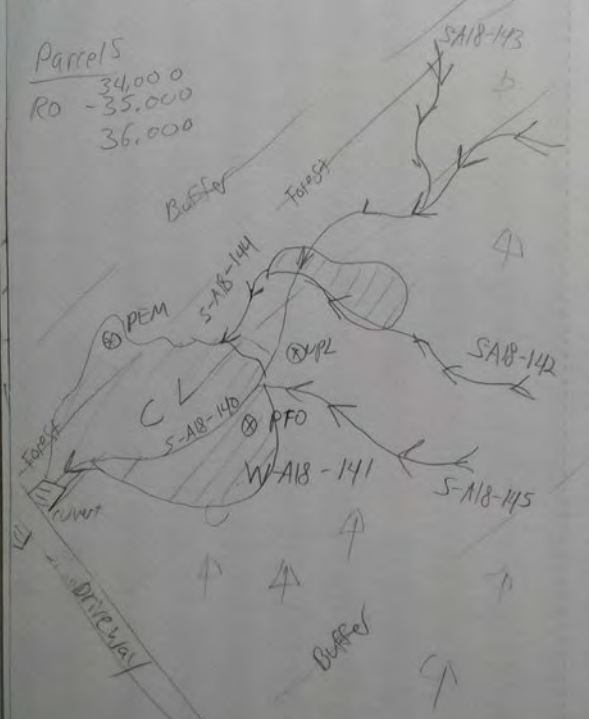
Photo of Sample Plot  
West



Photo of Sample Plot  
Sketch

W LAG NPR JDV  
6.8.18

Parcels  
34,000  
RO - 35,000  
36,000



continued  
on next  
page →





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Eden, Rockingham Co... Sampling Date: 2018-June-08  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-141\_UPL-1  
 Investigator(s): Laura Giese, Jeff Vandever, Nate Renaudin Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Convex Slope (%): 5 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4757663 Long: -79.6900303 Datum: WGS84  
 Soil Map Unit Name: Fairview-Poplar forest complex (FpE) 15 to 25 percent slopes 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, 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-A18-141 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Liriodendron tulipifera</i>	30	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	0 (A)
2. <i>Quercus alba</i>	30	Yes	FACU	Total Number of Dominant Species Across All Strata:	6 (B)
3. <i>Fagus grandifolia</i>	5	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>65</u> = Total Cover	<b>Total % Cover of:</b>
6. _____	_____	_____	_____	50% of total cover: <u>32.5</u>	<b>Multiply By:</b>
7. _____	_____	_____	_____	20% of total cover: <u>13</u>	OBL species <u>0</u> x 1 = <u>0</u>
				FACW species <u>0</u> x 2 = <u>0</u>	
				FAC species <u>0</u> x 3 = <u>0</u>	
				FACU species <u>100</u> x 4 = <u>400</u>	
				UPL species <u>5</u> x 5 = <u>25</u>	
				Column Totals	<u>105</u> (A) <u>425</u> (B)
				Prevalence Index = B/A = <u>4</u>	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. <i>Fagus grandifolia</i>	15	Yes	FACU	____ 1 - Rapid Test for Hydrophytic Vegetation	
2. <i>Carya glabra</i>	5	Yes	FACU	____ 2 - Dominance Test is > 50%	
3. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
4. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
6. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
7. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>	
8. _____	_____	_____	_____	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
9. _____	_____	_____	_____	<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
10. _____	_____	_____	_____	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
11. _____	_____	_____	_____	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
				____ 20 = Total Cover	
				50% of total cover: <u>10</u>	
				20% of total cover: <u>4</u>	
<b>Herb Stratum</b> (Plot size: <u>5</u> )					
1. <i>Polystichum acrostichoides</i>	15	Yes	FACU		
2. <i>Galium circaezans</i>	5	Yes	UPL		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
				____ 20 = Total Cover	
				50% of total cover: <u>10</u>	
				20% of total cover: <u>4</u>	
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
				____ 0 = Total Cover	
				50% of total cover: <u>0</u>	
				20% of total cover: <u>0</u>	
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					





Photo of Sample Plot  
North



Photo of Sample Plot  
East



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Wentworth, Rockingh... Sampling Date: 2018-June-11  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-149\_PEM-1  
 Investigator(s): Laura Giese, Jake Brillo, Joseph Roy Section, Township, Range:  
 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: 36.4745011 Long: -79.698248 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Remarks:</b>			
Covertypes is PEM. Area is wetland, all three wetland parameters are present. Area has been harvested recently .			

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>			
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
(includes capillary fringe)			
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>			
<b>Remarks:</b>  The criterion for wetland hydrology is met.			

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

Sampling Point: W-A18-149 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;"></td> <td style="width:20%; text-align: center;"><b>Total % Cover of:</b></td> <td style="width:20%;"></td> <td style="width:20%; text-align: center;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species</td> <td style="text-align: center;"><u>20</u></td> <td></td> <td style="text-align: center;">x 1 = <u>20</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>75</u></td> <td></td> <td style="text-align: center;">x 2 = <u>150</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td></td> <td style="text-align: center;">x 3 = <u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 4 = <u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>100</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>185</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>1.9</u></td> </tr> </table>		<b>Total % Cover of:</b>		<b>Multiply By:</b>	OBL species	<u>20</u>		x 1 = <u>20</u>	FACW species	<u>75</u>		x 2 = <u>150</u>	FAC species	<u>5</u>		x 3 = <u>15</u>	FACU species	<u>0</u>		x 4 = <u>0</u>	UPL species	<u>0</u>		x 5 = <u>0</u>	Column Totals	<u>100</u>	(A)	<u>185</u> (B)	Prevalence Index = B/A = <u>1.9</u>			
	<b>Total % Cover of:</b>		<b>Multiply By:</b>																																	
OBL species	<u>20</u>		x 1 = <u>20</u>																																	
FACW species	<u>75</u>		x 2 = <u>150</u>																																	
FAC species	<u>5</u>		x 3 = <u>15</u>																																	
FACU species	<u>0</u>		x 4 = <u>0</u>																																	
UPL species	<u>0</u>		x 5 = <u>0</u>																																	
Column Totals	<u>100</u>	(A)	<u>185</u> (B)																																	
Prevalence Index = B/A = <u>1.9</u>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																				
1. <i>Platanus occidentalis</i>	5	Yes	FACW																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
<u>5</u> = Total Cover																																				
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																				
1. <i>Juncus effusus</i>	50	Yes	FACW																																	
2. <i>Carex lurida</i>	15	No	OBL																																	
3. <i>Boehmeria cylindrica</i>	10	No	FACW																																	
4. <i>Platanus occidentalis</i>	10	No	FACW																																	
5. <i>Mimulus ringens</i>	5	No	OBL																																	
6. <i>Dichanthelium clandestinum</i>	5	No	FAC																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
<u>95</u> = Total Cover																																				
50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u>																																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																				





Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South

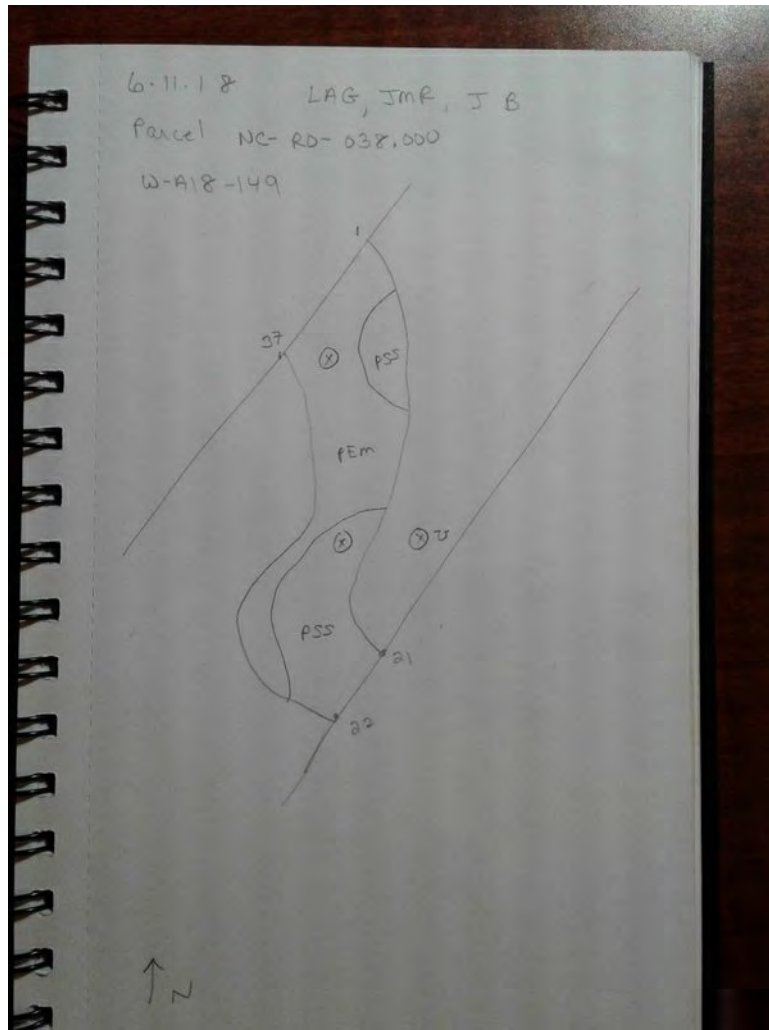


Photo of Sample Plot  
West





Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Wentworth, Rockingh... Sampling Date: 2018-June-11  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-149\_PSS-2  
 Investigator(s): Laura Giese, Jake Brillo, Joseph Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4738822 Long: -79.6984341 Datum: WGS84  
 Soil Map Unit Name: Fairview-poplar forest complex 15-25% slopes 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Remarks:</b>			
Covertype is PSS. Area is wetland, all three wetland parameters are present. Area has been harvested recently .			

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>			
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)			
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>			
<b>Remarks:</b>  The criterion for wetland hydrology is met.			

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

Sampling Point: W-A18-149 PSS-2

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>105</u></td> <td>x 2 = <u>210</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>145</u></td> <td>(A) <u>280</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.9</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>105</u>	x 2 = <u>210</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>145</u>	(A) <u>280</u> (B)	Prevalence Index = B/A = <u>1.9</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>30</u>	x 1 = <u>30</u>																			
FACW species <u>105</u>	x 2 = <u>210</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>145</u>	(A) <u>280</u> (B)																			
Prevalence Index = B/A = <u>1.9</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																				
1. <i>Salix nigra</i>	30	Yes	OBL																	
2. <i>Platanus occidentalis</i>	30	Yes	FACW																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>60</u> = Total Cover																				
50% of total cover: <u>30</u>		20% of total cover: <u>12</u>																		
<b>Herb Stratum (Plot size: <u>5</u>)</b>																				
1. <i>Juncus effusus</i>	65	Yes	FACW																	
2. <i>Boehmeria cylindrica</i>	10	No	FACW																	
3. <i>Rubus allegheniensis</i>	10	No	FACU																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>85</u> = Total Cover																				
50% of total cover: <u>42.5</u>		20% of total cover: <u>17</u>																		
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																				



SOIL

Sampling Point: W-A18-149\_PSS-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0 - 11	10YR 4/2	90	7.5YR 4/6	10	C	M	Clay Loam
11 - 16	5Y 5/2	95	7.5YR 4/6	5	C	M	Loamy Sand
16 - 20	2.5Y 5/3	96	2.5Y 5/2	2	C	M	Loamy Sand
16 - 20			2.5Y 7/4	2	C	M	

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>None</u> Depth (inches): _____	Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
--	--

Remarks:

A positive indication of hydric soil was observed.

Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South

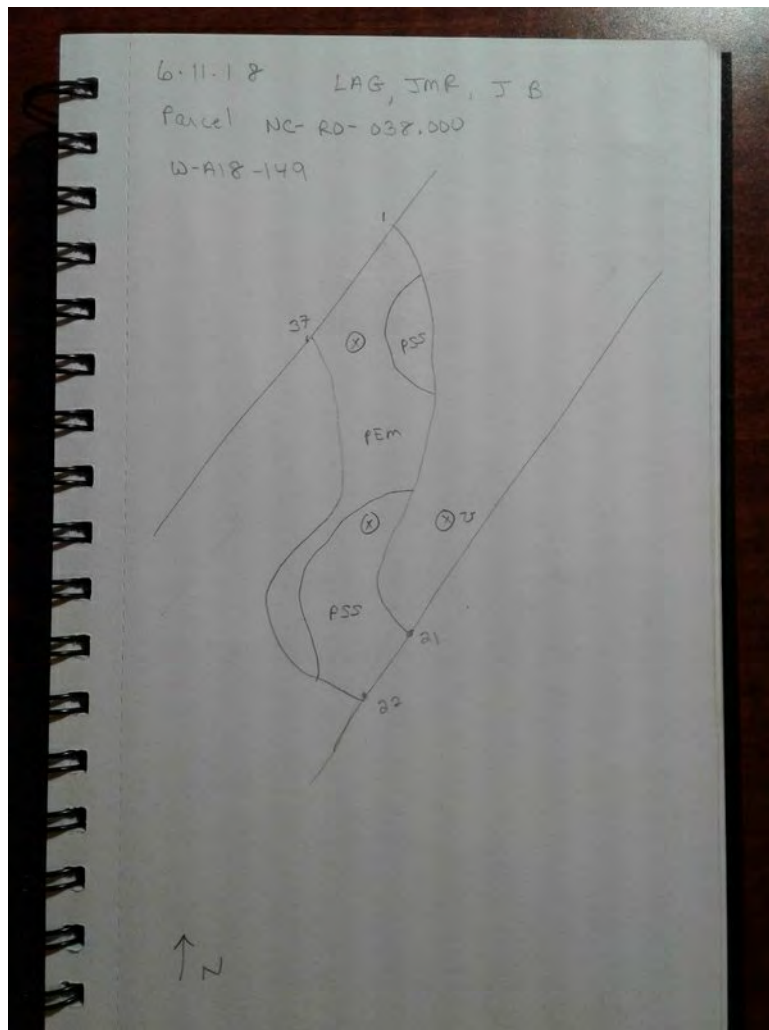


Photo of Sample Plot  
West





Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Wentworth, Rockingh... Sampling Date: 2018-June-11  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-149\_UPL-1  
 Investigator(s): Laura Giese, Jake Brillo, Joseph Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Convex Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4740656 Long: -79.6980296 Datum: WGS84  
 Soil Map Unit Name: Fairview-poplar forest complex (FrE2) 15 to 25 percent slopes, moderately eroded 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland based on absence of hydric soils and wetland hydrology .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one is required; check all that apply)</b>		<b>Secondary Indicators (minimum of two required)</b>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is not met.		

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

Sampling Point: W-A18-149 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																									
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%; text-align: center;">Total % Cover of:</th> <th style="width: 25%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1 = <u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;">x 2 = <u>30</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>105</u></td> <td style="text-align: center;">x 3 = <u>315</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>35</u></td> <td style="text-align: center;">x 4 = <u>140</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>155</u></td> <td style="text-align: center;">(A) <u>485</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Prevalence Index = B/A = <u>3.1</u></td> </tr> </tbody> </table> <b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		Total % Cover of:	Multiply By:	OBL species	<u>0</u>	x 1 = <u>0</u>	FACW species	<u>15</u>	x 2 = <u>30</u>	FAC species	<u>105</u>	x 3 = <u>315</u>	FACU species	<u>35</u>	x 4 = <u>140</u>	UPL species	<u>0</u>	x 5 = <u>0</u>	Column Totals	<u>155</u>	(A) <u>485</u> (B)	Prevalence Index = B/A = <u>3.1</u>		
	Total % Cover of:	Multiply By:																										
OBL species	<u>0</u>	x 1 = <u>0</u>																										
FACW species	<u>15</u>	x 2 = <u>30</u>																										
FAC species	<u>105</u>	x 3 = <u>315</u>																										
FACU species	<u>35</u>	x 4 = <u>140</u>																										
UPL species	<u>0</u>	x 5 = <u>0</u>																										
Column Totals	<u>155</u>	(A) <u>485</u> (B)																										
Prevalence Index = B/A = <u>3.1</u>																												
1. <i>Acer negundo</i>	25	Yes	FAC																									
2. <i>Platanus occidentalis</i>	15	Yes	FACW																									
3. _____																												
4. _____																												
5. _____																												
6. _____																												
7. _____																												
<u>40</u> = Total Cover																												
50% of total cover: <u>20</u>		20% of total cover: <u>8</u>																										
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																												
1. <i>Asimina triloba</i>	45	Yes	FAC																									
2. _____																												
3. _____																												
4. _____																												
5. _____																												
6. _____																												
7. _____																												
8. _____																												
9. _____																												
<u>45</u> = Total Cover																												
50% of total cover: <u>22.5</u>		20% of total cover: <u>9</u>																										
<b>Herb Stratum (Plot size: <u>5</u>)</b>																												
1. <i>Lonicera japonica</i>	35	Yes	FACU																									
2. <i>Verbesina alternifolia</i>	15	Yes	FAC																									
3. <i>Lindera benzoin</i>	10	No	FAC																									
4. <i>Microstegium vimineum</i>	10	No	FAC																									
5. _____																												
6. _____																												
7. _____																												
8. _____																												
9. _____																												
10. _____																												
11. _____																												
<u>70</u> = Total Cover																												
50% of total cover: <u>35</u>		20% of total cover: <u>14</u>																										
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																												
1. _____																												
2. _____																												
3. _____																												
4. _____																												
5. _____																												
<u>0</u> = Total Cover																												
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																										
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																												





Photo of Sample Plot  
North



Photo of Sample Plot  
East



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Wentworth, Rockingh... Sampling Date: 2018-June-11  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-152\_PEM-2  
 Investigator(s): Laura Giese, Jake Brillo, Joseph Roy Section, Township, Range:  
 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: 36.4697744 Long: -79.7025626 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>			
<u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)		
<b>Field Observations:</b>			
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:  The criterion for wetland hydrology is met.			



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

Sampling Point: W-A18-152 PEM-2

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>30</u></td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>40</u></td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>80</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>75</u></td> <td></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>125</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.7</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>30</u>		x 1 =	<u>30</u>	FACW species	<u>40</u>		x 2 =	<u>80</u>	FAC species	<u>5</u>		x 3 =	<u>15</u>	FACU species	<u>0</u>		x 4 =	<u>0</u>	UPL species	<u>0</u>		x 5 =	<u>0</u>	Column Totals	<u>75</u>		(A)	<u>125</u> (B)	Prevalence Index = B/A =				<u>1.7</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>30</u>		x 1 =		<u>30</u>																																							
FACW species	<u>40</u>		x 2 =		<u>80</u>																																							
FAC species	<u>5</u>		x 3 =		<u>15</u>																																							
FACU species	<u>0</u>		x 4 =		<u>0</u>																																							
UPL species	<u>0</u>		x 5 =		<u>0</u>																																							
Column Totals	<u>75</u>		(A)		<u>125</u> (B)																																							
Prevalence Index = B/A =					<u>1.7</u>																																							
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																												
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
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<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																												
1. <i>Scirpus atrovirens</i>	30	Yes	OBL																																									
2. <i>Symphotrichum lanceolatum</i>	20	Yes	FACW																																									
3. <i>Juncus effusus</i>	10	No	FACW																																									
4. <i>Carex scoparia</i>	10	No	FACW																																									
5. <i>Dichanthelium clandestinum</i>	5	No	FAC																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
10. _____	_____	_____	_____																																									
11. _____	_____	_____	_____																																									
<u>75</u> = Total Cover																																												
50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>																																												
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																												
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																												
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																												



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: Wentworth, Rockingh... Sampling Date: 2018-June-11  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-152\_PFO-1  
 Investigator(s): Laura Giese, Jake Brillo, Joseph Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4694328 Long: -79.7018114 Datum: WGS84  
 Soil Map Unit Name: Siloam sandy loam (SmF) 10 to 45 percent slopes 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	15		
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	9		
(includes capillary fringe)			Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is met.					



