| Project/Site: MVP Southgate              | City/Coun                | ty: Danville, F                   | Pittsylvania C Sam <b>p</b> lin <b>g</b>     | Date: 2018-July-28                            |                             |
|--|--------------------------|-----------------------------------|--|---|-----------------------------|
| Applicant/Owner: NextEra                 |                          |                                   | State: Virgi                                 | nia <b>Samplin</b> g Poin                     | t:W-G18-11_UPL-1            |
| nvestigator(s): _Troy Savage, A          | JW MCS                   |                                   | Section, Township                            | , Range:                                      |                             |
| .andform (hillslope, terrace, etc.)      | : Hillslope              |                                   | Local relief (concave, con                   | vex, none): Convex                            | Slop <b>e (%</b> ): 1 to 10 |
| Subregion (LRR or MLRA): N               | /ILRA 136 of LRR P       |                                   | Lat: 36.6506043                              | Long: -79.5228385                             | Datum: WGS84                |
| Soil <b>Map</b> Unit Name: 23C           |                          |                                   |  | NWI class                                     | sific <b>ation</b> : None   |
| Are climatic/hydrologic condition        |                          | -                                 |  | (If no, explain in Re                         | marks.)                     |
| Are Vegetation, Soil,                    | or Hydrology             | significantly                     | disturbed? Are "Norm                         | al Circumstances" presen                      | t? Yes 🟒 No                 |
| Are Vegetation, Soil,                    | or Hydrology             | naturally pro                     | oblematic? (If needed                        | , explain any answers in R                    | emarks.)                    |
|  |                          |                                   |  |   |                             |
| SUMMARY OF FINDINGS – A                  |                          |                                   | ling point locations, tra                    | nsects, important feat                        | tures, etc.                 |
| Hydrophytic Vegetation Present           | ·                        | _ No <b>_</b> _                   |  |   |                             |
| Hydric Soil Present?                     |                          | _ No <b>_</b> _                   |  |   |                             |
| Wetland Hydrology Present?               | Yes                      | _ No _ <b>_</b>                   | Is the Sampled Area with                     | in <b>a Wetlan</b> d?                         | Yes No∠                     |
| Remarks:                                 |                          |                                   |  |   |                             |
|  |                          |                                   |  |   |                             |
|  |                          |                                   |  |   |                             |
| Covertype is UPL. Area is upland         | l, not all three wetland | parameters a                      | are present.                                 |   |                             |
|  |                          |                                   |  |   |                             |
|  |                          |                                   |  |   |                             |
|  |                          |                                   |  |   |                             |
|  |                          |                                   |  |   |                             |
| IYDROLOGY                                |                          |                                   |  |   |                             |
| Wetland Hydrology Indicators:            |                          |                                   |  |   |                             |
| Primary Indicators (minimum of           | one is required; check   | all that apply                    | Δ  | Secondary Indicators (m                       | inimum of two required)     |
| C  | _                        | A = t = DI                        | (D4.4)                                       | Surface Soil Cracks (E                        |                             |
| Surface Water (A1)                       |                          | rue Aquatic Pl<br>lydrogen Sulfic |  | Sparsely Vegetated C                          |                             |
| High Water Table (A2)<br>Saturation (A3) |                          |                                   | ue Ouor (CT)<br>spheres on Living Roots (C3) | Drainage Patterns (B                          |                             |
| Succirculor (7.5)<br>Water Marks (B1)    |                          |                                   | duced Iron (C4)                              |   |                             |
| Sediment Deposits (B2)                   |                          |                                   | duction in Tilled Soils (C6)                 | Dry-Season Water Ta                           |                             |
| Drift Deposits (B3)                      |                          | hin Muck Surf                     |  | Crayfish Burrows (C8<br>Saturation Visible on |                             |
| Algal Mat or Crust (B4)                  |                          | ther (Explain                     |  | Saturation visible on                         | Aeriai iriiagery (C9)       |
| Iron Deposits (B5)                       |                          |                                   |  | Stunted or Stressed F                         | Plants (D1)                 |
| Inundation Visible on Aerial             | Imagery (B7)             |                                   |  | Geomorphic Position                           |                             |
| Water-Stained Leaves (B9)                |                          |                                   |  | Shallow Aquitard (D3                          | )                           |
| Aquatic Fauna (B13)                      |                          |                                   |  | Microtopographic Re                           | lief (D4)                   |
|  |                          |                                   |  | FAC-Neutral Test (D5)                         | )                           |
| Field Observations:                      |                          |                                   |  |   |                             |
| Surface Water Present?                   | Yes No 🟒                 | Dept                              | h (inches):                                  | _   |                             |
| Water Table Present?                     | Yes No 🟒                 | Dept                              | h (inches):                                  | Wetland Hydrology Pres                        | ent? Yes No                 |
| Saturation Present?                      | Yes No 🟒                 | Dept                              | h (inches):                                  | -   |                             |
| (includes capillary fringe)              |                          |                                   |  | -   |                             |
| Describe Recorded Data (stream           | gauga manitaring w       | all parial phot                   | tos provious inspections) if                 | available:                                    |                             |
| Describe Recorded Data (stream           | r gauge, monitoring we   | aii, aenai priot                  | tos, previous inspections), ir               | avallable.                                    |                             |
|  |                          |                                   |  |   |                             |
|  |                          |                                   |  |   |                             |
| Remarks:                                 |                          |                                   |  |   |                             |
|  |                          |                                   |  |   |                             |
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|  |                          |                                   |  |   |                             |
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|  |                          |                                   |  |   |                             |

| · · · · · · · · · · · · · · · · · · ·               | •           |             |             | T  |                   |            |
|---|-------------|-------------|-------------|--|-------------------|------------|
| Tree Stratum (Plot size:30)                         |             | Dominant    |             | Dominance Test worksheet:                              |                   |            |
|   |             | Species?    | Status      | Number of Dominant Species That Are OBL, FACW, or FAC: | 2                 | (A)        |
| 1. Fagus grandifolia                                | 45          | Yes .       | FACU        | Total Number of Dominant Species                       |                   |            |
| 2. Liriodendron tulipifera                          |             | Yes         | FACU<br>FAC | Across All Strata:                                     | 6                 | (B)        |
| 3. Acer rubrum                                      |             | No No       | FACU        | Percent of Dominant Species That                       | 33.3              | (A /D)     |
| 4. Quercus alba                                     | 5           | No No       |             | Are OBL, FACW, or FAC:                                 |                   | (A/B)      |
| 5. Carya glabra                                     |             | No          | FACU        | Prevalence Index worksheet:                            |                   |            |
| 6   |             |             |             | Total % Cover of:                                      | <u>Multiply B</u> | <u>y:</u>  |
| /·  | 105         | = Total Cov |             | OBL species 0  | x 1 =             | 0          |
| 50% of total cover: <u>52.5</u>                     |             | •           |             | FACW species 0   | x 2 =             | 0          |
| Sapling/Shrub Stratum (Plot size: 10x5)             | _ 20% 01 tu | itai cover. | 21          | FAC species 42   | x 3 =             | 126        |
| 1. Fagus grandifolia                                | 20          | Yes         | FACU        | FACU species 112                                       | x 4 =             | 448        |
| 2. Acer rubrum                                      | 15          | Yes -       | FAC         | UPL species 0  | x 5 =             | 0          |
| 3.  |             |             | TAC         | Column Totals 154                                      | (A)               | 574 (B)    |
| 4.  |             |             |             | Prevalence Index = B/A =                               | 3.7               |            |
| 5.  |             |             |             | Hydrophytic Vegetation Indicators:                     |                   |            |
| 6.  |             |             |             | 1- Rapid Test for Hydrophytic \                        | /egetation        |            |
| 7   |             |             |             | 2 - Dominance Test is > 50%                            |                   |            |
| _   |             |             |             | 3 - Prevalence Index is ≤ 3.01                         |                   |            |
| 9.  |             |             |             | ·4 - Morphological Adaptations                         | י (Provide s      | upporting  |
| 9   |             |             |             | data in Remarks or on a separate sh                    | neet)             |            |
| 500/ - Frank 17.5                                   | 35          | = Total Cov |             | Problematic Hydrophytic Vege                           |                   |            |
| 50% of total cover: 17.5                            | _ 20% or to | itai cover: | 7           | ¹Indicators of hydric soil and wetlan                  |                   | y must be  |
| Herb Stratum (Plot size: 5')                        | _           | Vos         | E A C       | present, unless disturbed or proble                    |                   |            |
| 1. Pyrola americana                                 |             | Yes -       | FAC         | Definitions of Four Vegetation Strate                  | 3:                |            |
| 2. Fagus grandifolia                                | 5           | Yes .       | FACU        |  |                   |            |
| 3. Parthenocissus quinquefolia                      |             | No .        | FACU        | Tree – Woody plants, excluding vine                    |                   |            |
| 4. Acer rubrum                                      | 2           | No          | FAC         | in diameter at breast height (DBH),                    | regardless        | of height. |
| 5.  |             |             |             | .  |                   |            |
| 6   |             |             |             | Sapling/shrub – Woody plants, exclu                    | -                 |            |
| 7.  |             |             |             | in. DBH and greater than or equal to                   | J 3.20 IL (I I    | m) tan.    |
| 8   |             |             |             | .  <br>  <b>Herb</b> – All herbaceous (non-woody)      | plants rog        | ardless of |
| 9   |             |             |             | size, and woody plants less than 3.2                   |                   | aruress or |
| 10  |             |             |             |  | o re can.         |            |
| 11  |             |             |             |  |                   |            |
|   | 14          | = Total Cov | er          | <b>Wo</b> ody vines – All woody vines great            | cer than 3.2      | 28 ft in   |
| 50% of total cover:7                                | _ 20% of to | tal cover:  | 2.8         | height.  |                   |            |
| Woody Vine Stratum (Plot size: 20x10 )              |             |             |             |  |                   |            |
| 1   |             |             |             |  |                   |            |
| 2   |             |             |             |  |                   |            |
| 3   |             |             |             | Hydrophytic Vegetation Present?                        | ∕es 🗆 No 🗵        | ]          |
| 4   |             |             |             |  |                   |            |
| 5   |             |             |             |  |                   |            |
|   | 0           | = Total Cov | er          |  |                   |            |
| 50% of total cover: <u>0</u>                        | _ 20% of to | tal cover:  | 0           |  |                   |            |
| Remarks: (Include photo numbers here or on a separa | e sheet.)   |             |             | •  |                   |            |
|   | ,           |             |             |  |                   |            |
|   |             |             |             |  |                   |            |
|   |             |             |             |  |                   |            |
|   |             |             |             |  |                   |            |
|   |             |             |             |  |                   |            |
|   |             |             |             |  |                   |            |
|   |             |             |             |  |                   |            |

| <b>Profile</b> Des | cription: (Describe to                            | o th <b>e d</b> epth | n needed to | d <mark>ocume</mark> r<br>R <b>edo</b> x I |           |                     | or confirm                   | n the absenc  | e of indicators.)                    |                            |
|--------------------|---|----------------------|-------------|--|-----------|---------------------|------------------------------|---------------|--------------------------------------|----------------------------|
| _                  | Matrix Color (maist)                              |                      | Calan (m. a |  |           |                     | 17                           |               | Tarabrana                            | D a wa a wlea              |
| (inches)           | Color (moist)                                     | <u></u> %            | Color (mo   | DIST) .                                    | <u>%</u>  | Type¹               | _Loc²                        |               | Texture                              | Remarks                    |
| 0 - 5              | 10YR 4/4  | 100                  |             |  |           |                     |                              |               | lty Clay Loam                        | _                          |
| 5 - 18             | 10YR 5/6  | 100                  |             |  |           |                     |                              | Si            | lty Clay Loam                        |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      | -                          |
|                    |   |                      |             |  |           |                     |                              |               |                                      | -                          |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
| ¹Type: C = 0       | Concentration, D = D                              | epletion, F          | RM = Reduce | d Matrix,                                  | MS = N    | Masked S            | and Grai                     | ns. ²Locatio  | n: PL = Pore Lining, M =             | : Matrix.                  |
| Hydric Soil        | Indicators:                                       |                      |             |  |           |                     |                              |               | Indicators for Problem               | natic Hydric Soils3:       |
| _ Histosol (       | A1)   |                      |             | _ Dark Su                                  | ırface (S | 57)                 |                              |               | 2 NA (A40) (B                        | ,<br>JLDA 4.47\            |
| _ Histic Epi       | pedon (A2)  |                      |             | _<br>_ Polyvalı                            | ue Belov  | w Surface           | (S8) (MLI                    | RA 147, 148)  | 2 cm Muck (A10) (F                   |                            |
| Black His          |   |                      | _           | _ Thin Da                                  | rk Surfa  | ace (S9) <b>(</b> N | ILRA <b>14</b> 7,            | , 148)        |                                      | x (A16) (MLRA 147, 148)    |
|                    | n Sulfide (A4)                                    |                      | _           | _  | -         | Matrix (F2          | )                            |               |                                      | ain Soils (F19) (MLRA 136, |
|                    | Layers (A5)                                       |                      |             | _ Deplete                                  |           |                     |                              |               | 147)                                 |                            |
| _                  | ck (A10) (LRR N)                                  |                      | -           | _ Redox [                                  |           |                     |                              |               | Very Shallow Dark                    |                            |
|                    | Below Dark Surface (<br>k Surface (A12)           | ATT)                 | -           | _ Deplete<br>_ Redox [                     |           | Surface (F          | ·7)                          |               | Other (Explain in R                  | emarks)                    |
|                    | k Suriace (ATZ)<br>Jcky Mineral (S1) <b>(</b> LRR | N MIRA1              |             | _ Redux L                                  | nganes    | e Maccec            | (E12) (LD                    | PN MIRA 134   | 5)                                   |                            |
|                    | eyed Matrix (S4)                                  | . 14, 141∟10-1 1     |             | Umbric                                     | Surface   | e (F13) ( <b>M</b>  | ( 12) (EN<br>LR <b>A 136</b> | 1 <b>2</b> 2) | <sup>5)</sup> ₃Indicators of hydroph | ytic vegetation and        |
| Sandy Re           |   |                      | =           |  | 50.100    |                     |                              | MLRA 148)     | wetland hydrology mเ                 | ıst be present, unless     |
| _                  | Matrix (S6)                                       |                      | -           |  |           | terial (F21         |                              |               | disturbed or problem                 | atic.                      |
| Restrictive        | Layer (if observed):                              |                      |             |  |           |                     |                              |               |                                      |                            |
|                    | ype:  |                      | None        |  |           |                     | Hvdric 9                     | Soil Present? |                                      | Yes □ No ☑                 |
|                    | epth (inches):                                    |                      |             |  |           |                     | Iyunc.                       | oon reseries  |                                      | ICS 🗆 IVO 🖭                |
|                    | reper (menes).                                    | -                    |             |  |           |                     |                              |               |                                      |                            |
| Remarks:           |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
| Ī                  |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |
|                    |   |                      |             |  |           |                     |                              |               |                                      |                            |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate  | City/County:                        | Danville, Pittsylvania C.    | Sam <b>p</b> lin <b>g D</b> a             | te: 2018-July-26                                  |                            |
|--|-------------------------------------|------------------------------|---|---|----------------------------|
| Applicant/Owner: NextEra   |                                     |                              | State: Virginia                           | Sampling Poin                                     | t:W-A18-198_PEM-1          |
| Investigator(s): Laura Giese, Si   | mon King                            | Sect                         | i <mark>on, Township, Ra</mark>           | nge:  |                            |
| Landform (hillslope, terrace, etc.)  | : Terrace                           | Local relief                 | (concave, convex,                         | none): Concave                                    | Slop <b>e (%</b> ): 1 to 3 |
| Su <b>bre</b> gion (LRR or MLRA):  |                                     | Lat                          | : 36.6518597                              | Long: -79.5222192                                 | Datum: WGS84               |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :                                       |                                     |                              |   | NWI class   | sification:                |
| Are climatic/hydrologic condition  | <b>s on the site typical for</b> th | nis time of year?            | Yes ∡ No _                                | (If no, explain in Re                             | marks.)                    |
| Are Vegetation, Soil,  |                                     | gnificantly disturbed?       | Are "Normal (                             | lircumstances" presen                             | t? Yes 🟒 No                |
| Are Vegetation, Soil,  | or Hydrology na                     | aturally problematic?        | (If needed, ex                            | plain any answers in Re                           | emarks.)                   |
|  |                                     |                              |   |   |                            |
| SUMMARY OF FINDINGS - A  | kttach site map show                | ing sampling point lo        | cations, transe                           | ects, important feat                              | ures, etc.                 |
| Hydrophytic Vegetation Present   | ? Yes_ <b>√</b> _ No                |                              |   |   |                            |
| Hydric Soil Present?   | Yes _ ✓ No                          | i                            |   |   |                            |
| Wetland Hydrology Present?   | Yes <u>✓</u> No                     | i                            | ol <b>ed</b> A <b>rea</b> within <b>a</b> | Wetland?  | Yes <b>/ No</b>            |
| Remarks:   |                                     |                              |   |   |                            |
| remarks.   |                                     |                              |   |   |                            |
|  |                                     |                              |   |   |                            |
|  |                                     |                              |   |   |                            |
| Covertype is PEM. Area is wetlan   | d, all three wetland para           | meters are present.          |   |   |                            |
|  |                                     |                              |   |   |                            |
|  |                                     |                              |   |   |                            |
|  |                                     |                              |   |   |                            |
| HYDROLOGY  |                                     |                              |   |   |                            |
|  |                                     |                              |   |   |                            |
| Wetland Hydrology Indicators:  |                                     |                              |   |   |                            |
| <u>Primary Indicators (minimum of</u>  | one is required; check al           | l that apply)                |   | =   | inimum of two required)    |
| Surface Water (A1)   | True                                | Aquatic Plants (B14)         |   | _ Surface Soil Cracks (B                          |                            |
| ✓ High Water Table (A2)  |                                     | rogen Sulfide Odor (C1)      |   | _ Sparsely Vegetated C<br>_ Drainage Patterns (B1 |                            |
| ✓ Saturation (A3)  | •                                   | lized Rhizospheres on Liv    | ring Doots (C2)                           | _ Moss Trim Lines (B16                            |                            |
| Water Marks (B1)   | Pres                                | ence of Reduced Iron (C      |   | _ Dry-Season Water Tal                            |                            |
| Sediment Deposits (B2)   |                                     | ent Iron Reduction in Tille  | ed Soils (C6)                             | _ Crayfish Burrows (C8)                           |                            |
| Drift Deposits (B3)  |                                     | Muck Surface (C7)            |   | _Saturation Visible on                            | Aerial Imagery (C9)        |
| Algal Mat or Crust (B4)  | Oth                                 | er (Explain in Remarks)      |   |   | N (DA)                     |
| Iron Deposits (B5)   | Imagon (B7)                         |                              |   | _ Stunted or Stressed F                           |                            |
| <ul><li> Inundation Visible on Aerial</li><li> Water-Stained Leaves (B9)</li></ul> | imagery (B7)                        |                              |   | ′_Geomorphic Position<br>_Shallow Aquitard (D3    |                            |
| Aquatic Fauna (B13)  |                                     |                              |   | _ Microtopographic Re                             |                            |
|  |                                     |                              |   | ⊆ FAC-Neutral Test (D5)                           |                            |
| Field Observations:  |                                     |                              |   |   |                            |
| Surface Water Present?   | Yes No <b>_</b> ✓                   | Depth (inches):              |   |   |                            |
| Water Table Present?   | Yes No                              | Depth (inches):              | 8 W                                       | etland Hydrology Pres                             | ent? Yes No                |
| Saturation Present?  | Yes _ / No                          | Depth (inches):              | 0   |   | <b></b>                    |
| (includes capillary fringe)  | 165 <u>v</u> 110                    | Depart (menes).              |   |   |                            |
| Describe Recorded Data (stream   | gauge menitering well               | acrial mhatac mrasicus i     | nanastions) if sun                        | ilable  |                            |
| Describe Recorded Data (stream   | rgauge, monitoring weil,            | aeriai priotos, previous i   | rispections), ii ava                      | illable:  |                            |
|  |                                     |                              |   |   |                            |
| Down and an  |                                     |                              |   |   |                            |
| Remarks:   |                                     |                              |   |   |                            |
|  |                                     |                              |   |   |                            |
|  |                                     |                              |   |   |                            |
| A positive indication of wetland   | hydrology was observed              | (at least one primary ind    | icator)                                   |   |                            |
| positive indication of wedding   | ., 0.08, was observed               | Latitude of a primitary into | . 1300. /.                                |   |                            |
|  |                                     |                              |   |   |                            |
|  |                                     |                              |   |   |                            |

| · · · · · · · · · · · · · · · · · · ·                   |                  |              |            | 1  |                |             |
|---|------------------|--------------|------------|--|----------------|-------------|
| Tree Stratum (Plot size:30)                             | <b>A</b> bsolute | Dominant     | Indicator  | Dominance Test worksheet:                                    |                |             |
| <u>Tree Stratum</u> (Plot Size. <u>50)</u>              | % Cover          | Species?     | Status     | Number of Dominant Species That                              | 2              | (A)         |
| 1.  | -                |              |            | Are OBL, FACW, or FAC:                                       |                | (A)         |
| 2.  |                  |              |            | Total Number of Dominant Species Across All Strata:          | 2              | (B)         |
| 3   |                  |              |            | Percent of Dominant Species That                             |                |             |
| 4   |                  |              |            | Are OBL, FACW, or FAC:                                       | 100            | (A/B)       |
| 5   |                  |              |            | Prevalence Index worksheet:                                  |                |             |
| 6   |                  |              |            | Total % Cover of:  | Multiply B     | v:          |
| 7   |                  |              |            | OBL species 0  | x 1 =          | 0           |
|   | 0                | = Total Cove | r          | FACW species 60  | x 2 =          | 120         |
| 50% of total cover: <u>0</u>                            | _ 20% of to      | otal cover:  | 0          | FAC species 25   | x3=            | 75          |
| Sapling/Shrub Stratum (Plot size:15)                    |                  |              |            | FACU species 15  | × 4 =          | 60          |
| 1   |                  |              |            | UPL species 0  | x5=            | 0           |
| 2.  |                  |              |            | <u> </u>   | _              |             |
| 3.  |                  |              |            | Column Totals 100  |                | 255 (B)     |
| 4.  |                  |              |            | Prevalence Index = B/A =                                     | 2.6            |             |
| 5.  |                  |              |            | Hydrophytic Vegetation Indicators:                           |                |             |
| 6.  |                  |              |            | 1- Rapid Test for Hydrophytic                                | √egetation     |             |
|   |                  |              |            | 2 - Dominance Test is >50%                                   |                |             |
| 7.<br>8.  |                  |              |            |  |                |             |
| 8.<br>9.  |                  |              |            | ·  4 - Morphological Adaptations                             | ¹ (Provide si  | upporting   |
| 9.  |                  |              |            | data in Remarks or on a separate sh                          | neet)          |             |
| 50% 6   | 0                | = Total Cove |            | Problematic Hydrophytic Vege                                 | tation¹ (Exp   | lain)       |
| 50% of total cover: <u>0</u>                            | _ 20% of to      | otal cover:  | 0          | <sup>1</sup> Indicators of hydric soil and wetlan            | id hydrology   | y must be   |
| Herb Stratum (Plot size: 5 )                            |                  |              |            | present, unless disturbed or proble                          | matic          |             |
| 1. Impatiens capensis                                   | 35               | Yes          | FACW       | Definitions of Four Vegetation Strat                         | a:             |             |
| 2. Symphyotrichum lateriflorum                          | 25               | Yes          | FACW       |  |                |             |
| 3. Microstegium vimineum                                | 15               | No _         | FAC        | Tr <b>ee</b> – Woody plants, excluding vine                  | s, 3 in. (7.6  | cm) or more |
| 4. Glechoma hederacea                                   | 15               | No           | FACU       | in diameter at breast height (DBH),                          | regardless o   | of height.  |
| 5. Amphicarpaea bracteata                               | 10               | No           | FAC        |  |                |             |
| 6   |                  |              |            | Sapling/shrub – Woody plants, exclu                          | uding vines,   | less than 3 |
| 7.  |                  |              |            | in. DBH and greater than or equal to                         | o 3.28 ft (1 r | m) tall.    |
| 8.  |                  |              |            |  |                |             |
| 9.  |                  |              |            | Herb – All herbaceous (non-woody)                            | plants, rega   | ardless of  |
| 10  |                  |              |            | size, and woody plants less than 3.2                         | 8 ft tall.     |             |
| 11.   |                  |              |            | •  |                |             |
|   | 100              | = Total Cove | <u> </u>   | .  <br>  <b>Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.2   | 8 ft in     |
| FOR of total sovery FO                                  |                  | -            |            | height.  | cer chan s.z   | O TE III    |
| 50% of total cover: 50                                  | _ 20% 01 (0      | otal cover:  | 20         | Tielg. Te.   |                |             |
| Woody Vine Stratum (Plot size: 30 )                     |                  |              |            |  |                |             |
| 1.  |                  |              |            |  |                |             |
| 2   |                  |              |            | .  |                |             |
| 3.  |                  |              |            | Hydrophytic Vegetation Present?                              | ∕es ☑ No □     |             |
| 4   |                  |              |            |  |                |             |
| 5   |                  |              |            |  |                |             |
|   | 0                | = Total Cove | r          |  |                |             |
| 50% of total cover: <u>0</u>                            | _ 20% of to      | otal cover:  | 0          |  |                |             |
| Remarks: (Include photo numbers here or on a separa     | e sheet )        |              |            |  |                |             |
| A positive indication of hydrophytic vegetation was obs | served (>50      | 0% of domina | nt species | indexed as OBL, FACW, or FAC).                               |                |             |
|   |                  |              |            |  |                |             |

| Profile De<br>Depth | scription: (Describe to<br>Matrix | th <b>e d</b> ep | th n <b>eed</b> ed to |            | nt the in<br>Feature |                     | or confir   | m the absenc      | e of indicators.)               |   |
|---------------------|-----------------------------------|------------------|-----------------------|------------|----------------------|---------------------|-------------|-------------------|---------------------------------|---|
|                     |                                   | 96               | Color In              |            |                      |                     | 1007        |                   | Tourism                         | Domoniles   |
| (inches)            | Color (moist)                     |                  | Color (n              |            | <del></del>          | Type¹               | Locz        |                   | Texture                         | Remarks   |
| 0 - 7               | 10YR 4/1                          | 95               | 7.5YR                 |            |                      |                     | M/PL        |                   | Sandy Loam<br>- · ·             | _   |
| 7 - 28              | 2.5Y 5/1                          | 95               | 7.5YR                 | 4/6        | 5                    | C                   | M/PL        |                   | Sandy Loam                      | _   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 | _   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       | -          |                      |                     |             |                   |                                 |   |
| 1Type: C =          | Concentration D = De              | nlotion          | DM - Dodu             | cod Matrix |                      | Macked 9            | Eand Gra    | ing 21 ocatio     | on: PL = Pore Lining, M :       | - Matrix  |
|                     |                                   | eprecion,        | KW - Keuu             | ceu Matrix | , 1015 – 1           | viaskeu .           | sanu Gra    | msLucauc          |                                 |   |
|                     | il Indicators:                    |                  |                       | 5 16       |                      |                     |             |                   | Indicators for Probler          | natic Hydric Solis <sup>3</sup> :                         |
| _ Histosol          | (AT)<br>pipedon (A2)              |                  |                       | Dark Si    |                      |                     | - (CO) (MI) | RA 147, 148)      | 2 cm Muck (A10) (               | MLRA 147)   |
| Black Hi            |                                   |                  |                       | Thin Da    |                      |                     |             |                   | Coast Prairie Redo              | ox (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b> |
|                     | en Sulfide (A4)                   |                  |                       | _ Loamy    |                      |                     |             | ,                 | Piedmont Floodpl                | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b>               |
|                     | d Layers (A5)                     |                  |                       | Deplete    | ,                    |                     | ,           |                   | 147)                            |   |
| _ 2 cm Mu           | uck (A10) (LRR N)                 |                  |                       | Redox      | Dark Su              | rface (F6)          | )           |                   | Very Shallow Dark               | (Surface (TF12)   |
|                     | d Below Dark Surface (A           | 11)              |                       | _ Deplete  |                      |                     |             |                   | Other (Explain in F             | Remarks)  |
|                     | ark Surface (A12)                 |                  |                       | Redox      | Depress              | ions (F8)           |             |                   |                                 |   |
| _                   | fucky Mineral (S1) (LRR           | N, M∟RA          | 147, 148)             | Iron-M     | anganes              | se Masse:           | s (F12) (LF | RR N, MERA 130    | <b>6)</b> ₃Indicators of hydrop | hytic vegetation and                                      |
| _ ,                 | ileyed Matríx (S4)<br>edox (S5)   |                  |                       |            |                      | - (· · · · · ) (· · |             | 122)<br>MLRA 148) | wetland hydrology m             | ust be present, unless                                    |
| _                   | d Matrix (S6)                     |                  |                       | _          |                      |                     |             | 127, <b>1</b> 47) | disturbed or problem            | atic.   |
|                     | Layer (if observed):              |                  |                       |            |                      | earrar (r z         | 1           | , ,               |                                 |   |
|                     | Type:                             |                  | None                  |            |                      |                     | Hydric      | Soil Present?     |                                 | Yes ☑ No □  |
|                     | Depth (inches):                   |                  | TVOITE                |            |                      |                     | Inyunc.     | son Presence      |                                 | tes ☑ NU □  |
|                     | Depth (intries).                  |                  |                       |            |                      |                     |             |                   |                                 |   |
| Remarks:            |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |
|                     |                                   |                  |                       |            |                      |                     |             |                   |                                 |   |