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

Sampling Point: W-A18-152\_PFO-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Platanus occidentalis</i>	25	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	5 (A)
2. <i>Betula nigra</i>	10	Yes	FACW	Total Number of Dominant Species Across All Strata:	5 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____				<b>Prevalence Index worksheet:</b>	
5. _____				<u>35</u> = Total Cover	
6. _____				50% of total cover: <u>17.5</u>	20% of total cover: <u>7</u>
7. _____				<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )	
1. <i>Liquidambar styraciflua</i>	10	Yes	FAC		
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
				<u>10</u> = Total Cover	
				50% of total cover: <u>5</u>	20% of total cover: <u>2</u>
<b>Herb Stratum</b> (Plot size: <u>5</u> )					
1. <i>Microstegium vimineum</i>	35	Yes	FAC		
2. <i>Glyceria striata</i>	15	Yes	OBL		
3. <i>Amphicarpaea bracteata</i>	10	No	FAC		
4. <i>Persicaria maculosa</i>	10	No	FACW		
5. <i>Circaea canadensis</i>	5	No	FACU		
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
				<u>75</u> = Total Cover	
				50% of total cover: <u>37.5</u>	20% of total cover: <u>15</u>
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
				<u>0</u> = Total Cover	
				50% of total cover: <u>0</u>	20% of total cover: <u>0</u>
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤ 3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

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**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

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**Hydrophytic Vegetation Present?** Yes  No



Photo of Sample Plot  
North



Photo of Sample Plot  
East





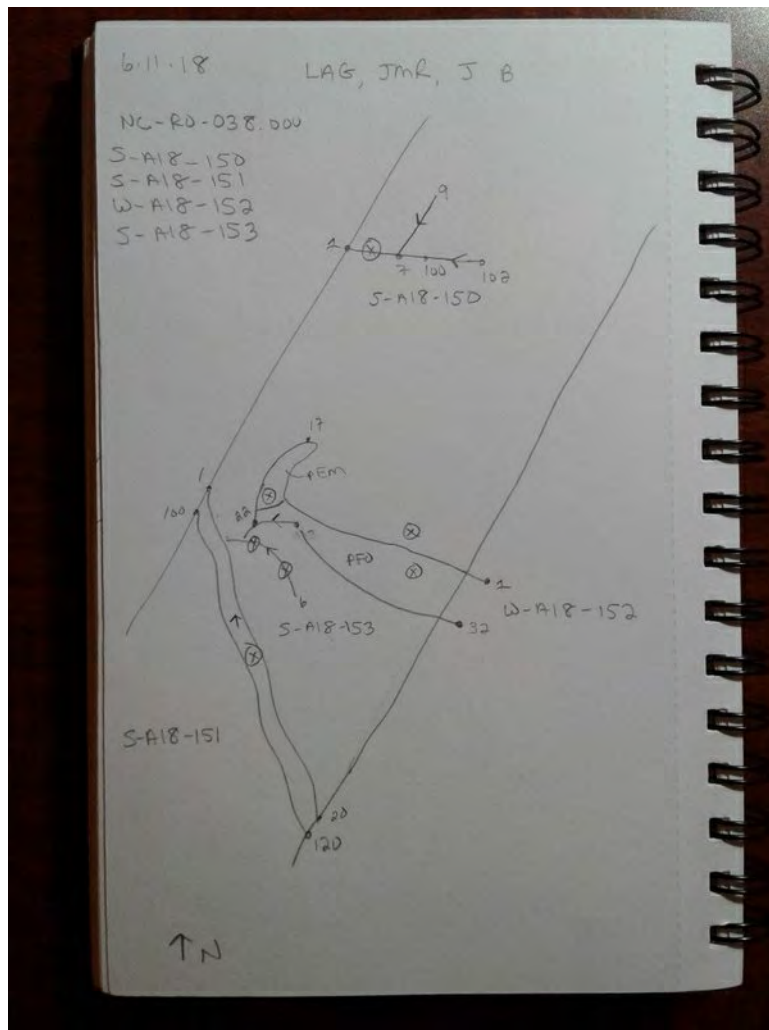
Photo of Sample Plot  
South



Photo of Sample Plot  
West



Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Wentworth, Rockingh... Sampling Date: 2018-June-11  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-152\_UPL-1  
 Investigator(s): Laura Giese, Jake Brillo, Joseph Roy Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Convex Slope (%): 10 to 15  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4694334 Long: -79.7015912 Datum: WGS84  
 Soil Map Unit Name: Siloam sandy loam (SmF) 10 to 45 percent slopes 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertype is UPL. Area is upland based on absence of hydric soils and wetland hydrology . Area has been harvested recently .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____ Depth (inches): _____ Depth (inches): _____ <b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>	
<b>Remarks:</b>	
The criterion for wetland hydrology is not met.	



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

Sampling Point: W-A18-152\_UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. <u>Carya glabra</u>	15	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
2. <u>Liriodendron tulipifera</u>	15	Yes	FACU	
3. <u>Fraxinus pennsylvanica</u>	15	Yes	FACW	Total Number of Dominant Species Across All Strata: <u>8</u> (B)
4. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>62.5</u> (A/B)
5. _____				
6. _____				<b>Prevalence Index worksheet:</b>
7. _____				
_____ = Total Cover	45			<b>Total % Cover of:</b>
50% of total cover: <u>22.5</u>		20% of total cover: <u>9</u>		<b>Multiply By:</b>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				OBL species <u>0</u> x 1 = <u>0</u>
1. _____				FACW species <u>25</u> x 2 = <u>50</u>
2. _____				FAC species <u>45</u> x 3 = <u>135</u>
3. _____				FACU species <u>40</u> x 4 = <u>160</u>
4. _____				UPL species <u>5</u> x 5 = <u>25</u>
5. _____				Column Totals <u>115</u> (A) <u>370</u> (B)
6. _____				Prevalence Index = B/A = <u>3.2</u>
7. _____				<b>Hydrophytic Vegetation Indicators:</b>
8. _____				
9. _____				____ 1 - Rapid Test for Hydrophytic Vegetation
				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
				____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
				____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
_____ = Total Cover	0			<b>Definitions of Four Vegetation Strata:</b>
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
1. <u>Microstegium vimineum</u>	20	Yes	FAC	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2. <u>Dichanthelium dichotomum</u>	15	Yes	FAC	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
3. <u>Betula nigra</u>	10	Yes	FACW	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4. <u>Liriodendron tulipifera</u>	10	Yes	FACU	
5. <u>Amphicarpaea bracteata</u>	10	Yes	FAC	
6. <u>Pinus virginiana</u>	5	No	UPL	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
_____ = Total Cover	70			
50% of total cover: <u>35</u>		20% of total cover: <u>14</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover	0			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).				



Photo of Sample Plot  
North



Photo of Sample Plot  
East





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-June-12  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-155\_PEM-1  
 Investigator(s): Laura Giese, Simon King, Doreen Donovan Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4642146 Long: -79.7031328 Datum: WGS84  
 Soil Map Unit Name: Codorus loam (CsA) 0 to 2 percent slopes, frequently flooded 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  _____ _____	
Remarks:  The criterion for wetland hydrology is met.	

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

Sampling Point: W-A18-155 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>85</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>170</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>10</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>95</u></td> <td>(A)</td> <td style="text-align: center;"><u>210</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>2.2</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:	OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>85</u>	x 2 =	<u>170</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>10</u>	x 4 =	<u>40</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals	<u>95</u>	(A)	<u>210</u> (B)	Prevalence Index = B/A = <u>2.2</u>			
	Total % Cover of:		Multiply By:																																	
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>85</u>	x 2 =	<u>170</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>10</u>	x 4 =	<u>40</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals	<u>95</u>	(A)	<u>210</u> (B)																																	
Prevalence Index = B/A = <u>2.2</u>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																				
1. <u>Juncus effusus</u>	<u>70</u>	Yes	FACW																																	
2. <u>Rubus allegheniensis</u>	<u>10</u>	No	FACU																																	
3. <u>Impatiens capensis</u>	<u>5</u>	No	FACW																																	
4. <u>Boehmeria cylindrica</u>	<u>5</u>	No	FACW																																	
5. <u>Scutellaria integrifolia</u>	<u>5</u>	No	FACW																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
<u>95</u> = Total Cover																																				
50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u>																																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																				





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: 2018-June-12  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-155\_PSS-1  
 Investigator(s): Laura Giese, Simon King, Doreen Donovan Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Undulating Slope (%): 2 to 5  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4632529 Long: -79.7031117 Datum: WGS84  
 Soil Map Unit Name: Fairview-poplar forest complex (FrE2) 15 to 25 percent slopes, moderately eroded 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertype is PSS. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	15		
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
(includes capillary fringe)			Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is met.					

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

Sampling Point: W-A18-155 PSS-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>65</u></td> <td>x 1 = <u>65</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>135</u></td> <td>(A) <u>255</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.9</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>65</u>	x 1 = <u>65</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>135</u>	(A) <u>255</u> (B)	Prevalence Index = B/A = <u>1.9</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>65</u>	x 1 = <u>65</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>135</u>	(A) <u>255</u> (B)																			
Prevalence Index = B/A = <u>1.9</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																				
1. <i>Alnus serrulata</i>	55	Yes	OBL																	
2. <i>Platanus occidentalis</i>	10	No	FACW																	
3. <i>Fraxinus caroliniana</i>	10	No	OBL																	
4. <i>Acer rubrum</i>	10	No	FAC																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																				
1. <i>Boehmeria cylindrica</i>	15	Yes	FACW																	
2. <i>Cinna arundinacea</i>	15	Yes	FACW																	
3. <i>Lonicera japonica</i>	15	Yes	FACU																	
4. <i>Parthenocissus quinquefolia</i>	5	No	FACU																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																				





Soil Photos



Photo of Sample Plot North





Photo of Sample Plot  
East



Photo of Sample Plot  
South

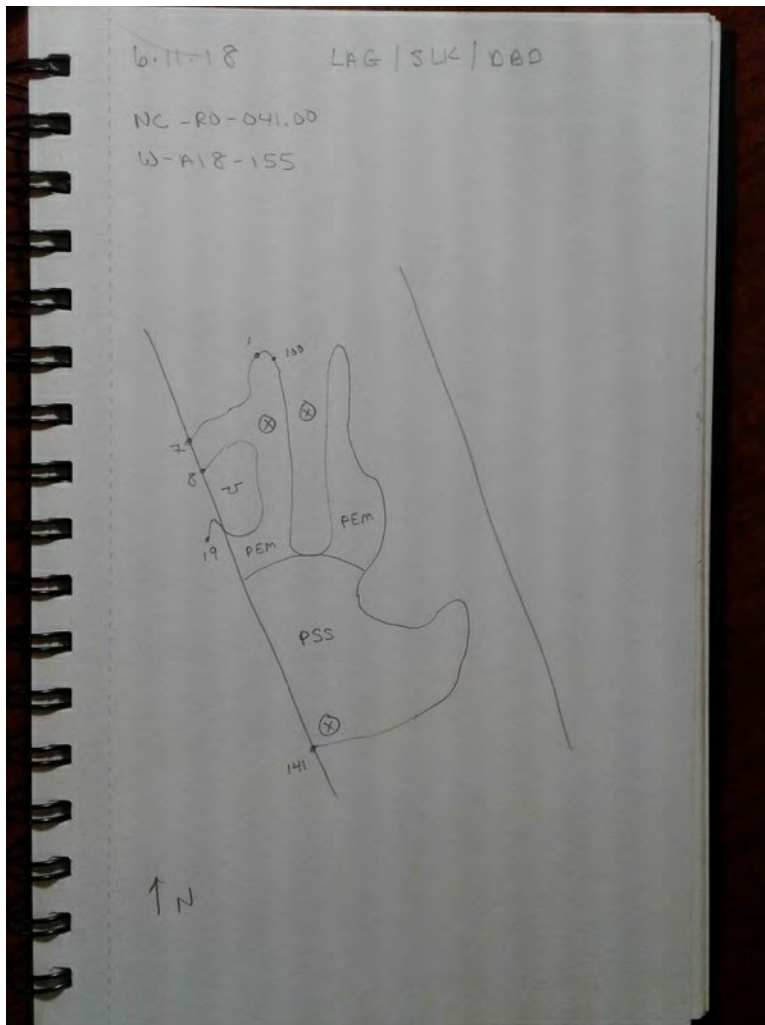




Photo of Sample Plot West



Photo of Sample Plot Sketch





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-June-12  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-155\_UPL-1  
 Investigator(s): Laura Giese, Simon King, Doreen Donovan Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Convex Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4642485 Long: -79.7030686 Datum: WGS84  
 Soil Map Unit Name: Codorus loam (CsA) 0 to 2 percent slopes, frequently flooded 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is not met.		

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

Sampling Point: W-A18-155 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																									
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%; text-align: center;">Total % Cover of:</th> <th style="width: 25%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1 = <u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;">x 2 = <u>20</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3 = <u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>85</u></td> <td style="text-align: center;">x 4 = <u>340</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>95</u></td> <td style="text-align: center;"><u>(A)</u> <u>360</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Prevalence Index = B/A = <u>3.8</u></td> </tr> </tbody> </table>		Total % Cover of:	Multiply By:	OBL species	<u>0</u>	x 1 = <u>0</u>	FACW species	<u>10</u>	x 2 = <u>20</u>	FAC species	<u>0</u>	x 3 = <u>0</u>	FACU species	<u>85</u>	x 4 = <u>340</u>	UPL species	<u>0</u>	x 5 = <u>0</u>	Column Totals	<u>95</u>	<u>(A)</u> <u>360</u> (B)	Prevalence Index = B/A = <u>3.8</u>		
	Total % Cover of:	Multiply By:																										
OBL species	<u>0</u>	x 1 = <u>0</u>																										
FACW species	<u>10</u>	x 2 = <u>20</u>																										
FAC species	<u>0</u>	x 3 = <u>0</u>																										
FACU species	<u>85</u>	x 4 = <u>340</u>																										
UPL species	<u>0</u>	x 5 = <u>0</u>																										
Column Totals	<u>95</u>	<u>(A)</u> <u>360</u> (B)																										
Prevalence Index = B/A = <u>3.8</u>																												
1. _____	_____	_____	_____																									
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
<u>0</u> = Total Cover																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																												
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																												
1. _____	_____	_____	_____																									
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
9. _____	_____	_____	_____																									
<u>0</u> = Total Cover																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																												
<b>Herb Stratum (Plot size: <u>5</u>)</b>																												
1. <u>Solidago canadensis</u>	<u>35</u>	Yes	FACU																									
2. <u>Lespedeza cuneata</u>	<u>30</u>	Yes	FACU																									
3. <u>Lonicera japonica</u>	<u>20</u>	Yes	FACU																									
4. <u>Carex scoparia</u>	<u>5</u>	No	FACW																									
5. <u>Scutellaria integrifolia</u>	<u>5</u>	No	FACW																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
9. _____	_____	_____	_____																									
10. _____	_____	_____	_____																									
11. _____	_____	_____	_____																									
<u>95</u> = Total Cover																												
50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u>																												
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																												
1. _____	_____	_____	_____																									
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
<u>0</u> = Total Cover																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																												
<b>Hydrophytic Vegetation Indicators:</b> ____ 1 - Rapid Test for Hydrophytic Vegetation ____ 2 - Dominance Test is > 50% ____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																												
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																												
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																												
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).																												





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: Wentworth, Rockingh... Sampling Date: 2018-June-06  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-C18-40\_PEM-1  
 Investigator(s): Don Lockwood, Joe Roy, Jeremy Hummel Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4456389 Long: -79.6894793 Datum: WGS84  
 Soil Map Unit Name: Rhodihiss 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertype is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input checked="" type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  _____  _____	
Remarks:  A positive indication of wetland hydrology was observed (at least two secondary indicators).	

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

Sampling Point: W-C18-40 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>55</u></td> <td>x 1 =</td> <td></td> <td style="text-align: center;"><u>55</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>20</u></td> <td>x 2 =</td> <td></td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>30</u></td> <td>x 3 =</td> <td></td> <td style="text-align: center;"><u>90</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>20</u></td> <td>x 4 =</td> <td></td> <td style="text-align: center;"><u>80</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>125</u></td> <td>(A)</td> <td></td> <td style="text-align: center;"><u>265</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.1</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:		OBL species	<u>55</u>	x 1 =		<u>55</u>	FACW species	<u>20</u>	x 2 =		<u>40</u>	FAC species	<u>30</u>	x 3 =		<u>90</u>	FACU species	<u>20</u>	x 4 =		<u>80</u>	UPL species	<u>0</u>	x 5 =		<u>0</u>	Column Totals	<u>125</u>	(A)		<u>265</u> (B)	Prevalence Index = B/A =				<u>2.1</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>55</u>	x 1 =			<u>55</u>																																							
FACW species	<u>20</u>	x 2 =			<u>40</u>																																							
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Prevalence Index = B/A =					<u>2.1</u>																																							
1. _____	_____	_____	_____																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
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5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																												
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																												
1. <i>Salix nigra</i>	15	Yes	OBL																																									
2. _____	_____	_____	_____																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
6. _____	_____	_____	_____																																									
7. _____	_____	_____	_____																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
<u>15</u> = Total Cover																																												
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>																																												
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																												
1. <i>Microstegium vimineum</i>	30	Yes	FAC																																									
2. <i>Panicum sagittata</i>	20	Yes	OBL																																									
3. <i>Juncus elliotii</i>	10	No	FACW																																									
4. <i>Onoclea sensibilis</i>	10	No	FACW																																									
5. <i>Carex lurida</i>	10	No	OBL																																									
6. <i>Scirpus atrovirens</i>	10	No	OBL																																									
7. _____	_____	_____	_____																																									
8. _____	_____	_____	_____																																									
9. _____	_____	_____	_____																																									
10. _____	_____	_____	_____																																									
11. _____	_____	_____	_____																																									
<u>90</u> = Total Cover																																												
50% of total cover: <u>45</u> 20% of total cover: <u>18</u>																																												
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																												
1. <i>Rosa multiflora</i>	10	Yes	FACU																																									
2. <i>Lonicera japonica</i>	10	Yes	FACU																																									
3. _____	_____	_____	_____																																									
4. _____	_____	_____	_____																																									
5. _____	_____	_____	_____																																									
<u>20</u> = Total Cover																																												
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																																												
<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																																												
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																																												
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																												
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  <div style="height: 100px;"></div>																																												





Hydrology Photos



Vegetation Photos





Soil Photos



Photo of Sample Plot North





Photo of Sample Plot East



Photo of Sample Plot South

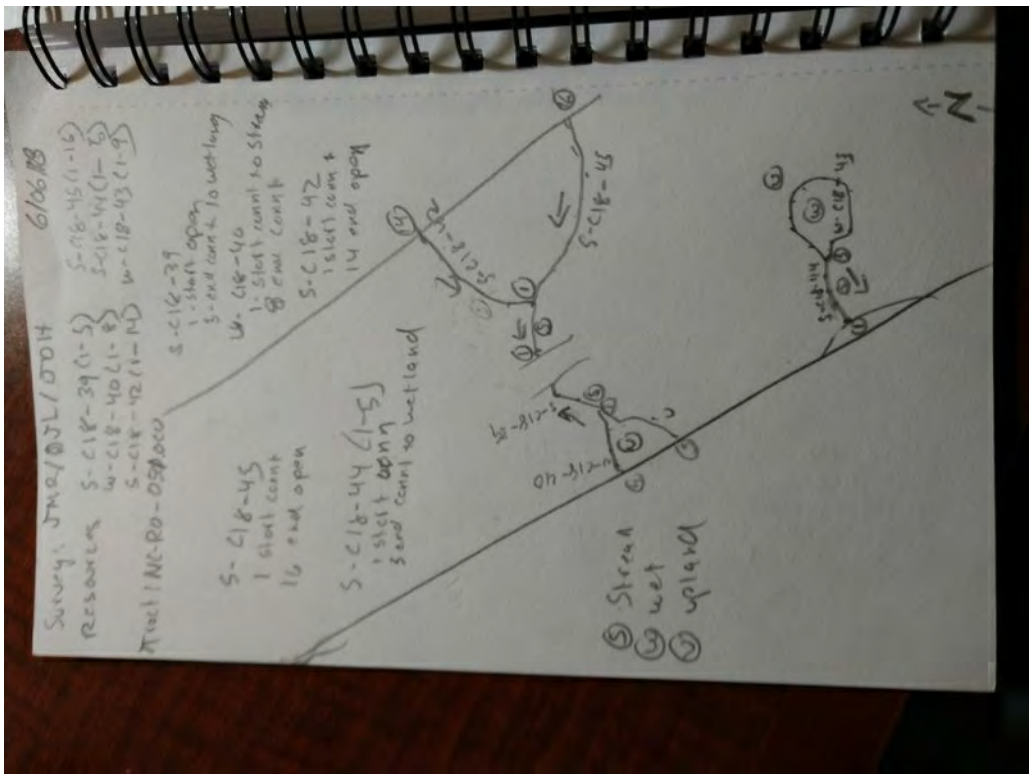




Photo of Sample Plot West



Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Wentworth, Rockingh... Sampling Date: 2018-June-06  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-C18-40\_UPL-1  
 Investigator(s): Don Lockwood, Joe Roy, Jeremy Hummel Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.445527 Long: -79.6893362 Datum: WGS84  
 Soil Map Unit Name: Rhodihiss 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



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

Sampling Point: W-C18-40 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>15</u></td> <td>x 5 = <u>75</u></td> </tr> <tr> <td>Column Totals <u>105</u></td> <td>(A) <u>425</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>4</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>15</u>	x 5 = <u>75</u>	Column Totals <u>105</u>	(A) <u>425</u> (B)	Prevalence Index = B/A = <u>4</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
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Column Totals <u>105</u>	(A) <u>425</u> (B)																			
Prevalence Index = B/A = <u>4</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																			
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																				
1. <i>Juniperus virginiana</i>	15	Yes	FACU																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>15</u> = Total Cover																				
50% of total cover: <u>7.5</u>	20% of total cover: <u>3</u>																			
<b>Herb Stratum (Plot size: <u>5</u>)</b>																				
1. <i>Cynodon dactylon</i>	20	Yes	FACU																	
2. <i>Erigeron annuus</i>	15	Yes	FACU																	
3. <i>Scutellaria parvula</i>	15	Yes	UPL																	
4. <i>Panicum virgatum</i>	10	No	FAC																	
5. <i>Achillea millefolium</i>	10	No	FACU																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>70</u> = Total Cover																				
50% of total cover: <u>35</u>	20% of total cover: <u>14</u>																			
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																				
1. <i>Rosa multiflora</i>	10	Yes	FACU																	
2. <i>Lonicera japonica</i>	10	Yes	FACU																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>20</u> = Total Cover																				
50% of total cover: <u>10</u>	20% of total cover: <u>4</u>																			
<b>Hydrophytic Vegetation Indicators:</b>																				
_____ 1 - Rapid Test for Hydrophytic Vegetation																				
_____ 2 - Dominance Test is > 50%																				
_____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>																				
_____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)																				
_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																				
<b>Definitions of Four Vegetation Strata:</b>																				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.																				
<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.																				
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<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																				



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 Southgate City/County: Wentworth, Rockingh... Sampling Date: 2018-June-06  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-C18-43\_PEM-1  
 Investigator(s): Don Lockwood, Joe Roy, Jeremy Hummel Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4447828 Long: -79.6883742 Datum: WGS84  
 Soil Map Unit Name: Siloam 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>3</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>2</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (includes capillary fringe)	Depth (inches): <u>0</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  		
Remarks:  		



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

Sampling Point: W-C18-43 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>75</u></td> <td>x 2 = <u>150</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>115</u></td> <td>(A) <u>240</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>2.1</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>75</u>	x 2 = <u>150</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>115</u>	(A) <u>240</u> (B)	Prevalence Index = B/A = <u>2.1</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>20</u>	x 1 = <u>20</u>																			
FACW species <u>75</u>	x 2 = <u>150</u>																			
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FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>115</u>	(A) <u>240</u> (B)																			
Prevalence Index = B/A = <u>2.1</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																				
1. <i>Liquidambar styraciflua</i>	10	Yes	FAC																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																				
1. <i>Onoclea sensibilis</i>	30	Yes	FACW																	
2. <i>Juncus effusus</i>	25	Yes	FACW																	
3. <i>Carex lurida</i>	10	No	OBL																	
4. <i>Solidago gigantea</i>	10	No	FACW																	
5. <i>Scirpus atrovirens</i>	10	No	OBL																	
6. <i>Eupatorium perfoliatum</i>	10	No	FACW																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>95</u> = Total Cover 50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u>																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																				
1. <i>Lonicera japonica</i>	10	Yes	FACU																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																				
<b>Hydrophytic Vegetation Indicators:</b> ___ 1- Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																				
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				



Hydrology Photos



Soil Photos





Photo of Sample Plot  
North



Photo of Sample Plot  
East





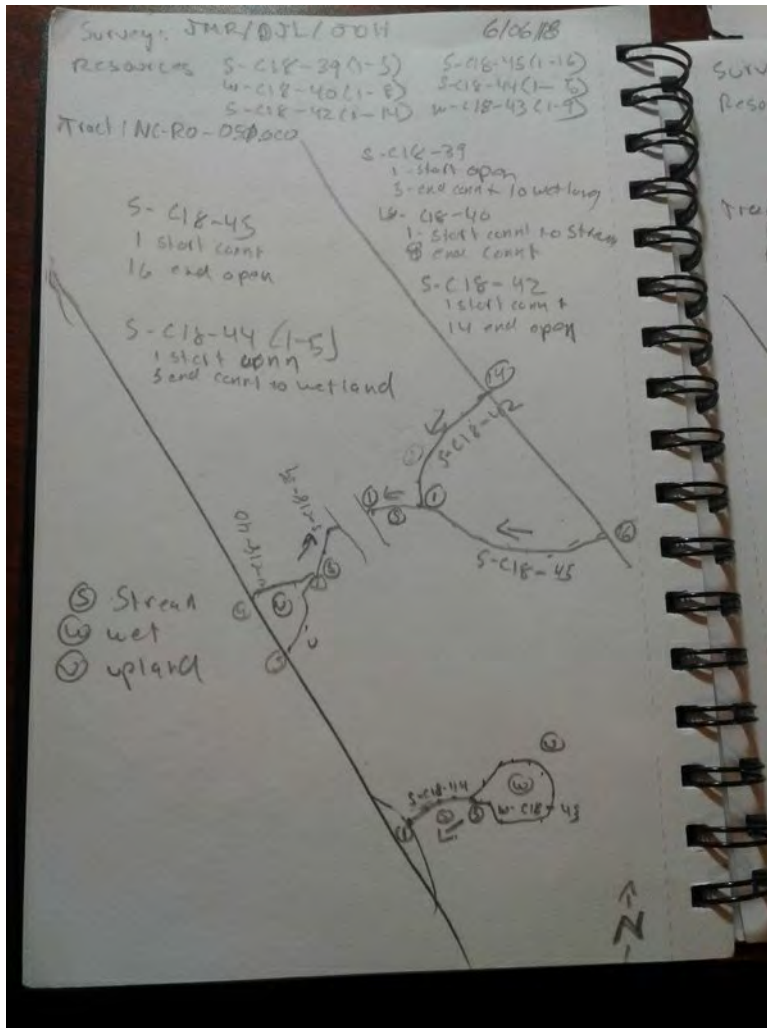
Photo of Sample Plot  
South



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: Wentworth, Rockingh... Sampling Date: 2018-June-06  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-C18-43\_UPL-1  
 Investigator(s): Don Lockwood, Joe Roy, Jeremy Hummel Section, Township, Range:  
 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: 36.4449047 Long: -79.6883197 Datum: WGS84  
 Soil Map Unit Name: Siloam 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>			Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Describe Recorded Data (stream gauge, monitoring well, aerial 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-C18-43 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>12.5</u> (A/B)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>				
1.	<u>15</u>	<u>Yes</u>	<u>FAC</u>	
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				
<b>Herb Stratum (Plot size: <u>5</u>)</b>				
1.	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
2.	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
3.	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
4.	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
5.	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
6.	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
7.	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
8.				
9.				
10.				
11.				
<u>70</u> = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>				
1.				
2.				
3.				
4.				
5.				
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>    				<b>Prevalence Index worksheet:</b> Total % Cover of:                      Multiply By: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>15</u> x 3 = <u>45</u> FACU species <u>70</u> x 4 = <u>280</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals <u>85</u> (A) <u>325</u> (B) Prevalence Index = B/A = <u>3.8</u>
				<b>Hydrophytic Vegetation Indicators:</b> ___ 1- Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is > 50% ___ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.				
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				





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 Southgate City/County: Wentworth, Rockingh... Sampling Date: 2018-June-05  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-C18-37\_PEM-1  
 Investigator(s): Don Lockwood, Jeff Vandever, Nate Renaudin Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4360649 Long: -79.6775754 Datum: WGS84  
 Soil Map Unit Name: Rhodihiss 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertype is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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-C18-37 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____	50 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species _____	x 1 = _____
7. _____	_____	_____	_____	FACW species _____	x 2 = _____
	0 = Total Cover			FAC species _____	x 3 = _____
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species _____	x 4 = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species _____	x 5 = _____
1. <i>Alnus incana</i>	15	Yes	FACU	Column Totals _____	(A) 155 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>1.4</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	____ 2 - Dominance Test is > 50%	
6. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	15 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>7.5</u>	20% of total cover: <u>3</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Leersia oryzoides</i>	80	Yes	OBL	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Lycopus virginicus</i>	15	No	OBL	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	95 = Total Cover				
	50% of total cover: <u>47.5</u>	20% of total cover: <u>19</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					





Hydrology Photos





Vegetation Photos



Soil Photos





Photo of Sample Plot  
North



Photo of Sample Plot  
East





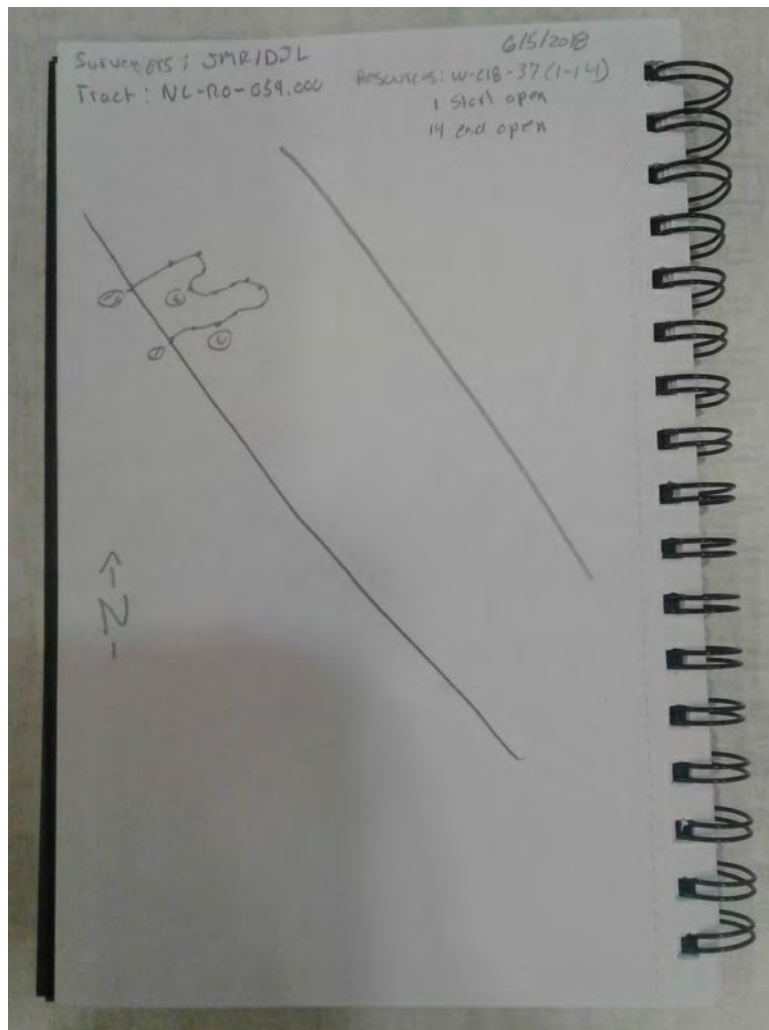
Photo of Sample Plot  
South



Photo of Sample Plot  
West



Photo of Sample Plot Sketch





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Wentworth, Rockingh... Sampling Date: 2018-June-05  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-C18-37\_UPL-1  
 Investigator(s): Don Lockwood, Jeff Vandever, Nate Renaudin Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 1 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4360298 Long: -79.6775902 Datum: WGS84  
 Soil Map Unit Name: Rhodihiss 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
No positive indication of wetland hydrology was observed.		

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

Sampling Point: W-C18-37 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <i>Quercus alba</i>	20	Yes	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>70</u></td> <td>x 4 = <u>280</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>85</u></td> <td>(A) <u>325</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.8</u></td> </tr> </tbody> </table>	Total % Cover of:	Multiply By:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>70</u>	x 4 = <u>280</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>85</u>	(A) <u>325</u> (B)	Prevalence Index = B/A = <u>3.8</u>	
Total % Cover of:	Multiply By:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>15</u>	x 3 = <u>45</u>																			
FACU species <u>70</u>	x 4 = <u>280</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>85</u>	(A) <u>325</u> (B)																			
Prevalence Index = B/A = <u>3.8</u>																				
2. <i>Pinus rigida</i>	15	Yes	FACU																	
3. <i>Acer saccharum</i>	15	Yes	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )																				
1. <i>Nyssa sylvatica</i>	15	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is > 50% ___ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>																				
<b>Herb Stratum</b> (Plot size: <u>5'</u> )																				
1. <i>Quercus alba</i>	20	Yes	FACU																	
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																				
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
<u>0</u> = 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.)																				





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 Southgate City/County: Ruffin, Rockingham C... Sampling Date: 2018-June-01  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-95\_PEM-1  
 Investigator(s): Laura Giese, Jeff Vandever, Nate Renaudin Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4249285 Long: -79.6571915 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertype is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met.	

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

Sampling Point: W-A18-95 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	20 x 1 = 20
7. _____	_____	_____	_____	FACW species	20 x 2 = 40
	0 = Total Cover			FAC species	60 x 3 = 180
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	0 x 4 = 0
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				UPL species	0 x 5 = 0
1. _____	_____	_____	_____	Column Totals	100 (A) 240 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>2.4</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	___ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	0 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Microstegium vimineum</i>	60	Yes	FAC	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Boehmeria cylindrica</i>	20	Yes	FACW	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <i>Persicaria sagittata</i>	10	No	OBL		
4. <i>Carex crinita</i>	10	No	OBL		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	100 = Total Cover				
	50% of total cover: <u>50</u>	20% of total cover: <u>20</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					





Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South

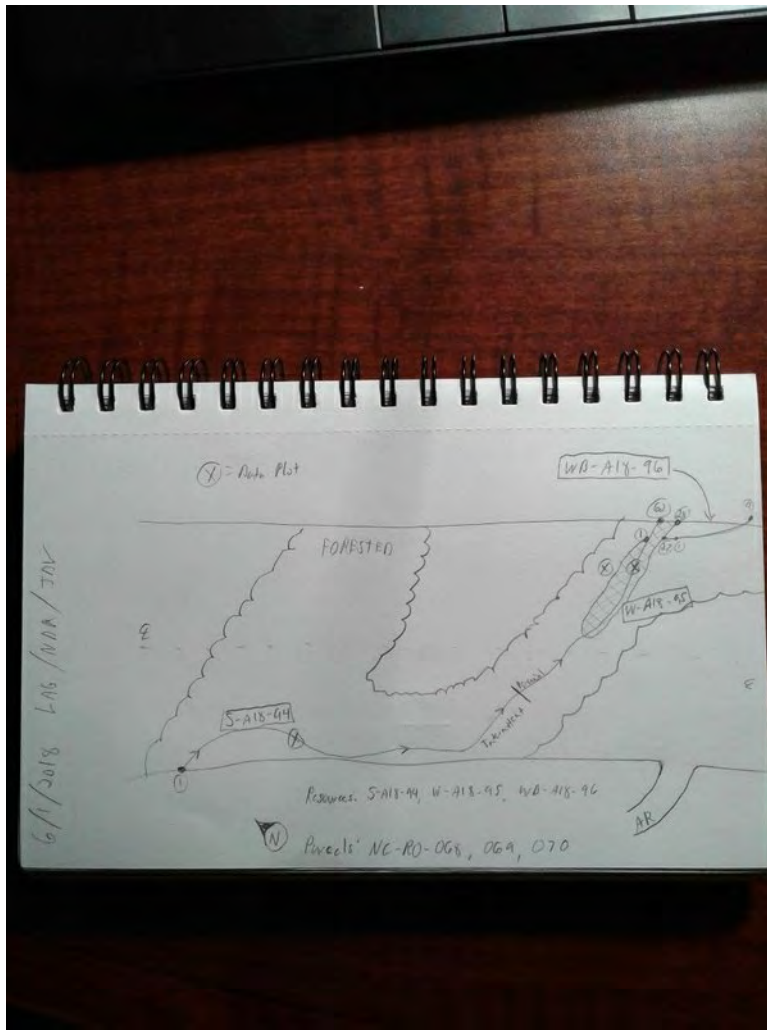


Photo of Sample Plot  
West





Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Ruffin, Rockingham C... Sampling Date: 2018-June-01  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-95\_UPL-1  
 Investigator(s): Laura Giese, Jeff Vandever, Nate Renaudin Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Convex Slope (%): 5 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4248925 Long: -79.6572443 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
<b>Remarks:</b>				
Covertypes is UPL. Area is upland, not all three wetland parameters are present. Adjacent hillside recently harvested.				

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>		
Surface Water Present?                      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?                        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present?                         Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is not met.		

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

Sampling Point: W-A18-95 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Liriodendron tulipifera</i>	20	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. <i>Quercus alba</i>	20	Yes	FACU	Total Number of Dominant Species Across All Strata:	6 (B)
3. <i>Quercus montana</i>	20	Yes	UPL	Percent of Dominant Species That Are OBL, FACW, or FAC:	16.7 (A/B)
4. <i>Quercus falcata</i>	5	No	FACU		
5. <i>Quercus rubra</i>	5	No	FACU		
6. _____					
7. _____					
	70 = Total Cover				
	50% of total cover: <u>35</u>	20% of total cover: <u>14</u>			
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				<b>Prevalence Index worksheet:</b>	
1. <i>Oxydendrum arboreum</i>	20	Yes	UPL	<b>Total % Cover of:</b>	<b>Multiply By:</b>
2. _____				OBL species	0 x 1 = 0
3. _____				FACW species	0 x 2 = 0
4. _____				FAC species	10 x 3 = 30
5. _____				FACU species	70 x 4 = 280
6. _____				UPL species	40 x 5 = 200
7. _____				Column Totals	120 (A) 510 (B)
8. _____				Prevalence Index = B/A = <u>4.3</u>	
9. _____					
	20 = Total Cover				
	50% of total cover: <u>10</u>	20% of total cover: <u>4</u>			
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. <i>Vaccinium angustifolium</i>	20	Yes	FACU	____ 1 - Rapid Test for Hydrophytic Vegetation	
2. <i>Smilax rotundifolia</i>	10	Yes	FAC	____ 2 - Dominance Test is > 50%	
3. _____				____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
4. _____				____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. _____				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
6. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
7. _____				<b>Definitions of Four Vegetation Strata:</b>	
8. _____				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
9. _____				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
10. _____				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
11. _____				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
	30 = Total Cover				
	50% of total cover: <u>15</u>	20% of total cover: <u>6</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					





Photo of Sample Plot  
North



Photo of Sample Plot  
West



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Ruffin, Rockingham C... Sampling Date: 2018-June-02  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-98\_PFO-1  
 Investigator(s): Laura Giese, Jeff Vandever, Nate Renaudin Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4231458 Long: -79.6562394 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertype is PFO. Area is wetland, all three wetland parameters are present. Area may have been historically excavated .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)		
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Iron Deposits (B5)					
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)					
<input type="checkbox"/> Water-Stained Leaves (B9)					
<input type="checkbox"/> Aquatic Fauna (B13)					
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>11</u> (includes capillary fringe)			Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  					
Remarks:  The criterion for wetland hydrology is met.					



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

Sampling Point: W-A18-98 PFO-1

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 30%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>17</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>51</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>17</u></td> <td>(A)</td> <td style="text-align: center;"><u>51</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>3</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:	OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>17</u>	x 3 =	<u>51</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals	<u>17</u>	(A)	<u>51</u> (B)	Prevalence Index = B/A = <u>3</u>			
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Column Totals	<u>17</u>	(A)	<u>51</u> (B)																																	
Prevalence Index = B/A = <u>3</u>																																				
1. <i>Acer rubrum</i>	15	Yes	FAC																																	
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 20%; text-align: center;"><u>15</u></td> <td style="width: 20%;">= Total Cover</td> <td style="width: 30%;"></td> </tr> <tr> <td>50% of total cover: <u>7.5</u></td> <td>20% of total cover: <u>3</u></td> <td colspan="2"></td> </tr> </table>					<u>15</u>	= Total Cover		50% of total cover: <u>7.5</u>	20% of total cover: <u>3</u>																											
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<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																				
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50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																																			
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																				
1. <i>Smilax rotundifolia</i>	2	No	FAC																																	
2. _____																																				
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<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 20%; text-align: center;"><u>2</u></td> <td style="width: 20%;">= Total Cover</td> <td style="width: 30%;"></td> </tr> <tr> <td>50% of total cover: <u>1</u></td> <td>20% of total cover: <u>0.4</u></td> <td colspan="2"></td> </tr> </table>					<u>2</u>	= Total Cover		50% of total cover: <u>1</u>	20% of total cover: <u>0.4</u>																											
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50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																																			
<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																																				
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																				



Photo of Sample Plot  
North



Photo of Sample Plot  
East





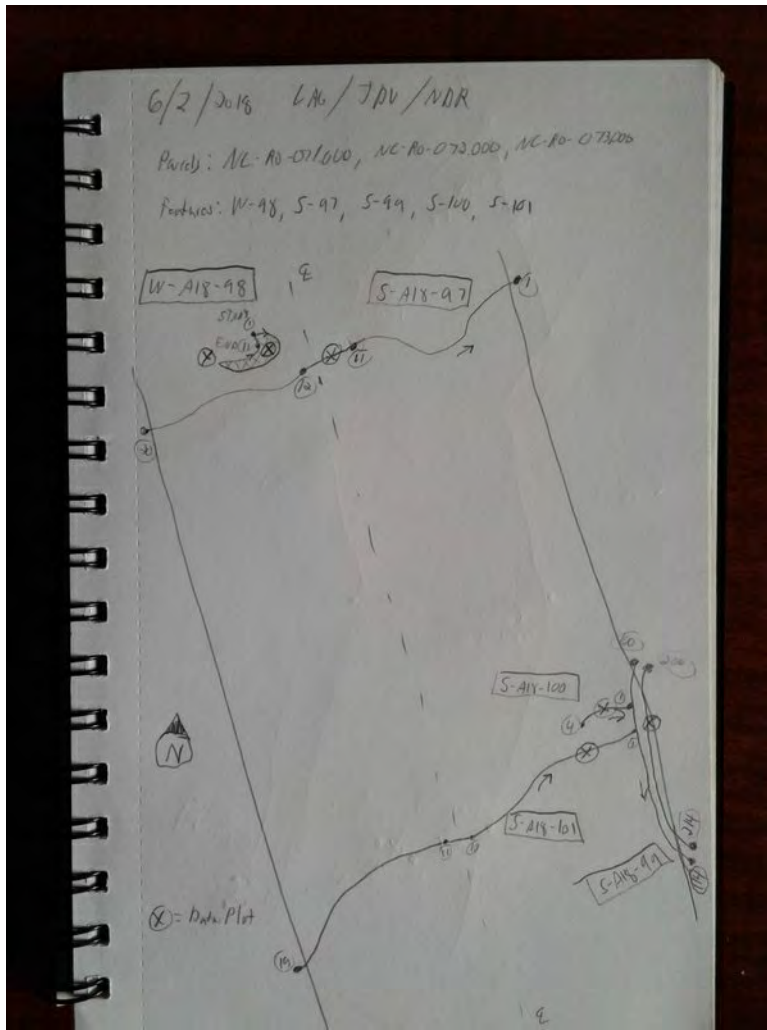
Photo of Sample Plot South



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: Ruffin, Rockingham C... Sampling Date: 2018-June-02  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-98\_UPL-1  
 Investigator(s): Laura Giese, Jeff Vandever, Nate Renaudin Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Knoll Local relief (concave, convex, none): Convex Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.423247 Long: -79.6561936 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland based on absence of hydric soils and wetland hydrology . Area may have been historically excavated .		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is not met.		



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

Sampling Point: W-A18-98 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>15</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>45</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>5</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>20</u></td> <td>(A)</td> <td style="text-align: center;"><u>65</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>3.3</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:	OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>15</u>	x 3 =	<u>45</u>	FACU species	<u>5</u>	x 4 =	<u>20</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals	<u>20</u>	(A)	<u>65</u> (B)	Prevalence Index = B/A = <u>3.3</u>			
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1. _____	_____	_____	_____																																	
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1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
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7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																				
1. <u><i>Euonymus americanus</i></u>	<u>5</u>	Yes	FAC																																	
2. <u><i>Toxicodendron radicans</i></u>	<u>5</u>	Yes	FAC																																	
3. <u><i>Smilax rotundifolia</i></u>	<u>5</u>	Yes	FAC																																	
4. <u><i>Lonicera japonica</i></u>	<u>5</u>	Yes	FACU																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
<u>20</u> = Total Cover																																				
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
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A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																				



Photo of Sample Plot  
North



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-10

Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-5-UPL-1

Investigator(s): Laura Giese, Simon King Section, Township, Range:

Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Undulating Slope (%): 1 to 3

Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4098182 Long: -79.6314372 Datum: WGS84

Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
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<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
Remarks:		
The criterion for wetland hydrology is not met.		