Photo of Sample Plot North



Photo of Sample Plot East



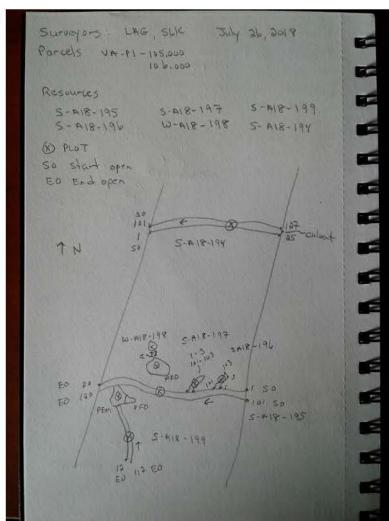
Photo of Sample Plot South



Photo of Sample Plot West



#### Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                                       | City/County                 | : Danville, Pittsylvania C       | . Sampling D                     | ate: 2018-July-26                    |                |                            |
|---|-----------------------------|----------------------------------|----------------------------------|--------------------------------------|----------------|----------------------------|
| Applicant/Owner: NextEra  |                             |                                  | State: Virginia                  | Sampling                             | Point: W-A18   | 8-198_PFO-1                |
| Investigator(s): Laura Giese, Si                                  | mon King                    | Sect                             | ion, Township, R                 | ange:                                |                |                            |
| Landform (hillslope, terrace, etc.)                               | : Terrace                   | Local relief                     | (concave, convex                 | k, none): Concave                    |                | Slop <b>e (%</b> ): 1 to 3 |
| Subregion (LRR or MLRA):  |                             | Lat                              | : 36.6519248                     | Long: -79.52175                      | 559            | Datum: WGS84               |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> :                       |                             | <u>.</u>                         |                                  | NWI                                  | classification | :                          |
| Are climatic/hydrologic condition                                 | s on the site typical for t | his time of year?                | Yes 🟒 No _                       | (If no, explain i                    | n Remarks.)    |                            |
| Are Vegetation, Soil,   | or Hydrology s              | ignificantly disturbed?          | Are "Normal                      | Circumstances" pre                   | esent? Y       | ′es No                     |
| Are Vegetation, Soil,   | or Hydrology n              | aturally problematic?            | (If needed, ex                   | kplain any answers                   | in Remarks.)   |                            |
|   |                             |                                  |                                  |                                      |                |                            |
| SUMMARY OF FINDINGS – A   | kttach site map shov        | ving sampling point lo           | cations, trans                   | ects, important                      | features, e    | tc.                        |
|   | ·                           | 1                                |                                  | · ·                                  |                |                            |
| Hydrophytic Vegetation Present<br>Hydric Soil Present?            |                             | i                                |                                  |                                      |                |                            |
| •   | Yes _✓_ N                   | i                                |                                  | - 181-41                             |                | 6 No                       |
| Wetland Hydrology Present?  | Yes <b>∠</b> _ N            | is the Sam                       | ol <b>ed</b> A <b>rea</b> within | a wetiand?                           |                | <u>√_</u> No               |
| Remarks:  |                             |                                  |                                  |                                      |                |                            |
|   |                             |                                  |                                  |                                      |                |                            |
|   |                             |                                  |                                  |                                      |                |                            |
| Covertype is PFO. Area is wetlan                                  | d. all three wetland para   | meters are present.              |                                  |                                      |                |                            |
|   | -,                          |                                  |                                  |                                      |                |                            |
|   |                             |                                  |                                  |                                      |                |                            |
|   |                             |                                  |                                  |                                      |                |                            |
|   |                             |                                  |                                  |                                      |                |                            |
| HYDROLOGY   |                             |                                  |                                  |                                      |                |                            |
| NAT-ALCO ALLE VILLE DE LE ALCO ALCO ALCO ALCO ALCO ALCO ALCO ALCO |                             |                                  |                                  |                                      |                |                            |
| Wetland Hydrology Indicators:                                     |                             | Hall a LS                        | -                                |                                      |                | <i>f</i>                   |
| <u>Primary Indicators (minimum of </u>                            | one is required; check a    | iii t <b>nat a</b> ppi <b>y)</b> | <u>5</u>                         | econdary Indicator                   |                | or two requirea)           |
| Surface Water (A1)  | Tru                         | e Aquatic Plants (B14)           | -                                | Surface Soil Crac                    |                | (unforce/DO)               |
| ✓ High Water Table (A2)   |                             | drogen Sulfide Odor (C1)         | -                                | Sparsely Vegetat<br>Drainage Patterr |                | ourrace (B8)               |
| ✓ Saturation (A3)   |                             | dized Rhizospheres on Liv        | ring Roots (C3)                  | Moss Trim Lines                      |                |                            |
| Water Marks (B1)  | Pre                         | sence of Reduced Iron (C4        | 1)                               | Dry-Season Wate                      |                |                            |
| Sediment Deposits (B2)  | Rec                         | ent Iron Reduction in Tille      | ed Soils (C6)                    | Crayfish Burrows                     |                |                            |
| Drift Deposits (B3)   |                             | n Muck Surface (C7)              |                                  | Saturation Visible                   |                | nagery (C9)                |
| Algal Mat or Crust (B4)   | Oth                         | ner (Explain in Remarks)         |                                  |                                      |                |                            |
| Iron Deposits (B5)  |                             |                                  |                                  | Stunted or Stres:                    |                | 1)                         |
| Inundation Visible on Aerial                                      | Imagery (B7)                |                                  |                                  | ✓ Geomorphic Pos                     |                |                            |
| Water-Stained Leaves (B9)   |                             |                                  | _                                | Shallow Aquitard                     |                |                            |
| Aquatic Fauna (B13)   |                             |                                  | _                                | Microtopographi                      |                |                            |
| Field Observations:   |                             |                                  | <u>_</u>                         | FAC-Neutral Test                     | (03)           |                            |
| Surface Water Present?  | Vac. No. 4                  | Donth (inches)                   |                                  |                                      |                |                            |
|   | Yes No                      | Depth (inches):                  |                                  |                                      |                |                            |
| Water Table Present?  | Yes No                      | Depth (inches):                  | V                                | Vetland Hydrology                    | Present?       | Yes No                     |
| Saturation Present?   | Yes 🟒 No                    | Depth (inches):                  | 8                                |                                      |                |                            |
| (includes capillary fringe)                                       |                             |                                  |                                  |                                      |                |                            |
| Describe Recorded Data (stream                                    | gauge, monitoring well      | , aerial photos, previous i      | nspections), if av               | ailable:                             |                |                            |
|   |                             |                                  |                                  |                                      |                |                            |
|   |                             |                                  |                                  |                                      |                |                            |
| Remarks:  |                             |                                  |                                  |                                      |                |                            |
| remarks.  |                             |                                  |                                  |                                      |                |                            |
|   |                             |                                  |                                  |                                      |                |                            |
|   |                             |                                  |                                  |                                      |                |                            |
| A positive indication of wetland                                  | hvdrology was observed      | (at least one primary ind        | icator).                         |                                      |                |                            |
| 7. posiciva marcación el videlana                                 | nyanonogy vias observed     | (actaasestia primary irra        | accory.                          |                                      |                |                            |
|   |                             |                                  |                                  |                                      |                |                            |
|   |                             |                                  |                                  |                                      |                |                            |

| , ,  |                  |                  |             |   |                   |             |
|--|------------------|------------------|-------------|---|-------------------|-------------|
| Tree Stratum (Plot size:30)  | <b>A</b> bsolute | Dominant         | Indicator   | Dominance Test worksheet:                               |                   |             |
|  | -                | Species?         | Status      | Number of Dominant Species That                         | 7                 | (A)         |
| 1. Acer rubrum   |                  | Yes              | FAC         | Are OBL, FACW, or FAC: Total Number of Dominant Species |                   |             |
| 2. Liquidambar styraciflua   | 15               | Yes              | FAC         | Across All Strata:                                      | 8                 | (B)         |
| 3. Liriodendron tulipifera   | 15               | Yes .            | FACU        | Percent of Dominant Species That                        |                   |             |
| 4. Fraxinus pennsylvanica  | 10               | No               | FACW        | Are OBL, FACW, or FAC:                                  | 8 <b>7</b> .5     | (A/B)       |
| 5.   |                  |                  |             | Prevalence Index worksheet:                             |                   |             |
| 6.   |                  |                  |             | Total % Cover of:                                       | <u>Multiply B</u> | <u>by:</u>  |
| 7  |                  |                  |             | OBL species 0   | x 1 =             | 0           |
|  | 60               | _= Total Cov     |             | FACW species 10   | x 2 =             | 20          |
| 50% of total cover: <u>30</u>  | _ 20% of to      | otal cover:      | 12          | FAC species 140   | x 3 =             | 420         |
| Sapling/Shrub Stratum (Plot size:15)   | 15               | V                | EA.C        | FACU species 15   | x 4 =             | 60          |
| 1. Liquidambar styraciflua   | 15               | Yes -            | FAC         | UPL species 0   | x 5 =             | 0           |
| 2. Cornus racemosa   | 10               | Yes .            | FAC         | Column Totals 165                                       | (A)               | 500 (B)     |
| 3. <u>Lindera benzoin</u>  | 10               | Yes              | FAC         | Prevalence Index = B/A =                                | 3                 |             |
| 4.   |                  |                  |             | Hydrophytic Vegetation Indicators:                      |                   |             |
| 5.   |                  |                  |             | 1- Rapid Test for Hydrophytic V                         | /egetation        |             |
| 6.   |                  |                  |             | 2 - Dominance Test is >50%                              | Ü                 |             |
| 7  |                  |                  |             | 3 - Prevalence Index is ≤ 3.01                          |                   |             |
| 8  |                  |                  |             | 4 - Morphological Adaptations                           | ¹ (Provide s      | upporting   |
| 9  |                  |                  |             | data in Remarks or on a separate sh                     | neet)             |             |
|  | 35               | _= Total Cov     |             | Problematic Hydrophytic Vege                            | tation¹ (Exp      | olain)      |
| 50% of total cover: <u>17.5</u>  | _ 20% of to      | otal cover:      | 7           | ¹Indicators of hydric soil and wetlan                   | d hydrolog        | y must be   |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )   |                  |                  |             | present, unless disturbed or proble                     | matic             |             |
| 1. Microstegium vimineum   | 50               | <u>Yes</u>       | FAC         | Definitions of Four Vegetation Strate                   | a:                |             |
| Dryopteris carthusiana   | 20               | Yes              | FAC         |   |                   |             |
| 3. Solidago sp.  |                  | No               | NI          | Tr <b>ee</b> – Woody plants, excluding vine             | s, 3 in. (7.6     | cm) or more |
| 4  |                  |                  |             | in diameter at breast height (DBH),                     | regardless        | of height.  |
| 5.   |                  |                  |             |   |                   |             |
| 6.   |                  |                  |             | Sapling/shrub – Woody plants, exclu                     | -                 |             |
| 7  |                  |                  |             | in. DBH and greater than or equal to                    | o 3.28 ft (1      | m) tall.    |
| 8  |                  |                  |             |   |                   |             |
| 9.   |                  |                  |             | Herb – All herbaceous (non-woody)                       |                   | ardless of  |
| 10   |                  |                  |             | size, and woody plants less than 3.2                    | .8 ft tall.       |             |
| 11.  |                  |                  |             |   |                   |             |
|  | 70               | = Total Cov      | er          | <b>Wo</b> od <b>y vine</b> s – All woody vines grea     | ter than 3.2      | 28 ft in    |
| 50% of total cover: <u>35</u>  | 20% of to        | -<br>otal cover: | 14          | height.   |                   |             |
| Woody Vine Stratum (Plot size: 30 )  |                  |                  |             |   |                   |             |
| 1.   |                  |                  |             |   |                   |             |
| 2.   |                  |                  |             |   |                   |             |
| 3.   |                  |                  |             | Hydrophytic Vegetation Present?                         | ⁄es ☑ No □        |             |
| 4.   |                  |                  |             |   |                   |             |
| 5.   |                  |                  |             |   |                   |             |
|  |                  | = Total Cov      | er          |   |                   |             |
| 50% of total cover: 0  |                  | -                | 0           |   |                   |             |
|  |                  |                  |             |   |                   |             |
| Remarks: (Include photo numbers here or on a separate of the s |                  | 0% of domin      | ant species | indexed as OBL, FACW, or FAC).                          |                   |             |
|  |                  |                  |             |   |                   |             |

| Profile De:<br>Depth | scription: (Describe to<br>Matrix                    | o th <b>e d</b> ep |                              | ent the i           |                                 | or confirm the a                                      | absence of indicators.)                              |                           |
|----------------------|--|--------------------|------------------------------|---------------------|---------------------------------|---|--|---------------------------|
| (inches)             | Color (moist)  | 96                 | Color (moist)                | %                   | Typ <b>e¹</b>                   | Loc²  | T <b>extur</b> e                                     | Remarks                   |
| 0 - 4                | 10YR 4/2   | 95                 | 10YR 5/8                     | 5                   | . <u>-1982</u>                  |   | Sandy Loam   | Remarks                   |
| 4-8                  | 2.5Y 6/3   | 80                 | 10YR 5/8                     | 20                  |                                 |   | Sand   |                           |
| 8 - 28               | 2.5Y 6/1   | 90                 | 7.5YR 5/8                    | 10                  |                                 | M/PL  | Sandy Loam   |                           |
|                      |  |                    |                              |                     | · ——                            |   | Barray 25am  |                           |
| -                    |  |                    |                              |                     |                                 |   |  |                           |
| -                    |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
| -                    | _  |                    |                              |                     |                                 |   |  |                           |
| -                    | _  |                    |                              |                     |                                 |   |  | • •                       |
|                      |  |                    |                              |                     |                                 |   |  |                           |
| ¹Type: C =           | Concentration, D = D                                 | epletion,          | RM = Reduced Matri           | x, MS =             | Masked S                        | Sand Grains. <sup>2</sup> L                           | Location: PL = Pore Lining, M =                      | : Matrix.                 |
| Hydric Soi           | I Indicators:  |                    |                              |                     |                                 |   | Indicators for Problem                               | atic Hydric Soils³:       |
| _ Histosol           | (A1)   |                    | _ Dark S                     |                     |                                 |   | 2 cm Muck (A10) (N                                   | #I <b>RA 1</b> 47)        |
|                      | ipedon (A2)  |                    |                              |                     |                                 | e (S8) (MLRA 147,                                     | 148)   | x (A16) (MLRA 147, 148)   |
| _ Black His          | stic (A3)<br>en Sulfide (A4)                         |                    | _                            |                     |                                 | MLRA <b>147, 148</b> )                                |  | in Soils (F19) (MLRA 136, |
|                      | d Layers (A5)  |                    | Loanig<br>_ <b>∠</b> Deple   | -                   | l Matrix (F.<br>rix (F3)        | <b>Z</b> )  | 147)   |                           |
|                      | ick (A10) (LRR N)                                    |                    |                              |                     | urface (F6)                     | )   | Very Shallow Dark                                    | Surface (TF12)            |
|                      | d Below Dark Surface (                               | A11)               |                              |                     | s Surface (                     |   | Other (Explain in R                                  | emarks)                   |
|                      | irk Surface (A12)                                    |                    | Redox                        | Depres              | sions (F8)                      | - (E43) (LDD N. NA                                    | LDA 40C)   |                           |
| _                    | lucky Mineral (S1) <b>(</b> LRF<br>leyed Matrix (S4) | KIN, MILKA         | . 147, 148) Iron-N<br>. Umbr | rangane<br>c Surfac | se Masse:<br>e (F13) ( <b>N</b> | s (FTZ) (LKK IN <b>, MI</b><br>ILR <b>A 136, 122)</b> | LR <b>A 1</b> 36) <sub>3</sub> Indicators of hydroph | ytic vegetation and       |
|                      | edox (S5)  |                    |                              |                     |                                 | ils (F19) (MLRA 1                                     | 48) wetland hydrology mu                             |                           |
| Stripped             | Matrix (S6)  |                    | _ Red P                      | arent Ma            | aterial (F2                     | 1) (MLRA 127, 14                                      | 7) disturbed or problema                             | atic.                     |
| Restrictive          | Layer (if observed):                                 |                    |                              |                     |                                 |   |  |                           |
|                      | Туре:  |                    | None                         |                     |                                 | Hydric Soil Pre                                       | s <b>en</b> t?                                       | Yes ☑ No □                |
|                      | Depth (inches):                                      |                    |                              |                     |                                 |   |  |                           |
| Remarks:             |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
| A positive           | indication of hydric s                               | oil was o          | bserved.                     |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |
|                      |  |                    |                              |                     |                                 |   |  |                           |

Photo of Sample Plot North



Photo of Sample Plot East



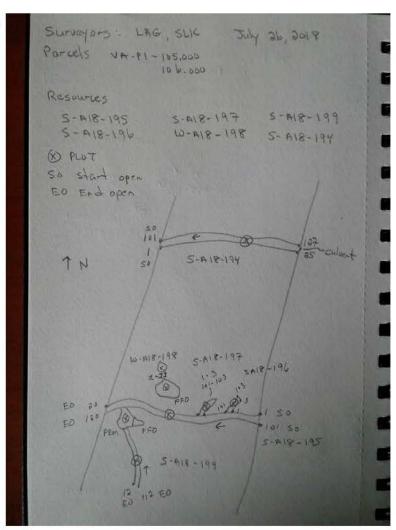
Photo of Sample Plot South



Photo of Sample Plot West



#### Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                             | City/County:_Danville,               | Pittsylvania C Sam <b>p</b> lin <b>g</b> | Date: 2018-July-26  |                             |
|---|--------------------------------------|--|---|-----------------------------|
| Applicant/Owner: NextEra                                |                                      | State: Virgir                            | nia Sampling Point:   | W-A18-198_UPL-1             |
| Investigator(s): Laura Giese, Sim                       | non King                             | Section, Township,                       | Range:  |                             |
| Landform (hillslope, terrace, etc.):                    | Back slope                           | Local relief (concave, conv              | ex, none): Convex   | Slop <b>e (%</b> ): 5 to 10 |
| Subregion (LRR or MLRA):                                |                                      | Lat: 36.6521095                          | Long: -79.5217622   | Datum: WGS84                |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :            |                                      |  | NWI classif   | ication:                    |
| Are climatic/hydrologic conditions                      | on the site typical for this time of | ye <b>ar?</b> Yes <u></u> ✓ No           | (If no, explain in Rem  | arks.)                      |
| Are Vegetation, Soil,                                   | or Hydrology significantly           | disturbed? Are "Norma                    | al Circumstances" present?  | Yes _ <b>.✓</b> No          |
| Are Vegetation, Soil,                                   | or Hydrology naturally pro           | oblematic? (If needed,                   | explain any answers in Rer  | narks.)                     |
|   |                                      |  |   |                             |
| SUMMARY OF FINDINGS – At                                | tach site map showing sam            | oling point locations, tran              | nsects, important featu   | res, etc.                   |
|   |                                      |  | <u> </u>  |                             |
| Hydrophytic Vegetation Present?<br>Hydric Soil Present? | Yes No 🗸                             | i  |   |                             |
| •   | Yes No                               |  |   | No.                         |
| Wetland Hydrology Present?                              | Yes No _ <b>∠</b>                    | Is the Sampled Area withi                | n a wetiand?  | Yes No/                     |
| Remarks:  |                                      |  |   |                             |
|   |                                      |  |   |                             |
|   |                                      |  |   |                             |
| Covertype is UPL. Area is upland.                       | not all three wetland parameters     | are present.                             |   |                             |
| coverage is of 2.7 mad is appared,                      | Trocali elli de freda la parameters  | ar a prasaria                            |   |                             |
|   |                                      |  |   |                             |
|   |                                      |  |   |                             |
|   |                                      |  |   |                             |
| HYDROLOGY   |                                      |  |   |                             |
| Milesia e di Designa i e e de de e e e e e              |                                      |  |   |                             |
| Wetland Hydrology Indicators:                           |                                      |  |   |                             |
| Primary Indicators (minimum of o                        | one is required; check all that appl | λī                                       | Secondary Indicators (min   | •                           |
| Surface Water (A1)                                      | True Aquatic P                       | lants (B14)                              | Surface Soil Cracks (B6   |                             |
| High Water Table (A2)                                   | Hydrogen Sulf                        |  | <ul><li>Sparsely Vegetated Cor</li><li>Drainage Patterns (B10</li></ul> |                             |
| Saturation (A3)   | •                                    | ospheres on Living Roots (C3)            | Moss Trim Lines (B16)   | ·)                          |
| Water Marks (B1)  | Presence of Re                       | educed Iron (C4)                         | Dry-Season Water Tabl   | e (C2)                      |
| Sediment Deposits (B2)                                  | Recent Iron Re                       | duction in Tilled Soils (C6)             | Crayfish Burrows (C8)   | - ( )                       |
| Drift Deposits (B3)                                     | Thin Muck Sur                        |  | Saturation Visible on A   | erial Imagery (C9)          |
| Algal Mat or Crust (B4)                                 | Other (Explain                       | in Remarks)                              |   |                             |
| Iron Deposits (B5)                                      |                                      |  | Stunted or Stressed Pla   |                             |
| Inundation Visible on Aerial II                         | magery (B7)                          |  | Geomorphic Position (I  | D2)                         |
| Water-Stained Leaves (B9)                               |                                      |  | Shallow Aquitard (D3)   | -F (D 4)                    |
| Aquatic Fauna (B13)                                     |                                      |  | Microtopographic Relie  | er (D4)                     |
| Field Observations:                                     |                                      |  | FAC-Neutral Test (D5)   |                             |
|   | Yes No <u></u> ✓ Dep                 | the (in the eas).                        |   |                             |
| Surface Water Present?                                  |                                      | th (inches):                             |   |                             |
| Water Table Present?                                    | •                                    | th (inches):                             | Wetland Hydrology Preser  | nt? Yes No                  |
| Saturation Present?                                     | Yes No 🟒 Dep                         | th (inches):                             |   |                             |
| (includes capillary fringe)                             |                                      |  |   |                             |
| Describe Recorded Data (stream ;                        | gauge, monitoring well, aerial pho   | tos, previous inspections), if a         | available:  |                             |
|   |                                      |  |   |                             |
|   |                                      |  |   |                             |
| Remarks:  |                                      |  |   |                             |
| recinal ks.   |                                      |  |   |                             |
|   |                                      |  |   |                             |
|   |                                      |  |   |                             |
| No positive indication of wetland                       | hydrology was observed               |  |   |                             |
| Tro positive maneacion of victiania                     | riyar ology was observed.            |  |   |                             |
|   |                                      |  |   |                             |
|   |                                      |  |   |                             |

| <u>Tree Stratum</u> (Plot size: <u>30</u> ) | Absolute<br>% Cover | Dominant<br>Species? | Indicator Status   | Dominance Test works Number of Dominant                               |                 | 3                | / \$ \          |
|---|---------------------|----------------------|--------------------|---|-----------------|------------------|-----------------|
| 1. Pinus virginiana                         | 30                  | Yes                  | UPL                | Are OBL, FACW, or FAC   | <b>:</b> :      |                  | (A)             |
| Liriodendron tulipifera                     | 10                  | Yes                  | FACU               | Total Number of Dom   | inant Species   | 7                | (B)             |
| 3. Liquidambar styraciflua                  | 10                  | Yes                  | FAC                | Across All Strata:  |                 |                  | ——(B)           |
| 4.  |                     |                      |                    | <ul><li>Percent of Dominant S</li><li>Are OBL, FACW, or FAC</li></ul> |                 | <b>4</b> 2.9     | (A/B)           |
| 5   |                     |                      |                    | Prevalence Index work   |                 |                  |                 |
| 6   |                     |                      |                    | - Total % Cover   |                 | Multiply         | · Bv:           |
| 7.  |                     |                      |                    | - OBL species   | 0               | x 1 =            | 0               |
|   |                     | = Total Cover        |                    | FACW species  | 0               | x 2 =            | 0               |
| 50% of total cover:2                        | <u>5</u> 20% of tot | al cover:            | <u>10</u>          | FAC species   | 63              | x 3 =            | 189             |
| Sapling/Shrub Stratum (Plot s               | ize: <u>15</u> )    |                      |                    | FACU species  | 35              | x 4 =            | 140             |
| 1. Corylus americana                        | 10                  | Yes                  | FACU               | - UPL species   | 30              | x 5 =            | 150             |
| 2. Fagus grandifolia                        | 10                  | Yes                  | FACU               | Column Totals   | 128             | (A)              | 479 (B)         |
|   |                     | Percent cover        |                    | ·   | ndex = B/A =    | 3.7              | 475 (B)         |
|   |                     | cannot be            |                    | -   | <del></del>     | 5.7              |                 |
| 3. Liquidambar styraciflua                  | 18                  | greater than a       | FAC                | Hydrophytic Vegetatio   |                 |                  |                 |
|   |                     | previous             |                    | 1- Rapid Test for   |                 | egetatioi/       | n               |
|   |                     | species              | 51.5               | _   |                 |                  |                 |
| 4. Acer rubrum                              |                     | Yes                  | FAC                | _ 3 - Prevalence In   |                 | ı (Danısı dalısı |                 |
| 5   |                     |                      |                    | 4 - Morphologica<br>data in Remarks or on                             | ,               |                  | supporting      |
| 6.  |                     |                      |                    | Problematic Hyd   |                 |                  | vnlain)         |
| 7   |                     |                      |                    | Indicators of hydric so   |                 |                  |                 |
| 8   |                     |                      |                    | present, unless distur  |                 | •                | ogy muse be     |
| 9   |                     |                      |                    | Definitions of Four Ver   |                 |                  |                 |
|   |                     | = Total Cover        |                    | Deminion Strott Vig   | 54446           |                  |                 |
| 50% of total cover:2                        |                     | al cover:            | 9.6000000000000001 | -  <br>  Tr <b>ee</b> - Woody plants, e                               | excluding vine  | s. 3 in. (7      | .6 cm) or more  |
| Herb Stratum (Plot size: 5                  |                     |                      |                    | in diameter at breast   | _               |                  |                 |
| 1. Microstegium vimineum                    |                     | Yes                  | FAC                | _   |                 |                  |                 |
| 2. <u>Asplenium platyneuron</u>             |                     | No .                 | FACU               | - Sapling/shrub - Wood  | y plants, exclu | uding vine       | es, less than 3 |
| 3   |                     |                      |                    | in. DBH and greater th  | nan or equal to | 3.28 ft (        | 1 m) tall.      |
| 4   |                     |                      |                    | _   |                 |                  |                 |
| 5   |                     |                      |                    | Herb – All herbaceous   | (non-woody)     | plants, re       | egardless of    |
| 6.  |                     |                      |                    | size, and woody plants  | s less than 3.2 | 8 ft tall.       |                 |
| 7.  |                     |                      |                    | -   |                 |                  |                 |
| 8.  |                     | -                    |                    | - <b>  Wo</b> od <b>y vine</b> s – All woo                            | dy vines grea   | ter than 3       | 3.28 ft in      |
| 9.  |                     |                      |                    | height.   | -,              |                  |                 |
| 10.   |                     |                      |                    | -   |                 |                  |                 |
| 11.   |                     |                      |                    | -   |                 |                  |                 |
| · · · · · · · · · · · · · · · · · · ·       | 30                  | = Total Cover        |                    | -   |                 |                  |                 |
| 50% of total cover: 1                       |                     |                      | 6                  | Hydrophytic Vegetation  | nn Present?     | /es □ No         |                 |
| Woody Vine Stratum (Plot size               |                     | ar cover.            |                    | riyaropriyae vegetati   | on resent.      | C3 🗆 110         |                 |
| -   | :. <u>_3U_</u> )    |                      |                    |   |                 |                  |                 |
| 1.  |                     |                      |                    | -   |                 |                  |                 |
| 2.  |                     |                      |                    | -   |                 |                  |                 |
| 3.  |                     |                      |                    | -   |                 |                  |                 |
| 4.  |                     |                      |                    | -   |                 |                  |                 |
| 5   | <u> </u>            |                      |                    | -   |                 |                  |                 |
| 500/ 5: · ·                                 |                     | = Total Cover        | 6                  |   |                 |                  |                 |
| 50% of total cover:                         | <u>u 20% of tot</u> | ai cover:            | 0                  |   |                 |                  |                 |
| Pomarke: (Include phote num                 | hom bara ar an      | a constrate chast    | `                  |   |                 |                  |                 |

No positive indication of hydrophytic vegetation was observed ( $\geq$ 50% of dominant species indexed as FAC- or drier).

| Profile Description: (Describe to                         | the depth ne  | eeded to docume  | ent the i            | ndicator o                       | or confirm           | n the absend             | ce of indicators.)               |   |
|---|---------------|------------------|----------------------|----------------------------------|----------------------|--------------------------|----------------------------------|---|
| D <b>ep</b> th Matrix                                     |               | R <b>edo</b> ×   | Feature              |                                  |                      |                          |                                  |   |
| (inches) Color (moist)                                    | %             | Color (moist)    | _%                   | Type¹                            | Loc²                 |                          | Te <b>xtu</b> r <b>e</b>         | R <b>em</b> arks                            |
| 0 - 6 10YR 5/6  | _100          |                  |                      |                                  |                      |                          | Sandy Loam                       |   |
| _6 - 1810YR 6/6   | 100           |                  |                      |                                  |                      |                          | Loamy Sand                       |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  | <del>.</del> -                              |
|   |               |                  |                      | . ——                             |                      |                          |                                  | -   |
|   |               |                  |                      |                                  |                      |                          |                                  | -   |
|   |               |                  |                      |                                  |                      |                          |                                  | -   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      | <del></del>                      |                      |                          |                                  |   |
| ¹Type: C = Concentration, D = D                           | epletion, RM  | = Reduced Matri: | x, MS = 1            | Masked S                         | and Grai             | ns. <sup>2</sup> Locatio |                                  |   |
| Hydric Soil Indicators:                                   |               |                  | _                    |                                  |                      |                          | Indicators for Problem           | natic Hydric Soils <sup>3</sup> :           |
| _ Histosol (A1)   |               | Dark S           |                      |                                  | (CO) 48 #1 *         | 14 14 7 4 4 P            | 2 cm Muck (A10) (I               | MLRA 147)                                   |
| Histic Epipedon (A2)<br>Black Histic (A3)                 |               | -                |                      | w Surтасе<br>ace (S9) <b>(</b> N |                      | RA 147, 148)             | Coast Prairie Redo               | x (A16) (MLRA 147, 148)                     |
| — Black Histic (A3)<br>Hydrogen Sulfide (A4)              |               |                  |                      | Matrix (F2                       |                      | , 140)                   | Piedmont Floodpla                | ain Soils (F19) (ML <b>RA 1</b> 3 <b>6,</b> |
| Stratified Layers (A5)                                    |               | _ Deplet         |                      |                                  | ,                    |                          | 147)                             |   |
| 2 cm Muck (A10) (LRR N)                                   |               | Redox            | Dark Su              | rface (F6)                       |                      |                          | Very Shallow Dark                | Surface (TF12)                              |
| Depleted Below Dark Surface (A                            | <b>\11</b> )  |                  |                      | Surface (F                       | 7)                   |                          | Other (Explain in R              | temarks)                                    |
| Thick Dark Surface (A12)                                  | N. M. DA 447  | Redox            | Depress              | sions (F8)                       | (E43) (LB            | D.N. MALDA 40            | <b>C</b> )                       |   |
| Sandy Mucky Mineral (S1) (LRR<br>Sandy Gleyed Matrix (S4) | N, MILKA 147, | Iron-IV          | ranganes<br>c Surfac | se masses<br>e (F13) ( <b>M</b>  | (FIZ) (LK<br>LDA 136 | R IV, MILKA 13<br>1991   | <b>6)</b> ₃Indicators of hydroph | nytic vegetation and                        |
| Sandy Gleyed Wath X (34)<br>Sandy Redox (S5)              |               | _ 0              | - 50. 10.            | c ( , (                          |                      | MLRA 148)                | wetland hydrology mเ             | ust be present, unless                      |
| Stripped Matrix (S6)                                      |               |                  |                      | terial (F21                      |                      |                          | disturbed or problem             | atic.                                       |
| Restrictive Layer (if observed):                          |               |                  |                      |                                  |                      |                          |                                  |   |
| Type:   | P             | None             |                      |                                  | Hvdric S             | Soil <b>Present?</b>     |                                  | Yes □ No ☑                                  |
| Depth (inches):   |               |                  |                      |                                  | 1                    |                          |                                  |   |
| Remarks:  |               |                  |                      |                                  | 1                    |                          |                                  |   |
| Kemarks.  |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   | N 1           |                  |                      |                                  |                      |                          |                                  |   |
| No positive indication of hydric                          | soils was obs | served.          |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |
|   |               |                  |                      |                                  |                      |                          |                                  |   |

Photo of Sample Plot North



Photo of Sample Plot East



| Project/Site: MVP Southgate              | City/County: Danville, F                    | Pittsylvania C      | Sampling Da                  | te: 2018-June-25                                    |                                   |
|--|---|---------------------|------------------------------|---|-----------------------------------|
| Applicant/Owner: NextEra                 |   | S                   | tate: Virginia               |   | COPIED TO TRC W-C18-<br>100_PFO_1 |
| Investigator(s): _ Jenn Favela, ESi      | n, JSF, BAC                                 | Section,            | , Township, Ra               | nge:  |                                   |
| Landform (hillslope, terrace, etc.):     | : Swale                                     | Local relief (cor   | nc <mark>ave,</mark> convex, | none): Concave                                      | Slop <b>e (%</b> ):_ 10 to 20     |
| Subregion (LRR or MLRA): M               | ILRA 136 of LRR P                           | Lat: 30             | 6.6472669                    | Long: -79.5252816                                   | Datum: WGS84                      |
| Soil <b>Map</b> Unit Name: 23C           |   |                     |                              | NWI classif   | ication: None                     |
| Are climatic/hydrologic condition:       | s on the site typical for this time of y    | ye <b>ar?</b> Y     | es 🟒 No                      | (If no, explain in Rem                              | arks.)                            |
| Are Vegetation, Soil,                    | or Hydrology significantly (                | disturbed?          | Are "Normal C                | lircumstances" present?                             | Yes 🟒 No                          |
| Are Vegetation, Soil,                    | or Hydrology naturally pro                  | oblematic?          | (If needed, ex               | plain any answers in Rer                            | narks.)                           |
|  |   |                     |                              |   |                                   |
| SU <b>MMARY OF FINDI</b> NG <b>S</b> – A | .ttach site ma <mark>p showing sam</mark> p | ling point locat    | tions, transe                | ects, important featu                               | res, etc.                         |
| Hydrophytic Vegetation Present?          | Yes <u></u> ✓ No                            |                     |                              |   |                                   |
| Hydric Soil Present?                     | Yes <u></u> ✓ No                            | i                   |                              |   |                                   |
| Wetland Hydrology Present?               | Yes _ <b>✓</b> No                           | is the Sampled      | l Area within a              | Wetland?  | Yes <b>_ ✓ No</b>                 |
|  | TC3 NO                                      | is the sampled      | 27 A CO WICHIII O            | - Wedana:   |                                   |
| Remarks:                                 |   |                     |                              |   |                                   |
|  |   |                     |                              |   |                                   |
| HYDROLOGY                                |   |                     |                              |   |                                   |
| Wetland Hydrology Indicators:            |   |                     | -                            |   |                                   |
| Primary Indicators (minimum of           | one is required; check all that apply       | λJ                  |                              | condary Indicators (min                             | · ·                               |
| ✓ Surface Water (A1)                     | True Aquatic Pl                             | lants (R14)         | _                            | _ Surface Soil Cracks (B6                           |                                   |
| ✓ High Water Table (A2)                  | Hydrogen Sulfi                              |                     | _                            | _ Sparsely Vegetated Col                            |                                   |
| ✓ Saturation (A3)                        | Oxidized Rhizo                              |                     | D = = += /C3\                | ′ Drainage Patterns (B10<br>_ Moss Trim Lines (B16) | ,                                 |
| Water Marks (B1)                         | Presence of Re                              | duced Iron (C4)     |                              | _ Dry-Season Water Tabl                             | e (C2)                            |
| Sediment Deposits (B2)                   | Recent Iron Re                              | duction in Tilled S | oils (C6)                    | _ Crayfish Burrows (C8)                             | a (a <u>a</u> )                   |
| Drift Deposits (B3)                      | Thin Muck Surf                              | face (C7)           | _                            | _ ,   |                                   |
| Algal Mat or Crust (B4)                  | Other (Explain                              | in Remarks)         | _                            | _ Saturation Visible on A                           | erial Imagery (C9)                |
| Iron Deposits (B5)                       |   |                     | _                            | _ Stunted or Stressed Pla                           |                                   |
| Inundation Visible on Aerial             | Imagery (B7)                                |                     | _                            | _ Geomorphic Position (I                            | J2)                               |
| Water-Stained Leaves (B9)                |   |                     |                              | _ Shallow Aquitard (D3)<br>- Microtopographic Bolic | of (D4)                           |
| Aquatic Fauna (B13)                      |   |                     |                              | _ Microtopographic Relie<br>∠ FAC-Neutral Test (D5) | :I (D4)                           |
| Field Observations:                      |   |                     |                              | _TAC Neutral Test (DS)                              |                                   |
| Surface Water Present?                   | Yes <u></u> ✓ No Dept                       | th (inches):        | 1                            |   |                                   |
| Water Table Present?                     |   | th (inches):        |                              | etland Hydrology Preser                             | nt? Yes No                        |
| Saturation Present?                      | ·   | th (inches):        | 0                            | edula Hydrology Freser                              |                                   |
|  | Tes <u>→</u> No Dept                        | er (menes).         |                              |   |                                   |
| (includes capillary fringe)              |   |                     |                              | 21-1-1  |                                   |
| Describe Recorded Data (stream           | gauge, monitoring well, aerial phot         | tos, previous insp  | ections), if ava             | illable:  |                                   |
|  |   |                     |                              |   |                                   |
| Para elec                                |   |                     |                              |   |                                   |
| Remarks:                                 |   |                     |                              |   |                                   |
|  |   |                     |                              |   |                                   |
|  |   |                     |                              |   |                                   |
|  |   |                     |                              |   |                                   |
|  |   |                     |                              |   |                                   |
|  |   |                     |                              |   |                                   |
|  |   |                     |                              |   |                                   |

## Sampling Point: COPIED TO TRC W-C18-100\_PFO\_1

| · · · · · · · · · · · · · · · · · · ·               | •                |             |           | 1   |                           |                 |
|---|------------------|-------------|-----------|---|---------------------------|-----------------|
| Tree Stratum (Plot size:30)                         | <b>A</b> bsolute | Dominant    | Indicator | Dominance Test worksheet:                               |                           |                 |
| inde Stratam (Flot Size                             | % Cover          | Species?    | Status    | Number of Dominant Species That                         | 3                         | (A)             |
| 1. Acer rubrum                                      | 50               | Yes         | FAC       | Are OBL, FACW, or FAC:                                  |                           |                 |
| 2   |                  |             |           | Total Number of Dominant Species                        | 3                         | (B)             |
| 3   |                  |             |           | Across All Strata:                                      |                           |                 |
| 4   |                  |             |           | Percent of Dominant Species That                        | 100                       | (A/B)           |
| 5.  |                  |             |           | - Are OBL, FACW, or FAC: - Prevalence Index worksheet:  |                           |                 |
| 6.  |                  |             |           | - Total % Cover of:                                     | Multiply B                | v.              |
| 7.  |                  |             |           | - OBL species 35  | <u>минарту Б</u><br>х 1 = | <b>y.</b><br>35 |
|   | 50               | = Total Cov | er        | FACW species 0  | x 2 =                     | 0               |
| 50% of total cover: <u>25</u>                       |                  | tal cover:  | 10        |   |                           |                 |
| Sapling/Shrub Stratum (Plot size:15)                |                  |             |           | FAC species 80  | x3=                       | 240             |
| 1.  |                  |             |           | FACU species 0  | × 4 =                     | 0               |
| 2.  |                  |             |           | - UPL species0  | x 5 =                     | 0               |
| 3.  |                  |             |           | Column Totals 115                                       |                           | 275 (B)         |
| 4.  |                  |             |           | Prevalence Index = B/A =                                | 2.4                       |                 |
| 5.  |                  |             |           | Hydrophytic Vegetation Indicators:                      |                           |                 |
| 6.  |                  |             |           | 1- Rapid Test for Hydrophytic \                         | √egetation                |                 |
| 7   |                  |             |           | 2 - Dominance Test is >50%                              |                           |                 |
| 8.  |                  |             |           | $\sqrt{}$ 3 - Prevalence Index is ≤ 3.01                |                           |                 |
| 9.  | -                |             |           | –  4 - Morphological Adaptations                        | ¹ (Provide s              | upporting       |
| J   |                  |             |           | <ul> <li>data in Remarks or on a separate sh</li> </ul> | neet)                     |                 |
| 5000 a Francis                                      | 0                | = Total Cov |           | Problematic Hydrophytic Vege                            |                           | -               |
| 50% of total cover: 0                               | _ 20% of to      | otal cover: | 0         | <sup>1</sup> Indicators of hydric soil and wetlan       |                           | y must be       |
| Herb Stratum (Plot size: 5)                         | 25               | .,          | O.D.      | present, unless disturbed or proble                     | matic                     |                 |
| 1. Leersia oryzoides                                | 35               | Yes         | OBL       | <ul><li>Definitions of Four Vegetation Strate</li></ul> | a:                        |                 |
| 2.  |                  |             |           | -   |                           |                 |
| 3   |                  |             |           | Tr <b>ee</b> – Woody plants, excluding vine             |                           |                 |
| 4   |                  |             |           | in diameter at breast height (DBH),                     | regardless o              | of height.      |
| 5   | . ——             |             |           | -   |                           |                 |
| 6   |                  |             |           | Sapling/shrub – Woody plants, exclu                     | _                         |                 |
| 7   |                  |             |           | in. DBH and greater than or equal to                    | 5 3.28 π (1 r             | n) tall.        |
| 8.  |                  |             |           | -   | 1 .                       |                 |
| 9.  |                  |             |           | Herb – All herbaceous (non-woody)                       |                           | ardless of      |
| 10  |                  |             |           | size, and woody plants less than 3.2                    | .o It tall.               |                 |
| 11  |                  |             |           | _   |                           |                 |
|   | 35               | = Total Cov | er        | <b>Wo</b> od <b>y vine</b> s – All woody vines grea     | ter than 3.2              | 8 ft in         |
| 50% of total cover: <u>17.5</u>                     | _ 20% of to      | tal cover:  | 7         | height.   |                           |                 |
| Woody Vine Stratum (Plot size: 30 )                 |                  |             |           |   |                           |                 |
| 1. Smilax rotundifolia                              | 30               | Yes         | FAC       | _   |                           |                 |
| 2.  |                  |             |           |   |                           |                 |
| 3.  |                  |             |           | Hydrophytic Vegetation Present?                         | ∕es ☑ No □                |                 |
| 4.  |                  |             |           | -   |                           |                 |
| 5.  |                  |             |           | -   |                           |                 |
|   | 30               | = Total Cov | er        | -   |                           |                 |
| 50% of total cover: 15                              | 20% of to        | tal cover:  | 6         |   |                           |                 |
|   |                  |             |           |   |                           |                 |
| Remarks: (Include photo numbers here or on a separa | te sneet.)       |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |

| Profile De<br>Depth  | scription: (Describe t<br>Matrix          | o t <b>he d</b> ep | th n <b>eed</b> ed t |                   | nt the i<br>Feature |  | or confirm              | the absenc                  | e of indicators.)                     |  |
|----------------------|---|--------------------|----------------------|-------------------|---------------------|--|-------------------------|-----------------------------|---------------------------------------|--|
| (inches)             | Color (moist)                             | <del></del>        | Color (r             |                   | %                   | Type <sup>1</sup>                            | Loc²                    |                             | T <b>e</b> xture                      | R <b>emark</b> s                           |
| 0 - 3                | 2.5Y 4/2                                  | 93                 | 10YR                 |                   | 7                   | <u>.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u> | M/PL                    |                             | Loam                                  | - Name -                                   |
| 3 - 8                | 2.5Y 5/2                                  | 100                |                      | -                 |                     |  |                         | Sa                          | ndy Silt Loam                         |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
| Туре: С =            | Concentration, D = [                      | Depletion,         | RM = Redu            | ced Matrix        | , MS = I            | Masked S                                     | Sand Grain              | is. <sup>z</sup> Locatio    | n: PL = Pore Lining, M =              | Matrix.                                    |
| •                    | l Indicators:                             |                    |                      |                   |                     |  |                         |                             | Indicators for Problema               | atic Hydric Soils3:                        |
| _ Histosol           |   |                    |                      | _ Dark S          |                     |  | (CO) (MI D              | A 147 140)                  | 2 cm Muck (A10) <b>(M</b>             | LRA 147)                                   |
| HISUC EL<br>Black Hi | sipedon (A2)<br>stic (A3)                 |                    |                      |                   |                     |  | (58) (MLRA<br>MLRA 147, | A 147, <b>1</b> 48)<br>148) | Coast Prairie Redox                   | (A16) (MLRA 147, 148)                      |
|                      | en Sulfide (A4)                           |                    |                      | _                 |                     | Matrix (F2                                   |                         | ,                           |                                       | n Soils (F19) (M <b>LRA 1</b> 3 <b>6</b> , |
|                      | d Layers (A5)                             |                    |                      | _ <b>∠</b> Deplet | ed Matr             | ix (F3)                                      |                         |                             | 147)                                  |  |
| _                    | ıck (A10) <b>(</b> LRR <b>N)</b>          |                    |                      |                   |                     | rface (F6)                                   |                         |                             | Very Shallow Dark S                   |  |
|                      | d Below Dark Surface<br>ark Surface (A12) | (ATT)              |                      | Deplet<br>Redox   |                     | Surface (                                    | F7)                     |                             | Other (Explain in Re                  | emarks)                                    |
|                      | lucky Mineral (S1) <b>(</b> LRI           | R N, MLRA          | 147, 148)            | _ Iron-M          | anganes             | se Masses                                    | (F12) (LRR              | N, MLRA 136                 | <sup>5)</sup> 3Indicators of hydrophy | tierragatatien and                         |
|                      | leyed Matrix (S4)                         |                    |                      |                   | - Juliac            | - (i i -) (ivi                               | LIGITISO, I             | ,                           | wetland hydrology mus                 | tt ha prasant uplass                       |
| _                    | edox (S5)                                 |                    |                      |                   |                     |  | ils (F19) (M            |                             | disturbed or problema                 |  |
|                      | l Matrix (S6)                             |                    |                      | Red Pa            | rent Ma             | terial (F21                                  | 1) (MLRA 12             | 27, 147)                    | distance of problema                  |  |
|                      | Layer (if observed):                      |                    | N.1                  |                   |                     |  | L                       |                             |                                       |  |
|                      | Type:                                     |                    | None                 |                   |                     |  | Hydric So               | oil Present?                |                                       | Yes ☑ No □                                 |
|                      | Depth (inches):                           |                    |                      |                   |                     |  |                         |                             |                                       |  |
| Remarks:             |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |
|                      |   |                    |                      |                   |                     |  |                         |                             |                                       |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate  | City/County:_ Danville, [                | Pittsylvania C Sam <b>p</b> lin <b>g</b> | Date: 2018-June-25                                     |                              |
|--|--|--|--|------------------------------|
| Applicant/Owner: NextEra   |  | State: Virgir                            | nia Sampling Point                                     | :W-C18-100_PFO-1             |
| Investigator(s): Jenn Favela, ES                                       | N, JSF, BAC                              | Section, Township,                       | Range:   |                              |
| Landform (hillslope, terrace, etc.)                                    | : Swale                                  | Local relief (concave, conv              | ex, none): Concave                                     | Slop <b>e (%</b> ): 10 to 20 |
| Su <b>bre</b> gi <b>o</b> n (LRR or MLRA): <u>N</u>                    | ILRA 136 of LRR P                        | <b>L</b> at: 36.6472669                  | Long: -79.5252816                                      | Datum: WGS84                 |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> :23C                         |  |  | NWI class  | ific <b>ation</b> : None     |
| Are climatic/hydrologic condition                                      | s on the site typical for this time of y | ye <b>ar?</b> Yes <u>✓</u> No            | (If no, explain in Ren                                 | narks.)                      |
| Are Vegetation, Soil,  | or Hydrology significantly (             | disturbed? Are "Norm                     | al Circumstances" present                              | ? Yes <u></u> No             |
| Are Vegetation, Soil,  | or Hydrology naturally pro               | blematic? (If needed,                    | explain any answers in Re                              | marks.)                      |
| SUMMARY OF FINDINGS – A  | attach site map showing samp             | lling point locations, trar              | nsects, important feat                                 | ures, etc.                   |
| Hydrophytic Vegetation Present   | <u> </u>                                 |  | ·  |                              |
| Hydric Soil Present?   | Yes <u></u> No                           |  |  |                              |
| Wetland Hydrology Present?   | Yes <b>_✓</b> No                         | Is the Sampled Area withi                | n a Wetland?   | Yes No                       |
| Remarks:   | 143 116                                  | is the sampled / it da / it da / it da   | Tra Tradition  |                              |
| Covertype is PFO. Area is wetlan                                       | d, all three wetland parameters are      | present.                                 |  |                              |
| HYDROLOGY  |  |  |  |                              |
| Wetland Hydrology Indicators:  |  |  |  |                              |
| Primary Indicators (minimum of   | one is required; check all that apply    | Δ  | Secondary Indicators (mir                              | nimum of two required)       |
| Curfore Mater (A1)   | Teus Aquatic Di                          | note (D14)                               | Surface Soil Cracks (Bo                                |                              |
| <ul><li>✓ Surface Water (A1)</li><li>✓ High Water Table (A2)</li></ul> | True Aquatic Pl<br>Hydrogen Sulfi        |  | Sparsely Vegetated Co                                  |                              |
| ✓ Fight Water Table (A2)  ✓ Saturation (A3)                            |  | spheres on Living Roots (C3)             | ✓ Drainage Patterns (B1                                |                              |
| Water Marks (B1)   |  | duced Iron (C4)                          | 111033 111111 E11163 (B10)                             |                              |
| Sediment Deposits (B2)   |  | duction in Tilled Soils (C6)             | <pre> Dry-Season Water Tab Crayfish Burrows (C8)</pre> |                              |
| Drift Deposits (B3)  | Thin Muck Surf                           |  | Saturation Visible on A                                |                              |
| Algal Mat or Crust (B4)  | Other (Explain                           | in Remarks)                              | Succitation visible on                                 | terial imagery (e5)          |
| Iron Deposits (B5)   |  |  | Stunted or Stressed P                                  | lants (D1)                   |
| Inundation Visible on Aerial   | Imagery (B7)                             |  | Geomorphic Position                                    | (D2)                         |
| Water-Stained Leaves (B9)  |  |  | Shallow Aquitard (D3)                                  |                              |
| Aquatic Fauna (B13)  |  |  | Microtopographic Reli                                  | ief (D4)                     |
|  |  |  | ✓ FAC-Neutral Test (D5)                                |                              |
| Field Observations:  |  |  |  |                              |
| Surface Water Present?   | Yes No Dept                              | th (inches): 1                           |  |                              |
| Water Table Present?   | Yes 🔽 No Dept                            | th (inches): 1                           | Wetland Hydrology Prese                                | nt? Yes No                   |
| Saturation Present?  | Yes 🔽 No Dept                            | th (inches): 0                           |  |                              |
| (includes capillary fringe)  | · ·                                      |  | .  |                              |
| . , , , ,  | gauge, monitoring well, aerial phot      | tos previous inspections) if :           | vailable;  |                              |
| Describe Recorded Data (Stream   | rgauge, monitoring well, aeriai priot    | tos, previous irispections), ir a        | avallable.   |                              |
|  |  |  |  |                              |
| Barrandari   |  |  |  |                              |
| Remarks:   |  |  |  |                              |
|  |  |  |  |                              |
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| · · · · · · · · · · · · · · · · · · ·               | •                |             |           | 1   |                           |                 |
|---|------------------|-------------|-----------|---|---------------------------|-----------------|
| Tree Stratum (Plot size:30)                         | <b>A</b> bsolute | Dominant    | Indicator | Dominance Test worksheet:                               |                           |                 |
| inde Stratam (Flot Size                             | % Cover          | Species?    | Status    | Number of Dominant Species That                         | 3                         | (A)             |
| 1. Acer rubrum                                      | 50               | Yes         | FAC       | Are OBL, FACW, or FAC:                                  |                           |                 |
| 2   |                  |             |           | Total Number of Dominant Species                        | 3                         | (B)             |
| 3   |                  |             |           | Across All Strata:                                      |                           |                 |
| 4   |                  |             |           | Percent of Dominant Species That                        | 100                       | (A/B)           |
| 5.  |                  |             |           | - Are OBL, FACW, or FAC: - Prevalence Index worksheet:  |                           |                 |
| 6.  |                  |             |           | - Total % Cover of:                                     | Multiply B                | v.              |
| 7.  |                  |             |           | - OBL species 35  | <u>минарту Б</u><br>х 1 = | <b>y.</b><br>35 |
|   | 50               | = Total Cov | er        | FACW species 0  | x 2 =                     | 0               |
| 50% of total cover: <u>25</u>                       |                  | tal cover:  | 10        |   |                           |                 |
| Sapling/Shrub Stratum (Plot size:15)                |                  |             |           | FAC species 80  | x3=                       | 240             |
| 1.  |                  |             |           | FACU species 0  | × 4 =                     | 0               |
| 2.  |                  |             |           | - UPL species0  | x 5 =                     | 0               |
| 3.  |                  |             |           | Column Totals 115                                       |                           | 275 (B)         |
| 4.  |                  |             |           | Prevalence Index = B/A =                                | 2.4                       |                 |
| 5.  |                  |             |           | Hydrophytic Vegetation Indicators:                      |                           |                 |
| 6.  |                  |             |           | 1- Rapid Test for Hydrophytic \                         | √egetation                |                 |
| 7   |                  |             |           | 2 - Dominance Test is >50%                              |                           |                 |
| 8.  |                  |             |           | $\sqrt{}$ 3 - Prevalence Index is ≤ 3.01                |                           |                 |
| 9.  | -                |             |           | –  4 - Morphological Adaptations                        | ¹ (Provide s              | upporting       |
| J   |                  |             |           | <ul> <li>data in Remarks or on a separate sh</li> </ul> | neet)                     |                 |
| 5000 a Francis                                      | 0                | = Total Cov |           | Problematic Hydrophytic Vege                            |                           | -               |
| 50% of total cover: 0                               | _ 20% of to      | otal cover: | 0         | <sup>1</sup> Indicators of hydric soil and wetlan       |                           | y must be       |
| Herb Stratum (Plot size: 5)                         | 25               | .,          | O.D.      | present, unless disturbed or proble                     | matic                     |                 |
| 1. Leersia oryzoides                                | 35               | Yes         | OBL       | <ul><li>Definitions of Four Vegetation Strate</li></ul> | a:                        |                 |
| 2.  |                  |             |           | -   |                           |                 |
| 3   |                  |             |           | Tr <b>ee</b> – Woody plants, excluding vine             |                           |                 |
| 4   |                  |             |           | in diameter at breast height (DBH),                     | regardless o              | of height.      |
| 5   | . ——             |             |           | -   |                           |                 |
| 6   |                  |             |           | Sapling/shrub – Woody plants, exclu                     | _                         |                 |
| 7   |                  |             |           | in. DBH and greater than or equal to                    | 5 3.28 π (1 r             | n) tall.        |
| 8.  |                  |             |           | -   | 1 .                       |                 |
| 9.  |                  |             |           | Herb – All herbaceous (non-woody)                       |                           | ardless of      |
| 10  |                  |             |           | size, and woody plants less than 3.2                    | .o It tall.               |                 |
| 11  |                  |             |           | _   |                           |                 |
|   | 35               | = Total Cov | er        | <b>Wo</b> od <b>y vine</b> s – All woody vines grea     | ter than 3.2              | 8 ft in         |
| 50% of total cover: <u>17.5</u>                     | _ 20% of to      | tal cover:  | 7         | height.   |                           |                 |
| Woody Vine Stratum (Plot size: 30 )                 |                  |             |           |   |                           |                 |
| 1. Smilax rotundifolia                              | 30               | Yes         | FAC       | _   |                           |                 |
| 2.  |                  |             |           |   |                           |                 |
| 3.  |                  |             |           | Hydrophytic Vegetation Present?                         | ∕es ☑ No □                |                 |
| 4.  |                  |             |           | -   |                           |                 |
| 5.  |                  |             |           | -   |                           |                 |
|   | 30               | = Total Cov | er        | -   |                           |                 |
| 50% of total cover: 15                              | 20% of to        | tal cover:  | 6         |   |                           |                 |
|   |                  |             |           |   |                           |                 |
| Remarks: (Include photo numbers here or on a separa | te sneet.)       |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |
|   |                  |             |           |   |                           |                 |

| Profile De         | scription: (Describe to          | the dept  | th n <b>eeded to</b> docu | ment the                   | in <b>dicato</b> r | or confir   | n the absenc             | e of indicators.)                    |  |
|--------------------|----------------------------------|-----------|---------------------------|----------------------------|--------------------|-------------|--------------------------|--------------------------------------|--|
| Depth              | Matrix                           |           | Rec                       | dox Featur                 | es                 |             |                          |                                      |  |
| (inches)           | Color (moist)                    | 96        | Color (moist)             | %                          | Type <sup>1</sup>  | Locz        |                          | T <b>extur</b> e                     | R <b>em</b> arks   |
| 0 - 3              | 2.5Y 4/2                         | 93        | 10YR 5/8                  | 7                          | С                  | M/PL        |                          | Loam                                 |  |
| 3 - 8              | 2.5Y 5/2                         | 100       |                           |                            |                    |             | Sa                       | ndy Silt Loam                        |  |
|                    |                                  |           |                           |                            |                    |             |                          | •                                    |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      | -  |
|                    |                                  |           |                           |                            | - —                |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      | -  |
|                    |                                  |           |                           |                            | - ——               |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      | _  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
| <u>¹</u> Type: C = | Concentration, D = D             | epletion, | RM = Reduced Ma           | trix, MS =                 | Masked 9           | Sand Grai   | ns. <sup>z</sup> Locatio | on: PL = Pore Lining, M =            | : Matrix.  |
| Hydric So          | il Indicators:                   |           |                           |                            |                    |             |                          | Indicators for Problem               | natic Hydric Soils3:                                     |
| _ Histoso          |                                  |           | _                         | rk Surface (               |                    |             |                          | 2 cm Muck (A10) <b>(N</b>            | MLRA 147)  |
|                    | pipedon (A2)                     |           |                           |                            |                    |             | RA 147, 148)             |                                      | x (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b> |
| _ Black H          | istic (A3)<br>en Sulfide (A4)    |           | _                         | n Dark Surl<br>ımy Gleyed  |                    |             | , 148)                   |                                      | ain Soils (F19) (MLRA 136,                               |
|                    | ed Layers (A5)                   |           |                           | oleted Mati                |                    | ۷)          |                          | 147)                                 | , ,,   |
|                    | uck (A10) (LRR N)                |           |                           | lox Dark Si                |                    | ı           |                          | Very Shallow Dark                    | Surface (TF12)   |
| _ Deplete          | d Below Dark Surface (A          | A11)      | Dep                       | oleted Dark                | k Surface (        | F7)         |                          | Other (Explain in R                  |  |
|                    | ark Surface (A12)                |           | Red                       | dox Depres                 | sions (F8)         |             |                          |                                      |  |
| _                  | /lucky Mineral (S1) (LRR         | N, MLRA   | <b>147, 148)</b> Iron     | n-Mangane                  | se Masses          | s (F12) (LR | R N, MLRA 130            | <sup>6)</sup> ₃Indicators of hydroph | ytic vegetation and                                      |
|                    | ileyed Matrix (S4)<br>Redox (S5) |           |                           | ibric Surfac<br>dmont Floc | -c ( ) (           |             | ,                        | wetland hydrology mu                 | ist be present, unless                                   |
| _                  | d Matrix (S6)                    |           |                           | d Parent Ma                |                    |             |                          | disturbed or problema                | atic.  |
|                    | e Layer (if observed):           |           |                           |                            | arenan (1 E        | 1           | , ,                      |                                      |  |
|                    | Type:                            |           | None                      |                            |                    | Libralaia C | ail December             |                                      | Voc □ No □   |
|                    | -                                |           | None                      | _                          |                    | Hyarics     | ioil Present?            |                                      | Yes ☑ No □   |
|                    | Depth (inches):                  |           |                           |                            |                    |             |                          |                                      |  |
| Remarks:           |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |
|                    |                                  |           |                           |                            |                    |             |                          |                                      |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                         | City/County:                            |                                   | Sampling Date: 2018-Ju         | ne-25                       |
|---|---|-----------------------------------|--------------------------------|-----------------------------|
| A <b>p</b> pli <b>ca</b> nt <b>/O</b> wner: NextEra |   | State:                            | Sampling Point:_               | W-C18-100_UPL-1             |
| nvestigator(s): Jenn Favela, E                      | 5N, JSF, BAC                            | Section, Township,                | Range:                         |                             |
| Landform (hillslope, terrace, etc                   | .): Swale                               | Local relief (concave, conv       | ex, none): Concave             | Slop <b>e (%</b> ):10 to 1! |
| Subregion (LRR or MLRA):                            | MLRA 136 of LRR P                       | Lat: 36.647508                    | Long: -79.5252505              | Datum: WGS84                |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> : 23C     |   |                                   | NWI classific                  | c <b>ation</b> : None       |
| Are climatic/hydrologic condition                   | ns on the site typical for this time of | ye <b>ar?</b> Yes 🟒 No            | (If no, explain in Rema        | rks.)                       |
| Are Vegetation, Soil,                               | or Hydrology significantly              | disturbed? Are "Norma             | al Circumstances" present?     | Yes 🟒 No                    |
| Are Vegetation, Soil,                               | or Hydrology naturally pr               | oblematic? (If needed,            | explain any answers in Rem     | arks.)                      |
|   |   |                                   |                                |                             |
| SUMMARY OF FINDINGS                                 | Attach site map showing samp            | oling point locations, tran       | nsects, important featur       | es, etc.                    |
| Hydrophytic Vegetation Presen                       | t? Yes 🗸 No                             | 1                                 |                                |                             |
| Hydric Soil Present?                                | Yes No _ <b>_</b>                       |                                   |                                |                             |
| Wetland Hydrology Present?                          | Yes <u></u> No                          | Is the Sampled Area with          | in a Wetland?                  | Yes <b>No</b>               |
|   |   | is the sampled Area with          | iii a wedand:                  | 162 NO _ <del>V</del>       |
| Remarks:  |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
| Covertype is UPL. Area is uplan                     | d, not all three wetland parameters     | are present.                      |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
| HYDROLOGY   |   |                                   |                                |                             |
| Wetland Hydrology Indicators:                       |   |                                   |                                |                             |
| , ,,,   | f one is required; check all that appl  | NA.                               | Secondary Indicators (mini     | mum of two required)        |
| rimary indicators (minimum o                        | Tone is required, check all chacappi    | λī                                | Surface Soil Cracks (B6)       | •                           |
| Surface Water (A1)                                  | True Aquatic F                          | Plants (B14)                      | Sparsely Vegetated Con         |                             |
| High Water Table (A2)                               | Hydrogen Sulf                           | ide Odor (C1)                     | Drainage Patterns (B10)        |                             |
| Saturation (A3)                                     | Oxidized Rhize                          | ospheres on Living Roots (C3)     | Moss Trim Lines (B16)          |                             |
| Water Marks (B1)                                    | Presence of Re                          | educed Iron (C4)                  | Dry-Season Water Table         | ! (C2)                      |
| Sediment Deposits (B2)                              | Recent Iron Re                          | eduction in Tilled Soils (C6)     | Crayfish Burrows (C8)          |                             |
| Drift Deposits (B3)                                 | Thin Muck Sur                           | face (C7)                         | Saturation Visible on Ae       | rial Imagery (C9)           |
| Algal Mat or Crust (B4)                             | Other (Explain                          | in Remarks)                       | _                              |                             |
| Iron Deposits (B5)                                  |   |                                   | Stunted or Stressed Pla        | nts (D1)                    |
| Inundation Visible on Aeria                         | l Imagery (B7)                          |                                   | Geomorphic Position (D         | (2)                         |
| Water-Stained Leaves (B9)                           |   |                                   | Shallow Aquitard (D3)          |                             |
| Aquatic Fauna (B13)                                 |   |                                   | Microtopographic Relief        | ř(D4)                       |
|   |   |                                   | FAC-Neutral Test (D5)          |                             |
| Field Observations:                                 |   |                                   |                                |                             |
| Surface Water Present?                              | Yes No 🟒           Dep                  | th (inches):                      |                                |                             |
| Water Table Present?                                | Yes No _ <b>_</b> Dep                   | th (inches):                      | <br> Wetland Hydrology Present | t? Yes No                   |
|   |   |                                   |                                |                             |
| Saturation Present?                                 | Yes No 🟒 Dep                            | th (inches):                      |                                |                             |
| (includes capillary fringe)                         |   |                                   |                                |                             |
| Describe Recorded Data (stream                      | n gauge, monitoring well, aerial pho    | otos, previous inspections), if a | available:                     |                             |
| •   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
| Remarks:  |   |                                   |                                |                             |
| Kerilarks.  |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |
|   |   |                                   |                                |                             |

|  | Absoluto   | Dominant             |                     | Dominance Test worksheet:                               |                   |            |
|--|------------|----------------------|---------------------|---|-------------------|------------|
| Tree Stratum (Plot size: 30)           |            | Dominant<br>Species? | Indicator Status    | Number of Dominant Species That                         |                   |            |
| 1. Acer rubrum                         | 50         | Yes                  | FAC                 | Are OBL, FACW, or FAC:                                  | 7                 | (A)        |
| Liquidambar styraciflua                | 20         | Yes                  | FAC                 | Total Number of Dominant Species                        |                   | (D)        |
| 3.                                     |            |                      | 1710                | Across All Strata:                                      | 7                 | (B)        |
| 4.                                     |            |                      |                     | Percent of Dominant Species That                        | 100               | (A/B)      |
| 5.                                     |            |                      |                     | Are OBL, FACW, or FAC:                                  |                   |            |
| 6.                                     |            |                      |                     | Prevalence Index worksheet:                             |                   |            |
| 7.                                     |            |                      |                     | Total % Cover of:                                       | <u>Multiply B</u> | <u>y:</u>  |
| <u> </u>                               | 70         | = Total Cover        |                     | OBL species 0   | x 1 =             | 0          |
| 50% of total cover: <u>35</u>          |            | •                    | 14                  | FACW species 0  | x 2 =             | 0          |
| Sapling/Shrub Stratum (Plot size: 15   |            | car cover.           | <del></del>         | FAC species 178   | x 3 =             | 534        |
| La ' -                                 |            |                      |                     | FACU species 8  | x 4 =             | 32         |
| 2.                                     |            |                      |                     | UPL species 0   | x 5 =             | 0          |
| 3.                                     |            |                      |                     | Column Totals 186                                       | (A)               | 566 (B)    |
| -                                      |            |                      |                     | Prevalence Index = B/A =                                | 3                 |            |
| 4<br>5.                                |            |                      |                     | Hydrophytic Vegetation Indicators:                      |                   |            |
|  |            |                      |                     | - Lapid Test for Hydrophytic V                          | Vegetation        |            |
| 6                                      |            |                      |                     | 2 - Dominance Test is >50%                              |                   |            |
| 7                                      |            |                      |                     | $\sqrt{}$ 3 - Prevalence Index is ≤ 3.01                |                   |            |
| 8                                      |            |                      |                     | -  4 - Morphological Adaptations                        | ¹ (Provide s      | upporting  |
| 9                                      |            |                      |                     | data in Remarks or on a separate sh                     | neet)             |            |
|  | 0          | = Total Cover        |                     | Problematic Hydrophytic Vege                            | etation¹ (Exp     | olain)     |
| 50% of total cover: 0                  | _20% of to | ital cover:          | 0                   | ¹Indicators of hydric soil and wetlan                   | ıd hydrolog       | y must be  |
| Herb Stratum (Plot size: 5 )           |            |                      |                     | present, unless disturbed or proble                     | matic             |            |
| 1. Microstegium vimineum               | 40         | Yes                  | FAC                 | <ul><li>Definitions of Four Vegetation Strate</li></ul> | a:                |            |
| 2. Smilax rotundifolia                 | 30         | Yes                  | FAC                 | -   |                   |            |
| 3. <u>Toxicodendron radicans</u>       | 25         | Yes                  | FAC                 | Tr <b>ee</b> – Woody plants, excluding vine             |                   |            |
| 4. Parthenocissus quinquefolia         | 8          | No                   | FACU                | in diameter at breast height (DBH),                     | regardless        | of height. |
| 5. Asteracae                           | 3          | No                   | NI                  | _   |                   |            |
| 6. Quercus phellos                     | 1          | No                   | FAC                 | Sapling/shrub – Woody plants, exclu                     | _                 |            |
| 7                                      |            |                      |                     | in. DBH and greater than or equal to                    | o 3.28 ft (1      | m) tall.   |
| 8                                      |            |                      |                     | -   |                   |            |
| 9                                      |            |                      |                     | Herb – All herbaceous (non-woody)                       |                   | ardiess of |
| 10                                     |            |                      |                     | size, and woody plants less than 3.2                    | .o It tall.       |            |
| 11                                     |            |                      |                     | _   |                   |            |
|  | 107        | = Total Cover        |                     | <b>Wo</b> od <b>y vine</b> s – All woody vines grea     | ter than 3.2      | 28 ft in   |
| 50% of total cover:53.5                | 20% of to  | tal cover:           | 21.4                | height.   |                   |            |
| Woody Vine Stratum (Plot size: 30 )    |            |                      |                     |   |                   |            |
| 1. Smilax rotundifolia                 | 7          | Yes                  | FAC                 | _   |                   |            |
| 2. <u>Toxicodendron radicans</u>       | 5          | Yes                  | FAC                 | _   |                   |            |
| 3                                      |            |                      |                     | Hydrophytic Vegetation Present?                         | Yes ☑ No 🗆        | ]          |
| 4                                      |            |                      |                     | _   |                   |            |
| 5                                      |            |                      |                     | _   |                   |            |
|  | 12         | = Total Cover        |                     |   |                   |            |
| 50% of total cover: <u>6</u>           | 20% of to  | tal cover:           | 2.40000000000000004 | _   |                   |            |
| Remarks: (Include photo numbers here   | or on a se | parate sheet.)       |                     | •   |                   |            |
| Traine No. (Wadde prioto Haribers Hare | 0.0.0      | parate sileday       |                     |   |                   |            |
|  |            |                      |                     |   |                   |            |
|  |            |                      |                     |   |                   |            |
|  |            |                      |                     |   |                   |            |
|  |            |                      |                     |   |                   |            |
|  |            |                      |                     |   |                   |            |
|  |            |                      |                     |   |                   |            |