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

Sampling Point: W-A18-5 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																																																	
<b>Tree Stratum (Plot size: 30')</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 10%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>30</u></td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>60</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>15</u></td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>45</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>40</u></td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>160</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>85</u></td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;"><u>265</u></td> <td style="text-align: center;">(B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.1</u></td> <td></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:			OBL species	<u>0</u>		x 1 =	<u>0</u>		FACW species	<u>30</u>		x 2 =	<u>60</u>		FAC species	<u>15</u>		x 3 =	<u>45</u>		FACU species	<u>40</u>		x 4 =	<u>160</u>		UPL species	<u>0</u>		x 5 =	<u>0</u>		Column Totals	<u>85</u>	(A)		<u>265</u>	(B)	Prevalence Index = B/A =				<u>3.1</u>	
	Total % Cover of:		Multiply By:																																																	
OBL species	<u>0</u>		x 1 =		<u>0</u>																																															
FACW species	<u>30</u>		x 2 =		<u>60</u>																																															
FAC species	<u>15</u>		x 3 =		<u>45</u>																																															
FACU species	<u>40</u>		x 4 =		<u>160</u>																																															
UPL species	<u>0</u>		x 5 =		<u>0</u>																																															
Column Totals	<u>85</u>	(A)			<u>265</u>	(B)																																														
Prevalence Index = B/A =					<u>3.1</u>																																															
1. _____	_____	_____	_____																																																	
2. _____	_____	_____	_____																																																	
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<u>0</u> = Total Cover																																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																																				
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																																																				
1. _____	_____	_____	_____																																																	
2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
8. _____	_____	_____	_____																																																	
9. _____	_____	_____	_____																																																	
<u>0</u> = Total Cover																																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																																				
<b>Herb Stratum (Plot size: 5')</b>																																																				
1. <i>Bromus ciliatus</i>	30	Yes	FACW																																																	
2. <i>Solidago altissima</i>	15	Yes	FACU																																																	
3. <i>Dichanthelium clandestinum</i>	15	Yes	FAC																																																	
4. <i>Rubus allegheniensis</i>	15	Yes	FACU																																																	
5. <i>Lonicera japonica</i>	10	No	FACU																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
8. _____	_____	_____	_____																																																	
9. _____	_____	_____	_____																																																	
10. _____	_____	_____	_____																																																	
11. _____	_____	_____	_____																																																	
<u>85</u> = Total Cover																																																				
50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>																																																				
<b>Woody Vine Stratum (Plot size: 30')</b>																																																				
1. _____	_____	_____	_____																																																	
2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
<u>0</u> = Total Cover																																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC- or drier).																																																				





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: Reidsville, Rockingham... Sampling Date: 2018-May-10  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-5\_PEM-1  
 Investigator(s): Laura Giese, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4098182 Long: -79.6314372 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		
Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (includes capillary fringe)	Depth (inches): <u>0</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
The criterion for wetland hydrology is met. Soil is episaturated. soil saturated from 0-4".		

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

Sampling Point: W-A18-5 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: 30')</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><b>Total % Cover of:</b></td> <td style="text-align: center;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>25</u></td> <td>x 2 = <u>50</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>55</u></td> <td>(A) <u>80</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.5</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>25</u>	x 2 = <u>50</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>55</u>	(A) <u>80</u> (B)	Prevalence Index = B/A = <u>1.5</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>30</u>	x 1 = <u>30</u>																			
FACW species <u>25</u>	x 2 = <u>50</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>55</u>	(A) <u>80</u> (B)																			
Prevalence Index = B/A = <u>1.5</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover	<u>0</u>																			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<b>Sapling/Shrub Stratum (Plot size: 15')</b>				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover	<u>0</u>																			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<b>Herb Stratum (Plot size: 5')</b>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
1. <i>Symphytotrichum lanceolatum</i>	15	Yes	FACW																	
2. <i>Juncus effusus</i>	10	Yes	FACW																	
3. <i>Scirpus atrovirens</i>	10	Yes	OBL																	
4. <i>Juncus acuminatus</i>	10	Yes	OBL																	
5. <i>Persicaria sagittata</i>	10	Yes	OBL																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ = Total Cover	<u>55</u>																			
50% of total cover: <u>27.5</u>		20% of total cover: <u>11</u>																		
<b>Woody Vine Stratum (Plot size: 30')</b>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover	<u>0</u>																			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																				





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: 2018-May-10  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-6\_PFO-1  
 Investigator(s): Laura Giese, Simon King, Karla Fortier Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Undulating Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4098182 Long: -79.6314372 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is PFO. Area is wetland, all three wetland parameters are present. ridge/swale/ruts due to logging.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is met.		

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

Sampling Point: W-A18-6\_PFO-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Betula nigra</i>	40	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	4 (A)
2. <i>Pinus taeda</i>	10	No	FAC	Total Number of Dominant Species Across All Strata:	6 (B)
3. <i>Liriodendron tulipifera</i>	10	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC:	66.7 (A/B)
4. _____				<b>Prevalence Index worksheet:</b>	
5. _____				<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____				OBL species	0 x 1 = 0
7. _____				FACW species	70 x 2 = 140
	60 = Total Cover			FAC species	40 x 3 = 120
50% of total cover: <u>30</u>		20% of total cover: <u>12</u>		FACU species	40 x 4 = 160
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species	0 x 5 = 0
1. <i>Betula nigra</i>	20	Yes	FACW	Column Totals	150 (A) 420 (B)
2. _____				Prevalence Index = B/A = <u>2.8</u>	
3. _____				<b>Hydrophytic Vegetation Indicators:</b>	
4. _____				____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____				✓ 2 - Dominance Test is >50%	
6. _____				✓ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____				____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	20 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
50% of total cover: <u>10</u>		20% of total cover: <u>4</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Carex intumescens</i>	10	Yes	FACW	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Carex debilis</i>	10	Yes	FAC	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <i>Circaea canadensis</i>	10	Yes	FACU	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input type="checkbox"/>	
4. <i>Lonicera japonica</i>	10	Yes	FACU		
5. <i>Parthenocissus quinquefolia</i>	5	No	FACU		
6. <i>Clematis virginiana</i>	5	No	FAC		
7. <i>Toxicodendron radicans</i>	5	No	FAC		
8. <i>Polystichum acrostichoides</i>	5	No	FACU		
9. <i>Dryopteris carthusiana</i>	5	No	FAC		
10. <i>Viola sororia</i>	5	No	FAC		
11. _____					
	70 = Total Cover				
50% of total cover: <u>35</u>		20% of total cover: <u>14</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
	0 = Total Cover				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					





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-11  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-06\_PEM-2  
 Investigator(s): Laura Giese, Simon King, Karla Fortier Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Toe Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4062109073 Long: -79.6476102993 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertype is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input checked="" type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>15</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  _____ _____	
Remarks:  The criterion for wetland hydrology is met. Soil is episaturated. 0-4" saturated, hummocky.	

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

Sampling Point: W-A18-06 PEM-2

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: 30')</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species _____	x 3 = _____	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>30</u>	x 1 = <u>30</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species _____	x 3 = _____																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Herb Stratum (Plot size: 5')</b>																				
1. <i>Carex lurida</i>	20	Yes	OBL																	
2. <i>Juncus effusus</i>	20	Yes	FACW																	
3. <i>Carex crinita</i>	10	No	OBL																	
4. <i>Scirpus cyperinus</i>	10	No	FACW																	
5. <i>Eupatorium perfoliatum</i>	5	No	FACW																	
6. <i>Betula nigra</i>	5	No	FACW																	
7. <i>Rosa virginiana</i>	_____	No	FAC																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>35</u> 20% of total cover: <u>14</u>																				
<b>Woody Vine Stratum (Plot size: 30')</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																				
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  _____ _____ _____																				





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: \_\_\_\_\_ Sampling Date: 2018-May-10

Applicant/Owner: NextEra State: \_\_\_\_\_ Sampling Point: W-A18-06\_UPL-1

Investigator(s): Laura Giese, Simon King, Karla Fortier Section, Township, Range: \_\_\_\_\_

Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): Convex Slope (%): 1 to 3

Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4098182 Long: -79.6314372 Datum: WGS84

Soil Map Unit Name: \_\_\_\_\_ 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 \_\_\_\_\_ significantly 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?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)			Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  					
Remarks:  					

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

Sampling Point: W-A18-06 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <i>Liriodendron tulipifera</i>	25	Yes	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>110</u></td> <td>x 4 = <u>440</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>135</u></td> <td>(A) <u>505</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.7</u></td> </tr> </tbody> </table>	Total % Cover of:	Multiply By:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>110</u>	x 4 = <u>440</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>135</u>	(A) <u>505</u> (B)	Prevalence Index = B/A = <u>3.7</u>	
Total % Cover of:	Multiply By:																			
OBL species <u>5</u>	x 1 = <u>5</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>110</u>	x 4 = <u>440</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>135</u>	(A) <u>505</u> (B)																			
Prevalence Index = B/A = <u>3.7</u>																				
2. <i>Acer rubrum</i>	10	Yes	FAC																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )																				
1. <i>Liriodendron tulipifera</i>	10	Yes	FACU	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is > 50% ___ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. <i>Acer rubrum</i>	10	Yes	FAC																	
3. <i>Carya glabra</i>	10	Yes	FACU																	
4. <i>Alnus serrulata</i>	5	No	OBL																	
5. <i>Quercus rubra</i>	5	No	FACU																	
6. <i>Cornus florida</i>	5	No	FACU																	
7. <i>Fagus grandifolia</i>	5	No	FACU																	
8. _____																				
9. _____																				
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																				
<b>Herb Stratum</b> (Plot size: <u>5'</u> )																				
1. <i>Lonicera japonica</i>	30	Yes	FACU																	
2. <i>Galium aparine</i>	10	Yes	FACU																	
3. <i>Sanicula odorata</i>	10	Yes	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																				
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )																				
1. _____				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. _____																				
3. _____																				
4. _____																				
5. _____																				
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>     																				





Photo of Sample Plot  
North



Photo of Sample Plot  
South



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Ruffin, Rockingham C... Sampling Date: 2018-May-11  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-06\_UPL-2  
 Investigator(s): Laura Giese, Simon King, Karla Fortier Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4050646 Long: -79.6472433 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Iron Deposits (B5)					
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)					
<input type="checkbox"/> Water-Stained Leaves (B9)					
<input type="checkbox"/> Aquatic Fauna (B13)					
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)			Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, 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-A18-06 UPL-2

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____	4 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____	25 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species _____	x 1 = _____
7. _____	_____	_____	_____	FACW species _____	x 2 = _____
	0 = Total Cover			FAC species _____	x 3 = _____
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species _____	x 4 = _____
				UPL species _____	x 5 = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				Column Totals _____	(A) 340 (B)
1. <i>Liriodendron tulipifera</i>	5	Yes	FACU	Prevalence Index = B/A =	<u>3.6</u>
2. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
3. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
4. _____	_____	_____	_____	____ 2 - Dominance Test is > 50%	
5. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
6. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
7. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
8. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
9. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>	
	5 = Total Cover			<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
	50% of total cover: <u>2.5</u>	20% of total cover: <u>1</u>		<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
1. <i>Lonicera japonica</i>	20	Yes	FACU	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
2. <i>Poa pratensis</i>	20	Yes	FACU		
3. <i>Solidago gigantea</i>	15	Yes	FACW		
4. <i>Stellaria media</i>	10	No	UPL		
5. <i>Dichanthelium clandestinum</i>	10	No	FAC		
6. <i>Agrimonia parviflora</i>	5	No	FACW		
7. <i>Geranium maculatum</i>	5	No	FACU		
8. <i>Allium vineale</i>	5	No	FACU		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	90 = Total Cover				
	50% of total cover: <u>45</u>	20% of total cover: <u>18</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					





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: Reidsville, Rockingham... Sampling Date: 2018-May-11  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-07\_PEM-1  
 Investigator(s): Laura Giese, Simon King, Jeremy Hummel Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4057751 Long: -79.6475958 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  _____ _____		
Remarks:  The criterion for wetland hydrology is met.		



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

Sampling Point: W-A18-07\_PEM-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	60 x 1 = 60
7. _____	_____	_____	_____	FACW species	30 x 2 = 60
	0 = Total Cover			FAC species	5 x 3 = 15
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	5 x 4 = 20
				UPL species	0 x 5 = 0
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				Column Totals	100 (A) 155 (B)
1. _____	_____	_____	_____	Prevalence Index = B/A = <u>1.6</u>	
2. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
3. _____	_____	_____	_____	✓ 1 - Rapid Test for Hydrophytic Vegetation	
4. _____	_____	_____	_____	✓ 2 - Dominance Test is >50%	
5. _____	_____	_____	_____	✓ 3 - Prevalence Index is ≤ 3.0'	
6. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
7. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
8. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
9. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>	
	0 = Total Cover			<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
1. <i>Persicaria sagittata</i>	35	Yes	OBL	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
2. <i>Agrostis gigantea</i>	20	Yes	FACW	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3. <i>Carex lurida</i>	15	No	OBL		
4. <i>Juncus effusus</i>	10	No	FACW		
5. <i>Juncus acuminatus</i>	10	No	OBL		
6. <i>Valerianella radiata</i>	5	No	FAC		
7. <i>Apocynum cannabinum</i>	5	No	FACU		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	100 = Total Cover				
	50% of total cover: <u>50</u>	20% of total cover: <u>20</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					



Photo of Sample Plot  
North





Photo of Sample Plot East





Photo of Sample Plot  
South



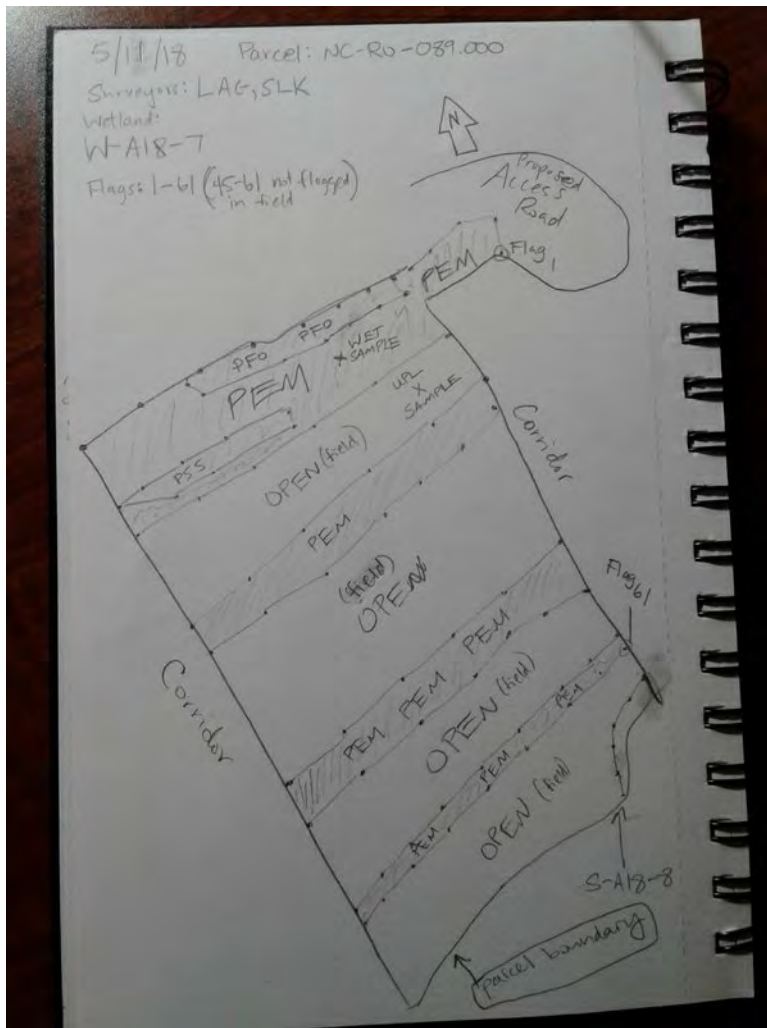


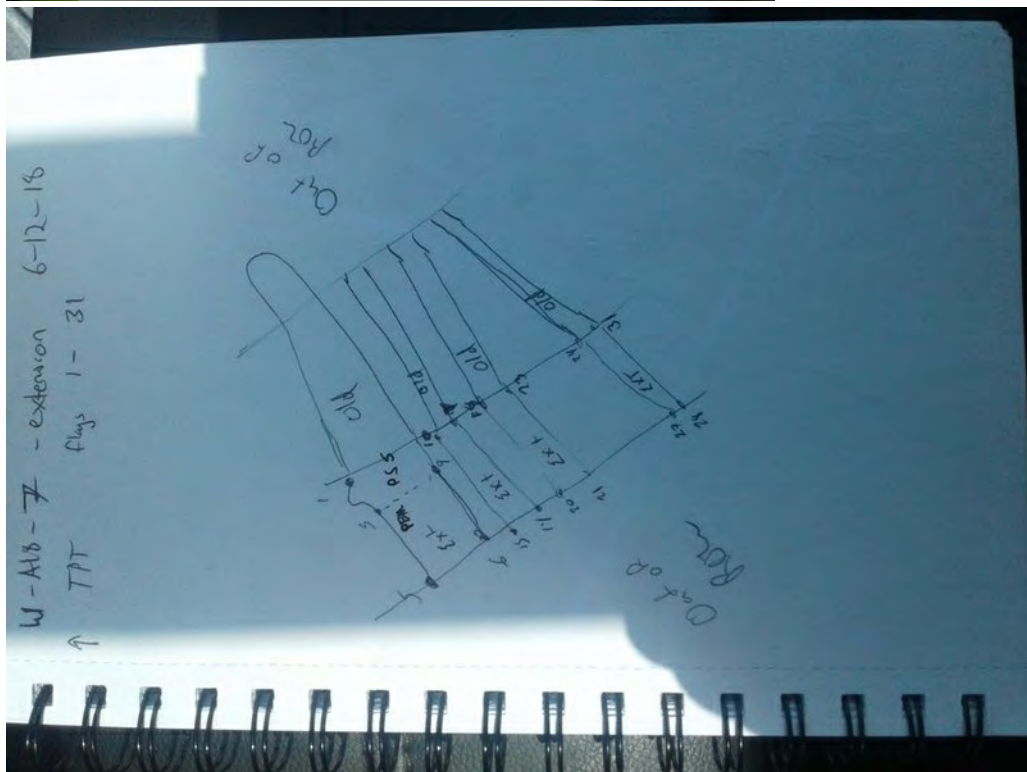
Photo of Sample Plot  
West





Photo of Sample Plot Sketch





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-May-11  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-07\_UPL-1  
 Investigator(s): Laura Giese, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4056296 Long: -79.6473495 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Remarks:</b>			
Covertypes is UPL. Area is upland, not all three wetland parameters are present. Area is upland based on absence of hydric soils and wetland hydrology.			

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is not met.		



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

Sampling Point: W-A18-07 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____	3 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____	66.7 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species _____	x 1 = _____
7. _____	_____	_____	_____	FACW species _____	x 2 = _____
			0 = Total Cover	FAC species _____	x 3 = _____
50% of total cover: <u>0</u>			20% of total cover: <u>0</u>	FACU species _____	x 4 = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				UPL species _____	x 5 = _____
1. _____	_____	_____	_____	Column Totals _____	(A) 345 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>3.3</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
			0 = Total Cover	<b>Definitions of Four Vegetation Strata:</b>	
50% of total cover: <u>0</u>			20% of total cover: <u>0</u>	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Valerianella radiata</i>	35	Yes	FAC	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Agrostis gigantea</i>	20	Yes	FACW	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <i>Medicago lupulina</i>	20	Yes	FACU	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4. <i>Apocynum cannabinum</i>	15	No	FACU		
5. <i>Allium vineale</i>	10	No	FACU		
6. <i>Vicia americana</i>	5	No	FACU		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
			105 = Total Cover		
50% of total cover: <u>52.5</u>			20% of total cover: <u>21</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
			0 = Total Cover		
50% of total cover: <u>0</u>			20% of total cover: <u>0</u>		
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					



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: Reidsville, Rockingham... Sampling Date: 2018-May-09  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-3\_PEM-1  
 Investigator(s): Laura Giese, Simon King Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): Lat: 36.4049734 Long: -79.6219613 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present?                      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?                        Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>11</u> Saturation Present?                            Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>9</u> (includes capillary fringe)	Wetland Hydrology Present?              Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  _____  _____	
Remarks:  The criterion for wetland hydrology is met.	