| Depth                  |                                | o tne dept  | h needed to docume  |            |                     | or confir  | m the absenc       | e or indicators.)                    |   |
|------------------------|--------------------------------|-------------|---------------------|------------|---------------------|------------|--------------------|--------------------------------------|---|
|                        | Matrix                         |             |                     | Feature    |                     |            |                    |                                      |   |
| (inches)               | Color (moist)                  | <u></u>     | Color (moist)       | . <u> </u> | Type¹               | _Loc²      |                    | Texture                              | Remarks                                     |
| 0 - 1                  | 2.5Y 5/3                       | <u>97</u> - | 5YR 4/6             | 3          |                     | PL_        |                    | Loam                                 | _   |
| 1 - 10                 | 2.5Y 5/3                       | 100         |                     |            |                     |            |                    | Clay Loam                            |   |
| 10 - 12                | 2.5Y 6/4                       | _100_       |                     |            |                     |            |                    | Silt Loam                            | _   |
| 12 - 18                | 2.5Y 5/2                       | 99          | 10YR 5/8            | 1          | C                   | M          | Si                 | lty Clay Loam                        |   |
|                        |                                |             |                     |            |                     |            |                    |                                      |   |
|                        |                                |             |                     |            |                     |            |                    |                                      |   |
|                        |                                |             |                     |            |                     |            |                    |                                      |   |
|                        | _                              |             |                     |            |                     |            |                    |                                      |   |
|                        |                                |             |                     |            |                     |            |                    |                                      |   |
|                        |                                |             |                     |            |                     |            |                    |                                      |   |
| 1T C -                 | Canada tantina D - F           |             | DNA - Dadward Nases |            | Nandiad C           | and Cuni   | 71                 | an Di — Dava Lining Ma               |   |
|                        |                                | epietion,   | RIM = Reduced Matri | x, M5 =    | маѕкеа ѕ            | and Gra    | ns. ²Locatio       | n: PL = Pore Lining, M =             |   |
| 1 -                    | I Indicators:                  |             |                     |            | ф-7.                |            |                    | Indicators for Problen               | natic Hydric Solls <sup>3</sup> :           |
| _ Histosol             | (A1)<br>ipedon (A2)            |             | Dark S              |            |                     | (CQ) (BAI) | RA 147, 148)       | 2 cm Muck (A10) (I                   | MLRA 147)                                   |
| HISCIC EP<br>Black His |                                |             |                     |            | ace (S9) <b>(</b> N |            | -                  | Coast Prairie Redo                   | ox (A16) (MLRA 147, 148)                    |
| _                      | n Sulfide (A4)                 |             |                     |            | Matrix (F2          |            | , 1-10)            | Piedmont Floodpla                    | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
| _ , _                  | d Layers (A5)                  |             | _ Deple             | -          |                     | ,          |                    | 147)                                 |   |
| _ 2 cm Mu              | ck (A10) (LRR N)               |             | Redox               | Dark Su    | ırface (F6)         |            |                    | Very Shallow Dark                    | Surface (TF12)                              |
| _ Depleted             | d Below Dark Surface (         | A11)        |                     |            | Surface (F          | -7)        |                    | Other (Explain in F                  | Remarks)                                    |
|                        | rk Surface (A12)               |             | _ Redox             | Depres     | sions (F8)          |            |                    |                                      |   |
|                        | ucky Mineral (S1) (LRF         | R N, MLRA   | 147, 148) Iron-N    | langane:   | se Masses           | (F12) (LR  | R N, MLRA 130      | <sup>5)</sup> ₃Indicators of hydropl | hytic vegetation and                        |
|                        | leyed Matrix (S4)<br>edox (S5) |             | _ 0                 | c builde   | c ( ) (             |            | 122)<br>VILRA 148) | wetland hydrology mi                 | ust be present, unless                      |
| _                      | Matrix (S6)                    |             |                     |            | iterial (F21        |            |                    | disturbed or problem                 | atic.                                       |
|                        | Layer (if observed):           |             |                     |            |                     |            | , ,                |                                      |   |
|                        | Type:                          |             | None                |            |                     | Hudric 9   | Soil Present?      |                                      | Yes □ No ☑                                  |
|                        | Depth (inches):                |             | None                |            |                     | I Iyunc.   | oon Fresence       |                                      | ies 🗆 NO 🗹                                  |
|                        | Deput (inches).                |             |                     |            |                     | 1          |                    |                                      |   |
|                        |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     | 1          |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     | •          |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     | •          |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     | 1          |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |
| Remarks:               |                                |             |                     |            |                     |            |                    |                                      |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                                   | City/County:_ Danville, Pit              | ttsylvania C Sam <b>p</b> lin <b>g</b> | Date: 2018-July-27                                   |                            |
|---|--|--|--|----------------------------|
| Appl <b>ica</b> nt <b>/O</b> wner: NextEra                    |  | State: Virgir                          | ia Sampling Point: W                                 | '-A18-200_PSS-1            |
| Investigator(s): Laura Giese, Simo                            | on King                                  | Section, Township,                     | Range:   |                            |
| Landform (hillslope, terrace, etc.):                          | Back slope                               | Local relief (concave, conv            | ex, none): Concave                                   | Slop <b>e (%</b> ): 2 to 5 |
| Subregion (LRR or MLRA):                                      |  | Lat: 36.645354                         | Long: -79.5264966                                    | Datum: WGS84               |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> :                   |  |  | NWI classifica                                       | tion:                      |
| Are climatic/hydrologic conditions o                          |  |  | (If no, explain in Remark                            |                            |
| Are Vegetation, Soil,   | or Hydrology significantly di            |  | al Circumstances" present?                           | Yes 🔽 No                   |
| Are Vegetation, Soil,   | or Hydrology naturally prob              | lematic? (If needed,                   | explain any answers in Remai                         | ·ks.)                      |
| CURANA ADVIOLETA IDINICE A                                    |  |  |  |                            |
| SUMMARY OF FINDINGS – Atta<br>Hydrophytic Vegetation Present? |  | rig point locations, trai              | isects, important leature                            | s, etc.                    |
| Hydric Soil Present?  | Yes _ <b>✓</b> _ No<br>Yes <u></u> ✓_ No |  |  |                            |
| •   |  | lath o Compaled Aven within            | o a Martin and D                                     | for f No.                  |
| Wetland Hydrology Present?  Remarks:                          | Yes _ <b>✓</b> No                        | Is the Sampled Area within             | n a wetiand?   | es No                      |
| Covertype is PSS. Area is wetland, a                          | all three wetland parameters are p       | resent.                                |  |                            |
| HYDROLOGY Worland Hydrology Indicators:                       |  |  |  |                            |
| Wetland Hydrology Indicators:                                 | oo is required; shock all that apply     |  | Secondary Indicators (minim                          | um of two required)        |
| <u>Primary Indicators (minimum of on</u>                      | ie is required, check all that apply)    |  | Secondary Indicators (minim Surface Soil Cracks (B6) | am or two required)        |
| Surface Water (A1)  | True Aquatic Plai                        | nts (B14)                              | Sparsely Vegetated Conca                             | ave Surface (B8)           |
| High Water Table (A2)   | Hydrogen Sulfide                         | e Odor (C1)                            | ✓ Drainage Patterns (B10)                            | ,                          |
| Saturation (A3)   | · ·                                      | oheres on Living Roots (C3)            | Moss Trim Lines (B16)                                |                            |
| Water Marks (B1)  | Presence of Red                          |  | Dry-Season Water Table (                             | 52)                        |
| Sediment Deposits (B2)  |  | uction in Tilled Soils (C6)            | Crayfish Burrows (C8)                                |                            |
| Drift Deposits (B3)<br>Algal Mat or Crust (B4)                | Thin Muck Surfa<br>Other (Explain in     |  | Saturation Visible on Aeri                           | al Imagery (C9)            |
| Iron Deposits (B5)  | 5 and (200)                              | , realitation                          | Stunted or Stressed Plant                            | s (D1)                     |
| Inundation Visible on Aerial Im                               | nagery (B7)                              |  | Geomorphic Position (D2)                             |                            |
| Water-Stained Leaves (B9)                                     |  |  | Shallow Aquitard (D3)                                |                            |
| Aquatic Fauna (B13)   |  |  | Microtopographic Relief (                            | D4)                        |
|   |  |  | ✓ FAC-Neutral Test (D5)                              |                            |
| Field Observations:   |  |  |  |                            |
| Surface Water Present?  | Yes No <u>_</u> Depth                    | (inches):                              |  |                            |
| Water Table Present?  | Yes No Depth                             | (inches):                              | Wetland Hydrology Present?                           | Yes No                     |
| Saturation Present?   | Yes No ✓ Depth                           | (inches):                              |  |                            |
| (includes capillary fringe)                                   |  | · · · · · · · · · · · · · · · · · · ·  |  |                            |
| Describe Recorded Data (stream ga                             |  | s previous inspections) if a           | vailable <sup>,</sup>                                |                            |
| Describe Recorded Data (Stream gr                             | auge, monitoring weil, aeriai prioto     | s, previous inspections), ir a         | valiable.  |                            |
| Remarks:  |  |  |  |                            |
| A positive indication of wetland hyd                          | drology was observed (at least two       | secondary indicators). Soils           | s very moist.  |                            |
|   |  |  |  |                            |

| ,   |                |             |             | Danis and Tarkens dalah ask  |               |            |
|---|----------------|-------------|-------------|--|---------------|------------|
| Tree Stratum (Plot size: 30)                            |                | Dominant    |             | Dominance Test worksheet:  |               |            |
|   | % Cover        | Species?    | Status      | Number of Dominant Species That  | 3             | (A)        |
| 1   |                |             |             | Are OBL, FACW, or FAC:   |               | _          |
| 2   |                |             |             | Total Number of Dominant Species Across All Strata:  | 3             | (B)        |
| 3.  |                |             |             |  |               | _          |
| 4   |                |             |             | Percent of Dominant Species That Are OBL, FACW, or FAC:  | 100           | (A/B)      |
| 5   |                |             |             | Prevalence Index worksheet:  |               |            |
| 6.  |                |             |             |  | Multiply D    | .,,        |
| 7.  |                |             |             | Total % Cover of:  | Multiply By   | _          |
|   | 0              | = Total Cov | er          | - OBL species 15   | x 1 =         | 15         |
| 50% of total cover: <u>0</u>                            | 20% of to      | -           | 0           | FACW species 40  | x 2 =         | 08         |
| Sapling/Shrub Stratum (Plot size:15)                    | _ = 0 /0 01 00 |             | <u></u>     | FAC species 30   | x3=           | 90         |
| 1. Sambucus nigra                                       | 30             | Yes         | FAC         | FACU species 0   | x 4 =         | 0          |
| 2. Salix nigra  | 15             | Yes         | OBL         | - UPL species0   | x 5 =         | 0          |
|   |                | 163         | OBL         | Column Totals 85   | (A)           | 185 (B)    |
| 3   |                |             |             | Prevalence Index = B/A =   | 2.2           |            |
| 4   |                |             |             | Hydrophytic Vegetation Indicators:   |               |            |
| 5   |                |             |             | 1- Rapid Test for Hydrophytic \  | Vegetation    |            |
| 6.  |                |             |             | 2 - Dominance Test is >50%   | , againeri    |            |
| 7   |                |             |             | $\checkmark$ 2 - Bornmarice rescis > 50%<br>$\checkmark$ 3 - Prevalence Index is $\le 3.0^{\circ}$ |               |            |
| 8   |                |             |             | - 4 - Morphological Adaptations  | 1 (Drovido cu | innorting  |
| 9.  |                |             |             | - data in Remarks or on a separate sh  |               | apporting  |
|   | <b>4</b> 5     | = Total Cov | er          | Problematic Hydrophytic Vege   |               | lain)      |
| 50% of total cover: <u>22.5</u>                         | 20% of to      | tal cover:  | 9           | Indicators of hydric soil and wetlan   |               |            |
| Herb Stratum (Plot size: 5 )                            |                |             |             | present, unless disturbed or proble  | , 0,          | must be    |
| 1. Symphyotrichum lanceolatum                           | 40             | Yes         | FACW        |  |               |            |
| 2.  |                |             |             | Definitions of Four Vegetation Strate  | ai.           |            |
| 3.  |                |             |             |  | 2: /2.6       | ,          |
|   |                |             |             | Tree – Woody plants, excluding vine  |               |            |
| 4.  |                |             |             | - in diameter at breast height (DBH),  | regardiess c  | or neight. |
| 5   |                |             |             | -  |               |            |
| 6   |                |             |             | Sapling/shrub – Woody plants, exclu  | •             |            |
| 7   |                |             |             | in. DBH and greater than or equal to   | 3.28π(In      | n) tall.   |
| 8.  |                |             |             | -  |               |            |
| 9   |                |             |             | Herb – All herbaceous (non-woody)  |               | irdless of |
| 10.   |                |             |             | size, and woody plants less than 3.2   | .8 ft tall.   |            |
| 11.   |                |             |             |  |               |            |
| -   | 40             | = Total Cov | er          | <b>Wo</b> od <b>y vine</b> s – All woody vines grea  | ter than 3.2  | 8 ft in    |
| 50% of total cover: <u>20</u>                           | 20% of to      | tal cover:  | 8           | height.  |               |            |
| Woody Vine Stratum (Plot size: 30 )                     |                |             |             |  |               |            |
| 1   |                |             |             |  |               |            |
|   |                |             |             | -  |               |            |
|   |                |             |             | - Hydrophytic Vegetation Present? `  | Voc 🖾 No 🗀    |            |
| 3   |                |             |             | -   Hydrophydd Vegetadon Present?  | res 🖭 No 🗆    |            |
| 4   |                |             |             | -  |               |            |
| 5   |                |             |             | .  |               |            |
|   | 0              | = Total Cov | er          |  |               |            |
| 50% of total cover: <u>0</u>                            | _ 20% of to    | tal cover:  | 0           |  |               |            |
| Remarks: (Include photo numbers here or on a separat    | e sheet.)      |             |             |  |               |            |
|   | <b>,</b>       |             |             |  |               |            |
|   |                |             |             |  |               |            |
|   |                |             |             |  |               |            |
| A positive indication of hydrophytic vegetation was obs | erved (>50     | 1% of domin | ant species | indexed as OBL, FACW, or FAC).   |               |            |
|   |                |             |             |  |               |            |
|   |                |             |             |  |               |            |
|   |                |             |             |  |               |            |

|            |                                   | o th <b>e d</b> ept | th needed to docume |              |               | or confir           | m the absence of               | indicators.)         |   |
|------------|-----------------------------------|---------------------|---------------------|--------------|---------------|---------------------|--------------------------------|----------------------|---|
| Depth _    | Matrix                            | <u>%</u>            |                     | Feature      |               | 1.0.57              | Te                             | veta ano             | Domarke   |
| (inches)   | Color (moist)                     |                     | Color (moist)       | %            | Type¹         | _Loc <sup>2</sup> _ |                                | exture               | Remarks   |
| 0-2        | 10YR 3/2                          | 100                 | 10/0 5/0            |              |               |                     |                                | oam                  |   |
| 2-9        | 2.5Y 5/1                          | 95                  | 10YR 5/8            | 5            | C             | M_                  |                                | dy Loam              |   |
| 9 - 20     | 2.5Y 5/3                          | 90                  | 10YR 5/8            | 10           |               | M                   | Sano                           | dy Loam              |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
| -          |                                   |                     |                     |              |               |                     |                                |                      |   |
| -          |                                   |                     |                     |              |               |                     |                                |                      |   |
| 1Type: C = | Concentration D = F               | enletion            | RM = Reduced Matri: |              | Masked 9      | Sand Gra            | ins Zlocation: P               | U = Pore Lining M =  | Matrix  |
|            |                                   | repreción,          | KW - Kedacea Wath.  | ۱۷۱۵ – ۱     | waskeu.       | and Gra             |                                |                      |   |
| 1 -        | l Indicators:                     |                     | Dork                | urfoso (     | ~~\           |                     | Inic                           | dicators for Problem | auc nyunc sons-:  |
| _ Histosol | (AT)<br>ipedon (A2)               |                     |                     | iurface (S   |               | (S2) (MI            | RA 147, 148)                   | _ 2 cm Muck (A10) (N | ILRA 147)   |
| Black Hi:  |                                   |                     |                     |              | ace (S9) (    |                     | 7. 148) —                      | =                    | (A16) <b>(MLR</b> A 1 <b>47</b> , 1 <b>4</b> 8 <b>)</b> |
|            | n Sulfide (A4)                    |                     |                     |              | Matrix (F.    |                     |                                | _ Piedmont Floodpla  | in Soils (F19) <b>(ML</b> R <b>A 13</b> 6,              |
| Stratified | d Layers (A5)                     |                     | Deplet              | -            |               |                     | 14                             | 7)                   |   |
| _ 2 cm Mu  | ick (A10) <b>(</b> LR <b>R N)</b> |                     | Redox               | Dark Su      | ırface (F6)   | ı                   | _                              | Very Shallow Dark :  | Surface (TF12)  |
|            | d Below Dark Surface (            | A11)                |                     |              | Surface (     | F7)                 | _                              | Other (Explain in Re | emarks)   |
|            | rk Surface (A12)                  |                     | Redox               | Depress      | sions (F8)    |                     |                                |                      |   |
| _          | lucky Mineral (S1) <b>(</b> LRI   | R N, MLRA           | 147, 148) Iron-N    | langanes     | se Masses     | 5 (F12) (LF         | RR N, MLRA 136) <sub>⊴In</sub> | dicators of hydroph  | ytic vegetation and                                     |
|            | leyed Matrix (S4)<br>edox (S5)    |                     |                     |              | c ( ) (       |                     | 122)<br>MLRA 148) WE           | tland hydrology mu   | st be present, unless                                   |
| _          | l Matrix (S6)                     |                     | _                   |              |               |                     | 127, 147) dis                  | turbed or problema   | tic.  |
|            |                                   |                     |                     | ar Circ ivio | icci iai (i z | 1) (INICIO-C        | 121, 171,                      | ·                    |   |
|            | Layer (if observed):              |                     | Name                |              |               | l                   |                                |                      |   |
|            | Type:                             | -                   | None                |              |               | Hyaric              | Soil Present?                  |                      | Yes ☑ No □  |
|            | Depth (inches):                   |                     |                     |              |               |                     |                                |                      |   |
| Remarks:   |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
| A positive | indication of hydric s            | soil was ol         | oserved.            |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
| 1          |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |
|            |                                   |                     |                     |              |               |                     |                                |                      |   |

Photo of Sample Plot North



Photo of Sample Plot East



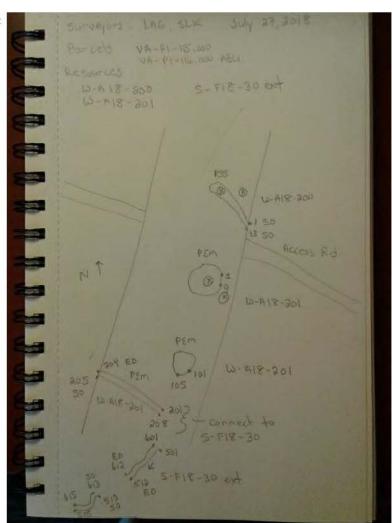
Photo of Sample Plot South



Photo of Sample Plot West



#### Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                             | City/County:_                 | Danville, Pittsylvania C     | . Sampling Date                       | e: 2018-July-27                                      |                            |
|---|-------------------------------|------------------------------|---------------------------------------|--|----------------------------|
| Applicant/Owner: NextEra                                |                               |                              | State: Virginia                       | Sampling Point:                                      | W-A18-200_UPL-1            |
| Investigator(s): Laura Giese, Sir                       | mon King                      | Sect                         | on, Township, Ran                     | ge:  |                            |
| Landform (hillslope, terrace, etc.):                    | : Back slope                  | Local relief                 | (concave, convex, r                   | none): Convex  | Slop <b>e (%</b> ): 2 to 5 |
| Subregion (LRR or MLRA):                                |                               | Lat                          | 36.6452154                            | Long: -79.5263918                                    | Datum: WGS84               |
| Soil <b>Map</b> U <b>ni</b> t Name:                     |                               | _                            |                                       | NWI classif  | ication:                   |
| Are climatic/hydrologic condition:                      | s on the site typical for thi | s time of year?              | Yes 🟒 No                              | (If no, explain in Rema                              | arks.)                     |
| Are Vegetation, Soil,                                   | or Hydrology sign             | nificantly disturbed?        | Are "Normal Cir                       | rcumstances" present?                                | Yes No                     |
| Are Vegetation, Soil,                                   | or Hydrology nat              | urally problematic?          | (If needed, expl                      | ain any answers in Ren                               | narks.)                    |
|   |                               |                              |                                       |  |                            |
| SU <b>MMARY OF FINDI</b> NG <b>S</b> – A                | ttach site map showir         | ng sampling point lo         | cations, transec                      | ts, important featu                                  | res, etc.                  |
|   | •                             |                              | · · · · · · · · · · · · · · · · · · · | <u>'</u>   |                            |
| Hydrophytic Vegetation Present?<br>Hydric Soil Present? | ? Yes <u>√</u> No<br>Yes No   | i                            |                                       |  |                            |
| •   |                               | i                            |                                       | 141-41   | V N- 6                     |
| Wetland Hydrology Present?                              | Yes No                        | Is the Sam                   | pled Area within a                    | wetiand?   | Yes No/                    |
| Remarks:  |                               |                              |                                       |  |                            |
|   |                               |                              |                                       |  |                            |
|   |                               |                              |                                       |  |                            |
| Covertype is UPL. Area is upland                        | based on absence of hyd       | ric soils and wetland hy     | drology.                              |  |                            |
| cover gype is over 2.711 da is aprairia                 | basea on assence or riya      | The Bolls aria Wedaria rig   | , ology.                              |  |                            |
|   |                               |                              |                                       |  |                            |
|   |                               |                              |                                       |  |                            |
|   |                               |                              |                                       |  |                            |
| HYDROLOGY   |                               |                              |                                       |  |                            |
| National Discharles on the discharge                    |                               |                              |                                       |  |                            |
| Wetland Hydrology Indicators:                           |                               |                              | -                                     |  |                            |
| Primary Indicators (minimum of                          | one is required; check all    | t <b>nat a</b> ppi <b>y)</b> |                                       | ondary Indicators (mini                              | •                          |
| Surface Water (A1)                                      | True                          | Aquatic Plants (B14)         |                                       | Surface Soil Cracks (B6)                             |                            |
| High Water Table (A2)                                   |                               | ogen Sulfide Odor (C1)       |                                       | Sparsely Vegetated Cor                               |                            |
| Saturation (A3)   | •                             | zed Rhizospheres on Liv      | D                                     | Drainage Patterns (B10<br>Moss Trim Lines (B16)      | )                          |
| Water Marks (B1)  | Prese                         | ence of Reduced Iron (C4     | 11                                    | Dry-Season Water Table                               | e (C2)                     |
| Sediment Deposits (B2)                                  | Recer                         | nt Iron Reduction in Tille   | al Calla /CCl                         | Crayfish Burrows (C8)                                | a (c <b>a</b> )            |
| Drift Deposits (B3)                                     | Thin I                        | Muck Surface (C7)            |                                       | Saturation Visible on A                              | erial Imagery (C9)         |
| Algal Mat or Crust (B4)                                 | Othe                          | r (Explain in Remarks)       | _                                     |  | 0 7                        |
| Iron Deposits (B5)                                      |                               |                              | _                                     | Stunted or Stressed Pla                              | ants (D1)                  |
| Inundation Visible on Aerial                            | Imagery (B7)                  |                              |                                       | Geomorphic Position (I                               | D2)                        |
| Water-Stained Leaves (B9)                               |                               |                              |                                       | Shallow Aquitard (D3)                                |                            |
| Aquatic Fauna (B13)                                     |                               |                              |                                       | Microtopographic Relie                               | f (D4)                     |
|   |                               |                              |                                       | FAC-Neutral Test (D5)                                |                            |
| Field Observations:                                     |                               |                              |                                       |  |                            |
| Surface Water Present?                                  | Yes No 🟒                      | Depth (inches):              |                                       |  |                            |
| Water Table Present?                                    | Yes No                        | Depth (inches):              | <b>W</b> e                            | tl <mark>and H</mark> yd <mark>rology P</mark> reser | nt? Yes No                 |
| Saturation Present?                                     | Yes No                        | Depth (inches):              |                                       |  |                            |
| (includes capillary fringe)                             |                               |                              |                                       |  |                            |
| Describe Recorded Data (stream                          | gauge, monitoring well, a     | erial photos, previous ir    | spections), if availa                 | able:  |                            |
| September Record and Data (Section)                     | gaaga, morntomig man, a       | ian priocos, pravious ii     | ispaceroris), ir avain                |  |                            |
|   |                               |                              |                                       |  |                            |
| Domonica  |                               |                              |                                       |  |                            |
| Remarks:  |                               |                              |                                       |  |                            |
|   |                               |                              |                                       |  |                            |
|   |                               |                              |                                       |  |                            |
| No positive indication of wetland                       | A budgalaguwaa abaasad        |                              |                                       |  |                            |
| No positive indication of wedant                        | i nyurology was observeu      | •                            |                                       |  |                            |
|   |                               |                              |                                       |  |                            |
|   |                               |                              |                                       |  |                            |
|   |                               |                              |                                       |  |                            |

| · · · · · · · · · · · · · · · · · · ·   | •                |              |             |  |              |            |
|---|------------------|--------------|-------------|--|--------------|------------|
| Tree Stratum (Plot size:30)   | <b>A</b> bsolute | Dominant     | Indicator   | Dominance Test worksheet:  |              |            |
| Tree Structure (Flore Size  | % Cover          | Species?     | Status      | Number of Dominant Species That  | 6            | (A)        |
| 1. Liquidambar styraciflua  | 35               | Yes          | FAC         | Are OBL, FACW, or FAC:   |              |            |
| 2. Platanus occidentalis  |                  | Yes          | FACW        | Total Number of Dominant Species Across All Strata:                    | 8            | (B)        |
| 3. Acer rubrum  |                  | Yes          | FAC         | Percent of Dominant Species That                                       |              |            |
| 4   |                  |              |             | - Are OBL, FACW, or FAC:   | <b>7</b> 5   | (A/B)      |
| 5   |                  |              |             | Prevalence Index worksheet:  |              |            |
| 6.  |                  |              |             | <u>Total % Cover of:</u>   | Multiply E   | <u>3y:</u> |
| 7   |                  |              |             | OBL species 0  | x 1 =        | 0          |
|   | 75               | = Total Cov  |             | FACW species 20  | x 2 =        | 40         |
| 50% of total cover: <u>37.5</u>   | _ 20% of to      | otal cover:  | 15          | FAC species 85   | x 3 =        | 255        |
| Sapling/Shrub Stratum (Plot size:15)  | 15               | V            | EA.C        | FACU species 15  | x 4 =        | 60         |
| 1. Liquidambar styraciflua  | 15               | Yes -        | FAC         | UPL species 0  | x 5 =        | 0          |
| 2. Acer rubrum  | 10               | Yes          | FAC         | Column Totals 120  | (A)          | 355 (B)    |
| 3.  |                  |              |             | Prevalence Index = B/A =   | 3            |            |
| 4.  |                  |              |             | Hydrophytic Vegetation Indicators:                                     |              |            |
| 5.  |                  |              |             | 1- Rapid Test for Hydrophytic V  | /egetation   |            |
| 6.  |                  |              |             | ✓ 2 - Dominance Test is >50%   | Ü            |            |
| 7.  |                  |              |             | $\checkmark$ 3 - Prevalence Index is $\le$ 3.01                        |              |            |
| 8.  |                  |              |             | -  4 - Morphological Adaptations                                       | ¹ (Provide s | supporting |
| 9   |                  |              |             | data in Remarks or on a separate sh                                    | neet)        | -          |
|   | 25               | _= Total Cov |             | Problematic Hydrophytic Vege   | tation¹ (Ex  | plain)     |
| 50% of total cover: <u>12.5</u>   | _ 20% of to      | otal cover:  | 5           | Indicators of hydric soil and wetlan                                   | d hydrolog   | y must be  |
| Herb Stratum (Plot size: 5 )  | 4.0              |              | E 1 E 1 1   | present, unless disturbed or proble                                    | matic        |            |
| 1. Lonicera japonica  | 10               | Yes          | FACU        | Definitions of Four Vegetation Strate                                  | a:           |            |
| 2. Rubus allegheniensis   | 5                | Yes          | FACU        | -  |              |            |
| 3   |                  |              |             | Tr <b>ee</b> – Woody plants, excluding vine                            |              |            |
| 4   |                  |              |             | - in diameter at breast height (DBH),                                  | regardless   | of height. |
| 5   |                  |              |             | -  |              |            |
| 6   |                  |              |             | Sapling/shrub – Woody plants, exclu-                                   | _            |            |
| 7   |                  |              |             | in. DBH and greater than or equal to                                   | 3 3.28 π (1  | m) tall.   |
| 8.  |                  |              |             | I I I owle . All leaving require (new procession)                      | olomba koa   | oudlage of |
| 9   |                  |              |             | Herb – All herbaceous (non-woody) size, and woody plants less than 3.2 |              | ardiess of |
| 10  |                  |              |             | - Size, and woody plants less than 5.2                                 | o ic can.    |            |
| 11  |                  |              |             |  |              |            |
|   | 15               | = Total Cov  | er          | <b>Wo</b> od <b>y vine</b> s – All woody vines grea                    | ter than 3.1 | 28 ft in   |
| 50% of total cover: <u>7.5</u>  | _ 20% of to      | otal cover:  | 3           | height.  |              |            |
| Woody Vine Stratum (Plot size: <u>30</u> )  |                  |              |             |  |              |            |
| 1. Smilax rotundifolia  | 5                | Yes          | FAC         |  |              |            |
| 2   |                  |              |             |  |              |            |
| 3.  |                  |              |             | Hydrophytic Vegetation Present?  | ∕es 🛭 No 🗆   | ]          |
| 4   |                  |              |             | _  |              |            |
| 5   |                  |              |             | .  |              |            |
|   | 5                | = Total Cov  | er          |  |              |            |
| 50% of total cover: <u>2.5</u>  | _ 20% of to      | otal cover:  | 1           |  |              |            |
| Remarks: (Include photo numbers here or on a separat  | e sheet.)        |              |             | •  |              |            |
| Name to the same process in the same as a same as | a silada,        |              |             |  |              |            |
|   |                  |              |             |  |              |            |
| A positive indication of hydrophytic vegetation was obs   | erved (>50       | )% of domin  | ant species | indexed as OBL, FACW, or FAC).   |              |            |
|   |                  |              |             |  |              |            |
|   |                  |              |             |  |              |            |

| Profile De         | escription: (Describe to         | t <b>he d</b> eptl | h n <b>eed</b> ed to docum | ent the i | n <b>dicator</b> o                | or confir | m the absence of indicators.)                                    |                               |
|--------------------|----------------------------------|--------------------|----------------------------|-----------|-----------------------------------|-----------|--|-------------------------------|
| D <b>ep</b> th     | <b>Ma</b> trix                   |                    | R <b>edo</b>               | x Featur  | es                                |           |  |                               |
| (inches)           | Color (moist)                    | %                  | Color (moist)              | - %       | Type¹                             | Loc²      | Texture  | Remarks                       |
| 0 - 7              | 10YR 4/2                         | 100                |                            |           |                                   |           | Sandy Loam   |                               |
| 7 - 14             | 10YR 6/6                         | 100                |                            |           |                                   |           | Sandy Loam   |                               |
| 14 - 20            | 10YR 6/6                         | 95                 | 7.5YR 5/8                  | 5         | С                                 |           | Sandy Loam   |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           | -  |                               |
|                    |                                  |                    |                            | -         |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           | -  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
| <u>¹</u> Type: C = | = Concentration, D = D           | epletion, I        | RM = Reduced Matr          | ix, MS =  | Masked S                          | and Gra   | ins. <sup>2</sup> Location: PL = Pore Lining,                    | M = Matrix.                   |
| Hydric So          | il Indicators:                   |                    |                            |           |                                   |           | Indicators for Prob  | lematic Hydric Soils3:        |
| _ Histoso          |                                  |                    |                            | Surface ( |                                   |           | 2 cm Muck (A10   | D) (MLRA 147)                 |
|                    | pipedon (A2)                     |                    |                            |           |                                   |           | RA 147, 148)   | edox (A16) (MLRA 147, 148)    |
|                    | istic (A3)<br>en Sulfide (A4)    |                    |                            |           | ace (S9) <b>(</b> N<br>Matrix (F2 |           | ·, 148)  | dplain Soils (F19) (MLRA 136, |
|                    | ed Layers (A5)                   |                    |                            | ted Matr  |                                   | -,        | <del></del>  |                               |
|                    | uck (A10) (LRR N)                |                    |                            |           | ırface (F6)                       |           | Very Shallow D   | ark Surface (TF12)            |
| _ Deplete          | ed Below Dark Surface (          | A11)               | _ Deple                    | ted Dark  | Surface (F                        | =7)       | Other (Explain   | in Remarks)                   |
| _                  | ark Surface (A12)                |                    | Redo                       | x Depress | sions (F8)                        |           |  |                               |
|                    | Mucky Mineral (S1) (LRR          | N, MLRA 1          | 147, 148) Iron-l           | vlangane: | se Masses                         | (F12) (LF | RR N <b>, M</b> LR <b>A 136)</b> <sub>3</sub> Indicators of hydr | ophytic vegetation and        |
|                    | Gleyed Matrix (S4)<br>Redox (S5) |                    | 0                          |           | C ( ) (                           |           | MLRA 148) wetland hydrology                                      | must be present, unless       |
| _                  | d Matrix (S6)                    |                    |                            |           | iterial (F21                      |           | امامه ما محمل ما معالم   | ematic.                       |
|                    | e Layer (if observed):           |                    |                            |           |                                   | Ī         | . ,  |                               |
|                    | Type:                            |                    | None                       |           |                                   | Hydric    | Soil <b>Present?</b>   | Yes □ No ☑                    |
|                    | Depth (inches):                  |                    | 110112                     | _         |                                   | liyanc    | 5011 reserie   | ICS 🗆 IVO 🖭                   |
|                    | •                                |                    |                            | _         |                                   |           |  |                               |
| Remarks:           |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
| No positiv         | ve indication of hydric          | soils was          | observed.                  |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |
|                    |                                  |                    |                            |           |                                   |           |  |                               |