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

Sampling Point: W-A18-3 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum (Plot size: 30')</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>25</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>25</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>10</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>20</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>10</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>65</u></td> <td>(A)</td> <td style="text-align: center;"><u>145</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>2.2</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:	OBL species	<u>25</u>	x 1 =	<u>25</u>	FACW species	<u>10</u>	x 2 =	<u>20</u>	FAC species	<u>20</u>	x 3 =	<u>60</u>	FACU species	<u>10</u>	x 4 =	<u>40</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals	<u>65</u>	(A)	<u>145</u> (B)	Prevalence Index = B/A = <u>2.2</u>			
	Total % Cover of:		Multiply By:																																	
OBL species	<u>25</u>	x 1 =	<u>25</u>																																	
FACW species	<u>10</u>	x 2 =	<u>20</u>																																	
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FACU species	<u>10</u>	x 4 =	<u>40</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals	<u>65</u>	(A)	<u>145</u> (B)																																	
Prevalence Index = B/A = <u>2.2</u>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Herb Stratum (Plot size: 5')</b>																																				
1. <i>Chelone glabra</i>	10	Yes	OBL																																	
2. <i>Sanicula marilandica</i>	10	Yes	FACU																																	
3. <i>Carex crinita</i>	10	Yes	OBL																																	
4. <i>Carpinus caroliniana</i>	10	Yes	FAC																																	
5. <i>Leersia virginica</i>	10	Yes	FACW																																	
6. <i>Alnus serrulata</i>	5	No	OBL																																	
7. <i>Amphicarpaea bracteata</i>	5	No	FAC																																	
8. <i>Uvularia sessilifolia</i>	5	No	FAC																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
<u>65</u> = Total Cover																																				
50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>																																				
<b>Woody Vine Stratum (Plot size: 30')</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																																				
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																				





Photo of Sample Plot  
North



Photo of Sample Plot  
East





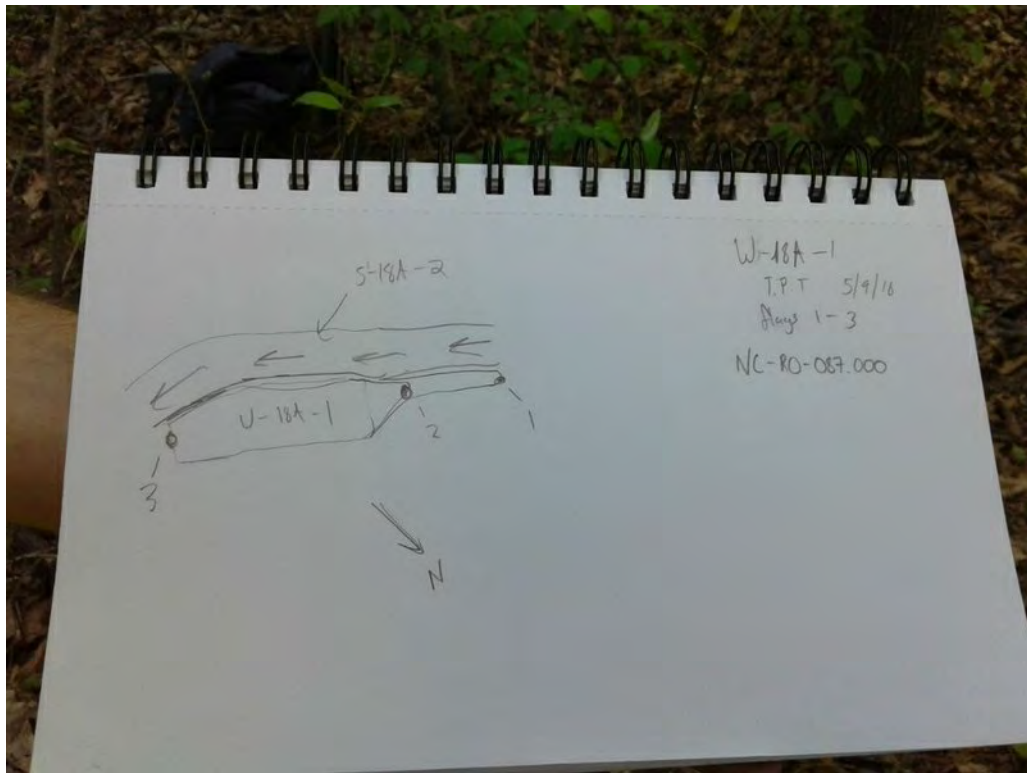
Photo of Sample Plot South



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: 2018-May-09  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-3\_UPL-1  
 Investigator(s): Laura Giese, Simon King, Karla Fortier Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4049734 Long: -79.6219613 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Iron Deposits (B5)					
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)					
<input type="checkbox"/> Water-Stained Leaves (B9)					
<input type="checkbox"/> Aquatic Fauna (B13)					
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)			Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, 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-A18-3 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Magnolia grandiflora</i>	25	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. <i>Carya glabra</i>	20	Yes	FACU	Total Number of Dominant Species Across All Strata:	8 (B)
3. <i>Quercus alba</i>	20	Yes	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC:	37.5 (A/B)
4. <i>Oxydendrum arboreum</i>	15	No	UPL		
5. _____					
6. _____					
7. _____					
	80 = Total Cover				
	50% of total cover: <u>40</u>	20% of total cover: <u>16</u>			
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				<b>Prevalence Index worksheet:</b>	
1. <i>Nyssa sylvatica</i>	10	Yes	FAC	<b>Total % Cover of:</b>	<b>Multiply By:</b>
2. <i>Oxydendrum arboreum</i>	5	Yes	UPL	OBL species	0 x 1 = 0
3. _____				FACW species	0 x 2 = 0
4. _____				FAC species	45 x 3 = 135
5. _____				FACU species	95 x 4 = 380
6. _____				UPL species	20 x 5 = 100
7. _____				Column Totals	160 (A) 615 (B)
8. _____				Prevalence Index = B/A =	<u>3.8</u>
9. _____					
	15 = Total Cover			<b>Hydrophytic Vegetation Indicators:</b>	
	50% of total cover: <u>7.5</u>	20% of total cover: <u>3</u>		_____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is > 50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
1. <i>Vaccinium angustifolium</i>	30	Yes	FACU	<b>Definitions of Four Vegetation Strata:</b>	
2. <i>Carpinus caroliniana</i>	15	Yes	FAC	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
3. <i>Nyssa sylvatica</i>	5	No	FAC	<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
4. <i>Uvularia sessilifolia</i>	5	No	FAC	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
5. _____				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
	55 = Total Cover				
	50% of total cover: <u>27.5</u>	20% of total cover: <u>11</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. <i>Smilax rotundifolia</i>	10	Yes	FAC		
2. _____					
3. _____					
4. _____					
5. _____					
	10 = Total Cover				
	50% of total cover: <u>5</u>	20% of total cover: <u>2</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					





Photo of Sample Plot  
North



Photo of Sample Plot  
South



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-June-01  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-76\_PFO-1  
 Investigator(s): Will Buetow, Simon King, Jim Bouldic Section, Township, Range:  
 Landform (hillslope, terrace, etc.): old pond bed, dam Local relief (concave, convex, none): Concave Slope (%): 1 to 10  
 breached  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4003618 Long: -79.6424315 Datum: WGS84  
 Soil Map Unit Name: SmC, Siloam Sandy loam, 4 to 10 percent slopes NWI classification: PUB  
 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, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Remarks:</b>			
Covertypes is PFO. Area is wetland, all three wetland parameters are present. Area is old pond, where the dam has breached..			

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>3</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		





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

Sampling Point: W-B18-76\_PFO-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Betula nigra</i>	40	Yes	FACW
2.	<i>Carpinus caroliniana</i>	15	Yes	FAC
3.				
4.				
5.				
6.				
7.				
		55 = Total Cover		
50% of total cover: <u>27.5</u>		20% of total cover: <u>11</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15</u> )				
1.	<i>Ligustrum sinense</i>	10	Yes	FACU
2.	<i>Carpinus caroliniana</i>	10	Yes	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
		20 = Total Cover		
50% of total cover: <u>10</u>		20% of total cover: <u>4</u>		
<u>Herb Stratum</u> (Plot size: <u>5</u> )				
1.	<i>Impatiens capensis</i>	35	Yes	FACW
2.	<i>Leersia oryzoides</i>	30	Yes	OBL
3.	<i>Murdannia keisak</i>	15	No	OBL
4.	<i>Carex crinita</i>	15	No	OBL
5.	<i>Urtica dioica</i>	10	No	FACU
6.	<i>Peltandra virginica</i>	5	No	OBL
7.				
8.				
9.				
10.				
11.				
		110 = Total Cover		
50% of total cover: <u>55</u>		20% of total cover: <u>22</u>		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )				
1.				
2.				
3.				
4.				
5.				
		0 = Total Cover		
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Column Total	Indicator	Multiply By:	Result
OBL species	65	(A)	x 1 =	65
FACW species	75	(A)	x 2 =	150
FAC species	25	(A)	x 3 =	75
FACU species	20	(A)	x 4 =	80
UPL species	0	(A)	x 5 =	0
Column Totals	185	(A)		370 (B)

Prevalence Index = B/A = 2

**Hydrophytic Vegetation Indicators:**

     1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤ 3.0<sup>1</sup>

     4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

     Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes  No

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). A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.00).



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: 2018-June-01  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-76\_UPL-1  
 Investigator(s): Will Buetow, Simon King, Jim Bouldic Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Pond dam Local relief (concave, convex, none): Convex Slope (%): 1 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.4004101 Long: -79.642487 Datum: WGS84  
 Soil Map Unit Name: SmC, Siloam Sandy loam, 4 to 10 percent slopes 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 \_\_\_\_ significantly 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?	Yes <input checked="" type="checkbox"/> No ___	Is the Sampled Area within a Wetland? Yes ___ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes ___ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes ___ No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland, not all three wetland parameters are present. Area is dam for pond..		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum 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 Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	___ 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)	___ 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)
<b>Field Observations:</b>		
Surface Water Present? Yes ___ No <input checked="" type="checkbox"/> Water Table Present? Yes ___ No <input checked="" type="checkbox"/> Saturation Present? Yes ___ No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____ Depth (inches): _____ Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes ___ No <input checked="" type="checkbox"/>
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
No positive indication of wetland hydrology was observed.		



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

Sampling Point: W-B18-76 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Betula nigra</i>	40	Yes	FACW
2.	<i>Acer rubrum</i>	20	Yes	FAC
3.				
4.				
5.				
6.				
7.				
		<u>60</u> = Total Cover		
50% of total cover: <u>30</u>		20% of total cover: <u>12</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15</u> )				
1.	<i>Liriodendron tulipifera</i>	20	Yes	FACU
2.	<i>Liquidambar styraciflua</i>	10	Yes	FAC
3.	<i>Betula nigra</i>	5	No	FACW
4.	<i>Juniperus virginiana</i>	2	No	FACU
5.				
6.				
7.				
8.				
9.				
		<u>37</u> = Total Cover		
50% of total cover: <u>18.5</u>		20% of total cover: <u>7.4</u>		
<u>Herb Stratum</u> (Plot size: <u>5</u> )				
1.	<i>Microstegium vimineum</i>	10	Yes	FAC
2.	<i>Lonicera japonica</i>	10	Yes	FACU
3.	<i>Parthenocissus quinquefolia</i>	5	No	FACU
4.	<i>Toxicodendron radicans</i>	5	No	FAC
5.	<i>Prunus serotina</i>	5	No	FACU
6.				
7.				
8.				
9.				
10.				
11.				
		<u>35</u> = Total Cover		
50% of total cover: <u>17.5</u>		20% of total cover: <u>7</u>		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )				
1.				
2.				
3.				
4.				
5.				
		<u>0</u> = Total Cover		
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Column	Multiply By:	Result
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>45</u>	x 2 =	<u>90</u>
FAC species	<u>45</u>	x 3 =	<u>135</u>
FACU species	<u>42</u>	x 4 =	<u>168</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals	<u>132</u>	(A)	<u>393</u> (B)
Prevalence Index = B/A =			<u>3</u>

**Hydrophytic Vegetation Indicators:**

     1- Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤ 3.0<sup>1</sup>

     4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

     Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes  No

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). A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.00).



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-June-02  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-78\_PEM-1  
 Investigator(s): Will Buetow, Simon King, Jim Bouldic Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3973719 Long: -79.6402625 Datum: WGS84  
 Soil Map Unit Name: Rnd Roadhiss, Sandy loam, 15 to 30 percent slopes NWI classification: PUB  
 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, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is PEM. Area is wetland, all three wetland parameters are present. Area is old farm pond.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>6</u>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (includes capillary fringe)	Depth (inches): <u>0</u>
<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>	
<b>Remarks:</b>	
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-B18-78 PEM-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>75</u></td> <td>x 1 = <u>75</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>90</u></td> <td>(A) <u>105</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.2</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>75</u>	x 1 = <u>75</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>90</u>	(A) <u>105</u> (B)	Prevalence Index = B/A = <u>1.2</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>75</u>	x 1 = <u>75</u>																			
FACW species <u>15</u>	x 2 = <u>30</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>90</u>	(A) <u>105</u> (B)																			
Prevalence Index = B/A = <u>1.2</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																			
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																			
<b>Herb Stratum (Plot size: <u>5</u>)</b>																				
1. <u>Murdannia keisak</u>	<u>45</u>	<u>Yes</u>	<u>OBL</u>																	
2. <u>Leersia oryzoides</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>																	
3. <u>Impatiens capensis</u>	<u>15</u>	<u>No</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>45</u>	20% of total cover: <u>18</u>																			
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																			

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
**Woody vines** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes  No

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). A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.00). A positive indication of hydrophytic vegetation was observed (Rapid Test for Hydrophytic Vegetation).





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-June-02  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-78\_PFO-1  
 Investigator(s): Will Buetow, Simon King, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1 to 3  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3972698 Long: -79.6401811 Datum: WGS84  
 Soil Map Unit Name: RnE, Rhodhiss, Sandy loam, 15 to 30 percent slopes NWI classification: PUB  
 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, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		
Covertypes is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<u>Secondary Indicators (minimum of two required)</u>
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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-B18-78\_PFO-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Alnus serrulata</i>	25	Yes	OBL
2.	<i>Acer rubrum</i>	25	Yes	FAC
3.	<i>Liquidambar styraciflua</i>	15	No	FAC
4.	<i>Carpinus caroliniana</i>	15	No	FAC
5.				
6.				
7.				
		80 = Total Cover		
50% of total cover: <u>40</u>		20% of total cover: <u>16</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15</u> )				
1.	<i>Alnus serrulata</i>	25	Yes	OBL
2.	<i>Liquidambar styraciflua</i>	5	No	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
		30 = Total Cover		
50% of total cover: <u>15</u>		20% of total cover: <u>6</u>		
<u>Herb Stratum</u> (Plot size: <u>5</u> )				
1.	<i>Murdannia keisak</i>	45	Yes	OBL
2.	<i>Carex crinita</i>	25	Yes	OBL
3.	<i>Impatiens capensis</i>	10	No	FACW
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
		80 = Total Cover		
50% of total cover: <u>40</u>		20% of total cover: <u>16</u>		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )				
1.				
2.				
3.				
4.				
5.				
		0 = Total Cover		
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply By:	
OBL species	120	x 1 = 120
FACW species	10	x 2 = 20
FAC species	60	x 3 = 180
FACU species	0	x 4 = 0
UPL species	0	x 5 = 0
Column Totals	190 (A)	320 (B)
Prevalence Index = B/A =		<u>1.7</u>

**Hydrophytic Vegetation Indicators:**

     1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤ 3.0<sup>1</sup>

     4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

     Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes  No

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). A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.00).





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: 2018-June-02  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-78\_UPL-1  
 Investigator(s): Will Buetow, Simon King, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): flat Slope (%): 1 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3972237 Long: -79.6402691 Datum: WGS84  
 Soil Map Unit Name: RnE Rhodhiss Sandy loam, 8 to 15 percent slopes 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
Remarks:		
No positive indication of wetland hydrology was observed.		

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

Sampling Point: W-B18-78 UPL-1

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Liquidambar styraciflua</i>	50	Yes	FAC
2. <i>Acer rubrum</i>	20	Yes	FAC
3. <i>Prunus serotina</i>	15	No	FACU
4. <i>Liriodendron tulipifera</i>	10	No	FACU
5. <i>Fagus grandifolia</i>	5	No	FACU
6.			
7.			
100 = Total Cover			
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>			
Sapling/Shrub Stratum (Plot size: <u>15</u> )			
1. <i>Liquidambar styraciflua</i>	15	Yes	FAC
2. <i>Fagus grandifolia</i>	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
25 = Total Cover			
50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>			
Herb Stratum (Plot size: <u>5</u> )			
1. <i>Quercus alba</i>	10	Yes	FACU
2. <i>Lonicera japonica</i>	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
20 = Total Cover			
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>			
Woody Vine Stratum (Plot size: <u>30</u> )			
1.			
2.			
3.			
4.			
5.			
0 = Total Cover			
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply By:
OBL species	<u>0</u> x 1 = <u>0</u>
FACW species	<u>0</u> x 2 = <u>0</u>
FAC species	<u>85</u> x 3 = <u>255</u>
FACU species	<u>60</u> x 4 = <u>240</u>
UPL species	<u>0</u> x 5 = <u>0</u>
Column Totals	<u>145</u> (A) <u>495</u> (B)
Prevalence Index = B/A = <u>3.4</u>	

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is > 50%

3 - Prevalence Index is ≤ 3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes  No

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).





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 Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-June-12  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-112\_PFO-2  
 Investigator(s): Joseph Roy, Joe Roy, Jim Bolduc 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: 36.387342 Long: -79.6369663 Datum: WGS84  
 Soil Map Unit Name: Fairview-Poplar Forest complex 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	10		
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	10		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is met.					



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

Sampling Point: W-B18-112\_PFO-2

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>10</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>40</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>6</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>24</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>56</u></td> <td>(A)</td> <td style="text-align: center;"><u>164</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>2.9</u></td> </tr> </tbody> </table> <b>Hydrophytic Vegetation Indicators:</b> ___ 1- Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		Total % Cover of:		Multiply By:	OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>10</u>	x 2 =	<u>20</u>	FAC species	<u>40</u>	x 3 =	<u>120</u>	FACU species	<u>6</u>	x 4 =	<u>24</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals	<u>56</u>	(A)	<u>164</u> (B)	Prevalence Index = B/A = <u>2.9</u>			
	Total % Cover of:		Multiply By:																																	
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>10</u>	x 2 =	<u>20</u>																																	
FAC species	<u>40</u>	x 3 =	<u>120</u>																																	
FACU species	<u>6</u>	x 4 =	<u>24</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals	<u>56</u>	(A)	<u>164</u> (B)																																	
Prevalence Index = B/A = <u>2.9</u>																																				
1. <i>Acer rubrum</i>	20	Yes	FAC																																	
2. <i>Platanus occidentalis</i>	10	Yes	FACW																																	
3. <i>Liquidambar styraciflua</i>	10	Yes	FAC																																	
4. <i>Liriodendron tulipifera</i>	5	No	FACU																																	
5. _____																																				
6. _____																																				
7. _____																																				
<u>45</u> = Total Cover																																				
50% of total cover: <u>22.5</u>		20% of total cover: <u>9</u>																																		
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																				
1. <i>Asimina triloba</i>	5	Yes	FAC																																	
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
9. _____																																				
<u>5</u> = Total Cover																																				
50% of total cover: <u>2.5</u>		20% of total cover: <u>1</u>																																		
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																				
1. <i>Asimina triloba</i>	5	Yes	FAC																																	
2. <i>Acmispon americanus</i>	1	No	FACU																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
9. _____																																				
10. _____																																				
11. _____																																				
<u>6</u> = Total Cover																																				
50% of total cover: <u>3</u>		20% of total cover: <u>1.2</u>																																		
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																		
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>     																																				



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-June-12  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-112\_PEM-1  
 Investigator(s): Joseph Roy, Joe Roy, Jim Bolduc 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: 36.3872445 Long: -79.6368681 Datum: WGS84  
 Soil Map Unit Name: Fairview-Poplar Forest complex 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is met.					



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

Sampling Point: W-B18-112\_PEM-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	50 x 1 = 50
7. _____	_____	_____	_____	FACW species	45 x 2 = 90
	0 = Total Cover			FAC species	5 x 3 = 15
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	0 x 4 = 0
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				UPL species	0 x 5 = 0
1. _____	_____	_____	_____	Column Totals	100 (A) 155 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>1.6</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	✓ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	✓ 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	✓ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	0 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Leersia oryzoides</u>	50	Yes	OBL	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Impatiens capensis</u>	35	Yes	FACW	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Eupatorium pilosum</u>	10	No	FACW		
4. <u>Smilax rotundifolia</u>	5	No	FAC		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	100 = Total Cover				
	50% of total cover: <u>50</u>	20% of total cover: <u>20</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
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 ≤ 3.00). A positive indication of hydrophytic vegetation was observed (Rapid Test for Hydrophytic Vegetation).					



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-June-12  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-112\_UPL-1  
 Investigator(s): Joseph Roy, Joe Roy, Jim Bolduc Section, Township, Range:  
 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: 36.3874278 Long: -79.637012 Datum: WGS84  
 Soil Map Unit Name: Fairview-Poplar Forest complex 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, 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-B18-112\_UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Carya glabra</i>	50	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. <i>Liquidambar styraciflua</i>	5	No	FAC	Total Number of Dominant Species Across All Strata:	3 (B)
3. <i>Fagus grandifolia</i>	5	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC:	33.3 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	0 x 1 = 0
7. _____	_____	_____	_____	FACW species	0 x 2 = 0
	60 = Total Cover			FAC species	7 x 3 = 21
	50% of total cover: <u>30</u>	20% of total cover: <u>12</u>		FACU species	60 x 4 = 240
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				UPL species	0 x 5 = 0
1. <i>Fagus grandifolia</i>	5	Yes	FACU	Column Totals	67 (A) 261 (B)
2. <i>Asimina triloba</i>	2	Yes	FAC	Prevalence Index = B/A =	<u>3.9</u>
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	____ 2 - Dominance Test is > 50%	
6. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	7 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>3.5</u>	20% of total cover: <u>1.4</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. _____	_____	_____	_____	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. _____	_____	_____	_____	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).					



Photo of Sample Plot  
North



Photo of Sample Plot  
East





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-June-12  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-110\_PFO-1  
 Investigator(s): Will Buetow, Joe Roy, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 1 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3867139 Long: -79.6363875 Datum: WGS84  
 Soil Map Unit Name: Fairview-poplar forest 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input checked="" type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is met.					