Photo of Sample Plot North



Photo of Sample Plot East



| Project/Site: MVP Southgate             | City/County:                            |                              | Sampl        | ing Date: 2018-June-                          | 25                          |  |
|---|---|------------------------------|--------------|---|-----------------------------|--|
| Applicant/Owner: NextEra                |   | State:                       |              | Sampling Point: W-C18-98_PFO-1                |                             |  |
| Investigator(s): Jen Feese, JMF, S      | WB, SES                                 | Section, Township            | , Range:     | à:  |                             |  |
| Landform (hillslope, terrace, etc.):    | Hillslope                               | Local relief (concave, con   | vex, none):  | Concave                                       | Slop <b>e (%</b> ): 1 to 10 |  |
| Subregion (LRR or MLRA): MI             | LRA 136 of LRR P                        | Lat: 36.6446714              | Long         | g: -79.5263568                                | Datum: WGS84                |  |
| Soil <b>Map</b> Unit Name: 23C: Mayo    | odan fine Sandy loam 7-15% slope        |                              |              | NWI classification                            | on: None                    |  |
| Are climatic/hydrologic conditions      | on the site typical for this time of ye | ear? Yes 🟒 No                | o (If no     | —<br>o, explain in Remarks.                   | )                           |  |
| Are Vegetation, Soil,                   | or Hydrology significantly di           | isturbed? Are "Norm          | nal Circums  | tances" present?                              | Yes <u></u> ✓ No            |  |
| Are Vegetation, Soil,                   | or Hydrology naturally prob             |                              | , explain ar | ny answers in Remarks                         | 5.)                         |  |
| SUMMARY OF FINDINGS – At                | tach site map showing sampli            | ing point locations, tra     | nsects, in   | nportant features,                            | etc.                        |  |
| Hydrophytic Vegetation Present?         | Yes 🗸 No                                |                              |              |   |                             |  |
| Hydric Soil Present?                    | Yes No                                  |                              |              |   |                             |  |
| Wetland Hydrology Present?              | Yes No                                  | Is the Sampled Area with     | in a Wetlan  | nd? Yes                                       | No                          |  |
| Remarks:                                |   |                              |              |   |                             |  |
| Covertype is PFO. Area is wetland       | , all three wetland parameters are p    | resent.                      |              |   |                             |  |
| HYDROLOGY Wetland Hydrology Indicators: |   |                              |              |   |                             |  |
| , 0,                                    | ano is required; shock all that apply   |                              | Socondan     | v Indicators (minimum                         | o of two required)          |  |
| Primary indicators (minimum of o        | one is required; check all that apply)  |                              |              | y Indicators (minimur<br>so Spil Crasks (B6)  | n or two requirea)          |  |
| Surface Water (A1)                      | True Aquatic Pla                        | nts (B14)                    |              | ce Soil Cracks (B6)<br>ely Vegetated Concave  | Surface (B9)                |  |
| High Water Table (A2)                   | Hydrogen Sulfid                         |                              | · ·          | age Patterns (B10)                            | : Surface (DO)              |  |
| ✓ Saturation (A3)                       | Oxidized Rhizosi                        | pheres on Living Roots (C3   |              | Trim Lines (B16)                              |                             |  |
| Water Marks (B1)                        | Presence of Red                         | uced Iron (C4)               |              | eason Water Table (C2                         | )                           |  |
| Sediment Deposits (B2)                  | Recent Iron Red                         | uction in Tilled Soils (C6)  |              | sh Burrows (C8)                               | •                           |  |
| Drift Deposits (B3)                     | Thin Muck Surfa                         |                              | -            | ation Visible on Aerial                       | lmagery (C9)                |  |
| Algal Mat or Crust (B4)                 | Other (Explain in                       | n Remarks)                   |              |   |                             |  |
| Iron Deposits (B5)                      |   |                              |              | ed or Stressed Plants (                       | D1)                         |  |
| Inundation Visible on Aerial II         | magery (B7)                             |                              |              | orphic Position (D2)                          |                             |  |
| Water-Stained Leaves (B9)               |   |                              |              | w Aquitard (D3)                               | 11                          |  |
| Aquatic Fauna (B13)                     |   |                              |              | topographic Relief (D4<br>leutral Test (D5)   | •)                          |  |
| Field Observations:                     |   |                              | FAC-N        | leutrai rest (D3)                             |                             |  |
| Surface Water Present?                  | Vos. No. / Donth                        | (inches);                    |              |   |                             |  |
|   | ·                                       | (inches):                    | -[           |   |                             |  |
| Water Table Present?                    |   | (inches): 6                  | - wetland i  | H <b>yd</b> rol <b>ogy Pre</b> s <b>en</b> t? | Yes _ <b>_</b> No           |  |
| Saturation Present?                     | Yes _ 🗸 No Depth                        | (inches): 4                  | -            |   |                             |  |
| (includes capillary fringe)             |   |                              |              |   |                             |  |
| Remarks:                                | gauge, monitoring well, aerial photo    | is, previous inspections), i | avaliable:   |   |                             |  |
|   |   |                              |              |   |                             |  |

| <u>Tree Stratum</u> (Plot size:5' x 40')            |             | Dominant<br>Species? | Indicator<br>Status | Dominance Test worksheet: Number of Dominant Species Tha                                   | . <del>+</del>       |             |
|---|-------------|----------------------|---------------------|--|----------------------|-------------|
| 1. Acer rubrum                                      | 50          | Yes                  | FAC                 | Are OBL, FACW, or FAC:   | 4                    | (A)         |
| 2. Prunus serotina                                  | 20          | Yes .                | FACU                | Total Number of Dominant Specie  | es 7                 | (D)         |
| 3. Carpinus caroliniana                             | 10          | No No                | FAC                 | Across All Strata:   |                      | (B)         |
| 4.  |             |                      | 1710                | Percent of Dominant Species That   | 57. <b>1</b>         | (A/B)       |
| 5.  |             |                      |                     | Are OBL, FACW, or FAC:   |                      |             |
| 6.  |             |                      |                     | Prevalence Index worksheet:  |                      |             |
| 7.  |             |                      |                     | Total % Cover of:  | <u>Multiply B</u>    |             |
|   | 80          | = Total Cov          | er                  | - OBL species 1  | _ x1= _              | 1           |
| 50% of total cover: 40                              | 20% of to   | tal cover:           | 16                  | FACW species 7   | - <sup>x2=</sup> -   | 14          |
| Sapling/Shrub Stratum (Plot size: 5' x 40' )        | _           |                      |                     | FAC species 93   | - ×3= -              | 279         |
| 1. Carpinus caroliniana                             | 5           | Yes                  | FAC                 | FACU species 30  | _ ×4= _              | 120         |
| 2.  |             |                      |                     | UPL species 0  | - <sup>x 5 =</sup> - | 0           |
| 3.  |             |                      |                     | Column Totals 131  | – <sup>(A)</sup> –   | 414 (B)     |
| 4.  |             |                      |                     | Prevalence Index = B/A   |                      |             |
| 5.  |             |                      |                     | Hydrophytic Vegetation Indicators  |                      |             |
| 6.  |             |                      |                     | 1- Rapid Test for Hydrophytic  | c Vegetation         |             |
| 7.  |             |                      |                     | 2 - Dominance Test is >50%   | _                    |             |
| 8.  |             |                      |                     | 3 - Prevalence Index is ≤ 3.0  |                      |             |
| 9.  |             |                      |                     | <ul> <li>4 - Morphological Adaptation</li> <li>data in Remarks or on a separate</li> </ul> |                      | upporting   |
|   | 5           | = Total Cov          | er                  | - I data in Remarks or on a separate Problematic Hydrophytic Ve                            |                      | alain)      |
| 50% of total cover: <u>2.5</u>                      | 20% of to   | tal cover:           | 1                   | Indicators of hydric soil and wetla  |                      |             |
| Herb Stratum (Plot size:5_)                         |             |                      |                     | present, unless disturbed or prob  | , ,                  | y muse be   |
| 1. Poaceae  | 20          | Yes                  | NI                  | Definitions of Four Vegetation Stra  |                      |             |
| 2. Boehmeria cylindrica                             | 7           | Yes                  | FACW                |  |                      |             |
| 3. Quercus phellos                                  | 1           | No                   | FAC                 | Tree – Woody plants, excluding vir   | nes, 3 in. (7.6      | cm) or more |
| 4. Acer negundo                                     | 1           | No                   | FAC                 | in diameter at breast height (DBH  |                      |             |
| 5. Alnus serrulata                                  | 1           | No                   | OBL                 |  |                      |             |
| 6. Microstegium vimineum                            | 1           | No                   | FAC                 | Sapling/shrub – Woody plants, ex   | _                    |             |
| 7   |             |                      |                     | in. DBH and greater than or equal  | to 3.28 ft (1        | m) tall.    |
| 8.  |             |                      |                     | _  |                      |             |
| 9   |             |                      |                     | Herb – All herbaceous (non-wood  |                      | ardless of  |
| 10  |             |                      |                     | size, and woody plants less than 3   | 3.28 ft tall.        |             |
| 11.   |             |                      |                     |  |                      |             |
|   | 31          | = Total Cov          | er                  | Woody vines – All woody vines gre  | eater than 3.2       | 28 ft in    |
| 50% of total cover: <u>15.5</u>                     | _ 20% of to | tal cover:           | 6.2                 | height.  |                      |             |
| Woody Vine Stratum (Plot size: 5' x 40')            |             |                      |                     |  |                      |             |
| 1. Smilax rotundifolia                              | 25          | Yes                  | FAC                 |  |                      |             |
| 2. Lonicera japonica                                | 10          | Yes                  | FACU                | .  |                      |             |
| 3.  |             |                      |                     | Hydrophytic Vegetation Present?  | Yes ☑ No □           | ]           |
| 4.  |             |                      |                     | _  |                      |             |
| 5.  |             |                      |                     | _  |                      |             |
|   | 35          | = Total Cov          | er                  |  |                      |             |
| 50% of total cover: <u>17.5</u>                     | 20% of to   | tal cover:           | 7                   |  |                      |             |
| Remarks: (Include photo numbers here or on a separa | te sheet )  |                      |                     |  |                      |             |

Unable to identify species due to the absence of distinguishing characteristics. However, due to the presence of wetland hydrology and hydric soils and the associated vegetative community, this species is assumed a FAC indicator status for the Dominance Test.

| Profile De  | escription: (Describe to                      | th <b>e d</b> ep | th n <b>eeded to</b> d <b>oc</b> ur | nent the i   | in <b>dicator</b>          | or confir   | m the absen                | ce of indicators.)          |  |
|-------------|---|------------------|-------------------------------------|--------------|----------------------------|-------------|----------------------------|-----------------------------|--|
| Depth       | Matrix  |                  | Red                                 | x Featur     | es                         |             |                            |                             |  |
| (inches)    | Color (moist)                                 | _%               | Color (moist)                       | %            | Тур <b>е¹</b>              | Loc²        |                            | T <b>ex</b> ture            | Remarks  |
| 0 - 6       | 2.5Y 5/1                                      | 93               | 2.5YR 3/4                           | 7            | С                          | M/PL        |                            | Silt Loam                   |  |
| 6 - 13      | 2.5Y 6/2                                      | 98               | 7.5YR 3/4                           |              | C                          | M           |                            | Sand                        |  |
| 13 - 15     | 2.5Y 6/2                                      | 70               | 10YR 5/8                            | 30           | С                          | M           |                            | Sand                        |  |
|             |   |                  |                                     | _            |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     | _            |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             | _  |
| 1Type: C =  | Concentration D = D                           | enletion         | RM = Reduced Ma                     | riv MS =     | Masked 9                   | Sand Gra    | ins 2l ocatio              | on: PL = Pore Lining, M     | = Matrix   |
|             | il Indicators:                                | epiedon,         | NW - Nedaced Wa                     | . IV, IVIS – | waskeu.                    | and Gra     | iiis. Locati               | Indicators for Proble       |  |
| Histoso     |   |                  | Dar                                 | k Surface (  | (\$7)                      |             |                            | indicators for Froble       | made nyune 30115   |
| _           | pipedon (A2)                                  |                  | _                                   |              |                            | e (S8) (ML  | RA 147, 148)               | 2 cm Muck (A10)             |  |
|             | istic (A3)                                    |                  | _                                   |              | face (S9) <b>(</b>         |             |                            |                             | ox (A16) <b>(MLR</b> A 1 <b>47</b> , 1 <b>4</b> 8 <b>)</b> |
|             | en Sulfide (A4)                               |                  |                                     |              | l Matrix (F                | 2)          |                            | · ·                         | lain Soils (F19) (MLRA 136,                                |
|             | ed Layers (A5)                                |                  |                                     | leted Mati   |                            |             |                            | 147)                        |  |
|             | uck (A10) (LRR N)                             | A 1 1 \          |                                     |              | urface (F6)<br>k Surface ( |             |                            | Very Shallow Darl           |  |
|             | ed Below Dark Surface (/<br>ark Surface (A12) | A 1 1)           | Red                                 | ox Debres    | sions (F8)                 |             |                            | Other (Explain in           | •  |
|             | Mucky Mineral (S1) (LRR                       | N, MLRA          | 147, 148) Iron                      | -Mangane     | se Masse:                  | s (F12) (LF | RR N, MLRA 13              | 6)₃<br>Indicators of hydrop | alas eti e sua crata eti e a a a al                        |
| Sandy C     | Eleyed Matrix (S4)                            |                  | Uml                                 | oric Surfac  | e (F13) ( <b>N</b>         | ILRA 136,   | 122)                       | Pindicators of hydrop       | nust be present, unless                                    |
| _           | Redox (S5)                                    |                  |                                     |              |                            |             | MLRA 148)                  | disturbed or problen        |  |
| Stripped    | d Matrix (S6)                                 |                  | Red                                 | Parent Ma    | aterial (F2                | 1) (MLRA    | 1 <b>2</b> 7, <b>1</b> 47) | disturbed or problem        | matic.   |
| Restrictive | e Layer (if observed):                        |                  |                                     |              |                            |             |                            |                             |  |
|             | Туре:   |                  | Gravel                              | _            |                            | Hydric :    | <b>So</b> il Present?      |                             | Yes ☑ No □   |
|             | Depth (inches):                               |                  | 15                                  | _            |                            |             |                            |                             |  |
| Remarks:    |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |
|             |   |                  |                                     |              |                            |             |                            |                             |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                         | City/County:                              |                                 | Sampling Date: 2018-Ju                            | ıne-25                      |
|---|---|---------------------------------|---|-----------------------------|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra |   | State:                          | Sampling Point:                                   | W-C18-98_UPL-1              |
| nvestigator(s): Jen Feese, JMF,                     | SWB, SES                                  | Section, Township,              | Range:  |                             |
| Landform (hillslope, terrace, etc.)                 | : Hillslope                               | Local relief (concave, conv     | ex, none): Convex                                 | Slop <b>e (%</b> ): 1 to 10 |
| Subregion (LRR or MLRA): N                          | /ILRA 136 of LRR P                        | Lat: 36.644674                  | Long: -79.526418                                  | Datum:WGS84                 |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> :23C: May | odan fine Sandy loam 7-15% slope          |                                 | NWI classifi                                      | ic <b>ation</b> : None      |
| Are climatic/hydrologic condition                   | is on the site typical for this time of y |                                 | (If no, explain in Rema                           | arks.)                      |
| Are Vegetation, Soil,                               | or Hydrology significantly d              | listurbed? Are "Norma           | al Circumstances" present?                        | Yes No                      |
| Are Vegetation, Soil,                               | or Hydrology naturally prob               | olematic? (If needed,           | explain any answers in Ren                        | narks.)                     |
|   |   |                                 |   |                             |
| SU <mark>MMARY OF FINDI</mark> NGS - A              | Attach site map showing sampl             | ing point locations, trar       | sects, important featu                            | res, etc.                   |
| Hydrophytic Vegetation Present                      | ? Yes ✓ No                                | 1                               |   |                             |
| Hydric Soil Present?                                | Yes No                                    |                                 |   |                             |
| Wetland Hydrology Present?                          | Yes No <b>_✓</b>                          | Is the Sampled Area with        | in a Wetland?                                     | Yes <b>No _</b> ✓           |
|   | res No _ <del>V</del> _                   | is the sampled Area with        | iii a wedanu:                                     |                             |
| Remarks:  |   |                                 |   |                             |
|   |   |                                 |   |                             |
|   |   |                                 |   |                             |
|   |   |                                 |   |                             |
| 5 : 'UDL 1 : 1                                      | L a Hall of L                             |                                 |   |                             |
| Covertype is UPL. Area is upland                    | l, not all three wetland parameters a     | re present.                     |   |                             |
|   |   |                                 |   |                             |
|   |   |                                 |   |                             |
|   |   |                                 |   |                             |
|   |   |                                 |   |                             |
| HYDROL OCY  |   |                                 |   |                             |
| HYDROLOGY   |   |                                 |   |                             |
| Wetland Hydrology Indicators:                       |   |                                 |   |                             |
| Primary Indicators (minimum of                      | one is required; check all that apply     | 1                               | Secondary Indicators (mini                        | mum of two required)        |
|   |   |                                 | Surface Soil Cracks (B6)                          | J                           |
| Surface Water (A1)                                  | True Aquatic Pla                          |                                 | Sparsely Vegetated Cor                            |                             |
| High Water Table (A2)                               | Hydrogen Sulfic                           |                                 | Drainage Patterns (B10                            | )                           |
| Saturation (A3)                                     |   | pheres on Living Roots (C3)     | Moss Trim Lines (B16)                             |                             |
| Water Marks (B1)                                    | Presence of Rec                           |                                 | Dry-Season Water Table                            | e (C2)                      |
| Sediment Deposits (B2)                              |   | luction in Tilled Soils (C6)    | Crayfish Burrows (C8)                             |                             |
| Drift Deposits (B3)<br>Algal Mat or Crust (B4)      | Thin Muck Surfa<br>Other (Explain i       |                                 | Saturation Visible on A                           | erial Imagery (C9)          |
| Iron Deposits (B5)                                  | Other (Explain)                           | ii Keiliaiks)                   | Stunted or Strace ad Dia                          | unte (D1)                   |
| Inundation Visible on Aerial                        | Imagen (P7)                               |                                 | Stunted or Stressed Pla<br>Geomorphic Position (I |                             |
| Water-Stained Leaves (B9)                           | magery (B7)                               |                                 | Shallow Aquitard (D3)                             | 72)                         |
| Aquatic Fauna (B13)                                 |   |                                 | Microtopographic Relie                            | f (D4)                      |
|   |   |                                 | ✓ FAC-Neutral Test (D5)                           | T (D4)                      |
| Field Observations:                                 |   |                                 | TAC-Neutral rest (DS)                             |                             |
| Surface Water Present?                              | Vos No Dont                               | h (inchas):                     |   |                             |
|   |   | h (inches):                     | L   |                             |
| Water Table Present?                                | Yes No Dept                               | h (inches):                     | Wetland Hydrology Presen                          | t? Yes No                   |
| Saturation Present?                                 | Yes No Dept                               | h (inches):                     |   |                             |
| (includes capillary fringe)                         |   |                                 |   |                             |
| Describe Recorded Data (stream                      | n gauge, monitoring well, aerial photo    | os previous inspections) if a   | vailable <sup>,</sup>                             |                             |
| Describe Recorded Data (Scream                      | T gaage, mornesting tren, acriai prioce   | ss, previous inspections,, in e | Totaliable.                                       |                             |
|   |   |                                 |   |                             |
|   |   |                                 |   |                             |
| Remarks:  |   |                                 |   |                             |
| I   |   |                                 |   |                             |
| I   |   |                                 |   |                             |
|   |   |                                 |   |                             |
|   |   |                                 |   |                             |
|   |   |                                 |   |                             |
| I   |   |                                 |   |                             |
|   |   |                                 |   |                             |
|   |   |                                 |   |                             |

|  | <u> </u>    |             |           |   |                   |             |
|--|-------------|-------------|-----------|---|-------------------|-------------|
| Tree Stratum (Plot size: _5' x 40')                              | Absolute    | Dominant    | Indicator | Dominance Test worksheet:   |                   |             |
|  |             | Species?    | Status    | Number of Dominant Species That   | 7                 | (A)         |
| 1. Platanus occidentalis   | 25          | Yes .       | FACW      | Are OBL, FACW, or FAC: Total Number of Dominant Species   |                   | _           |
| 2. Acer rubrum   |             | Yes .       | FAC       | Across All Strata:  | 9                 | (B)         |
| 3. <u>Liquidambar styraciflua</u>                                | 5           | No          | FAC       | Percent of Dominant Species That  | 77.8              |             |
| 5.   |             |             |           | Are OBL, FACW, or FAC:  |                   | (A/B)       |
| 6.   |             |             |           | Prevalence Index worksheet:   |                   |             |
| 7.   | <del></del> |             |           | Total % Cover of:   | <u>Multiply B</u> | <u>y:</u>   |
|  | 40          | = Total Cov | or        | OBL species 15  | x 1 =             | 15          |
| 50% of total cover: <u>20</u>                                    |             | •           | <u>8</u>  | FACW species 35   | x 2 =             | 70          |
| Sapling/Shrub Stratum (Plot size:5' x 40')                       | _ 20% 01 (0 | ital cover. |           | FAC species 80  | x 3 =             | 240         |
| 1. Alnus serrulata   | 15          | Yes         | OBL       | FACU species 55   | x 4 =             | 220         |
| 2. Betula nigra  | 10          | Yes         | FACW      | - UPL species0  | x 5 =             | 0           |
| 3. Acer rubrum   | 10          | Yes         | FAC       | Column Totals 185   | (A)               | 545 (B)     |
| 4. Rhus copallinum   | 5           | No No       | FACU      | Prevalence Index = B/A =  | 2.9               |             |
| 5.   |             |             | 17100     | Hydrophytic Vegetation Indicators:  |                   |             |
| 6.   |             |             |           | 1- Rapid Test for Hydrophytic \   | √egetation        |             |
| 7.   |             |             |           | 2 - Dominance Test is >50%  |                   |             |
| _  |             |             |           |   |                   |             |
| 8.<br>9.   |             |             |           | -  4 - Morphological Adaptations  | ¹ (Provide sı     | upporting   |
| ] <sup>3.</sup>  | 40          | = Total Cov | or .      | - data in Remarks or on a separate sh   |                   |             |
| 50% of total cover: 20   |             | •           | <u>8</u>  | Problematic Hydrophytic Vege  |                   |             |
| Herb Stratum (Plot size: 5_)                                     | _ 20% 01 (0 | ital cover. |           | ¹Indicators of hydric soil and wetlan   | , 0,              | y must be   |
| 1 Dubus proutus  | 25          | Yes         | FACU      | present, unless disturbed or proble   |                   |             |
| 2.   |             | 103         | 17100     | Definitions of Four Vegetation Strate   | a:                |             |
|  | <del></del> |             |           | - Too Marie de la   | - 31- 776         | >           |
| 4.   |             |             |           | <ul> <li>Tree - Woody plants, excluding vine<br/>in diameter at breast height (DBH),</li> </ul> |                   |             |
| 5.   |             |             |           | - In diameter at breast height (DBH),   | regardiess c      | of fleight. |
| -  |             |             |           | -  <br>  <b>Saplin</b> g/ <b>sh</b> rub – Woody plants, exclu                                   | ıding vinas       | lace than 3 |
| 7.   |             |             |           | in. DBH and greater than or equal to  | -                 |             |
|  |             |             |           | ·   | 5 5 i= 6 ic ( ) . | ny cam      |
| 9.   | <del></del> |             |           | - Herb - All herbaceous (non-woody)   | plants, rega      | ardless of  |
| 10   |             |             |           | size, and woody plants less than 3.2  |                   |             |
|  |             |             |           | -   |                   |             |
| 11   |             |             |           | - <b>Wo</b> od <b>y vine</b> s – All woody vines grea   | torthan 27        | O ft in     |
| 500/ - Francis - 12 5  | 25          | = Total Cov |           | height.   | ter triair 3.2    | .0 11 111   |
| 50% of total cover: 12.5   | _ 20% of to | itai cover: | 5         | Tiegre.   |                   |             |
| Woody Vine Stratum (Plot size:5' x 40'_)  1. Smilax rotundifolia | 20          | Voc         | EAC       |   |                   |             |
| -  | 30          | Yes .       | FAC       | -   |                   |             |
| 2. Vitis rotundifolia  |             | Yes Yes     | FAC       | . Hydrophytic Vegetation Present? `   | Voc 🗆 No 🗆        |             |
| 3. Lonicera japonica   | 15          | Yes         | FACU      | - Hydrophytic vegetation Present?   | res 🗹 No 🗆        |             |
| 4. Parthenocissus quinquefolia                                   |             | No No       | FACU      | -   |                   |             |
| 5. <u>Toxicodendron radicans</u>                                 |             | No No       | FAC       | -   |                   |             |
| 50% of total revers 40   | 80          | = Total Cov |           |   |                   |             |
| 50% of total cover: <u>40</u>                                    | _ 20% of to | itai cover: | 16        |   |                   |             |
| Remarks: (Include photo numbers here or on a separa              | te sheet.)  |             |           |   |                   |             |
|  |             |             |           |   |                   |             |
|  |             |             |           |   |                   |             |
|  |             |             |           |   |                   |             |
|  |             |             |           |   |                   |             |
|  |             |             |           |   |                   |             |
|  |             |             |           |   |                   |             |
|  |             |             |           |   |                   |             |

| D <b>ep</b> th | s <b>c</b> rip <b>tion: (Describe</b> to<br><b>Ma</b> trix |                |                             | Featur    |                      |                              |                           | ,                                    |   |
|----------------|--|----------------|-----------------------------|-----------|----------------------|------------------------------|---------------------------|--------------------------------------|---|
| (inches)       | Color (moist)  | %              | Color (moist)               | %         | Type¹                | Loc²                         |                           | Te <b>xtu</b> r <b>e</b>             | R <b>emark</b> s                            |
| 0 - 2          | 10YR 5/3   | 100            |                             |           |                      |                              |                           | Loamy Sand                           |   |
| 2 - 7          | 10YR 5/4   | 100            |                             |           |                      |                              |                           | Loamy Sand                           |   |
| 7 - 18         | 10YR 4/4   | 100            |                             |           |                      |                              |                           | Loamy Sand                           | _   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      | _   |
|                |  |                |                             |           |                      |                              |                           |                                      | _   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
| <u> </u>       |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  | epletion, I    | RM = Reduced Matri:         | x, MS =   | Masked S             | and Gra                      | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M :            |   |
| 1 -            | Indicators:  |                |                             |           |                      |                              |                           | Indicators for Problen               | natic Hydric Soils <sup>3</sup> :           |
| _ Histosol     |  |                |                             | iurface ( |                      | (CO) (B4)                    | DA 147 140)               | 2 cm Muck (A10) (                    | MLRA 147)                                   |
| HISCIC EP      | ipedon (A2)  |                |                             |           | face (S9) <b>(</b> N |                              | .RA 147, 148)<br>7 148)   | Coast Prairie Redo                   | ox (A16) (MLRA 147, 148)                    |
|                | n Sulfide (A4)   |                |                             |           | l Matrix (F2         |                              | , 140)                    | Piedmont Floodpl                     | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
|                | l Layers (A5)  |                | _ Deplet                    | _         |                      | ,                            |                           | 147)                                 |   |
|                | ck (A10) <b>(</b> LR <b>R N)</b>                           |                |                             |           | urface (F6)          |                              |                           | Very Shallow Dark                    | : Surface (TF12)                            |
|                | Below Dark Surface (                                       | A11)           |                             |           | Surface (F           | -7)                          |                           | Other (Explain in F                  | Remarks)                                    |
|                | rk Surface (A12)<br>ucky Mineral (S1) <b>(</b> LRF         | ONIMIDA 1      | Redox                       | Depres    | sions (F8)           | (E12) (LE                    | DD NI MAIDA 1°            | )6\                                  |   |
| _              | leyed Matrix (S4)  | CIN, IVILICA I | 47, 148) II UII-IV<br>Umbri | r Surfan  | e (F13) ( <b>M</b>   | (FIZ) (EF<br>LR <b>A 136</b> | 122)                      | 6) <sub>3</sub> Indicators of hydrop | hytic vegetation and                        |
|                | edox (S5)  |                |                             |           |                      |                              | MLRA 148)                 |                                      | ust be present, unless                      |
| Stripped       | Matrix (S6)  |                | Red Pa                      | arent Ma  | aterial (F21         | ) (MLRA                      | 1 <b>27, 1</b> 47)        | disturbed or problem                 | atic.                                       |
| Restrictive    | Layer (if observed):                                       |                |                             |           |                      |                              |                           |                                      |   |
|                | Туре:  |                | None                        |           |                      | Hydric                       | Soil Present?             |                                      | Yes □ No ☑                                  |
|                | Depth (inches):  |                |                             |           |                      |                              |                           |                                      |   |
| Remarks:       |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |
|                |  |                |                             |           |                      |                              |                           |                                      |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South

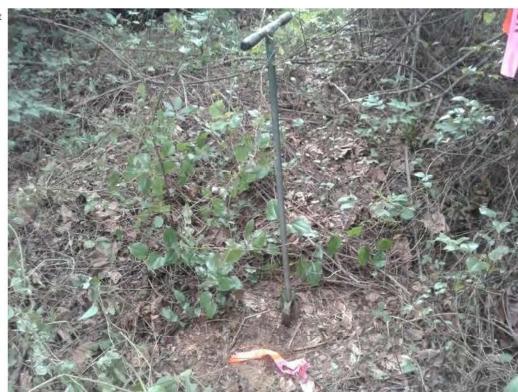


Photo of Sample Plot West



| Project/Site: MVP Southgate                  | City/County:_ Danville, P                   | ittsylvania C Sam <b>p</b> lin <b>g</b> | Date: 2018-July-27   |                            |  |  |
|--|---|---|--|----------------------------|--|--|
| Applicant/Owner: NextEra                     |   | State: Virgin                           | nia <b>Samplin</b> g Po                                    | int:_ W-A18-201_PEM-1      |  |  |
| Investigator(s): Laura Giese, Sir            | non King                                    | Section, Township,                      | Range:   |                            |  |  |
| Landform (hillslope, terrace, etc.):         | Back slope                                  | Local relief (concave, conv             | ex, none): Concave   | Slop <b>e (%</b> ): 2 to 5 |  |  |
| Su <b>bre</b> gion (LRR or MLRA):            |   | Lat: 36.644472                          | Long: -79.5268516  | Datum: WGS84               |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : |   |   | NWI da   | assification:              |  |  |
| Are climatic/hydrologic conditions           | s on the site typical for this time of y    | e <b>ar?</b> Yes <u></u> ✓ No           | (If no, explain in R                                       | temarks.)                  |  |  |
| Are Vegetation, Soil,                        | or Hydrology significantly d                |   | al Circumstances" prese                                    | ent? Yes 🟒 No              |  |  |
| Are Vegetation, Soil,                        | or Hydrology naturally prob                 | olematic? (If needed,                   | explain any answers in                                     | Remarks.)                  |  |  |
|  |   |   |  |                            |  |  |
| Su <mark>mmary of findi</mark> ngs – A       | ttach site ma <mark>p sho</mark> wing sampl | ing point locations, trai               | nsects, important fe                                       | atures, etc.               |  |  |
| Hydrophytic Vegetation Present?              | Yes _ <b>✓</b> _ No                         |   |  |                            |  |  |
| Hydric Soil Present?                         | Yes _ / No                                  |   |  |                            |  |  |
| Wetland Hydrology Present?                   |   | Is the Sampled Area withi               | n <b>a Wetlan</b> d?                                       | Yes No                     |  |  |
| Remarks:                                     |   |   |  |                            |  |  |
| incinario.                                   |   |   |  |                            |  |  |
|  |   |   |  |                            |  |  |
|  |   |   |  |                            |  |  |
| Covertype is PEM. Area is wetland            | d, all three wetland parameters are         | present.                                |  |                            |  |  |
|  |   |   |  |                            |  |  |
|  |   |   |  |                            |  |  |
|  |   |   |  |                            |  |  |
| HYDROLOGY                                    |   |   |  |                            |  |  |
| HIDROLOGI                                    |   |   |  |                            |  |  |
| Wetland Hydrology Indicators:                |   |   |  |                            |  |  |
| <u>Primary Indicators (minimum of a</u>      | one is required; check all that apply)      |   | <u> </u>   | minimum of two required)   |  |  |
| Surface Water (A1)                           | True Aquatic Pla                            | ante (R14)                              | Surface Soil Cracks  |                            |  |  |
| High Water Table (A2)                        | Hydrogen Sulfid                             |   | Sparsely Vegetated   |                            |  |  |
| Saturation (A3)                              |   | pheres on Living Roots (C3)             | Drainage Patterns (B10) ) Moss Trim Lines (B16)            |                            |  |  |
| Water Marks (B1)                             | Presence of Rec                             |   | Dry-Season Water Table (C2)                                |                            |  |  |
| Sediment Deposits (B2)                       | Recent Iron Red                             | luction in Tilled Soils (C6)            | Crayfish Burrows (C8)                                      |                            |  |  |
| Drift Deposits (B3)                          | Thin Muck Surfa                             |   | Saturation Visible on Aerial Imagery (C9)                  |                            |  |  |
| Algal Mat or Crust (B4)                      | Other (Explain in                           | n Remarks)                              |  |                            |  |  |
| Iron Deposits (B5)                           |   |   | Stunted or Stressed  |                            |  |  |
| Inundation Visible on Aerial I               | Imagery (B7)                                |   | ✓ Geomorphic Position  ——————————————————————————————————— |                            |  |  |
| Water-Stained Leaves (B9)                    |   |   | Shallow Aquitard ([  |                            |  |  |
| Aquatic Fauna (B13)                          |   |   | Microtopographic F FAC-Neutral Test (D                     |                            |  |  |
| Field Observations:                          |   |   | - FAC-Neutral rest (D                                      | ·5)                        |  |  |
| Surface Water Present?                       | Yes No <u></u> Depth                        | ı (inches):                             |  |                            |  |  |
| Water Table Present?                         |   | (inches):                               | <b>Wetland H</b> yd <b>rology</b> Pro                      | esent? Yes No              |  |  |
|  |   |   | - Wedana Tryarology Th                                     |                            |  |  |
| Saturation Present?                          | res No _ <del>_/</del> Depth                | (inches):                               |  |                            |  |  |
| (includes capillary fringe)                  |   |   |  |                            |  |  |
| Describe Recorded Data (stream               | gauge, monitoring well, aerial photo        | os, <b>previous inspections</b> ), if a | available:   |                            |  |  |
|  |   |   |  |                            |  |  |
|  |   |   |  |                            |  |  |
| Remarks:                                     |   |   |  |                            |  |  |
|  |   |   |  |                            |  |  |
|  |   |   |  |                            |  |  |
|  |   |   |  |                            |  |  |
| A positive indication of wetland h           | nydrology was observed (primary an          | d secondary indicators were             | e present).  |                            |  |  |
|  |   |   |  |                            |  |  |
|  |   |   |  |                            |  |  |
|  |   |   |  |                            |  |  |

|   | -                |              |             | T   |               |             |
|---|------------------|--------------|-------------|---|---------------|-------------|
| Tree Stratum (Plot size:30)                             | <b>A</b> bsolute | Dominant     | Indicator   | Dominance Test worksheet:                           |               |             |
| <u>Tree Stratum</u> (Plot Size. <u>50)</u>              | % Cover          | Species?     | Status      | Number of Dominant Species That                     | 4             | (4)         |
| 1.  |                  |              |             | Are OBL, FACW, or FAC:                              |               | (A)         |
| 2.  |                  |              |             | Total Number of Dominant Species Across All Strata: | 4             | (B)         |
| 3   |                  |              |             | Percent of Dominant Species That                    |               |             |
| 4   |                  |              |             | Are OBL, FACW, or FAC:                              | 100           | (A/B)       |
| 5   |                  |              |             | Prevalence Index worksheet:                         |               |             |
| 6   |                  |              |             | Total % Cover of:                                   | Multiply B    | v:          |
| 7   |                  |              |             | OBL species 0                                       | x 1 =         | 0           |
|   | 0                | = Total Cove | er .        | FACW species 70                                     | x 2 =         | 140         |
| 50% of total cover: <u>0</u>                            | _ 20% of to      | otal cover:  | 0           | FAC species 20                                      | x3=           | 60          |
| Sapling/Shrub Stratum (Plot size:15)                    |                  |              |             | FACU species 10                                     | ×4=           | 40          |
| 1   |                  |              |             | UPL species 0                                       | x5=           | 0           |
| 2.  |                  |              |             | <u> </u>  | _             |             |
| 3.  |                  |              |             | Column Totals 100                                   |               | 240 (B)     |
| 4.  |                  |              |             | Prevalence Index = B/A =                            |               |             |
| 5.  |                  |              |             | Hydrophytic Vegetation Indicators:                  |               |             |
| 6.  |                  |              |             | Langlid Test for Hydrophytic '                      | √egetation    |             |
|   |                  |              |             | 2 - Dominance Test is >50%                          |               |             |
| 7.<br>8.  |                  |              |             | $\checkmark$ 3 - Prevalence Index is $\le$ 3.01     |               |             |
| 8.<br>9.  |                  |              |             | ·  4 - Morphological Adaptations                    | ា (Provide s  | upporting   |
| J   |                  |              |             | data in Remarks or on a separate sl                 | neet)         |             |
| 50% 6   | 0                | = Total Cove |             | Problematic Hydrophytic Vege                        | etation¹ (Exp | olain)      |
| 50% of total cover: <u>0</u>                            | _ 20% of to      | otal cover:  | 0           | ¹Indicators of hydric soil and wetlar               | id hydrolog   | y must be   |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )              |                  |              |             | present, unless disturbed or proble                 | .matic        |             |
| Cyperus esculentus                                      |                  | <u>Yes</u>   | FACW        | Definitions of Four Vegetation Strat                | a:            |             |
| 2. Juncus effusus                                       | 20               | Yes          | FACW        |   |               |             |
| 3. <u>Boehmeria cylindrica</u>                          | 20               | Yes          | FACW        | Tr <b>ee</b> – Woody plants, excluding vine         | s, 3 in. (7.6 | cm) or more |
| 4. Microstegium vimineum                                | 20               | Yes          | FAC         | in diameter at breast height (DBH),                 | regardless    | of height.  |
| 5. Symphyotrichum novae-angliae                         | 10               | No           | FACW        |   |               |             |
| 6. Solanum carolinense                                  | 10               | No           | FACU        | Sapling/shrub – Woody plants, exclu                 | uding vines,  | less than 3 |
| 7   |                  |              |             | in. DBH and greater than or equal t                 | o 3.28 ft (1  | m) tall.    |
| 8.  |                  |              |             |   |               |             |
| 9.  |                  |              |             | Herb – All herbaceous (non-woody)                   | plants, rega  | ardless of  |
| 10.   |                  |              |             | size, and woody plants less than 3.2                | 28 ft tall.   |             |
| 11.   |                  |              |             | •   |               |             |
|   | 100              | = Total Cove | ır.         | <b>Wo</b> od <b>y vine</b> s – All woody vines grea | iter than 3.2 | 8 ft in     |
| 50% of total cover:50                                   |                  | tal cover:   | 20          | height.   |               |             |
| Woody Vine Stratum (Plot size:30)                       | _ 20% 01 ((      | ital cover.  |             |   |               |             |
| <u>-</u>  |                  |              |             |   |               |             |
| 1.  |                  |              |             |   |               |             |
| 2.  |                  |              |             |   |               |             |
| 3.  |                  |              |             | Hydrophytic Vegetation Present?                     | yes ☑ No ⊔    |             |
| 4   |                  |              |             |   |               |             |
| 5   |                  |              |             |   |               |             |
|   | 0                | = Total Cove | er .        |   |               |             |
| 50% of total cover: <u>0</u>                            | _ 20% of to      | otal cover:  | 0           |   |               |             |
| Remarks: (Include photo numbers here or on a separat    | e sheet )        |              |             |   |               |             |
| A positive indication of hydrophytic vegetation was obs | served (>50      | 0% of domina | ant species | indexed as OBL, FACW, or FAC).                      |               |             |
|   |                  |              |             |   |               |             |

| Profile Des            | scription: (Describe to<br>Matrix           | th <b>e d</b> ep |                 | ment the i                |                   | or confirm the absen                                    | ce of indicators.)        |  |
|------------------------|---|------------------|-----------------|---------------------------|-------------------|---|---------------------------|--|
| (inches)               | Color (moist)                               | %                | Color (moist)   | 96                        | Type <sup>1</sup> | Loc²  | Texture                   | Remarks                                    |
| 0 - 11                 | 10YR 4/2                                    | 90               | 7.5YR 4/6       |                           | . <u> </u>        | M/PL  | Silt Loam                 |  |
| 11 - 20                | 2.5Y 5/1                                    | 85               | 7.5YR 4/6       |                           |                   |   | Clay Loam                 |  |
|                        | _   |                  |                 | _                         |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
| <u>¹</u> ⊤ype: C =     | Concentration, D = D                        | epletion,        | RM = Reduced Ma | atrix, MS =               | Masked S          | Sand Grains. <sup>2</sup> Locatio                       | on: PL = Pore Lining, M = | Matrix.                                    |
| Hydric Soil            | Indicators:                                 |                  |                 |                           |                   |   | Indicators for Problem    | atic Hydric Soils³:                        |
| _ Histosol             |   |                  |                 | k Surface (               |                   |   | 2 cm Muck (A10) <b>(N</b> | ILRA 147)                                  |
| Histic Ep<br>Black His | ipedon (A2)                                 |                  |                 |                           |                   | e (S8) <b>(MLRA 147, 148)</b><br>MLRA <b>147, 148</b> ) |                           | (A16) (MLRA 147, 148)                      |
| _                      | n Sulfide (A4)                              |                  |                 | ımy Gleyed                |                   |   | Piedmont Floodpla         | in Soils (F19) (ML <b>RA 1</b> 3 <b>6,</b> |
|                        | l Layers (A5)                               |                  |                 | oleted Matr               |                   | ,   | 147)                      |  |
| _                      | ck (A10) (LRR N)                            |                  |                 | lox Dark Su               |                   |   | Very Shallow Dark         |  |
|                        | l Below Dark Surface (/<br>rk Surface (A12) | A11)             |                 | oleted Dark<br>dox Depres |                   |   | Other (Explain in Re      | emarks)                                    |
|                        | ucky Mineral (S1) <b>(</b> LRR              | N, MLRA          | 147, 148) Iro   | n-Mangane                 | se Masse:         | s (F12) (LRR N, MLRA 13                                 | 6)₃Indicators of hydroph  |  |
| Sandy G                | eyed Matrix (S4)                            |                  | _ 011           | ibile ballae              | (, 13) (14        | iciot iso, izz,   | wetland hydrology mu      | ytic vegetation and                        |
| Sandy Re               |   |                  |                 |                           |                   | ils (F19) <b>(MLRA 148</b> )                            | disturbed or problema     | · · · · · · · · · · · · · · · · · · ·      |
|                        | Matrix (S6)                                 |                  | Rec             | l Parent Ma               | aterial (F2       | 1) (MLRA 127, 147)                                      | distal sed of problems    |  |
|                        | Layer (if observed):                        |                  |                 |                           |                   |   |                           |  |
|                        | Type:                                       |                  | None            | _                         |                   | Hydric Soil Present?                                    |                           | Yes ☑ No □                                 |
|                        | Depth (inches):                             |                  |                 |                           |                   | 1   |                           |  |
| Remarks:               |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
| A nositive             | indication of hydric s                      | oil was o        | hsaniad         |                           |                   |   |                           |  |
| 71 posicive            | indicación of flyanc s                      | on was o         | bscived.        |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |
|                        |   |                  |                 |                           |                   |   |                           |  |

Photo of Sample Plot North



Photo of Sample Plot East



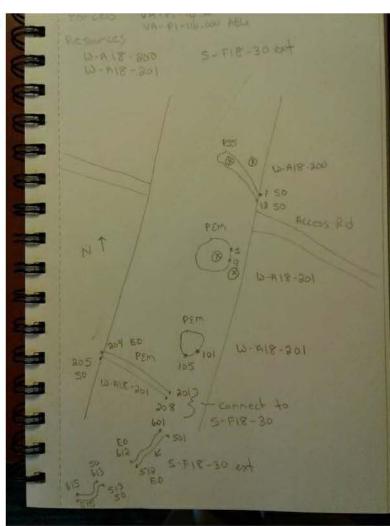
Photo of Sample Plot South



Photo of Sample Plot West



#### Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                           | City/County:_Danvi                | lle, Pittsylvania C Sam <b>p</b> lin <b>g</b> | Date: 2018-July-27  |                            |  |  |
|---|-----------------------------------|---|---|----------------------------|--|--|
| Applicant/Owner: NextEra                              |                                   | State: Virgin                                 | nia Sampling Point:   | W-A18-201_UPL-1            |  |  |
| Investigator(s): Laura Giese, Sim                     | on King                           | Section, Township,                            | Range:  |                            |  |  |
| Landform (hillslope, terrace, etc.):                  | Terrace                           | Local relief (concave, conv                   | ex, none): Convex   | Slop <b>e (%</b> ): 1 to 3 |  |  |
| Subregion (LRR or MLRA):                              |                                   | Lat: 36.6444827                               | Long: -79.5267745   | Datum: WGS84               |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :          |                                   |   | NWI classific   | cation:                    |  |  |
| Are climatic/hydrologic conditions                    | on the site typical for this time | e of year? Yes 🟒 No                           | (If no, explain in Rema   | rks.)                      |  |  |
| Are Vegetation, Soil,                                 | or Hydrology significar           |   | al Circumstances" present?  | Yes 🟒 No                   |  |  |
| Are Vegetation, Soil,                                 | or Hydrology naturally            | problematic? (If needed,                      | explain any answers in Rem  | arks.)                     |  |  |
|   |                                   |   |   |                            |  |  |
| SU <mark>MMARY OF FINDI</mark> NG <mark>S</mark> – At | tach site map showing sa          | mpling point locations, trar                  | nsects, important featur  | es, etc.                   |  |  |
| Hydrophytic Vegetation Present?                       | Yes <u></u> No                    |   |   |                            |  |  |
| Hydric Soil Present?                                  |                                   | į   |   |                            |  |  |
| Wetland Hydrology Present?                            | Yes No _ <b>_</b>                 | is the Sampled Area with                      | in a Wetland?   | Yes <b>No _</b> ✓          |  |  |
| Remarks:  |                                   |   |   |                            |  |  |
| Kerians.  |                                   |   |   |                            |  |  |
|   |                                   |   |   |                            |  |  |
|   |                                   |   |   |                            |  |  |
| Covertype is UPL.                                     |                                   |   |   |                            |  |  |
|   |                                   |   |   |                            |  |  |
|   |                                   |   |   |                            |  |  |
|   |                                   |   |   |                            |  |  |
| HYDROLOGY   |                                   |   |   |                            |  |  |
|   |                                   |   |   |                            |  |  |
| Wetland Hydrology Indicators:                         |                                   |   |   | f                          |  |  |
| <u>Primary Indicators (minimum of o</u>               | ne is required; check all that a  | ppl <b>y)</b>                                 | Secondary Indicators (minir   | num of two required)       |  |  |
| Surface Water (A1)                                    | True Aquat                        | ic Plants (B14)                               | Surface Soil Cracks (B6)  | cavo Surfaco (RS)          |  |  |
| High Water Table (A2)                                 | •                                 | Sulfide Odor (C1)                             | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)           |                            |  |  |
| Saturation (A3)                                       | Oxidized R                        | hizospheres on Living Roots (C3)              | ) Moss Trim Lines (B16)   |                            |  |  |
| Water Marks (B1)                                      | Presence o                        | f Reduced Iron (C4)                           | Dry-Season Water Table (C2)   |                            |  |  |
| Sediment Deposits (B2)                                |                                   | Reduction in Tilled Soils (C6)                | Crayfish Burrows (C8)   |                            |  |  |
| Drift Deposits (B3)                                   |                                   | Surface (C7)                                  | Saturation Visible on Aerial Imagery (C9)                                 |                            |  |  |
| Algal Mat or Crust (B4)                               | Other (Exp                        | lain in Remarks)                              | Stunted or Strassed Dia   | ote (D1)                   |  |  |
| Iron Deposits (B5)<br>Inundation Visible on Aerial Ir | magany (R7)                       |   | <ul><li>Stunted or Stressed Plan</li><li>Geomorphic Position (D</li></ul> |                            |  |  |
| Water-Stained Leaves (B9)                             | nagery (D7)                       |   | Shallow Aquitard (D3)   | 2)                         |  |  |
| Aquatic Fauna (B13)                                   |                                   |   | Microtopographic Relief   | (D4)                       |  |  |
|   |                                   |   | FAC-Neutral Test (D5)   | (- ·/                      |  |  |
| Field Observations:                                   |                                   |   |   |                            |  |  |
| Surface Water Present?                                | Yes No _ <b>_/</b> [              | Pepth (inches):                               |   |                            |  |  |
| Water Table Present?                                  |                                   | Depth (inches):                               | ·<br>  Wetland Hydrology Present  | ? Yes No                   |  |  |
| Saturation Present?                                   |                                   | Depth (inches):                               |   |                            |  |  |
|   | 163 NO <u>_</u>                   |   |   |                            |  |  |
| (includes capillary fringe)                           |                                   |   |   |                            |  |  |
| Describe Recorded Data (stream g                      | gauge, monitoring well, aeriai    | onotos, previous inspections), if a           | avallable:  |                            |  |  |
|   |                                   |   |   |                            |  |  |
| Barra and an  |                                   |   |   |                            |  |  |
| Remarks:  |                                   |   |   |                            |  |  |
|   |                                   |   |   |                            |  |  |
|   |                                   |   |   |                            |  |  |
| No positive indication of wetland l                   | hydrology was observed            |   |   |                            |  |  |
| The positive management of Weelding                   | ., side, rids about red.          |   |   |                            |  |  |
|   |                                   |   |   |                            |  |  |
|   |                                   |   |   |                            |  |  |

| ,   | · · ·       |             |  | Danish and Tankana dalah anta                          |               |                |
|---|-------------|-------------|--|--|---------------|----------------|
| Tree Stratum (Plot size: 30)                            |             | Dominant    |  | Dominance Test worksheet:                              |               |                |
| 1 Acoustic form   | -           | Species?    | Status                                       | Number of Dominant Species That Are OBL, FACW, or FAC: | 4             | (A)            |
| 1. Acer rubrum  | 25          | Yes         | FAC  | Total Number of Dominant Species                       |               |                |
| 2. Betula nigra   |             | Yes         | FACW   | Across All Strata:                                     | 5             | (B)            |
| 3.  |             |             |  | Percent of Dominant Species That                       |               |                |
| 4.  |             |             |  | Are OBL, FACW, or FAC:                                 | 80            | (A/B)          |
| 5.  |             |             |  | Prevalence Index worksheet:                            |               |                |
| 6.  |             |             |  | Total % Cover of:                                      | Multiply I    | Ву:            |
| 7   |             |             |  | OBL species 20   | x 1 =         | 20             |
|   |             | = Total Cov | er   | FACW species 20  | x 2 =         | 40             |
| 50% of total cover: <u>22.5</u>                         | _ 20% of to | tal cover:  | <u>     9                               </u> | FAC species 40   | x 3 =         | 120            |
| Sapling/Shrub Stratum (Plot size:15)                    |             |             |  | FACU species 10  | × 4 =         | 40             |
| 1. Salix nigra  |             | Yes         | OBL  | UPL species 0  | x 5 =         | 0              |
| 2. Juniperus virginiana                                 | 10          | Yes         | FACU   | Column Totals 90                                       | (A)           | 220 (B)        |
| 3   |             |             |  | Prevalence Index = B/A =                               | 2.4           |                |
| 4   |             |             |  | Hydrophytic Vegetation Indicators:                     |               |                |
| 5   |             |             |  | 1- Rapid Test for Hydrophytic                          | Vegetation.   |                |
| 6   |             |             |  | ✓ 2 - Dominance Test is >50%                           | regetation    |                |
| 7   |             |             |  | $\checkmark$ 3 - Prevalence Index is $\le 3.0^{\circ}$ |               |                |
| 8.  |             |             |  | 4 - Morphological Adaptations                          | ¹ (Provide :  | sunnorting     |
| 9.  |             |             |  | data in Remarks or on a separate sh                    |               | , app 5 6      |
|   | 30          | = Total Cov | er   | Problematic Hydrophytic Vege                           |               | plain)         |
| 50% of total cover: <u>15</u>                           | _ 20% of to | tal cover:  | 6  | ¹Indicators of hydric soil and wetlan                  |               |                |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )              |             |             |  | present, unless disturbed or proble                    | matic         | ,,             |
| 1. Microstegium vimineum                                | 15          | Yes         | FAC  | Definitions of Four Vegetation Strat                   | a:            |                |
| 2   |             |             |  |  |               |                |
| 3   |             |             |  | Tr <b>ee</b> – Woody plants, excluding vine            | s, 3 in. (7.6 | cm) or more    |
| 4.  |             |             |  | in diameter at breast height (DBH),                    | regardless    | of height.     |
| 5   |             |             |  |  |               |                |
| 6   |             |             |  | Sapling/shrub – Woody plants, exclu                    | uding vines   | s, less than 3 |
| 7   |             |             |  | in. DBH and greater than or equal to                   | o 3.28 ft (1  | m) tall.       |
| 8.  |             |             |  |  |               |                |
| 9.  |             |             |  | Herb – All herbaceous (non-woody)                      |               | ardless of     |
| 10.   |             |             |  | size, and woody plants less than 3.2                   | 8 ft tall.    |                |
| 11.   |             |             |  |  |               |                |
|   | 15          | = Total Cov | er   | <b>Wo</b> od <b>y vine</b> s – All woody vines grea    | ter than 3.   | 28 ft in       |
| 50% of total cover: 7.5                                 | 20% of to   | tal cover:  | 3  | height.  |               |                |
| Woody Vine Stratum (Plot size: 30 )                     |             |             |  |  |               |                |
| 1   |             |             |  |  |               |                |
| 2.  |             |             |  |  |               |                |
| 3.  |             |             |  | Hydrophytic Vegetation Present? `                      | Yes ☑ No 🏻    | ]              |
| 4.  |             |             |  |  |               |                |
| 5.  |             |             |  |  |               |                |
|   | 0           | = Total Cov | er   |  |               |                |
| 50% of total cover: 0                                   | 20% of to   | •           | 0  |  |               |                |
| Remarks: (Include photo numbers here or on a separat    |             |             |  | <u> </u>   |               |                |
| Remarks. (include proto familiers refer of offa separat | e sinces,   |             |  |  |               |                |
| A positive indication of hydrophytic vegetation was obs | served (>50 | 1% of domin | ant species                                  | indexed as OBL, FACW, or FAC).                         |               |                |

| Profile De:<br>Depth |   | o th <b>e d</b> ep | th needed to docume | ent the i   |                    | or confir           | m the absence of ind                               | licators.)          |   |
|----------------------|---|--------------------|---------------------|-------------|--------------------|---------------------|--|---------------------|---|
| _                    | Matrix Color (moist)                                | <u></u>            |                     |             |                    | 1.0.57              | Toyetu   | <b>.</b>            | Domarka   |
| (inches)             | Color (moist)                                       |                    | Color (moist)       | %           | Type <sup>1</sup>  | _Loc <sup>2</sup> _ | Textu  |                     | Remarks   |
| 0-4                  | 10YR 5/4  | 100                | 7.51/0.5/0          |             |                    |                     | Silt Loa   | -                   |   |
| 4 - 14               | 10YR 5/4  | 95                 | 7.5YR 5/8           | 5           | C                  | M_                  | Sandy L  |                     |   |
| 14 - 20              | 2.5Y 6/3  | 90                 | 7.5YR 5/8           | 10          |                    | M                   | Sandy L  | oam                 |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
| 1Type: C =           | Concentration D = F                                 | enletion           | RM = Reduced Matri  |             | Masked 9           | Sand Gra            | ins 2Location; PL =                                | Pore Lining M = N   |   |
|                      | I Indicators:                                       | zepredori,         | NW - Neddeed Water  | λ, 1415 – 1 | WIGSRCG .          | ouria Gra           |  | tors for Problema   |   |
| Histosol             |   |                    | Dark 9              | Surface (S  | Ċ7\                |                     | mulcai   | tors for Froblema   | ut nyunt sons   |
| _                    | ipedon (A2)   |                    |                     |             |                    | - (S8) (MI          | RA 147 14XI  | m Muck (A10) (MI    |   |
| Black His            |   |                    |                     |             | ace (S9) <b>(</b>  |                     | . 148) — <sup>CO</sup>                             |                     | (A16) <b>(MLR</b> A 1 <b>47</b> , 1 <b>4</b> 8 <b>)</b> |
|                      | n Sulfide (A4)                                      |                    |                     |             | Matrix (F.         |                     | Pie  | dmont Floodplair    | n Soils (F19) <b>(ML</b> R <b>A 13</b> 6,               |
| Stratified           | d Layers (A5)                                       |                    | _ Deple             | ted Matr    | ix (F3)            |                     | 147)   |                     |   |
| _                    | ick (A10) <b>(</b> LR <b>R N)</b>                   |                    |                     |             | ırface (F6)        |                     | Ve   | ry Shallow Dark Si  | urface (TF12)   |
|                      | d Below Dark Surface (                              | A11)               |                     |             | Surface (          | F7)                 | Oti  | her (Explain in Rei | marks)  |
|                      | rk Surface (A12)<br>lucky Mineral (S1) <b>(</b> LRF | ON MIDA            | Redox               | Depress     | sions (F8)         | - (513) (1.5        | ID NI MILDA 1961                                   |                     |   |
| _                    | leyed Matrix (S4)                                   | CIN, IVILICA       | 147, 146)           | ic Surfac   | e (F13) ( <b>N</b> | U RA 136            | R N <b>, M</b> LR <b>A 136)<sub>3</sub>I</b> ndica | ators of hydrophy   | tic vegetation and                                      |
|                      | edox (S5)   |                    | _ 0                 |             | c ( ) (            |                     | Wetlar   | nd hydrology mus    | t be present, unless                                    |
| _                    | Matrix (S6)   |                    | _                   |             |                    |                     | 127, 147) disturi                                  | bed or problemat    | ic.   |
|                      | Layer (if observed):                                |                    |                     |             |                    | Ī                   | ·  |                     |   |
| -                    | Туре:   |                    | None                |             |                    | Hydric:             | Soil Present?                                      |                     | Yes □ No ☑  |
| ļ                    | Depth (inches):                                     |                    |                     |             |                    | -                   |  |                     |   |
| Remarks:             |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
| No positiv           | e indication of hydric                              | soils was          | s observed.         |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |
|                      |   |                    |                     |             |                    |                     |  |                     |   |

Photo of Sample Plot East



Photo of Sample Plot West



| Project/Site: MVP Southgate  | City/Cou                      | nty:_Danville, Pit                             | ttsylvania C                              | Sampling I           | Date: 2018    | 3-July-16                             |                          |
|--|-------------------------------|--|---|----------------------|---------------|---------------------------------------|--------------------------|
| Applicant/Owner: NextEra   |                               |  | St  | ate: Virgin          | ia :          | Sampling Point:_                      | W-F18-46_PFO-1           |
| nvestigator(s): Alexi Weber,   | SES                           |  |   | Tow <b>nship</b> , I |               |                                       |                          |
| andform (hillslope, terrace, etc.  | c.): Foot slope               |  | Local relief (cor                         | icave, conve         | ex, none):_   | Concave                               | Slop <b>e (%</b> ):10 to |
| Subregion (LRR or MLRA):   | MLRA 136 of LRR P             |  | Lat: 36                                   | .6371929             | Long:         | -79.5294947                           | Datum:WGS84              |
| Soil <b>Map</b> Unit Name:23C  |                               |  |   |                      |               |                                       | cation: None             |
| Are climatic/hydrologic condition  |                               | •  |   | es 🚣 No              | (If no,       | , explain in Rema                     | rks.)                    |
| Are Vegetation, Soil   |                               |  |   |                      |               | ances" present?                       | Yes <u></u> No           |
| Are Vegetation, Soil   | , or Hydrology                | _ naturally prob                               | lematic?                                  | If needed, e         | explain any   | y answers in Rem                      | arks.)                   |
|  |                               |  |   |                      |               |                                       |                          |
| SUMMARY OF FINDINGS -  | Attach site map sh            | owing sampli                                   | ing point locat                           | ions, tran           | sects, im     | portant featur                        | es, etc.                 |
| Hydrophytic Vegetation Preser  | nt? Yes 🟒                     | _ No   |   |                      |               |                                       |                          |
| Hydric Soil Present?   | Yes 🟒                         | _ No   | ļ   |                      |               |                                       |                          |
| Wetland Hydrology Present?   | Yes <u></u> ✓                 | _ No   | Is the Sampled                            | A <b>rea</b> within  | a Wetland     | <u>17</u>                             | Yes No                   |
| Remarks:   |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
| Covertype is PFO. Area is wetla  | ind, all three wetland p      | arameters are p                                | resent.                                   |                      |               |                                       |                          |
| 31   | ,                             | '  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
| HYDROLOGY  |                               |  |   |                      |               |                                       |                          |
| Wetland Hydrology Indicators:  |                               |  |   |                      |               |                                       |                          |
| Primary Indicators (minimum o  |                               | k all that anniv)                              |   |                      | Secondary     | Indicators (minic                     | mum of two required)     |
| THIRD THE CALCULATION  | one is required, ence         | an enacappiy)                                  |   |                      |               | e Soil Cracks (B6)                    | •                        |
| Surface Water (A1)   |                               | True Aquatic Plai                              | nts (B14)                                 |                      |               |                                       | cave Surface (B8)        |
| ✓ High Water Table (A2)  | !                             | Hydrogen Sulfide                               | e Odor (C1)                               |                      |               | ge Patterns (B10)                     |                          |
| ∕_ Saturation (A3)   | (                             | Oxidized Rhizosp                               | pheres on Living                          | Roots (C3)           |               | rim Lines (B16)                       |                          |
| Water Marks (B1)   | !                             | Presence of Red                                | uced Iron (C4)                            |                      | Dry-Sea       | ason Water Table                      | : (C2)                   |
| Sediment Deposits (B2)   |                               |  | uction in Tilled So                       | oils (C6)            | ⁄_ Crayfisl   | h Burrows (C8)                        |                          |
| Drift Deposits (B3)  |                               | Thin Muck Surfa                                |   |                      | Saturat       | tion Visible on Ae                    | rial Imagery (C9)        |
| Algal Mat or Crust (B4)  |                               | Other (Explain in                              | n Remarks)                                |                      | _             |                                       |                          |
| Iron Deposits (B5)   |                               |  |   |                      |               | d or Stressed Plar                    |                          |
| Inundation Visible on Aeri   | 0 3                           |  |   |                      |               | orphic Position (D                    | 2)                       |
| Water-Stained Leaves (B9)  |                               |  |   |                      |               | v Aquitard (D3)                       | E / D 4 )                |
| Aquatic Fauna (B13)  |                               |  |   |                      |               | opographic Relief<br>eutral Test (D5) | (D4)                     |
| Field Observations:  |                               |  |   |                      | FAC-NE        | utrai lest (D5)                       |                          |
|  | Yes No 🗸                      | Depth  | (inches):                                 |                      |               |                                       |                          |
|  |                               |  |   | <del></del> 8        | <br>Wetland H | vdrology Present                      | r? Yes z No              |
|  |                               |  |   |                      | Treatment !   | ya ology i reserie                    |                          |
|  | 163 <u>v</u> 110              | _ Берит  | r (menes).                                |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
| Surface Water Present?<br>Water Table Present?<br>Saturation Present?<br>(includes capillary fringe) | Yes No/<br>Yes/ No<br>Yes/ No | _ Depth<br>_ Depth                             | n (inches):<br>n (inches):<br>n (inches): | 1                    |               | lydrology Present                     | t? Yes No                |
| Describe Recorded Data (strea  | m gauge, monitoring v         | <mark>vell, ae</mark> rial <mark>ph</mark> oto | s, pre <mark>vious ins</mark> pe          | ections), if a       | vailable:     |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
| Remarks:   |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |
|  |                               |  |   |                      |               |                                       |                          |

|   | <u>-</u>                    |             |           |   |                        |            |
|---|-----------------------------|-------------|-----------|---|------------------------|------------|
| Tree Stratum (Plot size:20x10)                      | <b>A</b> bsolute            | Dominant    | Indicator | Dominance Test worksheet:                               |                        |            |
|   |                             | Species?    | Status    | Number of Dominant Species That                         | 4                      | (A)        |
| 1. Acer rubrum                                      | 60                          | Yes         | FAC       | Are OBL, FACW, or FAC: Total Number of Dominant Species |                        |            |
| 2. Liriodendron tulipifera                          |                             | Yes         | FACU      | Across All Strata:                                      | 6                      | (B)        |
| 3   |                             |             |           | Percent of Dominant Species That                        |                        |            |
| 4   |                             |             |           | Are OBL, FACW, or FAC:                                  | <b>6</b> 6. <b>7</b>   | (A/B)      |
| 5   |                             |             |           | Prevalence Index worksheet:                             |                        |            |
| 6.  |                             |             |           | Total % Cover of:                                       | Multiply B             | <u>y:</u>  |
| 7   |                             |             |           | OBL species 0   | x 1 =                  | 0          |
|   | 80                          | = Total Cov |           | FACW species 20   | x 2 =                  | 40         |
| 50% of total cover: <u>40</u>                       | _ 20% of to                 | otal cover: | 16        | FAC species 160   | x 3 =                  | 480        |
| Sapling/Shrub Stratum (Plot size:10x5)              | 10                          | V           | EACH      | FACU species 58   | x 4 =                  | 232        |
| 1. Liriodendron tulipifera                          |                             | Yes .       | FACU      | UPL species 0   | x 5 =                  | 0          |
| 2. Acer rubrum                                      | 8                           | Yes         | FAC       | Column Totals 238                                       | (A)                    | 752 (B)    |
| 3.  |                             |             |           | Prevalence Index = B/A =                                | 3.2                    |            |
| 4   |                             |             |           | Hydrophytic Vegetation Indicators:                      |                        |            |
| 5.  |                             |             |           | 1- Rapid Test for Hydrophytic                           | Vegetation             |            |
| 6.  |                             |             |           | 2 - Dominance Test is >50%                              | Ü                      |            |
| 7.  |                             |             |           | 3 - Prevalence Index is ≤ 3.01                          |                        |            |
| 8.  |                             |             |           | ·  4 - Morphological Adaptations                        | ¹ (Provide s           | upporting  |
| 9   |                             |             |           | data in Remarks or on a separate sh                     | neet)                  | .,         |
|   |                             | = Total Cov |           | Problematic Hydrophytic Vege                            | tation¹ (Exp           | olain)     |
| 50% of total cover: <u>13</u>                       | _ 20% of to                 | otal cover: | 5.2       | <sup>1</sup> Indicators of hydric soil and wetlan       | id hydrolog            | y must be  |
| Herb Stratum (Plot size: 5 )                        | 5.0                         |             |           | present, unless disturbed or proble                     | matic                  |            |
| 1. Smilax rotundifolia                              | 60                          | Yes .       | FAC       | Definitions of Four Vegetation Strate                   | a:                     |            |
| 2. Impatiens capensis                               |                             | No          | FACW      |   |                        |            |
| 3. Lonicera japonica                                | 10                          | No          | FACU      | . Tr <b>ee</b> – Woody plants, excluding vine           |                        |            |
| 4. Rosa multiflora                                  | 10                          | No          | FACU      | . in diameter at breast height (DBH),                   | regardless (           | of height. |
| 5. <u>Microstegium vimineum</u>                     | 5                           | No          | FAC       | .   |                        |            |
| 6. <u>Vitis rotundifolia</u>                        | 2                           | No          | FAC       | Sapling/shrub – Woody plants, exclu                     | _                      |            |
| 7   |                             |             |           | in. DBH and greater than or equal to                    | 3.28 π (T              | m) tall.   |
| 8   |                             |             |           | Herb – All herbaceous (non-woody)                       | in la intra i is a cri | audlaga af |
| 9   |                             |             |           | size, and woody plants less than 3.2                    |                        | ardiess of |
| 10  |                             |             |           | - Size, and woody plants less than 5.2                  | .orctan.               |            |
| 11  |                             |             |           |   |                        |            |
|   | 107                         | = Total Cov | er        | <b>Wo</b> od <b>y vine</b> s – All woody vines grea     | ter than 3.2           | 28 ft in   |
| 50% of total cover: <u>53.5</u>                     | _ 20% of to                 | otal cover: | 21.4      | height.   |                        |            |
| Woody Vine Stratum (Plot size: <u>10x20</u> )       |                             |             |           |   |                        |            |
| 1. Smilax rotundifolia                              | 25                          | Yes         | FAC       |   |                        |            |
| 2   |                             |             |           |   |                        |            |
| 3.  |                             |             |           | Hydrophytic Vegetation Present?                         | Yes ☑ No 🗆             |            |
| 4   |                             |             |           |   |                        |            |
| 5   |                             |             |           |   |                        |            |
|   | 25                          | = Total Cov | er        |   |                        |            |
| 50% of total cover: <u>12.5</u>                     | _ 20% of to                 | otal cover: | 5         |   |                        |            |
| Remarks: (Include photo numbers here or on a separa | t <b>e</b> s <b>he</b> et.) |             |           |   |                        |            |
|   |                             |             |           |   |                        |            |