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

Sampling Point: W-B18-110\_PFO-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Liquidambar styraciflua</i>	30	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:	5 (A)
2. <i>Fraxinus pennsylvanica</i>	10	Yes	FACW	Total Number of Dominant Species Across All Strata:	5 (B)
3. <i>Platanus occidentalis</i>	5	No	FACW	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<b>Total % Cover of:</b>	<b>Multiply By:</b>
6. _____	_____	_____	_____	OBL species	0 x 1 = 0
7. _____	_____	_____	_____	FACW species	35 x 2 = 70
	45 = Total Cover			FAC species	50 x 3 = 150
	50% of total cover: <u>22.5</u>	20% of total cover: <u>9</u>		FACU species	0 x 4 = 0
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				UPL species	0 x 5 = 0
1. <i>Fraxinus pennsylvanica</i>	5	Yes	FACW	Column Totals	85 (A) 220 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A =	<u>2.6</u>
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	✓ 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	✓ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	5 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>2.5</u>	20% of total cover: <u>1</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Microstegium vimineum</i>	20	Yes	FAC	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Onoclea sensibilis</i>	10	Yes	FACW	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <i>Platanus occidentalis</i>	5	No	FACW		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	35 = Total Cover				
	50% of total cover: <u>17.5</u>	20% of total cover: <u>7</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
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 ≤ 3.00).					





Photo of Sample Plot  
North



Photo of Sample Plot  
East





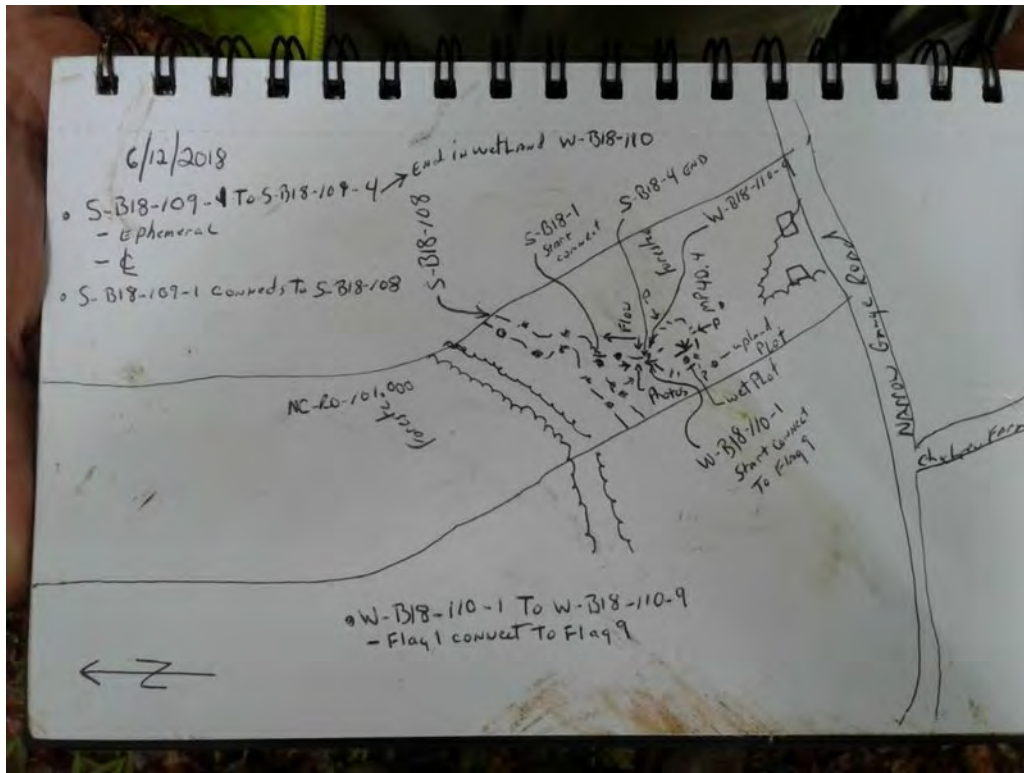
Photo of Sample Plot  
South



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: 2018-June-12  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-110\_UPL-1  
 Investigator(s): Will Buetow, Joe Roy, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 1 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.386757 Long: -79.6361928 Datum: WGS84  
 Soil Map Unit Name: Fairfiew-poplar forest 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		
The criterion for wetland hydrology is not met.		

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

Sampling Point: W-B18-110 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>35</u></td> <td>x 3 =</td> <td></td> <td style="text-align: center;"><u>105</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>85</u></td> <td>x 4 =</td> <td></td> <td style="text-align: center;"><u>340</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>120</u></td> <td>(A)</td> <td></td> <td style="text-align: center;"><u>445</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.7</u></td> </tr> </tbody> </table> <b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.		Total % Cover of:		Multiply By:		OBL species	<u>0</u>	x 1 =		<u>0</u>	FACW species	<u>0</u>	x 2 =		<u>0</u>	FAC species	<u>35</u>	x 3 =		<u>105</u>	FACU species	<u>85</u>	x 4 =		<u>340</u>	UPL species	<u>0</u>	x 5 =		<u>0</u>	Column Totals	<u>120</u>	(A)		<u>445</u> (B)	Prevalence Index = B/A =				<u>3.7</u>
	Total % Cover of:		Multiply By:																																									
OBL species	<u>0</u>	x 1 =			<u>0</u>																																							
FACW species	<u>0</u>	x 2 =			<u>0</u>																																							
FAC species	<u>35</u>	x 3 =			<u>105</u>																																							
FACU species	<u>85</u>	x 4 =			<u>340</u>																																							
UPL species	<u>0</u>	x 5 =			<u>0</u>																																							
Column Totals	<u>120</u>	(A)			<u>445</u> (B)																																							
Prevalence Index = B/A =					<u>3.7</u>																																							
1. <i>Liriodendron tulipifera</i>	80	Yes	FACU																																									
2. <i>Liquidambar styraciflua</i>	10	No	FAC																																									
3. <i>Quercus alba</i>	5	No	FACU																																									
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
<u>95</u> = Total Cover																																												
50% of total cover: <u>47.5</u>		20% of total cover: <u>19</u>																																										
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																												
1. <i>Liquidambar styraciflua</i>	10	Yes	FAC																																									
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
8. _____																																												
9. _____																																												
<u>10</u> = Total Cover																																												
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>																																										
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																												
1. <i>Smilax rotundifolia</i>	15	Yes	FAC																																									
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
8. _____																																												
9. _____																																												
10. _____																																												
11. _____																																												
<u>15</u> = Total Cover																																												
50% of total cover: <u>7.5</u>		20% of total cover: <u>3</u>																																										
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																												
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
<u>0</u> = Total Cover																																												
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																																										
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC– or drier).																																												





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: \_\_\_\_\_ Sampling Date: 2018-May-24

Applicant/Owner: NextEra State: \_\_\_\_\_ Sampling Point: W-B18-53\_PEM-1

Investigator(s): James Bolduc, Tony Tredway, Heather patti Section, Township, Range: \_\_\_\_\_

Landform (hillslope, terrace, etc.): Saddle Local relief (concave, convex, none): Concave Slope (%): 1 to 10

Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3832321 Long: -79.628169 Datum: WGS84

Soil Map Unit Name: \_\_\_\_\_ 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 \_\_\_\_\_ significantly 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?	Yes <input checked="" type="checkbox"/> No _____		
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
<b>Remarks:</b>			
Covertypes is PEM. Area is wetland, all three wetland parameters are present. within transmission line corridor.			

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>			
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>0</u>	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>			
<b>Remarks:</b>			



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

Sampling Point: W-B18-53 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Alnus incana</i>	20	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	50 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>20</u> = Total Cover	
6. _____	_____	_____	_____	50% of total cover: <u>10</u>	20% of total cover: <u>4</u>
7. _____	_____	_____	_____	<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Herb Stratum</b> (Plot size: <u>5</u> )					
1. <i>Carex lurida</i>	90	Yes	OBL	<b>Hydrophytic Vegetation Indicators:</b> ____ 1 - Rapid Test for Hydrophytic Vegetation ____ 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
2. <i>Juncus tenuis</i>	5	No	FAC		
3. <i>Carex vulpinoidea</i>	5	No	OBL		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	100 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>50</u>	20% of total cover: <u>20</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover			<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					



Vegetation Photos



Soil Photos





Photo of Sample Plot  
North



Photo of Sample Plot  
East





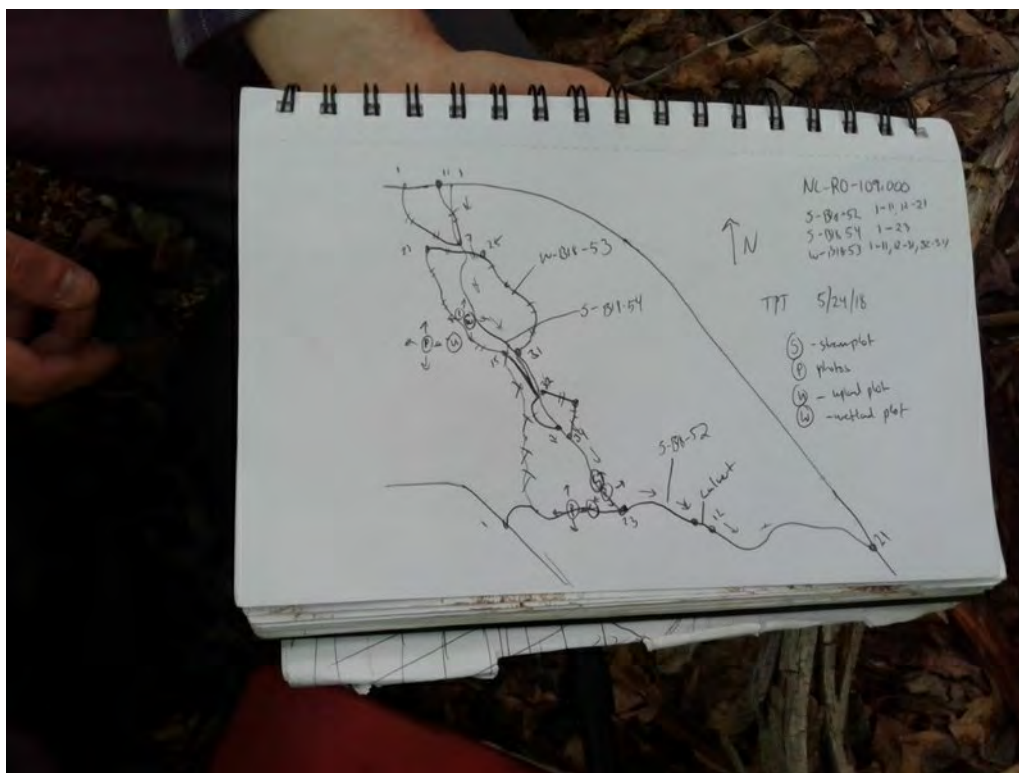
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-May-25  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-55\_PEM-2  
 Investigator(s): James Bolduc, Tony Tredway, Simon Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): None Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3781194 Long: -79.6252528 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Remarks:</b>			
Covertype is PEM. Area is wetland, all three wetland parameters are present. under existing transmission ROW.			

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>				
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)		
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)		
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)		
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)		
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)		
<b>Field Observations:</b>				
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):		10
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):		0
(includes capillary fringe)				
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>				
<b>Remarks:</b>				

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

Sampling Point: W-B18-55 PEM-2

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>50</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>50</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>10</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>75</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>225</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>10</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>145</u></td> <td>(A)</td> <td style="text-align: center;"><u>335</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>2.3</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:	OBL species	<u>50</u>	x 1 =	<u>50</u>	FACW species	<u>10</u>	x 2 =	<u>20</u>	FAC species	<u>75</u>	x 3 =	<u>225</u>	FACU species	<u>10</u>	x 4 =	<u>40</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals	<u>145</u>	(A)	<u>335</u> (B)	Prevalence Index = B/A = <u>2.3</u>			
	Total % Cover of:		Multiply By:																																	
OBL species	<u>50</u>	x 1 =	<u>50</u>																																	
FACW species	<u>10</u>	x 2 =	<u>20</u>																																	
FAC species	<u>75</u>	x 3 =	<u>225</u>																																	
FACU species	<u>10</u>	x 4 =	<u>40</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals	<u>145</u>	(A)	<u>335</u> (B)																																	
Prevalence Index = B/A = <u>2.3</u>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																				
1. <i>Acer rubrum</i>	5	Yes	FAC																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
<u>5</u> = Total Cover																																				
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																				
1. <i>Dichanthelium clandestinum</i>	70	Yes	FAC																																	
2. <i>Carex crinita</i>	20	Yes	OBL																																	
3. <i>Carex lurida</i>	10	No	OBL																																	
4. <i>Carex canescens</i>	10	No	OBL																																	
5. <i>Carex vulpinoidea</i>	10	No	OBL																																	
6. <i>Carex typhina</i>	10	No	FACW																																	
7. <i>Rubus allegheniensis</i>	10	No	FACU																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
<u>140</u> = Total Cover																																				
50% of total cover: <u>70</u> 20% of total cover: <u>28</u>																																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
<u>0</u> = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>     																																				

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1- Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**  
  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
  
**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
  
**Woody vines** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes  No





Vegetation Photos



Soil Photos





Photo of Sample Plot  
North



Photo of Sample Plot  
East





Photo of Sample Plot  
South

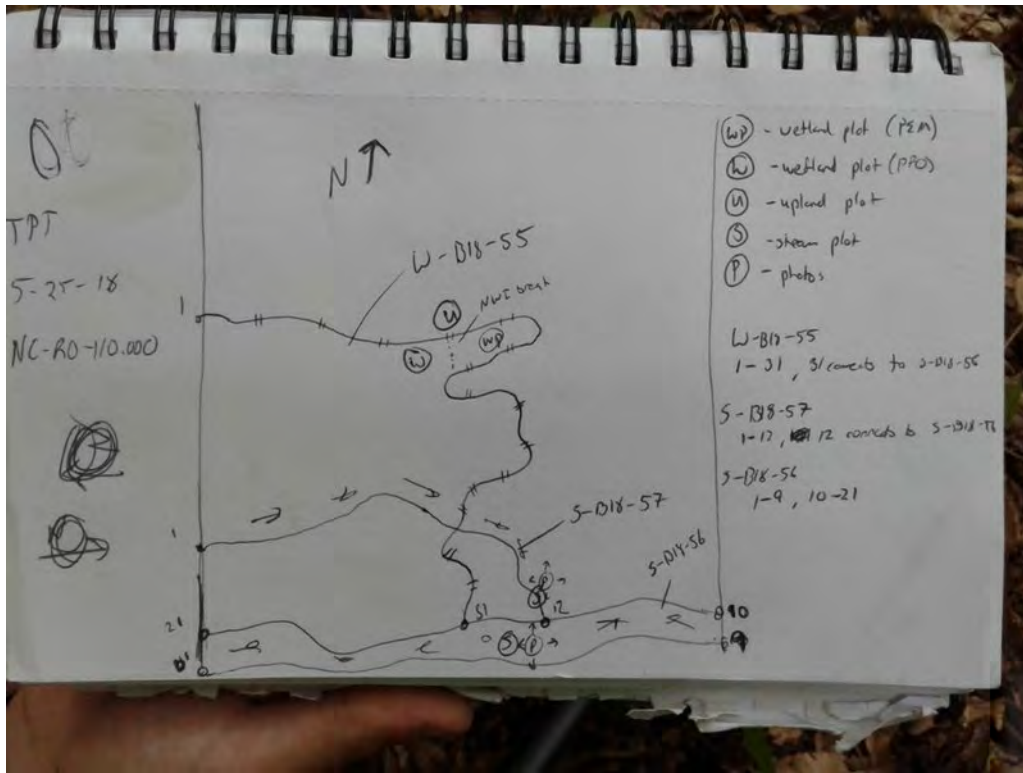


Photo of Sample Plot  
West





Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: \_\_\_\_\_ Sampling Date: 2018-May-24  
 Applicant/Owner: NextEra State: \_\_\_\_\_ Sampling Point: W-B18-53\_UPL-1  
 Investigator(s): James Bolduc, Tony Tredway, Heather patti Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10 to 20  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3833219 Long: -79.6283359 Datum: WGS84  
 Soil Map Unit Name: \_\_\_\_\_ 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 \_\_\_\_ significantly 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?	Yes ____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes ____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes ____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes ____ No <input checked="" type="checkbox"/>	
Remarks:  Covertypes is UPL, transmission line ROW.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes ____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes ____ No <input checked="" type="checkbox"/>		
Water Table Present?	Yes ____ No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present?	Yes ____ No <input checked="" type="checkbox"/>	Depth (inches): _____			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

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

Sampling Point: W-B18-53 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>95</u></td> <td>x 5 = <u>475</u></td> </tr> <tr> <td>Column Totals <u>100</u></td> <td>(A) <u>495</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>5</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>95</u>	x 5 = <u>475</u>	Column Totals <u>100</u>	(A) <u>495</u> (B)	Prevalence Index = B/A = <u>5</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>95</u>	x 5 = <u>475</u>																			
Column Totals <u>100</u>	(A) <u>495</u> (B)																			
Prevalence Index = B/A = <u>5</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																				
1. <u>Leucanthemum vulgare</u>	<u>75</u>	Yes	UPL																	
2. <u>Plantago lanceolata</u>	<u>20</u>	Yes	UPL																	
3. <u>Asclepias syriaca</u>	<u>5</u>	No	FACU																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>100</u> = Total Cover																				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																				

**Hydrophytic Vegetation Indicators:**

\_\_\_\_ 1- Rapid Test for Hydrophytic Vegetation

\_\_\_\_ 2 - Dominance Test is > 50%

\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>

\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No





Vegetation Photos



Soil Photos





Photo of Sample Plot North



Photo of Sample Plot East





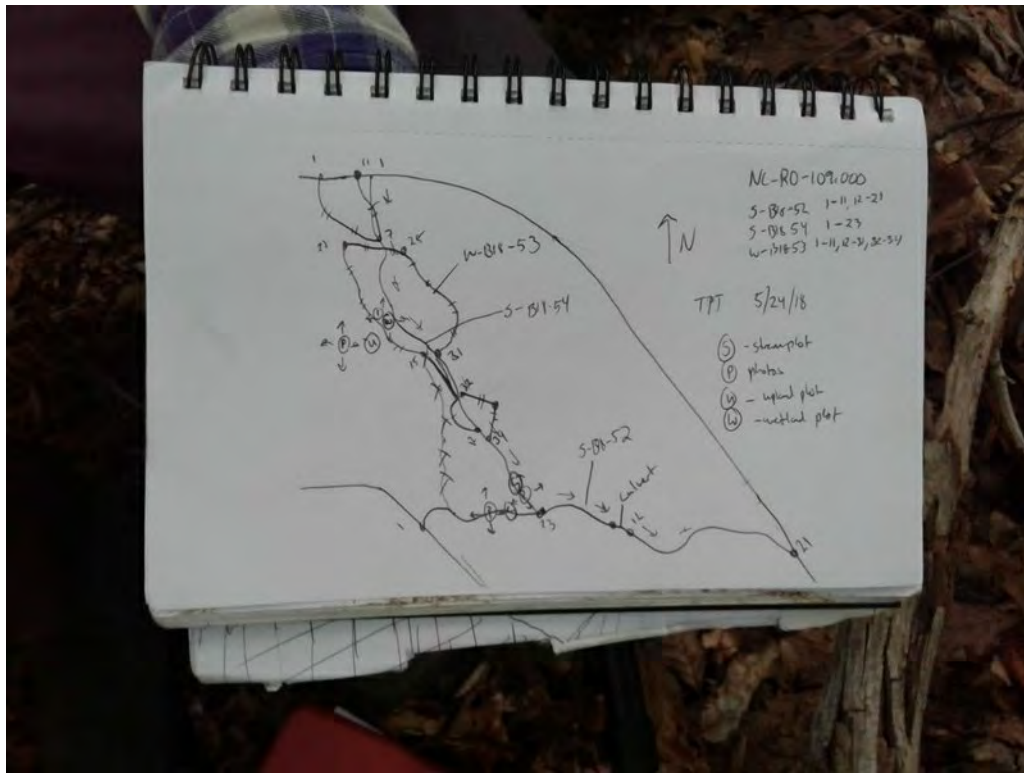
Photo of Sample Plot  
South



Photo of Sample Plot  
West



Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-May-25  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-55\_PFO-1  
 Investigator(s): James Bolduc, Tony Tredway, Jeremy Hemmell, Section, Township, Range:  
 Doreen Donovan

Landform (hillslope, terrace, etc.): Flood Plain Local relief (concave, convex, none): None Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3780023 Long: -79.6254973 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Remarks:</b>		
Covertypes is PFO. Area is wetland, all three wetland parameters are present. flood plain.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>          </u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>    0    </u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>    0    </u>	
(includes capillary fringe)		
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>		
<b>Remarks:</b>		





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

Sampling Point: W-B18-55 PFO-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Liquidambar styraciflua</i>	50	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:	5 (A)
2. <i>Acer rubrum</i>	30	Yes	FAC	Total Number of Dominant Species Across All Strata:	5 (B)
3. <i>Liriodendron tulipifera</i>	10	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. <i>Fagus grandifolia</i>	10	No	FACU		
5. _____					
6. _____					
7. _____					
	100	= Total Cover		<b>Prevalence Index worksheet:</b>	
50% of total cover: <u>50</u>	20% of total cover: <u>20</u>			<b>Total % Cover of:</b>	<b>Multiply By:</b>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				OBL species	0 x 1 = 0
1. <i>Liquidambar styraciflua</i>	30	Yes	FAC	FACW species	20 x 2 = 40
2. <i>Ulmus americana</i>	20	Yes	FACW	FAC species	115 x 3 = 345
3. _____				FACU species	20 x 4 = 80
4. _____				UPL species	0 x 5 = 0
5. _____				Column Totals	155 (A) 465 (B)
6. _____				Prevalence Index = B/A = <u>3</u>	
7. _____				<b>Hydrophytic Vegetation Indicators:</b>	
8. _____				____ 1- Rapid Test for Hydrophytic Vegetation	
9. _____				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
	50	= Total Cover		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
50% of total cover: <u>25</u>	20% of total cover: <u>10</u>			____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
1. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
2. _____				<b>Definitions of Four Vegetation Strata:</b>	
3. _____				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
4. _____				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
5. _____				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
6. _____				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
	0	= Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
50% of total cover: <u>0</u>	20% of total cover: <u>0</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. <i>Smilax rotundifolia</i>	5	Yes	FAC		
2. _____					
3. _____					
4. _____					
5. _____					
	5	= Total Cover			
50% of total cover: <u>2.5</u>	20% of total cover: <u>1</u>				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					