| Profile De        | escription: (Describe to         | o th <b>e d</b> ep | th n <b>eed</b> ed to docu | ment the i               | ndicator          | or confir   | m the absend              | ce of indicators.)                          |  |
|-------------------|----------------------------------|--------------------|----------------------------|--------------------------|-------------------|-------------|---------------------------|---|--|
| Depth             | <b>Ma</b> trix                   |                    | Redox Features             |                          |                   |             |                           |   |  |
| (inches)          | Color (moist)                    | %                  | Color (moist)              | %                        | Type <sup>1</sup> | Locz        |                           | Te <b>xtu</b> r <b>e</b>                    | R <b>em</b> arks   |
| 0 - 6             | 10YR 3/2                         | 70                 | 2.5YR 3/4                  | 30                       | C                 | M/PL        |                           | Silt Loam                                   |  |
| 6 - 18            | 10Y 5/1                          | 93                 | 10YR 3/6                   |                          | С С               | M/PL        |                           | Loamy Sand                                  |  |
| 6 - 18            |                                  |                    | 5G 6/2                     | 3                        | С                 |             |                           |   |  |
|                   |                                  |                    |                            | _                        |                   |             |                           |   |  |
|                   |                                  |                    |                            | _                        | - ——              |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   | <del></del>  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            | _                        |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          | . ——              |             | -                         |   |  |
|                   |                                  |                    |                            |                          | - —               |             |                           |   |  |
|                   |                                  |                    |                            |                          | - ——              |             |                           |   |  |
| <u>'Type:</u> C = | Concentration, D = D             | epletion,          | , RM = Reduced Ma          | trix, MS =               | Masked 9          | Sand Gra    | ins. <sup>z</sup> Locatio | on: PL = Pore Lining, M =                   | : Matrix.  |
| Hydric So         | il Indicators:                   |                    |                            |                          |                   |             |                           | Indicators for Problem                      | natic Hydric Soils3:                                     |
| _ Histoso         |                                  |                    | _                          | k Surface (              |                   |             |                           | 2 cm Muck (A10) <b>(P</b>                   | MLRA 147)  |
|                   | pipedon (A2)                     |                    | _                          |                          |                   |             | RA 147, 148)              |   | x (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b> |
|                   | istic (A3)<br>en Sulfide (A4)    |                    |                            | n Dark Surf<br>my Gleyed |                   |             | , 148)                    |   | ain Soils (F19) (MLRA 136,                               |
|                   | ed Layers (A5)                   |                    |                            | lleted Matr              |                   | ۷)          |                           | 147)  | , ,,   |
|                   | uck (A10) (LRR N)                |                    |                            | ox Dark Su               |                   | )           |                           | Very Shallow Dark                           | Surface (TF12)   |
| _ Deplete         | d Below Dark Surface (           | A11)               |                            | leted Dark               |                   |             |                           | Other (Explain in R                         |  |
|                   | ark Surface (A12)                |                    | Red                        | ox Depres                | sions (F8)        |             |                           |   |  |
| _                 | /lucky Mineral (S1) (LRF         | R N, MLRA          | . <b>147, 148)</b> Iron    | ı-Mangane                | se Masses         | s (F12) (LF | R N, MLRA 13              | <b>6)<sub>3</sub>Indicators of hydrop</b> h | ytic vegetation and                                      |
|                   | ileyed Matrix (S4)<br>Redox (S5) |                    |                            | 5.16 54.146              |                   |             | 122)<br>MLRA 148)         | wetland hydrology mu                        | ust be present, unless                                   |
| _                 | d Matrix (S6)                    |                    |                            | Parent Ma                |                   |             |                           | disturbed or problema                       | atic.  |
|                   | e Layer (if observed):           |                    | _ 1.00                     | T di Cite ivie           | accital (12       |             | 121, 171                  | ·   |  |
|                   | Type:                            |                    | None                       |                          |                   | I brokete ( | Cail Duonanti             |   | Voc □ No □   |
|                   | Depth (inches):                  |                    | None                       | _                        |                   | Inyunc:     | Soil Present?             |   | Yes ☑ No □   |
|                   |                                  |                    |                            | _                        |                   |             |                           |   |  |
| Remarks:          |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |
|                   |                                  |                    |                            |                          |                   |             |                           |   |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                               | City/County:                 | Danville, Pittsylvania C.   | Sampling Date          | :: 2018-July-16                                   |                              |
|---|------------------------------|-----------------------------|------------------------|---|------------------------------|
| Applicant/Owner: NextEra                                  |                              |                             | State: Virginia        | Sampling Point:                                   | W-F18-46_UPL-1               |
| Investigator(s): Alexi Weber, SE                          | :S                           | Sed                         | ion, Township, Ran     | ge:   |                              |
| Landform (hillslope, terrace, etc.):                      | : Hillslope                  | Local relief                | (concave, convex, n    | one):_None  | Slop <b>e (%</b> ): 10 to 15 |
| Subregion (LRR or MLRA): M                                | ILRA 136 of LRR P            | Lat                         | :: 36.6372238          | Long: -79.5294559                                 | Datum: WGS84                 |
| Soil <b>Map</b> Unit Name: 23C                            |                              |                             |                        | NWI dassifi                                       | cation: None                 |
| Are climatic/hydrologic condition:                        | s on the site typical for th | nis time of year?           | Yes 🟒 No               | _ (If no, explain in Rema                         | arks.)                       |
| Are Vegetation, Soil,                                     | or Hydrology sig             | gnificantly disturbed?      | Are "Normal Cir        | cumstances" present?                              | Yes 🟒 No                     |
| Are Vegetation, Soil,                                     | or Hydrology na              | aturally problematic?       | (If needed, expl       | ain any answers in Rem                            | narks.)                      |
|   |                              |                             |                        |   |                              |
| SUMM <mark>ARY OF FINDI</mark> NGS – A                    | ttach site map show          | ing sampling point k        | cations, transec       | ts, important featui                              | res, etc.                    |
| Hydrophytic Vegetation Present?                           | ? Yes <u></u> √ N            | n I                         |                        |   |                              |
| Hydric Soil Present?                                      | Yes N                        | i                           |                        |   |                              |
| Wetland Hydrology Present?                                | Yes N                        | i                           | pled Area within a     | Wetland?  | Yes <b>No _</b> ✓            |
| Remarks:  |                              | o v is the sum              | ipica yii ca viidiii a | rectaria.   | 165165                       |
| Remarks.  |                              |                             |                        |   |                              |
|   |                              |                             |                        |   |                              |
|   |                              |                             |                        |   |                              |
| Covertype is UPL. Area is upland                          | , not all three wetland pa   | rameters are present.       |                        |   |                              |
|   |                              |                             |                        |   |                              |
|   |                              |                             |                        |   |                              |
|   |                              |                             |                        |   |                              |
|   |                              |                             |                        |   |                              |
| HYDROLOGY   |                              |                             |                        |   |                              |
| Wetland Hydrology Indicators:                             |                              |                             |                        |   |                              |
| Primary Indicators (minimum of                            | one is required; check al    | l that apply)               | Sec                    | ondary Indicators (mini                           | mum of two required)         |
|   | •                            |                             |                        | Surface Soil Cracks (B6)                          | •                            |
| Surface Water (A1)  |                              | : Aquatic Plants (B14)      |                        | Sparsely Vegetated Con                            |                              |
| High Water Table (A2)                                     | •                            | rogen Sulfide Odor (C1)     |                        | Drainage Patterns (B10                            |                              |
| Saturation (A3)   |                              | lized Rhizospheres on Li    | _                      | Moss Trim Lines (B16)                             |                              |
| Water Marks (B1)  |                              | ence of Reduced Iron (C     |                        | Dry-Season Water Table                            | e (C2)                       |
| Sediment Deposits (B2)                                    |                              | ent Iron Reduction in Tille | ed Soils (C6)          | Crayfish Burrows (C8)                             |                              |
| Drift Deposits (B3)<br>Algal Mat or Crust (B4)            |                              | Muck Surface (C7)           | :                      | Saturation Visible on Ae                          | erial Imagery (C9)           |
|   | Oth                          | er (Explain in Remarks)     | ·                      | Ctuated or Streeged Dia                           | nto (D1)                     |
| Iron Deposits (B5)  | Imagon (P7)                  |                             |                        | Stunted or Stressed Pla<br>Coamarabic Basitian (F |                              |
| Inundation Visible on Aerial<br>Water-Stained Leaves (B9) | magery (b7)                  |                             |                        | Geomorphic Position (E<br>Shallow Aquitard (D3)   | <i>32)</i>                   |
| Aquatic Fauna (B13)                                       |                              |                             |                        | Microtopographic Relie                            | f (D4)                       |
|   |                              |                             |                        | FAC-Neutral Test (D5)                             | . (5.7                       |
| Field Observations:                                       |                              |                             |                        |   |                              |
| Surface Water Present?                                    | Yes No _ <b>_/</b> _         | Depth (inches):             |                        |   |                              |
| Water Table Present?                                      | Yes No                       | Depth (inches):             |                        | tland Hydrology Presen                            | t? Yes No <b>∠</b>           |
| Saturation Present?                                       |                              | •                           |                        | auna riyarology r resem                           | <u>.</u>                     |
|   | Yes No                       | Depth (inches):             |                        |   |                              |
| (includes capillary fringe)                               |                              |                             |                        |   |                              |
| Describe Recorded Data (stream                            | gauge, monitoring well,      | aerial photos, previous i   | nspections), if availa | able:   |                              |
|   |                              |                             |                        |   |                              |
|   |                              |                             |                        |   |                              |
| Remarks:  |                              |                             |                        |   |                              |
|   |                              |                             |                        |   |                              |
|   |                              |                             |                        |   |                              |
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|   |                              |                             |                        |   |                              |
|   |                              |                             |                        |   |                              |

|  |                  |              |           | 1   |                      |               |
|--|------------------|--------------|-----------|---|----------------------|---------------|
| Tree Stratum (Plot size:10x20)                       | <b>A</b> bsolute | Dominant     | Indicator | Dominance Test worksheet:                               |                      |               |
| Tree Structure (Flot Size                            | % Cover          | Species?     | Status    | Number of Dominant Species That                         | 2                    | (A)           |
| 1. Acer rubrum                                       | 60               | Yes          | FAC       | Are OBL, FACW, or FAC:                                  |                      | `             |
| 2. <u>Liriodendron tulipifera</u>                    | 10               | No           | FACU      | Total Number of Dominant Species                        | 3                    | (B)           |
| 3.   |                  |              |           | Across All Strata: Percent of Dominant Species That     |                      |               |
| 4  |                  |              |           | - Are OBL, FACW, or FAC:                                | <b>6</b> 6. <b>7</b> | (A/B)         |
| 5  |                  |              |           | Prevalence Index worksheet:                             |                      |               |
| 6  |                  |              |           | - Total % Cover of:                                     | Multiply B           | ŝv.           |
| 7  |                  |              |           | - OBL species 0   | x 1 =                | 0             |
|  | 70               | = Total Cov  | er        | FACW species 0  | x 2 =                | 0             |
| 50% of total cover: <u>35</u>                        | _20% of to       | tal cover:   | 14        | FAC species 93  | x3=                  | 279           |
| Sapling/Shrub Stratum (Plot size:10x5)               |                  |              |           |   | _                    |               |
| 1  |                  |              |           | · —   | × 4 = _              | 168           |
| 2.   |                  |              |           | UPL species 0   | ×5= —                | 0             |
| 3.   |                  |              |           | Column Totals 135                                       | (A) _                | 447 (B)       |
| 4.   |                  |              |           | Prevalence Index = B/A =                                | 3.3                  |               |
| 5.   |                  |              |           | Hydrophytic Vegetation Indicators:                      |                      |               |
| 6.   |                  |              |           | The Properties of the High Test for Hydrophytic 1       | √egetation           |               |
| 7  |                  |              |           | 2 - Dominance Test is >50%                              |                      |               |
| 8.   |                  |              |           | 3 - Prevalence Index is ≤ 3.01                          |                      |               |
|  |                  |              |           | -  4 - Morphological Adaptations                        | ា (Provide s         | upporting     |
| 9  |                  |              |           | - data in Remarks or on a separate sl                   | neet)                |               |
|  | 0                | _= Total Cov |           | Problematic Hydrophytic Vege                            | etation¹ (Exp        | olain)        |
| 50% of total cover: <u>0</u>                         | _ 20% of to      | otal cover:  | 0         | Indicators of hydric soil and wetlar                    | id hydrolog          | y must be     |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )           |                  |              |           | present, unless disturbed or proble                     | :matic               |               |
| 1. Lonicera japonica                                 | 30               | <u>Yes</u>   | FACU      | Definitions of Four Vegetation Strat                    | a:                   |               |
| 2. Quercus phellos                                   | 8                | No           | FAC       |   |                      |               |
| 3. Smilax rotundifolia                               | 5                | No           | FAC       | Tr <b>ee</b> – Woody plants, excluding vine             | s, 3 in. (7.6        | cm) or more   |
| 4. Euonymus obovatus                                 | 5                | No           | FAC       | in diameter at breast height (DBH),                     | regardless           | of height.    |
| 5. <i>Liquidambar styraciflua</i>                    | 5                | No           | FAC       | _   |                      |               |
| 6. Parthenocissus quinquefolia                       | 2                | No           | FACU      | Sapling/shrub – Woody plants, exclu                     | uding vines          | , less than 3 |
| 7.   |                  |              |           | in. DBH and greater than or equal t                     | o 3.28 ft (1         | m) tall.      |
| 8.   |                  |              |           |   |                      |               |
| 9.   |                  |              |           | Herb – All herbaceous (non-woody)                       |                      | ardless of    |
| 10.  |                  |              |           | size, and woody plants less than 3.2                    | 28 ft tall.          |               |
| 11.  |                  |              |           | -   |                      |               |
|  | 55               | = Total Cov  | er        | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.2         | 28 ft in      |
| 50% of total cover: <u>27.5</u>                      |                  | tal cover:   | 11        | height.   |                      |               |
| Woody Vine Stratum (Plot size:10x20)                 | _ 20 /0 01 (0    | ital cover.  |           |   |                      |               |
| 1. Smilax rotundifolia                               | 10               | Yes          | FAC       |   |                      |               |
| -  |                  | 163          | FAC       | -   |                      |               |
| 2.   |                  |              |           |   | V 🗆 N- 🗆             | ,             |
| 3  |                  |              |           | Hydrophytic Vegetation Present?                         | yes ☑ No ∟           | J             |
| 4  |                  |              |           | .   |                      |               |
| 5  |                  |              |           |   |                      |               |
|  | 10               | _= Total Cov | er        |   |                      |               |
| 50% of total cover: <u>5</u>                         | _ 20% of to      | otal cover:  |           |   |                      |               |
| Remarks: (Include photo numbers here or on a separat | e sheet.)        |              |           |   |                      |               |
|  |                  |              |           |   |                      |               |

| Profile Description: (Describe to         | the depth need      | ed to documen           | nt the in | n <b>dicator</b> o | or confirm the abse                        | ence of indicators.)                         |                             |
|---|---------------------|-------------------------|-----------|--------------------|--|--|-----------------------------|
| Depth Matrix                              |                     | R <b>edo</b> x Features |           |                    |  |  |                             |
| (inches) Color (moist)                    | % Colo              | r (moist)               | %         | Type <sup>1</sup>  | Loc²                                       | T <b>extur</b> e                             | Remarks                     |
| 0 - 8 2.5Y 6/6                            | 90 7.5              | SYR 5/8                 | 10        | C                  | М  | Silt Loam                                    |                             |
|   |                     |                         |           |                    |  |  |                             |
| _   |                     |                         |           |                    |  |  |                             |
|   |                     |                         |           |                    |  |  | _                           |
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|   |                     |                         |           |                    |  |  | _                           |
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| <u> </u>                                  |                     |                         |           |                    |  |  |                             |
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| -   |                     |                         |           |                    |  |  |                             |
|   |                     |                         |           |                    |  |  |                             |
| ¹Type: C = Concentration, D = De          | enletion RM = R     | educed Matrix           | MS = 1    | Masked S           | and Grains 2Loca                           | tion: PL = Pore Lining M                     | = Matrix                    |
|   | epreción, Kivi – Ki | educed Macrix,          | 1412 - 1  | viaskeu s          | and Grains. Loca                           |  |                             |
| Hydric Soil Indicators:                   |                     | Dork Cu                 | rfoso (í  | ~~,                |  | Indicators for Proble                        | made nyune sons:            |
| Histosol (A1)<br>Histic Epipedon (A2)     |                     | Dark Su                 |           |                    | (S8) (MLRA 147, 148                        | 2 cm Muck (A10)                              | (MLRA 147)                  |
| Histic Epipedon (A2)<br>Black Histic (A3) |                     | _                       |           |                    | (58) (MILKA 147, 148<br>/ILRA 147, 148)    | " Coast Prairie Red                          | ox (A16) (MLRA 147, 148)    |
| Hydrogen Sulfide (A4)                     |                     | Loamy (                 |           |                    |  | Piedmont Floodp                              | lain Soils (F19) (MLRA 136, |
| Stratified Layers (A5)                    |                     | _ Deplete               | •         |                    | ,  | 147)   |                             |
| 2 cm Muck (A10) (LRR N)                   |                     |                         |           | rface (F6)         |  | Very Shallow Dar                             | k Surface (TF12)            |
| Depleted Below Dark Surface (A            | (11)                |                         |           | Surface (F         | 7)   | Other (Explain in                            | Remarks)                    |
| Thick Dark Surface (A12)                  |                     | Redox D                 | Depress   | ions (F8)          |  |  |                             |
| Sandy Mucky Mineral (S1) (LRR             | N, MLRA 147, 148    | )Iron-Ma                | inganes   | se Masses          | (F12) (LRR N, MLRA                         | <b>136)<sub>3</sub>Indicators of hydro</b> բ | phytic vegetation and       |
| Sandy Gleyed Matrix (S4)                  |                     | _ 0                     | 50        | - t , t            | L. 01 100, 122,                            | wetland hydrology n                          | nust be present, unless     |
| Sandy Redox (S5)<br>Stripped Matrix (S6)  |                     |                         |           |                    | ls (F19) (MLRA 148)<br>) (MLRA 127, 147)   | disturbed or probler                         |                             |
|   |                     | Reu Fai                 | ent Ma    | teriai (FZ I       | ) (MLKA 127, 147)                          | '  |                             |
| Restrictive Layer (if observed):          |                     |                         |           |                    |  |  |                             |
| ⊤ype:                                     | Roots/g             | ravel                   |           |                    | <b>Hydr</b> ic <b>Soil</b> Pre <b>se</b> n | t?   | Yes □ No ☑                  |
| Depth (inches):                           | 8                   |                         |           |                    |  |  |                             |
| Remarks:                                  |                     |                         |           |                    |  |  |                             |
|   |                     |                         |           |                    |  |  |                             |
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|   |                     |                         |           |                    |  |  |                             |
|   |                     |                         |           |                    |  |  |                             |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                      | City/County:                          |                                    | Sampling Date: 2018-July                       | <i>y</i> -16               |
|--|---------------------------------------|------------------------------------|--|----------------------------|
| Applicant/Owner: NextEra                         |                                       | State:                             | Sampling Point: V                              | V-F18-49_PFO-1             |
| nvestigator(s): Troy Savage, i                   | VIS JB                                | Section, Township,                 | Range:   |                            |
| _andform (hillslope, terrace, etc                | :.): Foot slope                       | Local relief (concave, conv        | ex, none): Concave                             | Slop <b>e (%</b> ): 2 to 5 |
| Subregion (LRR or MLRA):                         | MLRA 136 of LRR P                     | <b>L</b> at: 36.6372518            | Long: -79.5381902                              | Datum: WGS84               |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : 23D |                                       |                                    | NWI classifica                                 | ation: None                |
| Are climatic/hydrologic conditio                 | ns on the site typical for this time  |                                    | (If no, explain in Remar                       | ks.)                       |
| Are Vegetation, Soil,                            |                                       |                                    | al Circumstances" present?                     | Yes 🟒 No                   |
| Are Vegetation, Soil,                            | , or Hydrology naturally p            | problematic? (If needed,           | explain any answers in Rema                    | irks.)                     |
|  |                                       |                                    |  |                            |
| SUMMARY OF FINDINGS -                            | Attach site map showing san           | npling point locations, tran       | sects, important feature                       | es, etc.                   |
| Hydrophytic Vegetation Preser                    | nt? Yes No                            |                                    |  |                            |
| Hydric Soil Present?                             | Yes _ <b>✓</b> No                     | i                                  |  |                            |
| Wetland Hydrology Present?                       | Yes _ <b>✓</b> No                     | Is the Sampled Area withi          | n a Wetland?                                   | Yes <b>_ ✓_ No</b>         |
| Remarks:   | 165105                                | is the sampled filed with          | Ta rectains.                                   | 165_110                    |
| Kemarks.   |                                       |                                    |  |                            |
|  |                                       |                                    |  |                            |
|  |                                       |                                    |  |                            |
|  |                                       |                                    |  |                            |
| Covertype is PFO. Area is wetla                  | nd, all three wetland parameters a    | re present.                        |  |                            |
|  |                                       |                                    |  |                            |
|  |                                       |                                    |  |                            |
|  |                                       |                                    |  |                            |
|  |                                       |                                    |  |                            |
| HYDROLOGY  |                                       |                                    |  |                            |
|  |                                       |                                    |  |                            |
| Wetland Hydrology Indicators:                    |                                       |                                    |  |                            |
| <u>Primary Indicators (minimum c</u>             | of one is required; check all that ap | pl <b>y)</b>                       | Secondary Indicators (minim                    | ium of two required)       |
| Surface Water (A1)                               | True Aquatio                          | Plants (R14)                       | Surface Soil Cracks (B6)                       | 5 ( (50)                   |
| High Water Table (A2)                            | •                                     | ulfide Odor (C1)                   | Sparsely Vegetated Conc                        | ave Surface (B8)           |
| ✓ Saturation (A3)                                | ,                                     | zospheres on Living Roots (C3)     | ✓ Drainage Patterns (B10)                      |                            |
| Water Marks (B1)                                 |                                       | Reduced Iron (C4)                  | Moss Trim Lines (B16) Dry-Season Water Table ( | (C2)                       |
| ✓ Sediment Deposits (B2)                         |                                       | Reduction in Tilled Soils (C6)     | Crayfish Burrows (C8)                          | (C2)                       |
| Drift Deposits (B3)                              | Thin Muck S                           |                                    | Saturation Visible on Aer                      | ial Imagon/(C9)            |
| Algal Mat or Crust (B4)                          |                                       | in in Remarks)                     | Saturation visible on Aer                      | ar irriagery (C3)          |
| Iron Deposits (B5)                               |                                       |                                    | Stunted or Stressed Plan                       | ts (D1)                    |
| Inundation Visible on Aeria                      | al Imagery (B7)                       |                                    | Geomorphic Position (D2                        |                            |
| Water-Stained Leaves (B9)                        |                                       |                                    | Shallow Aquitard (D3)                          |                            |
| Aquatic Fauna (B13)                              |                                       |                                    | Microtopographic Relief                        | (D4)                       |
| ·  |                                       |                                    | ✓ FAC-Neutral Test (D5)                        |                            |
| Field Observations:                              |                                       |                                    |  |                            |
| Surface Water Present?                           | Yes No/ De                            | epth (inches):                     |  |                            |
| Water Table Present?                             |                                       | epth (inches): 10                  | <br>Wetland Hydrology Present?                 | Yes _ <b>∠</b> _ No        |
|  |                                       |                                    | Victoria riyarology i resent.                  | 103110                     |
| Saturation Present?                              | Yes <u></u> ✓ No De                   | epth (inches): 2                   |  |                            |
| (includes capillary fringe)                      |                                       |                                    |  |                            |
| Describe Recorded Data (strea                    | m gauge, monitoring well, aerial ph   | notos, previous inspections), if a | available:                                     |                            |
|  |                                       |                                    |  |                            |
|  |                                       |                                    |  |                            |
|  |                                       |                                    |  |                            |
| Remarks:   |                                       |                                    |  |                            |
|  |                                       |                                    |  |                            |
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|  |                                       |                                    |  |                            |

|   | •                |                  |           | 1   |                     |                |
|---|------------------|------------------|-----------|---|---------------------|----------------|
| Tree Stratum (Plot size:10)                         | <b>A</b> bsolute | Dominant         | Indicator | Dominance Test worksheet:                           |                     |                |
| Tree Structure (Flot Size. — To)                    | % Cover          | Species?         | Status    | Number of Dominant Species That                     | 4                   | (A)            |
| 1. Carpinus caroliniana                             | 18               | Yes              | FAC       | Are OBL, FACW, or FAC:                              |                     |                |
| 2. Liquidambar styraciflua                          | 12               | Yes              | FAC       | Total Number of Dominant Species                    | 4                   | (B)            |
| 3   |                  |                  |           | Across All Strata:                                  |                     | _              |
| 4   |                  |                  |           | Percent of Dominant Species That                    | <b>1</b> 0 <b>0</b> | (A/B)          |
| 5.  |                  |                  |           | Are OBL, FACW, or FAC: Prevalence Index worksheet:  |                     |                |
| 6.  |                  |                  |           | - Total % Cover of:                                 | Multiply By         |                |
| 7.  |                  |                  |           | OBL species 12                                      | x 1 =               | <u>.</u><br>12 |
| •   | 30               | = Total Cov      | er        | FACW species 0                                      |                     | 0              |
| 50% of total cover: <u>15</u>                       | 20% of to        | -<br>otal cover: | 6         |   | x 2 =               |                |
| Sapling/Shrub Stratum (Plot size:10)                |                  |                  |           | FAC species   | x3=                 |                |
| Liquidambar styraciflua                             |                  | Bad              | FAC       | FACU species 5                                      | × 4 =               | 20             |
| 2.  | 7                |                  |           | - UPL species 0                                     | x 5 =               | 0              |
| 3.  |                  |                  |           | - Column Totals                                     | (A)                 | (B)            |
| 4.  |                  |                  |           | Prevalence Index = B/A =                            |                     |                |
| 5.  |                  |                  |           | Hydrophytic Vegetation Indicators:                  |                     |                |
| 6.  |                  |                  |           | 1- Rapid Test for Hydrophytic                       | √egetation          |                |
| 7   |                  |                  |           | 2 - Dominance Test is >50%                          |                     |                |
|   |                  |                  |           | 3 - Prevalence Index is ≤ 3.01                      |                     |                |
| 8.  |                  |                  |           | -  4 - Morphological Adaptations                    | ¹ (Provide su       | pporting       |
| 9   |                  |                  |           | - data in Remarks or on a separate sh               | neet)               |                |
|   | 7                | = Total Cov      |           | Problematic Hydrophytic Vege                        | tation¹ (Expl       | ain)           |
| 50% of total cover: <u>3.5</u>                      | _ 20% of to      | ital cover:      | 1.4       | Indicators of hydric soil and wetlan                | d hydrology         | must be        |
| Herb Stratum (Plot size: 10 )                       |                  |                  |           | present, unless disturbed or proble                 | matic               |                |
| 1. Clethra alnifolia                                | 15               | Yes .            | FAC       | Definitions of Four Vegetation Strat                | a:                  |                |
| Lycopus amplectens                                  | 8                | Yes              | OBL       | -   |                     |                |
| 3. <u>Viburnum prunifolium</u>                      | 5                | No               | FACU      | Tr <b>ee</b> – Woody plants, excluding vine         |                     |                |
| 4. Persicaria virginiana                            | 5                | No_              | FAC       | in diameter at breast height (DBH),                 | regardless o        | f height.      |
| 5. Microstegium vimineum                            | 5                | No               | FAC       |   |                     |                |
| 6. <i>Rosa palustris</i>                            | 4                | No               | OBL       | Sapling/shrub                                       | _                   |                |
| 7   |                  |                  |           | in. DBH and greater than or equal to                | o 3.28 ft (1 m      | n) tall.       |
| 8   |                  |                  |           |   |                     |                |
| 9   |                  |                  |           | Herb – All herbaceous (non-woody)                   |                     | rdless of      |
| 10.   |                  |                  |           | size, and woody plants less than 3.2                | .8 ft tall.         |                |
| 11.   |                  |                  |           |   |                     |                |
|   | 42               | = Total Cov      | er        | <b>Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.28       | Ift in         |
| 50% of total cover: 21                              | 20% of to        | tal cover:       | 8.4       | height.   |                     |                |
| Woody Vine Stratum (Plot size: 10 )                 | _                |                  |           |   |                     |                |
| 1.  |                  |                  |           |   |                     |                |
| 2.  |                  |                  |           | -   |                     |                |
| 2   |                  |                  |           | Hydrophytic Vegetation Present?                     | Yes ☑ No □          |                |
|   |                  |                  |           | -   |                     |                |
| 5.  |                  |                  |           | -   |                     |                |
| J   |                  | = Total Cov      | ar.       | •   |                     |                |
| 50% of total cover: 0                               |                  | -                | 0         |   |                     |                |
| 30% of total tovel                                  | _ 20% 01 (0      | ital cover.      |           |   |                     |                |
| Remarks: (Include photo numbers here or on a separa | e sheet.)        |                  |           |   |                     |                |
|   |                  |                  |           |   |                     |                |
|   |                  |                  |           |   |                     |                |
|   |                  |                  |           |   |                     |                |
|   |                  |                  |           |   |                     |                |
|   |                  |                  |           |   |                     |                |
|   |                  |                  |           |   |                     |                |