Hydrology Photos



Vegetation Photos



Soil Photos





Photo of Sample Plot  
North





Photo of Sample Plot  
East





Photo of Sample Plot  
South



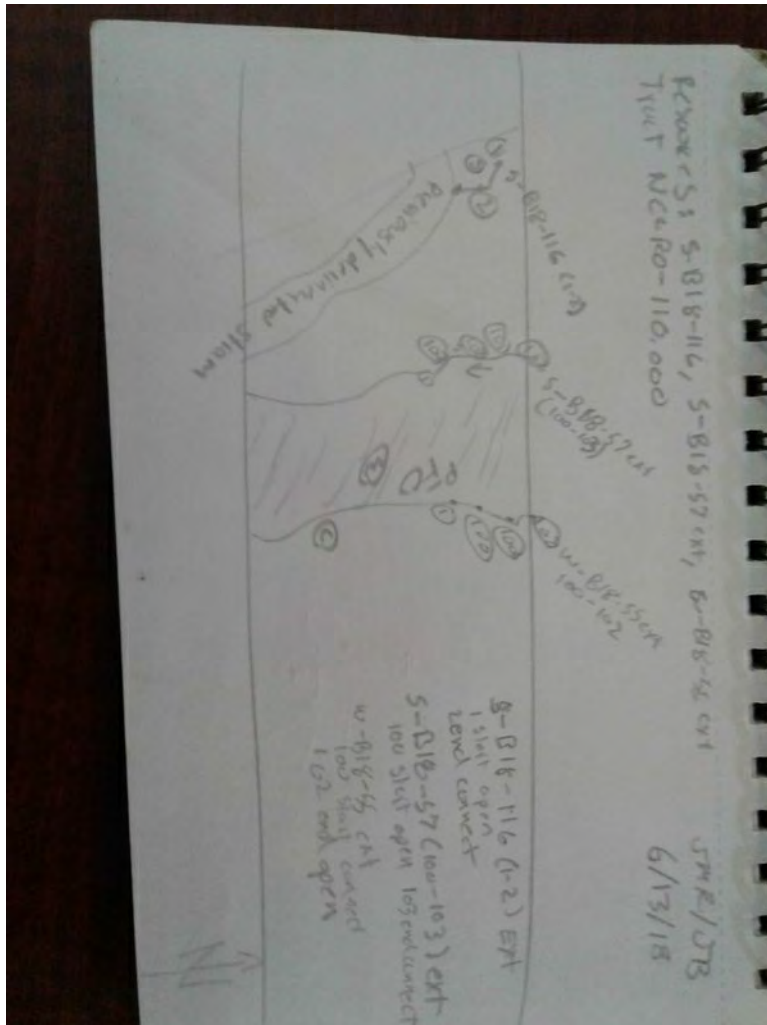
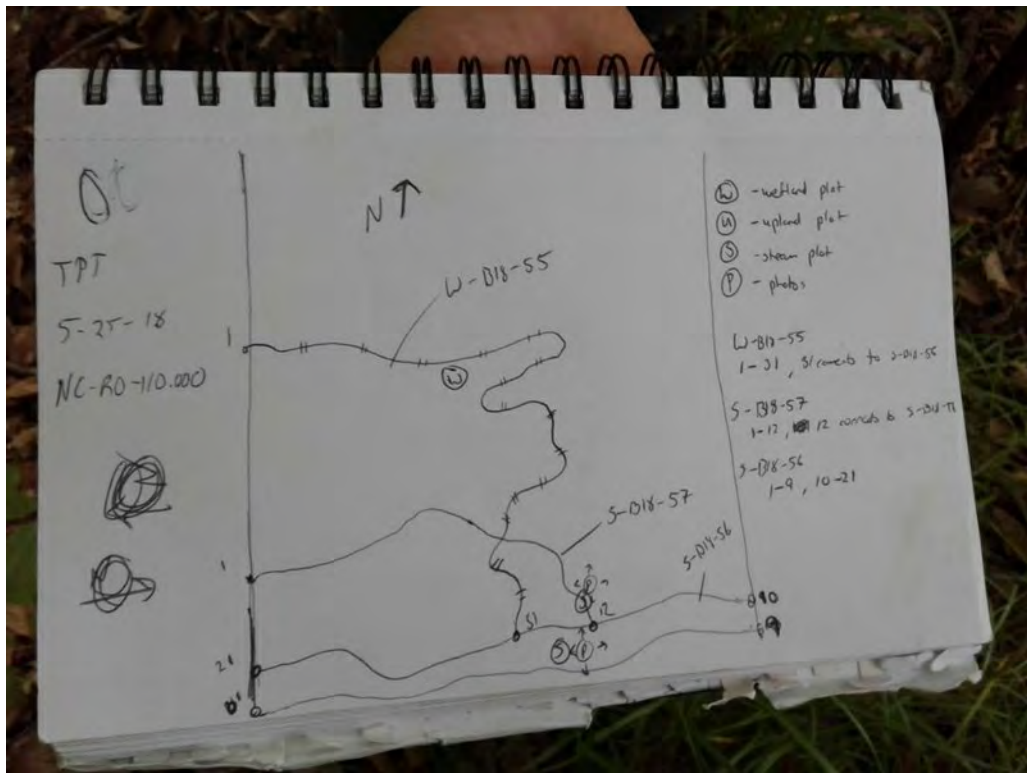


Photo of Sample Plot  
West



Photo of Sample Plot  
Sketch





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-May-25  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-55\_UPL-1  
 Investigator(s): James Bolduc, Tony Tredway, Simon Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10 to 20  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3780693 Long: -79.6254744 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL. Area is upland, not all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: W-B18-55 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Fagus grandifolia</i>	40	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. <i>Carya glabra</i>	20	Yes	FACU	Total Number of Dominant Species Across All Strata:	7 (B)
3. <i>Liquidambar styraciflua</i>	20	Yes	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:	42.9 (A/B)
4. <i>Carpinus caroliniana</i>	10	No	FAC		
5. _____					
6. _____					
7. _____					
<u>90</u> = Total Cover 50% of total cover: <u>45</u> 20% of total cover: <u>18</u>				<b>Prevalence Index worksheet:</b>	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				<b>Total % Cover of:</b> <b>Multiply By:</b>	
1. <i>Quercus alba</i>	5	Yes	FACU	OBL species	0 x 1 = 0
2. _____				FACW species	0 x 2 = 0
3. _____				FAC species	40 x 3 = 120
4. _____				FACU species	80 x 4 = 320
5. _____				UPL species	0 x 5 = 0
6. _____				Column Totals	120 (A) 440 (B)
7. _____				Prevalence Index = B/A = <u>3.7</u>	
8. _____				<b>Hydrophytic Vegetation Indicators:</b>	
9. _____				_____ 1- Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is > 50% _____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Definitions of Four Vegetation Strata:</b>	
1. <i>Quercus alba</i>	15	Yes	FACU	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
2. <i>Smilax rotundifolia</i>	5	Yes	FAC	<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
3. _____				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
4. _____				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. <i>Smilax rotundifolia</i>	5	Yes	FAC		
2. _____					
3. _____					
4. _____					
5. _____					
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>					
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					





Vegetation Photos



Soil Photos





Photo of Sample Plot North



Photo of Sample Plot East





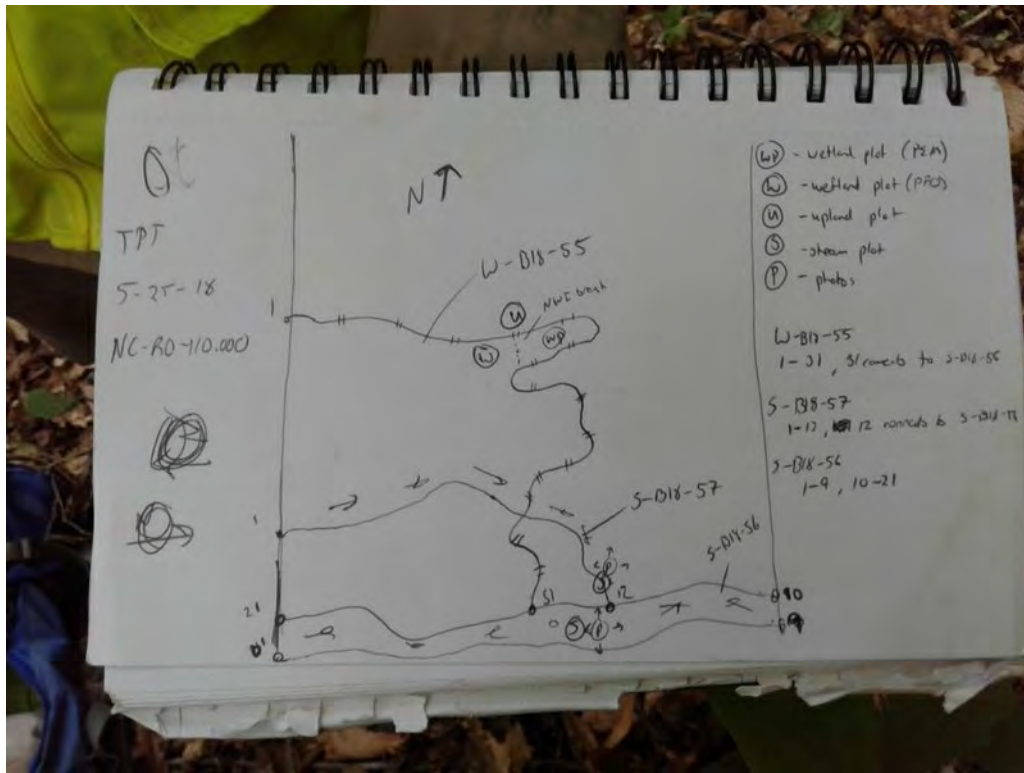
Photo of Sample Plot  
South



Photo of Sample Plot  
West



Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-May-22  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-46\_PFO-1  
 Investigator(s): James Bolduc, Tony Tredway, Heather patti Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Foot slope Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3714496 Long: -79.6205537 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PFO.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

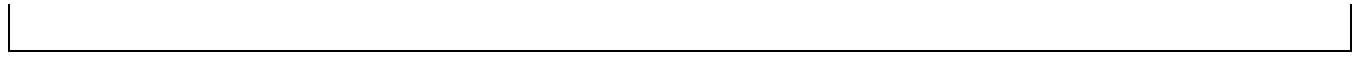


VEGETATION (Four Strata) -- Use scientific names of plants.

Sampling Point: W-B18-46 PFO-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Liquidambar styraciflua</i>	80	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>4</u> (A)
2. <i>Acer rubrum</i>	10	No	FAC	Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3. <i>Liriodendron tulipifera</i>	5	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>95</u> = Total Cover				<b>Prevalence Index worksheet:</b>	
50% of total cover: <u>47.5</u>		20% of total cover: <u>19</u>		<b>Total % Cover of:</b>	<b>Multiply By:</b>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				OBL species	<u>20</u> x 1 = <u>20</u>
1. <i>Liquidambar styraciflua</i>	20	Yes	FAC	FACW species	<u>0</u> x 2 = <u>0</u>
2. <i>Quercus phellos</i>	20	Yes	FAC	FAC species	<u>210</u> x 3 = <u>630</u>
3. <i>Acer rubrum</i>	10	No	FAC	FACU species	<u>15</u> x 4 = <u>60</u>
4. <i>Carpinus caroliniana</i>	10	No	FAC	UPL species	<u>0</u> x 5 = <u>0</u>
5. _____	_____	_____	_____	Column Totals	<u>245</u> (A) <u>710</u> (B)
6. _____	_____	_____	_____	Prevalence Index = B/A = <u>2.9</u>	
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
8. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
9. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
<u>60</u> = Total Cover				____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
50% of total cover: <u>30</u>		20% of total cover: <u>12</u>		____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
1. <i>Microstegium vimineum</i>	60	Yes	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
2. <i>Lonicera japonica</i>	10	No	FACU	<b>Definitions of Four Vegetation Strata:</b>	
3. <i>Carex crinita</i>	20	Percent cover cannot be greater than a previous species	OBL	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
4. _____	_____	_____	_____	<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
5. _____	_____	_____	_____	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
6. _____	_____	_____	_____	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>90</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input type="checkbox"/>	
50% of total cover: <u>45</u>		20% of total cover: <u>18</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>0</u> = 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.)







Vegetation Photos



Photo of Sample Plot North





Photo of Sample Plot  
East



Photo of Sample Plot  
South

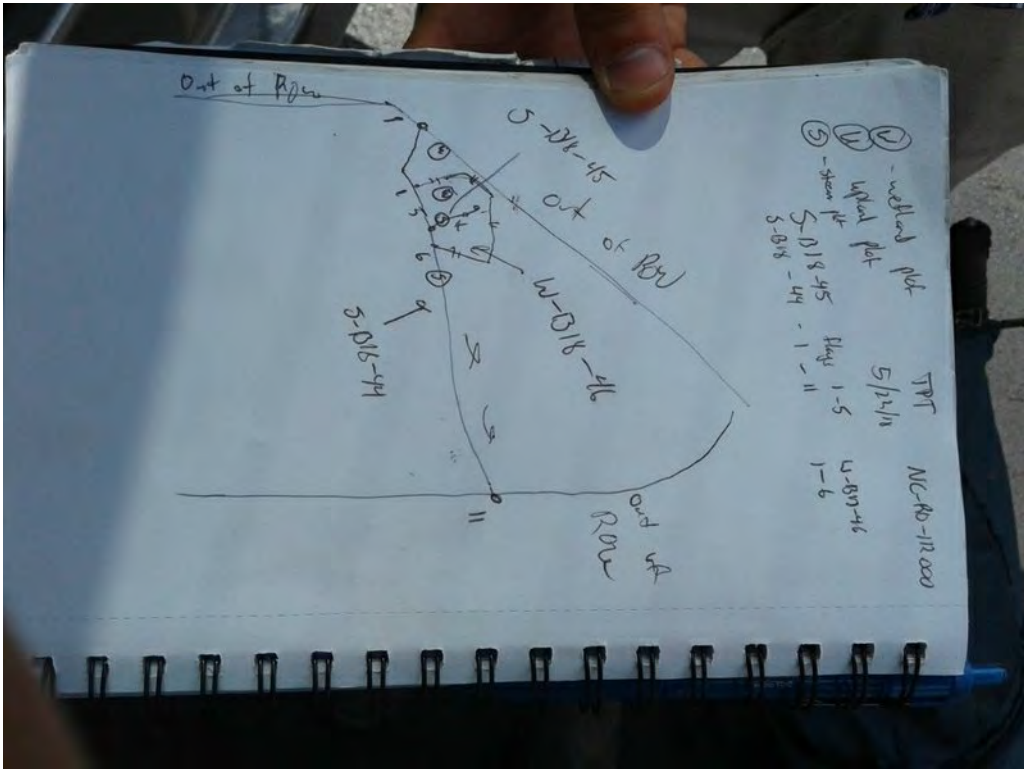




Photo of Sample Plot West



Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-May-22  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-46\_UPL-1  
 Investigator(s): James Bolduc, Tony Tredway, Heather patti Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10 to 15  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3714453 Long: -79.6205741 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		
Covertypes is UPL. Upland mixed hardwood forest.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____ Depth (inches): _____ Depth (inches): _____ Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

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

Sampling Point: W-B18-46 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <i>Liriodendron tulipifera</i>	80	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. <i>Acer rubrum</i>	40	Yes	FAC	Total Number of Dominant Species Across All Strata:	6 (B)
3. <i>Liquidambar styraciflua</i>	10	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:	33.3 (A/B)
4. <i>Juglans nigra</i>	5	No	FACU		
5. _____					
6. _____					
7. _____					
	135 = Total Cover			<b>Prevalence Index worksheet:</b>	
50% of total cover: <u>67.5</u>	20% of total cover: <u>27</u>			<b>Total % Cover of:</b>	<b>Multiply By:</b>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				OBL species	0 x 1 = 0
1. <i>Cornus florida</i>	15	Yes	FACU	FACW species	0 x 2 = 0
2. <i>Ostrya virginiana</i>	15	Yes	FACU	FAC species	130 x 3 = 390
3. _____				FACU species	145 x 4 = 580
4. _____				UPL species	0 x 5 = 0
5. _____				Column Totals	275 (A) 970 (B)
6. _____				Prevalence Index = B/A = <u>3.5</u>	
7. _____				<b>Hydrophytic Vegetation Indicators:</b>	
8. _____				____ 1- Rapid Test for Hydrophytic Vegetation	
9. _____				____ 2 - Dominance Test is > 50%	
	30 = Total Cover			____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
50% of total cover: <u>15</u>	20% of total cover: <u>6</u>			____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
1. <i>Microstegium vimineum</i>	80	Yes	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
2. <i>Rubus allegheniensis</i>	30	Yes	FACU	<b>Definitions of Four Vegetation Strata:</b>	
3. _____				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
4. _____				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
5. _____				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
6. _____				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
	110 = Total Cover			Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
50% of total cover: <u>55</u>	20% of total cover: <u>22</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
	0 = Total Cover				
50% of total cover: <u>0</u>	20% of total cover: <u>0</u>				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					





Vegetation Photos



Photo of Sample Plot  
North





Photo of Sample Plot  
East



Photo of Sample Plot  
South

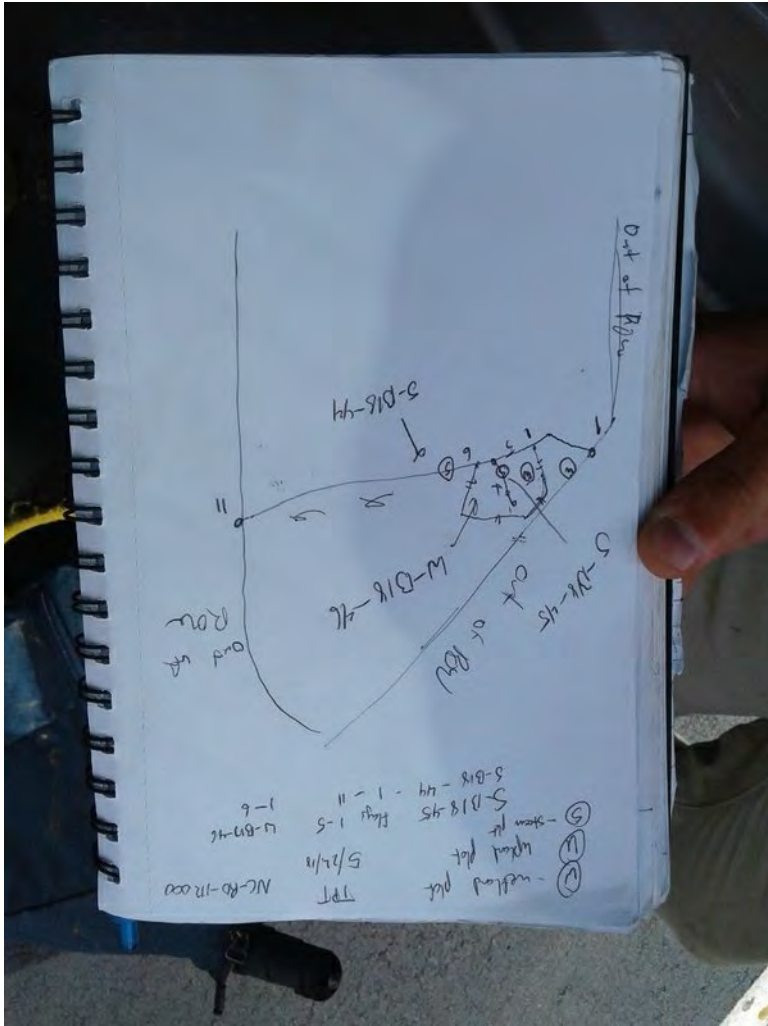




Photo of Sample Plot West



Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-May-22  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-43\_PEM-1  
 Investigator(s): James Bolduc, Tony Tredway, Heather patti Section, Township, Range:  
 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: 36.369689 Long: -79.6197466 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. vegetation disturbed by active cow traffic.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input checked="" type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):			
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

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

Sampling Point: W-B18-43 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <u><i>Ulmus americana</i></u>	60	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. <u><i>Liquidambar styraciflua</i></u>	20	Yes	FAC	Total Number of Dominant Species Across All Strata:	4 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	75 (A/B)
4. _____				<b>Prevalence Index worksheet:</b>	
5. _____				<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____				OBL species	0 x 1 = 0
7. _____				FACW species	130 x 2 = 260
	80 = Total Cover			FAC species	20 x 3 = 60
	50% of total cover: <u>40</u>	20% of total cover: <u>16</u>		FACU species	70 x 4 = 280
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				UPL species	0 x 5 = 0
1. _____				Column Totals	220 (A) 600 (B)
2. _____				Prevalence Index = B/A =	<u>2.7</u>
3. _____				<b>Hydrophytic Vegetation Indicators:</b>	
4. _____				____ 1- Rapid Test for Hydrophytic Vegetation	
5. _____				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____				<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____				____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____				____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	0 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u><i>Persicaria lapathifolia</i></u>	50	Yes	FACW	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u><i>Poa pratensis</i></u>	50	Yes	FACU	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u><i>Ranunculus abortivus</i></u>	20	No	FACW		
4. <u><i>Trifolium repens</i></u>	20	No	FACU		
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
	140 = Total Cover				
	50% of total cover: <u>70</u>	20% of total cover: <u>28</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)					





Vegetation Photos



Soil Photos





Photo of Sample Plot North



Photo of Sample Plot East





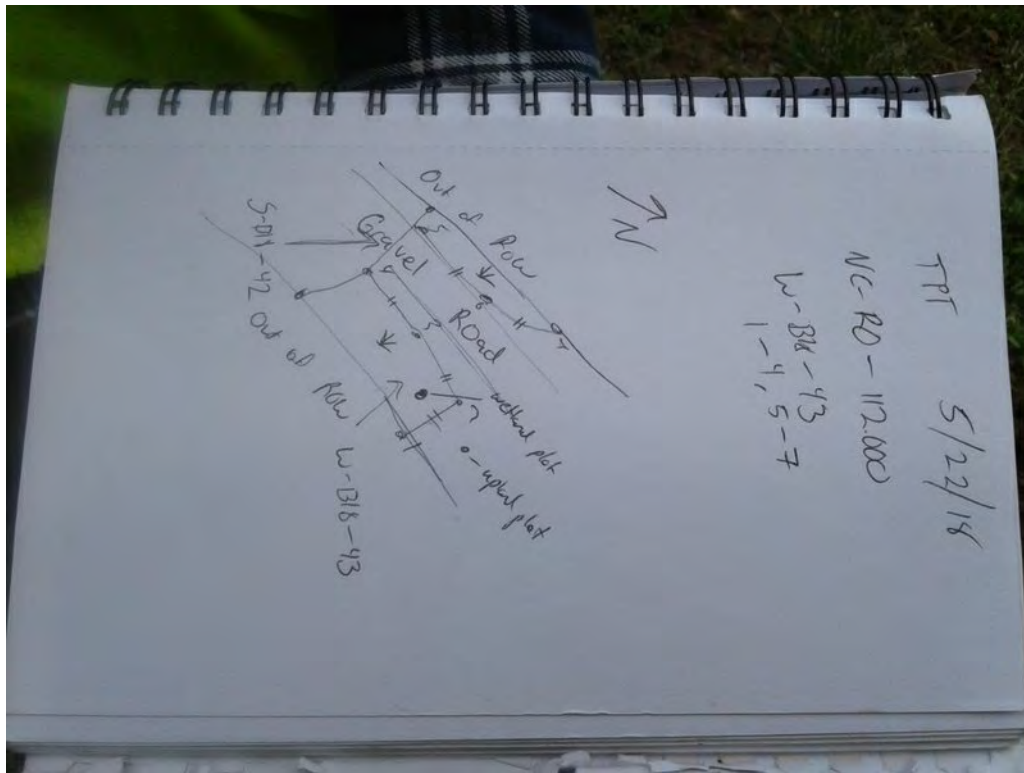
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-May-22  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-43\_UPL-1  
 Investigator(s): James Bolduc, Tony Tredway, Heather patti Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hilltop Local relief (concave, convex, none): Concave Slope (%): 1 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.369771 Long: -79.6197869 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertypes is UPL. vegetation disturbed by cow traffic.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>			Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					



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

Sampling Point: W-B18-43 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>100</u></td> <td>(A) <u>400</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>4</u></td> </tr> </table> <b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is > 50% ___ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>100</u>	(A) <u>400</u> (B)	Prevalence Index = B/A = <u>4</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>100</u>	x 4 = <u>400</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>100</u>	(A) <u>400</u> (B)																			
Prevalence Index = B/A = <u>4</u>																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
<u>0</u> = Total Cover																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
<u>0</u> = Total Cover																				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>																		
<b>Herb Stratum (Plot size: <u>5</u>)</b>																				
1. <i>Poa pratensis</i>	70	Yes	FACU																	
2. <i>Trifolium repens</i>	30	Yes	FACU																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
<u>100</u> = Total Cover																				
50% of total cover: <u>50</u>		20% of total cover: <u>20</u>																		
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
<u>0</u> = 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.)																				



Vegetation Photos



Soil Photos





Photo of Sample Plot  
North



Photo of Sample Plot  
East





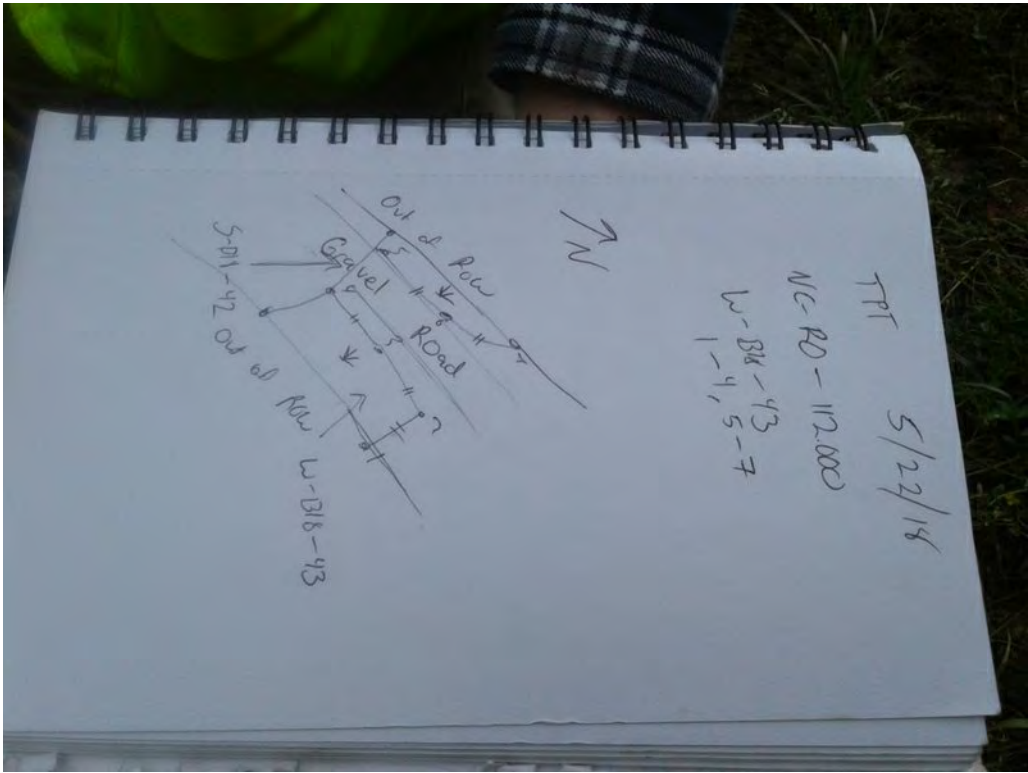
Photo of Sample Plot  
South



Photo of Sample Plot  
West



Photo of Sample Plot Sketch





**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: MVP Southgate City/County: Reidsville, Rockingham... Sampling Date: 2018-June-21  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-175\_PEM-1  
 Investigator(s): Laura Giese, Jake Brillo, Susan Thebert Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Toe Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3514118 Long: -79.6111817 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertypes is PEM. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	<input type="text"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	0		
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	0		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is met.					

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

Sampling Point: W-A18-175 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	<u>95</u> x 1 = <u>95</u>
7. _____	_____	_____	_____	FACW species	<u>0</u> x 2 = <u>0</u>
	<u>0</u> = Total Cover			FAC species	<u>0</u> x 3 = <u>0</u>
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	<u>0</u> x 4 = <u>0</u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				UPL species	<u>0</u> x 5 = <u>0</u>
1. _____	_____	_____	_____	Column Totals	<u>95</u> (A) <u>95</u> (B)
2. _____	_____	_____	_____	Prevalence Index = B/A =	<u>1</u>
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	<u>0</u> = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Leersia oryzoides</u>	<u>35</u>	<u>Yes</u>	<u>OBL</u>	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Scirpus atrovirens</u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Juncus acuminatus</u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4. <u>Carex lurida</u>	<u>10</u>	<u>No</u>	<u>OBL</u>		
5. <u>Eleocharis obtusa</u>	<u>10</u>	<u>No</u>	<u>OBL</u>		
6. <u>Persicaria sagittata</u>	<u>10</u>	<u>No</u>	<u>OBL</u>		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	<u>95</u> = Total Cover				
	50% of total cover: <u>47.5</u>	20% of total cover: <u>19</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	<u>0</u> = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					





Photo of Sample Plot  
North



Photo of Sample Plot  
East





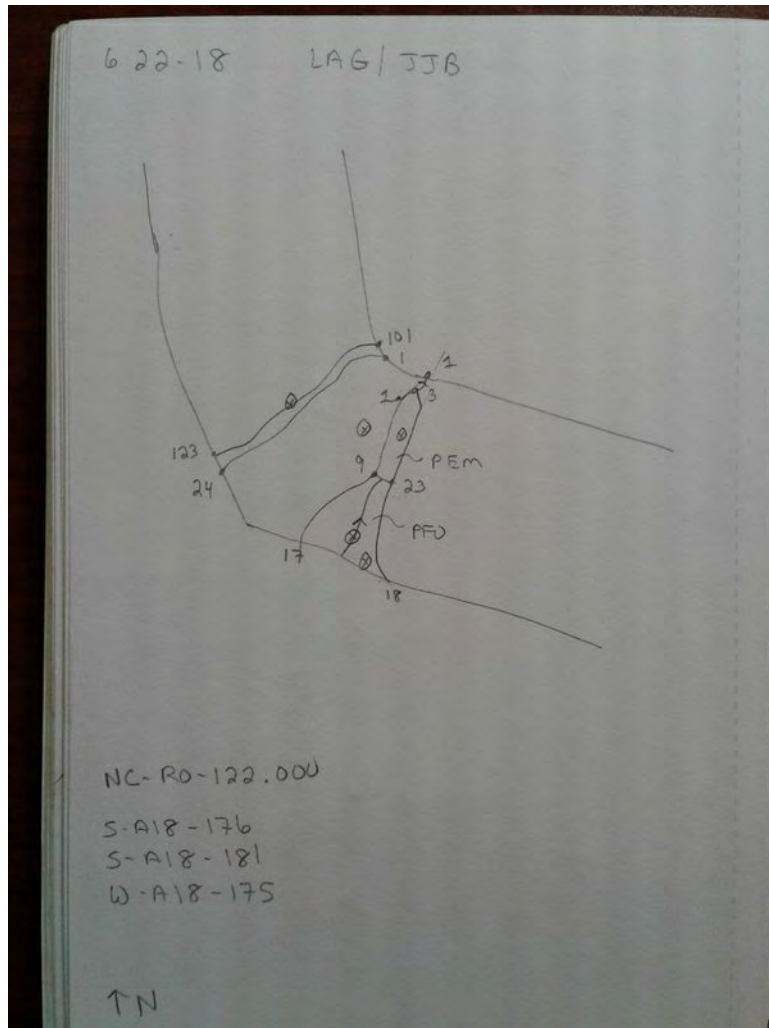
Photo of Sample Plot  
South



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: 2018-June-22  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-175\_PFO-1  
 Investigator(s): Laura Giese, Jake Brillo, Susan Thebert Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.351015 Long: -79.6113083 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Covertype is PFO. Area is wetland, all three wetland parameters are present.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                 ___ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> 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)	<b>Secondary Indicators (minimum of two required)</b> ___ 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) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes ___ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No ___                                      Depth (inches): <u>13</u> Saturation Present? Yes <input checked="" type="checkbox"/> No ___                                      Depth (inches): <u>11</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No ___
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:  The criterion for wetland hydrology is met.	

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

Sampling Point: W-A18-175\_PFO-1

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 20%; text-align: center;">Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>65</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>65</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>35</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>70</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>70</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>210</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>170</u></td> <td>(A)</td> <td style="text-align: center;"><u>345</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>2</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply By:	OBL species	<u>65</u>	x 1 =	<u>65</u>	FACW species	<u>35</u>	x 2 =	<u>70</u>	FAC species	<u>70</u>	x 3 =	<u>210</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals	<u>170</u>	(A)	<u>345</u> (B)	Prevalence Index = B/A = <u>2</u>			
	Total % Cover of:		Multiply By:																																	
OBL species	<u>65</u>	x 1 =	<u>65</u>																																	
FACW species	<u>35</u>	x 2 =	<u>70</u>																																	
FAC species	<u>70</u>	x 3 =	<u>210</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals	<u>170</u>	(A)	<u>345</u> (B)																																	
Prevalence Index = B/A = <u>2</u>																																				
1. <i>Salix nigra</i>	30	Yes	OBL																																	
2. <i>Liquidambar styraciflua</i>	15	Yes	FAC																																	
3. <i>Ulmus americana</i>	15	Yes	FACW																																	
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																																				
1. <i>Acer negundo</i>	15	Yes	FAC																																	
2. <i>Cornus racemosa</i>	10	Yes	FAC																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
9. _____																																				
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>																																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																																				
1. <i>Glyceria striata</i>	35	Yes	OBL																																	
2. <i>Impatiens capensis</i>	10	No	FACW																																	
3. <i>Boehmeria cylindrica</i>	10	No	FACW																																	
4. <i>Amphicarpaea bracteata</i>	5	No	FAC																																	
5. <i>Clematis virginiana</i>	5	No	FAC																																	
6. _____																																				
7. _____																																				
8. _____																																				
9. _____																																				
10. _____																																				
11. _____																																				
<u>65</u> = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>																																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																																				
1. <i>Smilax rotundifolia</i>	20	Yes	FAC																																	
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																																				
<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																																				
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).																																				





Photo of Sample Plot  
North



Photo of Sample Plot  
East





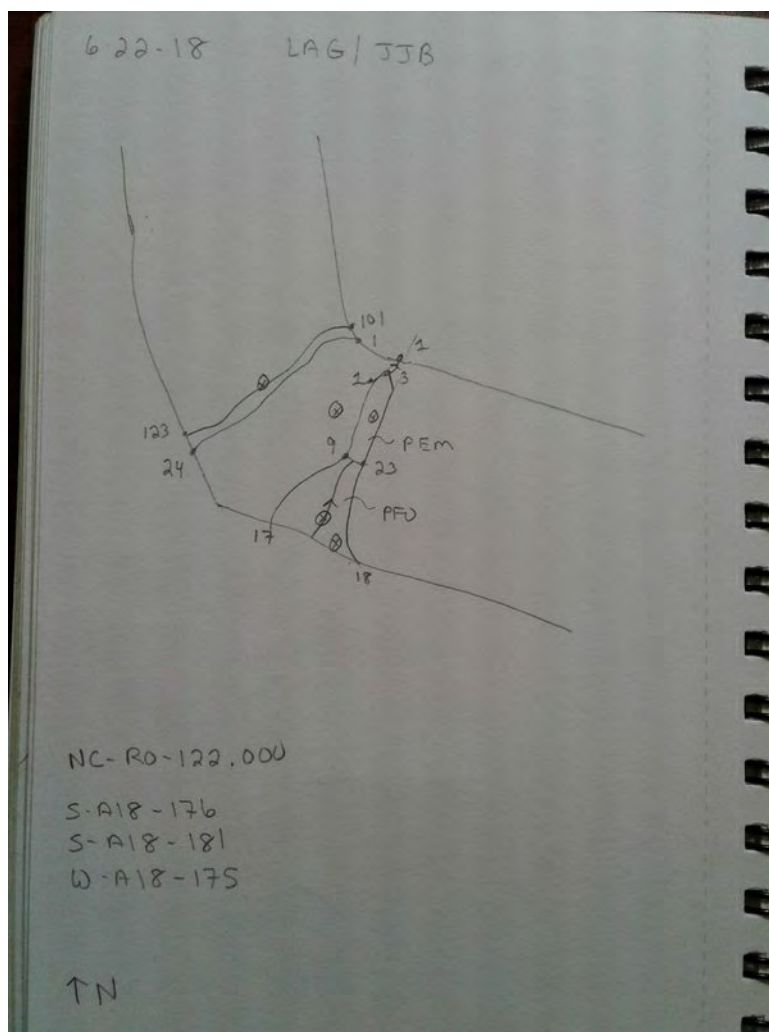
Photo of Sample Plot  
South



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: 2018-June-22  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-A18-175\_UPL-1  
 Investigator(s): Laura Giese, Jake Brillo, Jim Bolduc Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Flat Slope (%): 0 to 1  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3514697 Long: -79.6112572 Datum: WGS84  
 Soil Map Unit Name: 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  significantly 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertype is UPL. Area is upland, not all three wetland parameters are present. Clearing under powerline.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Iron Deposits (B5)					
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)					
<input type="checkbox"/> Water-Stained Leaves (B9)					
<input type="checkbox"/> Aquatic Fauna (B13)					
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)			Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, 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-A18-175 UPL-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum (Plot size: <u>30</u>)</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;"><b>Total % Cover of:</b></td> <td style="text-align:right;"><b>Multiply By:</b></td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>45</u></td> <td>x 4 = <u>180</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals <u>80</u></td> <td>(A) <u>290</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.6</u></td> </tr> </table>	<b>Total % Cover of:</b>	<b>Multiply By:</b>	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>45</u>	x 4 = <u>180</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals <u>80</u>	(A) <u>290</u> (B)	Prevalence Index = B/A = <u>3.6</u>	
<b>Total % Cover of:</b>	<b>Multiply By:</b>																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>15</u>	x 2 = <u>30</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>45</u>	x 4 = <u>180</u>																			
UPL species <u>10</u>	x 5 = <u>50</u>																			
Column Totals <u>80</u>	(A) <u>290</u> (B)																			
Prevalence Index = B/A = <u>3.6</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Herb Stratum (Plot size: <u>5</u>)</b>																				
1. <u>Lespedeza cuneata</u>	<u>20</u>	Yes	FACU																	
2. <u>Solidago gigantea</u>	<u>15</u>	Yes	FACW																	
3. <u>Dichanthelium clandestinum</u>	<u>10</u>	Yes	FAC																	
4. <u>Rubus allegheniensis</u>	<u>10</u>	Yes	FACU																	
5. <u>Daucus carota</u>	<u>10</u>	Yes	UPL																	
6. <u>Erigeron annuus</u>	<u>10</u>	Yes	FACU																	
7. <u>Andropogon virginicus</u>	<u>5</u>	No	FACU																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>80</u> = Total Cover																				
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>																				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>																				
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC- or drier).																				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				





Photo of Sample Plot North



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-31  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-67\_PEM-1  
 Investigator(s): Will Buetow, Simon King, Heather Patti Section, Township, Range:  
 Landform (hillslope, terrace, etc.): drainage Local relief (concave, convex, none): Concave Slope (%): 1 to 10  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3339819 Long: -79.6021059 Datum: WGS84  
 Soil Map Unit Name: FrD2 Fairview Poplar Forested complex, 8 to 15 percent slopes 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 \_\_ significantly 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?	Yes <input checked="" type="checkbox"/> No ___	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No ___
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No ___	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No ___	
Remarks:  Covertype is PEM. Area is wetland, all three wetland parameters are present. access road break s up wetland. No culvert present..		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)			
		<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>					
Surface Water Present?	Yes ___ No <input checked="" type="checkbox"/>	Depth (inches):			
Water Table Present?	Yes ___ No <input checked="" type="checkbox"/>	Depth (inches):	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No ___		
Saturation Present?	Yes <input checked="" type="checkbox"/> No ___	Depth (inches):			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:  The criterion for wetland hydrology is met.					

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

Sampling Point: W-B18-67 PEM-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____	3 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____	66.7 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species _____	x 1 = _____
7. _____	_____	_____	_____	FACW species _____	x 2 = _____
			0 = Total Cover	FAC species _____	x 3 = _____
50% of total cover: <u>0</u>			20% of total cover: <u>0</u>	FACU species _____	x 4 = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				UPL species _____	x 5 = _____
1. _____	_____	_____	_____	Column Totals _____	(A) 305 (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>3.1</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
			0 = Total Cover	<b>Definitions of Four Vegetation Strata:</b>	
50% of total cover: <u>0</u>			20% of total cover: <u>0</u>	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Euthamia graminifolia</i>	30	Yes	FAC	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Solidago canadensis</i>	20	Yes	FACU	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <i>Microstegium vimineum</i>	20	Yes	FAC	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4. <i>Carex lurida</i>	15	No	OBL		
5. <i>Urtica dioica</i>	10	No	FACU		
6. <i>Parthenocissus quinquefolia</i>	5	No	FACU		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
			100 = Total Cover		
50% of total cover: <u>50</u>			20% of total cover: <u>20</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
			0 = Total Cover		
50% of total cover: <u>0</u>			20% of total cover: <u>0</u>		
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
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 ≤ 3.00).					





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: 2018-May-31  
 Applicant/Owner: NextEra State: North Carolina Sampling Point: W-B18-67\_UPL-1  
 Investigator(s): Will Buetow, Simon King, Heather Patti Section, Township, Range:  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 15 to 20  
 Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 36.3340303 Long: -79.6021314 Datum: WGS84  
 Soil Map Unit Name: FrDc, Fairview- poplar forested, 8 to 15 percent slopes 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 Hydrology  significantly 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?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Covertypes is UPL.		

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>  _____ _____	
Remarks:  No positive indication of wetland hydrology was observed.	

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

Sampling Point: W-B18-67 UPL-1

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	5 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	60 (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply By:</u>
6. _____	_____	_____	_____	OBL species	0 x 1 = 0
7. _____	_____	_____	_____	FACW species	5 x 2 = 10
	0 = Total Cover			FAC species	30 x 3 = 90
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>		FACU species	45 x 4 = 180
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				UPL species	0 x 5 = 0
1. <i>Ulmus americana</i>	5	Yes	FACW	Column Totals	80 (A) 280 (B)
2. <i>Sambucus nigra</i>	5	Yes	FAC	Prevalence Index = B/A = <u>3.5</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	___ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	___ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
7. _____	_____	_____	_____	___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
	10 = Total Cover			<b>Definitions of Four Vegetation Strata:</b>	
	50% of total cover: <u>5</u>	20% of total cover: <u>2</u>		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Sapling/shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <i>Euthamia graminifolia</i>	25	Yes	FAC	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <i>Lonicera japonica</i>	25	Yes	FACU	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
3. <i>Rubus allegheniensis</i>	20	Yes	FACU		
4. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
	70 = Total Cover				
	50% of total cover: <u>35</u>	20% of total cover: <u>14</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	0 = Total Cover				
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>			
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>					
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).					





Vegetation Photos



Photo of Sample Plot South





Photo of Sample Plot  
West