|              | escription: (Describe                                | to t <b>he d</b> e <b>p</b> t |                    |                        |                         | or confir           | m the absen        | c <b>e of indica</b> tors.)           |  |
|--------------|--|-------------------------------|--------------------|------------------------|-------------------------|---------------------|--------------------|---------------------------------------|--|
| Depth _      | Matrix   |                               | Redox Features     |                        |                         |                     |                    |                                       |  |
| (inches)     | Color (moist)  | %                             | Color (moist)      | <u> %</u>              | Тур <b>е¹</b>           | Loc²                |                    | Texture                               | Remarks  |
| 0 - 4        | 2.5Y 4/2   | 100                           |                    |                        |                         |                     |                    | Sandy Loam                            |  |
| 4 - 12       | 2.5Y 4/1   | 70                            | 2.5Y 6/1           | 30                     | D                       | M/PL                |                    | Sand                                  |  |
| 12 - 18      | 2.5Y 6/1   | 100                           |                    |                        |                         |                     |                    | Sand                                  |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        | · ——                    |                     |                    |                                       |  |
| 1Tun 0 / C - | - Consontration D -                                  | Danlatian -                   | DM - Dodugod Maste |                        |                         | and Cun             | ing 21 seption     | en DI - Devolining M                  | - Nantuis  |
|              |  | Depletion,                    | RM = Reduced Matr  | IX, IVIS =             | Maskeu :                | Sariu Gra           | ITIS. *LOCALIO     | on: PL = Pore Lining, M               |  |
|              | oil Indicators:                                      |                               | DI-                | ce                     | Ċ7\                     |                     |                    | Indicators for Probler                | natic Hydric Solisa:                                       |
| _ Histoso    | ol (A1)<br>pipedon (A2)                              |                               |                    | Surface (<br>alue Belo |                         | - (S8) <b>(M</b> II | RA 147, 148)       | 2 cm Muck (A10) (                     |  |
| _            | listic (A3)  |                               |                    |                        | face (S9) (             |                     |                    | Coast Prairie Redo                    | ox (A16) <b>(MLR</b> A 1 <b>47</b> , 1 <b>4</b> 8 <b>)</b> |
| _            | gen Sulfide (A4)                                     |                               |                    |                        | Matrix (F               |                     | ,                  | Piedmont Floodpl                      | ain Soils (F19) <b>(ML</b> R <b>A 1</b> 36,                |
| _ Stratifie  | ed Layers (A5)                                       |                               | _ <b>✓</b> Deple   | eted Matr              | ix (F3)                 |                     |                    | 147)                                  |  |
|              | uck (A10) (LRR N)                                    |                               |                    |                        | ırface (F6)             |                     |                    | Very Shallow Dark                     |  |
| I — ·        | ed Below Dark Surface                                | (A11)                         |                    |                        | Surface (               |                     |                    | Other (Explain in I                   | Remarks)   |
|              | lark Surface (A12)<br>Mucky Mineral (S1) <b>(</b> LR | RN MIRA                       | Keuu<br>           | Mangane<br>Mangane     | sions (F8)<br>se Masses | s (F12) (LF         | RN MIRA 17         | 36)                                   |  |
| I            | Gleyed Matrix (S4)                                   | it it, itiziot                | Umbi               | ric Surfac             | e (F13) ( <b>N</b>      | ILRA 136.           | 122)               | 36) <sub>3</sub> Indicators of hydrop | hytic vegetation and                                       |
|              | Redox (S5)   |                               |                    |                        |                         |                     | MLRA 148)          |                                       | ust be present, unless                                     |
| Strippe      | d Matrix (S6)  |                               | _ Red F            | arent Ma               | aterial (F2             | 1) <b>(M</b> LRA    | 1 <b>27, 1</b> 47) | disturbed or problem                  | iatic.   |
| Restrictiv   | e Layer (if observed):                               |                               |                    |                        |                         |                     |                    |                                       |  |
|              | Туре:  |                               | None               | _                      |                         | Hydric :            | Soil Present?      |                                       | Yes ☑ No □   |
|              | Depth (inches):                                      |                               |                    | _                      |                         |                     |                    |                                       |  |
| Remarks:     | :  |                               |                    |                        |                         | •                   |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |
|              |  |                               |                    |                        |                         |                     |                    |                                       |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                                | City/County:                           |  | Sampling Date: 2018-July  | -16                       |  |  |  |
|--|--|--|---|---------------------------|--|--|--|
| Applicant/Owner: NextEra                                   |  | State:   | Sampling Point: W   | '-F18-49_UPL-1            |  |  |  |
| Investigator(s): Troy Savage, M                            | S JB                                   | Section, Township,                               | vnship, Range:  |                           |  |  |  |
| Landform (hillslope, terrace, etc.):                       | : _ Flood Plain                        | Local relief (concave, conv                      | ex, none): Convex   | Slop <b>e (%</b> ):2 to 5 |  |  |  |
| Subregion (LRR or MLRA): M                                 | ILRA 136 of LRR P                      | Lat: 36.6370944                                  | Long: -79.5380064   | Datum: WGS84              |  |  |  |
| Soil <b>Map</b> Unit Name:24D                              |  |  | NWI classifica  | ti <b>on</b> :_None       |  |  |  |
| Are climatic/hydrologic conditions                         | s on the site typical for this time of | ye <b>ar?</b> Yes <u>✓</u> No                    | (If no, explain in Remark   | cs.)                      |  |  |  |
| Are Vegetation, Soil,                                      | or Hydrology significantly             | disturbed? Are "Norma                            | al Circumstances" present?  | Yes 🟒 No                  |  |  |  |
| Are Vegetation, Soil,                                      | or Hydrology naturally pr              | oblematic? (If needed,                           | explain any answers in Rema   | ks.)                      |  |  |  |
|  |  |  |   |                           |  |  |  |
| SU <b>M</b> M <b>ARY O</b> F FI <b>NDI</b> NG <b>S</b> – A | ttach site map showing sam             | oling point locations, tran                      | sects, important feature  | s, etc.                   |  |  |  |
| Hydrophytic Vegetation Present?                            | ? Yes <u></u> √ No                     |  | •   |                           |  |  |  |
| Hydric Soil Present?                                       | Yes No                                 | }  |   |                           |  |  |  |
| •  |  | le the Campled Area with                         | in a Motland?   | Voc. No. /                |  |  |  |
| Wetland Hydrology Present?                                 | Yes No _ <b>_∕</b> _                   | Is the Sampled Area with                         | rr a weciano:   | Yes <b>No</b> /           |  |  |  |
| Remarks:   |  |  |   |                           |  |  |  |
|  |  |  |   |                           |  |  |  |
|  |  |  |   |                           |  |  |  |
| Covertype is UPL. Area is upland.                          | , not all three wetland parameters     | are present.                                     |   |                           |  |  |  |
|  | '                                      | 1  |   |                           |  |  |  |
|  |  |  |   |                           |  |  |  |
|  |  |  |   |                           |  |  |  |
|  |  |  |   |                           |  |  |  |
| HYDROLOGY  |  |  |   |                           |  |  |  |
| Wotland Hydrology Indicators:                              |  |  |   |                           |  |  |  |
| Wetland Hydrology Indicators:                              | and is required, sheet, all that are   |  | Casa a dam i Indiento va (minim   | um of two vocations)      |  |  |  |
| Primary indicators (minimum of                             | one is required; check all that appl   | λī   | Secondary Indicators (minim   | um or two requirea)       |  |  |  |
| Surface Water (A1)   | True Aquatic F                         | Plants (B14)                                     | <ul><li>Surface Soil Cracks (B6)</li><li>Sparsely Vegetated Conca</li></ul> | wa Surfaca (RR)           |  |  |  |
| High Water Table (A2)                                      | Hydrogen Sulf                          |  | Drainage Patterns (B10)   | ive surface (Do)          |  |  |  |
| Saturation (A3)  | Oxidized Rhize                         | ospheres on Living Roots (C3)                    | Moss Trim Lines (B16)   |                           |  |  |  |
| Water Marks (B1)   | Presence of R                          | educed Iron (C4)                                 | Dry-Season Water Table (  | (2)                       |  |  |  |
| Sediment Deposits (B2)                                     | Recent Iron Re                         | eduction in Tilled Soils (C6)                    | Crayfish Burrows (C8)   | •                         |  |  |  |
| Drift Deposits (B3)  | Thin Muck Sur                          | face (C7)  | Saturation Visible on Aeri  | al Imagery (C9)           |  |  |  |
| Algal Mat or Crust (B4)                                    | Other (Explain                         | in Remarks)                                      |   |                           |  |  |  |
| Iron Deposits (B5)   |  |  | Stunted or Stressed Plant   |                           |  |  |  |
| Inundation Visible on Aerial                               | Imagery (B7)                           |  | Geomorphic Position (D2   | 1                         |  |  |  |
| Water-Stained Leaves (B9)                                  |  |  | Shallow Aquitard (D3)   | 5.4)                      |  |  |  |
| Aquatic Fauna (B13)  |  |  | Microtopographic Relief (   | D4)                       |  |  |  |
| Field Observations:  |  |  | FAC-Neutral Test (D5)   |                           |  |  |  |
|  | Yes No <u></u> ✓ Dep                   | the (in the eq).                                 |   |                           |  |  |  |
| Surface Water Present?                                     |  | th (inches):                                     |   |                           |  |  |  |
| Water Table Present?                                       | ·                                      | th (inches):                                     | Wetland Hydrology Present?  | Yes No                    |  |  |  |
| Saturation Present?  | Yes No 🟒 Dep                           | th (inches):                                     |   |                           |  |  |  |
| (includes capillary fringe)                                |  |  |   |                           |  |  |  |
| Describe Recorded Data (stream                             | gauge, monitoring well, aerial pho     | otos, pre <mark>vious inspections</mark> ), if a | vailable:   |                           |  |  |  |
|  |  |  |   |                           |  |  |  |
|  |  |  |   |                           |  |  |  |
| Remarks:   |  |  |   |                           |  |  |  |
|  |  |  |   |                           |  |  |  |
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|  |  |  |   |                           |  |  |  |
|  |  |  |   |                           |  |  |  |
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|  |  |  |   |                           |  |  |  |

| · · ·  | •           |                  |             |  |               |               |
|--|-------------|------------------|-------------|--|---------------|---------------|
| Tree Stratum (Plot size:30)                          |             | Dominant         |             | Dominance Test worksheet:  |               |               |
|  |             | Species?         | Status      | Number of Dominant Species That Are OBL, FACW, or FAC:   | 3             | (A)           |
| Fagus grandifolia     Carpinus caroliniana           | 30<br>25    | Yes Yes          | FACU<br>FAC | Total Number of Dominant Species   |               |               |
| 3.   |             |                  | TAC         | Across All Strata:   | 5             | (B)           |
| 4.   |             |                  |             | Percent of Dominant Species That   | 60            | (A/B)         |
| 5.   |             |                  |             | Are OBL, FACW, or FAC:   |               |               |
| 6.   |             |                  |             | Prevalence Index worksheet:  |               | _             |
| 7.   |             |                  |             | Total % Cover of:  | Multiply I    | -             |
|  | 55          | = Total Cov      | er          | - OBL species 0<br>FACW species 0  | x1= _         | 0 0           |
| 50% of total cover: <u>27.5</u>                      | 20% of to   | -<br>otal cover: | 11          |  | x2= _         |               |
| Sapling/Shrub Stratum (Plot size:15)                 |             |                  |             | FAC species 60 FACU species 43   | x3= _         | 180           |
| 1. Carpinus caroliniana                              | 10          | Yes              | FAC         | - UPL species 0  | ×4= _         | 172<br>0      |
| 2.   |             |                  |             |  | x5= _         |               |
| 3.   |             |                  |             | - Column Totals 103 - Prevalence Index = B/A =   | (A) _         | 352 (B)       |
| 4.   |             |                  |             | ·  | 3.4           |               |
| 5.   |             |                  |             | Hydrophytic Vegetation Indicators:   |               |               |
| 6.   |             |                  |             | 1- Rapid Test for Hydrophytic V  | /egetation    |               |
| 7.   |             |                  |             | 2 - Dominance Test is >50%   |               |               |
| 8.   |             |                  |             | 3 - Prevalence Index is ≤ 3.01   | 1/Dravida     | unnerting     |
| 9.   |             |                  |             | <ul> <li>4 - Morphological Adaptations</li> <li>data in Remarks or on a separate sh</li> </ul> |               | supporting    |
|  | 10          | = Total Cov      | er          | Problematic Hydrophytic Vege   |               | nlain)        |
| 50% of total cover: <u>5</u>                         | _20% of to  | tal cover:       |             | ¹Indicators of hydric soil and wetlan  |               | ·             |
| Herb Stratum (Plot size: 5 )                         |             |                  |             | present, unless disturbed or proble  | , ,           | ,,            |
| 1. Microstegium vimineum                             | 18          | Yes              | FAC         | Definitions of Four Vegetation Strate  | <br>a:        |               |
| 2. <i>Polystichum acrostichoides</i>                 | 10          | Yes              | FACU        | _  |               |               |
| 3. Rubus pensilvanicus                               | 4           | No               | FAC         | Tree – Woody plants, excluding vine  | s, 3 in. (7.6 | cm) or more   |
| 4. Euonymus americanus                               | 3           | No               | FAC         | in diameter at breast height (DBH),  |               |               |
| 5. Lonicera japonica                                 | 3           | No               | FACU        |  |               |               |
| 6  |             |                  |             | Sapling/shrub – Woody plants, exclu  | uding vines   | , less than 3 |
| 7  |             |                  |             | in. DBH and greater than or equal to   | o 3.28 ft (1  | m) tall.      |
| 8  |             |                  |             | _  |               |               |
| 9  |             |                  |             | Herb – All herbaceous (non-woody)  |               | ardless of    |
| 10   |             |                  |             | size, and woody plants less than 3.2   | .8 ft tall.   |               |
| 11.  |             |                  |             |  |               |               |
|  | 38          | = Total Cov      | er          | Woody vines – All woody vines grea   | ter than 3.   | 28 ft in      |
| 50% of total cover: <u>19</u>                        | _ 20% of to | tal cover:       | 7.6         | height.  |               |               |
| Woody Vine Stratum (Plot size: 30 )                  |             |                  |             |  |               |               |
| 1  |             |                  |             |  |               |               |
| 2  |             |                  |             |  |               |               |
| 3.   |             |                  |             | Hydrophytic Vegetation Present?  | ∕es 🛭 No 🗆    | ]             |
| 4.   |             |                  |             |  |               |               |
| 5.   |             |                  |             |  |               |               |
|  | 0           | = Total Cov      | er          |  |               |               |
| 50% of total cover: <u>0</u>                         | 20% of to   | tal cover:       | 0           |  |               |               |
| Remarks: (Include photo numbers here or on a separat | e sheet )   |                  |             |  |               |               |
| Remarks. (Helade prioto Hambers here of off a separa | a sincer,   |                  |             |  |               |               |
|  |             |                  |             |  |               |               |
|  |             |                  |             |  |               |               |
|  |             |                  |             |  |               |               |
|  |             |                  |             |  |               |               |
|  |             |                  |             |  |               |               |
|  |             |                  |             |  |               |               |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                     | City/County:_ Westover, I               | Pittsylvania Sam <b>p</b> lin <b>g</b> | Date: 2018-July-17          |                             |
|---|---|--|-----------------------------|-----------------------------|
| Appl <b>ica</b> nt <b>/O</b> wner: NextEra      |   | State: Virgir                          | nia Sampling Point:         | W-F18-49_UPL-2              |
| nvestigator(s): Troy Savage, MS                 | JB                                      | Section, Township,                     | Range:                      |                             |
| _andform (hillslope, terrace, etc.):            | Hillslope                               | Local relief (concave, conv            | ex, none): Concave          | Slop <b>e (%</b> ):_ 2 to 5 |
| Su <b>bre</b> gion (LRR or MLRA):               |   | Lat: 36.6376034                        | Long: -79.5375039           | Datum: WGS84                |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> : 23d |   |  | NWI classific               | cation: None                |
| Are climatic/hydrologic conditions              | on the site typical for this time of ye |  | (If no, explain in Rema     | rks.)                       |
| Are Vegetation, Soil,                           | or Hydrology significantly di           |  | al Circumstances" present?  | Yes 🟒 No                    |
| Are Vegetation, Soil,                           | or Hydrology naturally prob             | lematic? (If needed,                   | explain any answers in Rem  | arks.)                      |
|   |   |  |                             |                             |
| SUMMARY OF FINDINGS – At                        | tach site map showing sampli            | ng point locations, trar               | nsects, important featur    | es, etc.                    |
| Hydrophytic Vegetation Present?                 | Yes 🔽 No                                |  |                             |                             |
| Hydric Soil Present?                            | Yes No                                  |  |                             |                             |
| Wetland Hydrology Present?                      | Yes No _ <b>∠</b> _                     | Is the Sampled Area within             | n <b>a Wetlan</b> d?        | Yes <b> No</b>              |
| Remarks:  |   |  |                             |                             |
|   |   |  |                             |                             |
|   |   |  |                             |                             |
| Covertyne is LIPL Area is unland                | not all three wetland parameters ar     | e nresent                              |                             |                             |
| coverage is of E. Area is apland,               | Tiot all till de Wedaria parameters ar  | e preserie.                            |                             |                             |
|   |   |  |                             |                             |
|   |   |  |                             |                             |
|   |   |  |                             |                             |
| HYDROLOGY                                       |   |  |                             |                             |
| Wetland Hydrology Indicators:                   |   |  |                             |                             |
|   | one is required; check all that apply)  |  | Secondary Indicators (minir | num of two required)        |
| -   |   |  | Surface Soil Cracks (B6)    | ·                           |
| Surface Water (A1)                              | True Aquatic Pla                        |  | Sparsely Vegetated Con-     | cave Surface (B8)           |
| High Water Table (A2)                           | Hydrogen Sulfide                        |  | ✓ Drainage Patterns (B10)   |                             |
| Saturation (A3)<br>Water Marks (B1)             | Oxidized Rhizos<br>Presence of Red      | oheres on Living Roots (C3)            | Moss Trim Lines (B16)       |                             |
| Sediment Deposits (B2)                          |   | uction in Tilled Soils (C6)            | Dry-Season Water Table      | (C2)                        |
| Drift Deposits (B3)                             | Thin Muck Surfa                         |  | Crayfish Burrows (C8)       | rial Imagasy (CO)           |
| Algal Mat or Crust (B4)                         | Other (Explain in                       |  | Saturation Visible on Ae    | iai imagery (C9)            |
| Iron Deposits (B5)                              | ·                                       |  | Stunted or Stressed Plan    | nts (D1)                    |
| Inundation Visible on Aerial I                  | magery (B7)                             |  | Geomorphic Position (D      |                             |
| Water-Stained Leaves (B9)                       |   |  | Shallow Aquitard (D3)       |                             |
| Aquatic Fauna (B13)                             |   |  | Microtopographic Relief     | (D4)                        |
|   |   |  | FAC-Neutral Test (D5)       |                             |
| Field Observations:                             |   |  |                             |                             |
| Surface Water Present?                          | Yes No Depth                            | (inches):                              |                             |                             |
| Water Table Present?                            | Yes No 🟒 Depth                          | (inches):                              | Wetland Hydrology Present   | ? Yes No                    |
| Saturation Present?                             | Yes No ∡ Depth                          | (inches):                              |                             |                             |
| (includes capillary fringe)                     |   |  |                             |                             |
| Describe Recorded Data (stream                  | gauge, monitoring well, aerial photo    | s, previous inspections), if a         | available:                  |                             |
| No WT to 24 inches                              |   |  |                             |                             |
|   |   |  |                             |                             |
| Remarks:  |   |  |                             |                             |
|   |   |  |                             |                             |
|   |   |  |                             |                             |
|   |   |  |                             |                             |
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|   |   |  |                             |                             |
|   |   |  |                             |                             |
|   |   |  |                             |                             |

| ,   | •           |             |           | T   |              |             |
|---|-------------|-------------|-----------|---|--------------|-------------|
| Tree Stratum (Plot size: _30)                       | Absolute    | Dominant    | Indicator | Dominance Test worksheet:   |              |             |
| Tree Stratum (Flot Size                             | % Cover     | Species?    | Status    | Number of Dominant Species That   | 4            | (A)         |
| 1. Fraxinus americana                               | 35          | Yes         | FACU      | Are OBL, FACW, or FAC:  |              |             |
| 2. <u>Carpinus caroliniana</u>                      | 25          | Yes         | FAC       | Total Number of Dominant Species  | 7            | (B)         |
| 3. <u>Liquidambar styraciflua</u>                   | 20          | No          | FAC       | Across All Strata:  |              | —           |
| 4. Liriodendron tulipifera                          | 15          | No          | FACU      | Percent of Dominant Species That Are OBL, FACW, or FAC:                 | <b>57.1</b>  | (A/B)       |
| 5. Acer rubrum                                      | 8           | No          | FAC       | Prevalence Index worksheet:   |              |             |
| 6.  |             |             |           | Total % Cover of:   | Multiply B   | ₹v.         |
| 7   |             |             |           | OBL species 0   | x 1 =        | 0           |
|   | 103         | = Total Cov | er        | FACW species 0  | x 2 =        | 0           |
| 50% of total cover: <u>51.5</u>                     | _ 20% of to | tal cover:  | 20.6      | FAC species 101   | x3=          | 303         |
| Sapling/Shrub Stratum (Plot size:15)                |             |             |           | FACU species 80   | ×4=          | 320         |
| 1. Carpinus caroliniana                             | 20          | Yes         | FAC       | UPL species 0   | x5=          | 0           |
| 2. Quercus rubra                                    | 15          | Yes         | FACU      | Column Totals 181   | _            | 623 (B)     |
| 3.  |             |             |           | Prevalence Index = B/A =  | 3.4          | 023 (B)     |
| 4.  |             |             |           |   |              |             |
| 5.  |             |             |           | Hydrophytic Vegetation Indicators:                                      |              |             |
| 6.  |             |             |           | 1- Rapid Test for Hydrophytic \   | /egetation   |             |
| 7.  |             |             |           | ✓ 2 - Dominance Test is >50%  |              |             |
| 8.  |             |             |           | 3 - Prevalence Index is ≤ 3.01  |              |             |
| 9.  |             |             |           | 4 - Morphological Adaptations   | •            | upporting   |
|   | 35          | = Total Cov | er        | data in Remarks or on a separate sh                                     |              | -1-2-2      |
| 50% of total cover: 17.5                            |             | -           |           | Problematic Hydrophytic Vege  |              |             |
| Herb Stratum (Plot size: _ 5_)                      |             |             |           | Indicators of hydric soil and wetlan                                    |              | y must be   |
| 1. Microstegium vimineum                            | 18          | Yes         | FAC       | present, unless disturbed or proble                                     |              |             |
| 2. Rosa multiflora                                  | 10          | Yes         | FACU      | Definitions of Four Vegetation Strate                                   | a:           |             |
| 3. Smilax glauca                                    | 5           | No No       | FACU      | ·   | 0: /26       | ,           |
| 4.  |             |             | FACU      | Tree – Woody plants, excluding vine                                     |              |             |
| 5.  |             |             |           | in diameter at breast height (DBH), l                                   | egaruless    | or neight.  |
|   |             |             |           | Capling/shouth Mandy plants ovel  | ıdina vinaa  | loss than 2 |
| 6.  |             |             |           | Sapling/shrub – Woody plants, excluin. DBH and greater than or equal to | -            |             |
| 7.  |             |             |           | . Burrana greater than or equal to                                      | )            | m) tun.     |
| 8.  | - ——        |             |           | .  <br>  <b>Herb</b> – All herbaceous (non-woody)                       | nlants reg   | ardless of  |
| 9.  |             |             |           | size, and woody plants less than 3.2                                    |              | araicas or  |
| 10  |             |             |           |   | o re com     |             |
| 11  |             |             |           |   |              |             |
|   | 33          | = Total Cov | er        | <b>Wo</b> ody vines – All woody vines great                             | ter than 3.2 | 28 ft in    |
| 50% of total cover: <u>16.5</u>                     | _ 20% of to | tal cover:  | 6.6       | height.   |              |             |
| Woody Vine Stratum (Plot size: 30 )                 |             |             |           |   |              |             |
| 1. <u>Campsis radicans</u>                          | 10          | Yes         | FAC       |   |              |             |
| 2   |             |             |           |   |              |             |
| 3.  |             |             |           | Hydrophytic Vegetation Present?   | ∕es 🛭 No 🗆   | 1           |
| 4   |             |             |           |   |              |             |
| 5   |             |             |           |   |              |             |
|   | 10          | = Total Cov | er        |   |              |             |
| 50% of total cover: <u>5</u>                        | _20% of to  | tal cover:  | 2         |   |              |             |
| Remarks: (Include photo numbers here or on a separa | te sheet.)  |             |           |   |              |             |
|   | <b>,</b>    |             |           |   |              |             |
|   |             |             |           |   |              |             |
|   |             |             |           |   |              |             |
|   |             |             |           |   |              |             |
|   |             |             |           |   |              |             |
|   |             |             |           |   |              |             |
|   |             |             |           |   |              |             |

| Profile Description: (Describe to  | o th <b>e d</b> ep | th n <b>eed</b> ed to docum | ent the i              | n <b>dicator</b> o               | or confir                   | m the absenc              | ce of indicators.)                         |                            |
|--|--------------------|-----------------------------|------------------------|----------------------------------|-----------------------------|---------------------------|--|----------------------------|
| Depth Matrix   |                    | <b>Re</b> do:               | x Feature              | es                               |                             |                           |  |                            |
| (inches) Color (moist)   | 96                 | Color (moist)               | %                      | Type¹                            | Loc²                        |                           | T <b>ex</b> ture                           | Remarks                    |
| 0 - 8 10YR 4/4   | 100                |                             |                        |                                  |                             | Fir                       | ne Sandy Loam                              |                            |
| 8 - 18 10YR 4/4  | 90                 | 10YR 5/4                    | 10                     | D                                | M                           | Fir                       | ne Sandy Loam                              |                            |
|  |                    |                             |                        |                                  |                             |                           | ·  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             | · ——                   |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
| ¹Type: C = Concentration, D = D  | epletion,          | RM = Reduced Matr           | ix, MS = 1             | Masked S                         | and Gra                     | ins. <sup>2</sup> Locatio |  |                            |
| Hydric Soil Indicators:  |                    |                             |                        |                                  |                             |                           | Indicators for Problem                     | atic Hydric Soils³:        |
| _ Histosol (A1)  |                    |                             | Surface (S             |                                  | (CO) (B.E.                  | DA 447 440)               | 2 cm Muck (A10) (N                         | /ILRA 1 <b>47</b> )        |
| Histic Epipedon (A2)<br>Black Histic (A3)  |                    |                             |                        | w Surtace<br>ace (S9) <b>(</b> N |                             | RA 147, 148)              | Coast Prairie Redo:                        | x (A16) (MLRA 147, 148)    |
| Hydrogen Sulfide (A4)  |                    |                             |                        | Matrix (F2                       |                             | , 140)                    | Piedmont Floodpla                          | ain Soils (F19) (MLRA 136, |
| _ Stratified Layers (A5)   |                    |                             | ted Matr               |                                  | -,                          |                           | 147)                                       |                            |
| 2 cm Muck (A10) (LRR N)  |                    | Redox                       | k Dark Su              | ırface (F6)                      |                             |                           | Very Shallow Dark                          | Surface (TF12)             |
| Depleted Below Dark Surface (  | A11)               |                             |                        | Surface (F                       | 7)                          |                           | Other (Explain in R                        | emarks)                    |
| Thick Dark Surface (A12)   | . N N D.A.         | Redox                       | d Depress              | sions (F8)                       | (E10) (LE                   | OD NI NALDA 40.           | C)   |                            |
| <ul><li>Sandy Mucky Mineral (S1) (LRF</li><li>Sandy Gleyed Matrix (S4)</li></ul> | KIN, MILKA         | 147, 148)                   | viangane:<br>ic Surfac | se Masses<br>e (F13) ( <b>M</b>  | (FIZ)(LN<br>IR <b>∆ 136</b> | KK N, MEKA 159<br>122)    | <b>6)<sub>3</sub>Indicators of hydroph</b> | ytic vegetation and        |
| Sandy Gleyed Matrix (54)<br>Sandy Redox (S5)                                     |                    |                             |                        | c ( , (                          | ,                           | MLRA 148)                 | wetland hydrology mu                       | ist be present, unless     |
| Stripped Matrix (S6)   |                    | _                           |                        | iterial (F21                     |                             |                           | disturbed or problema                      | atic.                      |
| Restrictive Layer (if observed):   |                    |                             |                        |                                  |                             |                           |  |                            |
| Туре:  |                    | None                        |                        |                                  | Hydric:                     | Soil <b>Present?</b>      |  | Yes □ No ☑                 |
| Depth (inches):  | -                  |                             | _                      |                                  | 1                           |                           |  |                            |
| Remarks:   |                    |                             | •                      |                                  | ·                           |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |
|  |                    |                             |                        |                                  |                             |                           |  |                            |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                           | City/County: Danville, F                 | Pittsylvania C Sam <b>p</b> lin <b>g</b> | g Date: 2018-July-27  |                             |  |  |  |
|---|--|--|---|-----------------------------|--|--|--|
| Applicant/Owner: NextEra                              |  | State: VA                                | Sampling Point: W   | /-E18- <b>4</b> 3_PEM-1     |  |  |  |
| Investigator(s): Alexi Weber, JD                      | F  | Section, Township, Range:                |   |                             |  |  |  |
| Landform (hillslope, terrace, etc.)                   | : Swale                                  | Local relief (concave, con               | vex, none): Concave   | Slop <b>e (%</b> ): 1 to 10 |  |  |  |
| Subregion (LRR or MLRA): M                            | ILRA 136 of LRR P                        | Lat: 36.632206                           | Long: -79.5430527   | Datum: WGS84                |  |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : 23C, 23B |  |  | NWI classifica  | tion: None                  |  |  |  |
| Are climatic/hydrologic condition                     | s on the site typical for this time of y | ye <b>ar?</b> Yes 🟒 No                   | (If no, explain in Remark   | cs.)                        |  |  |  |
| Are Vegetation, Soil,                                 | or Hydrology significantly o             | disturbed? Are "Norm                     | nal Circumstances" present?   | Yes 🟒 No                    |  |  |  |
| Are Vegetation, Soil,                                 | or Hydrology naturally pro               | blematic? (If needed,                    | , explain any answers in Rema   | rks.)                       |  |  |  |
| SLIMMARY OF FINIDINGS A                               | attach site map showing samp             | ling point locations tra                 | nsects important feature  | s atr                       |  |  |  |
|   |  | I  | naceta, important reature   | J, C.C.                     |  |  |  |
| Hydrophytic Vegetation Present                        |  | -  |   |                             |  |  |  |
| Hydric Soil Present?                                  | Yes No                                   |  |   |                             |  |  |  |
| Wetland Hydrology Present?                            | Yes _ <b>✓</b> _ No                      | Is the Sampled Area with                 | in a Wetland?   | ′es <b>∠_ No</b>            |  |  |  |
| Remarks:  |  |  |   |                             |  |  |  |
|   |  |  |   |                             |  |  |  |
|   |  |  |   |                             |  |  |  |
| Coverture is DEM. Area is wetten                      | ad all three wetland parameters are      | proceet                                  |   |                             |  |  |  |
| Covertype is PEM. Area is wellan                      | id, all three wetland parameters are     | present.                                 |   |                             |  |  |  |
|   |  |  |   |                             |  |  |  |
|   |  |  |   |                             |  |  |  |
|   |  |  |   |                             |  |  |  |
| HYDROLOGY   |  |  |   |                             |  |  |  |
|   |  |  |   |                             |  |  |  |
| Wetland Hydrology Indicators:                         |  |  |   |                             |  |  |  |
| <u>Primary Indicators (minimum of</u>                 | one is required; check all that apply    | 0  | Secondary Indicators (minim   | um of two required)         |  |  |  |
| ✓ Surface Water (A1)                                  | True Aquatic Pl                          | ants (R14)                               | Surface Soil Cracks (B6)  |                             |  |  |  |
| ✓ High Water Table (A2)                               | Hydrogen Sulfic                          |  | Sparsely Vegetated Conca  | ive Surface (B8)            |  |  |  |
| ✓ Saturation (A3)                                     |  | spheres on Living Roots (C3)             | Drainage Patterns (B10)   |                             |  |  |  |
| Water Marks (B1)                                      | Presence of Re                           |  | <ul> <li> Moss Trim Lines (B16)</li> <li> Dry-Season Water Table (</li> </ul> | C3)                         |  |  |  |
| Sediment Deposits (B2)                                |  | duction in Tilled Soils (C6)             | Crayfish Burrows (C8)   | (.2)                        |  |  |  |
| Drift Deposits (B3)                                   | Thin Muck Surf                           | ace (C7)                                 | Saturation Visible on Aeri  | al Imagen/(C9)              |  |  |  |
| Algal Mat or Crust (B4)                               | Other (Explain                           | in Remarks)                              | Succirculari visible arriveri   | ar irriagary (es)           |  |  |  |
| Iron Deposits (B5)                                    |  |  | Stunted or Stressed Plant   | s (D1)                      |  |  |  |
| Inundation Visible on Aerial                          | Imagery (B7)                             |  | Geomorphic Position (D2)  | )                           |  |  |  |
| Water-Stained Leaves (B9)                             |  |  | Shallow Aquitard (D3)   |                             |  |  |  |
| Aquatic Fauna (B13)                                   |  |  | Microtopographic Relief (   | D4)                         |  |  |  |
|   |  |  | FAC-Neutral Test (D5)   |                             |  |  |  |
| Field Observations:                                   |  |  |   |                             |  |  |  |
| Surface Water Present?                                | Yes 🗸 No Dept                            | th (inches): 1                           | _   |                             |  |  |  |
| Water Table Present?                                  | Yes No Dept                              | th (inches): 0                           | Wetland Hydrology Present?  | Yes No                      |  |  |  |
| Saturation Present?                                   | Yes 🗸 No Dept                            | th (inches): 0                           |   |                             |  |  |  |
| (includes capillary fringe)                           |  |  | -   |                             |  |  |  |
|   | n gauge, monitoring well, aerial phot    | os previous inspections) if              | available <sup>,</sup>  | ·                           |  |  |  |
| Describe Recorded Data (Scream                        | gauge, monitoring well, aenai priot      | .os, previous irispections), ir          | avallable.  |                             |  |  |  |
|   |  |  |   |                             |  |  |  |
|   |  |  |   |                             |  |  |  |
| Remarks:  |  |  |   |                             |  |  |  |
|   |  |  |   |                             |  |  |  |
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|   |  |  |   |                             |  |  |  |
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|   |  |  |   |                             |  |  |  |
|   |  |  |   |                             |  |  |  |

| · · · · · · · · · · · · · · · · · · ·               | •                |              |           |   |               |                |
|---|------------------|--------------|-----------|---|---------------|----------------|
| Tree Stratum (Plot size:20x10)                      | <b>A</b> bsolute | Dominant     | Indicator | Dominance Test worksheet:                               |               |                |
| <u>irree Stratum</u> (Plot Size. <u>Zox Toj</u>     | % Cover          | Species?     | Status    | Number of Dominant Species That                         | 1             | (A)            |
| 1.  |                  |              |           | Are OBL, FACW, or FAC:                                  |               | (A)            |
| 2.  |                  |              |           | Total Number of Dominant Species Across All Strata:     | 2             | (B)            |
| 3.  |                  |              |           | Percent of Dominant Species That                        |               |                |
| 4   |                  |              |           | - Are OBL, FACW, or FAC:                                | 50            | (A/B)          |
| 5   |                  |              |           | Prevalence Index worksheet:                             |               |                |
| 6.  |                  |              |           | - Total % Cover of:                                     | Multiply I    | Bv:            |
| 7   |                  |              |           | - OBL species 54  | x 1 =         | 54             |
|   | 0                | = Total Cov  | er        | FACW species 4  | x 2 =         | 8              |
| 50% of total cover:0                                | _ 20% of to      | tal cover:   | 0         | FAC species 17  | x3=           | 51             |
| Sapling/Shrub Stratum (Plot size:10x5)              |                  |              |           | FACU species 2  | x4=           | 8              |
| 1   |                  |              |           | · —   | _             | 0              |
| 2.  |                  |              |           | <u> </u>  | x5= _         |                |
| 3.  |                  |              |           | Column Totals 77  | (A) _         | 121 (B)        |
| 4.  |                  |              |           | Prevalence Index = B/A =                                | 1.6           |                |
| 5.  |                  |              |           | Hydrophytic Vegetation Indicators:                      |               |                |
|   |                  |              |           | 1- Rapid Test for Hydrophytic                           | √egetation    |                |
|   |                  |              |           | 2 - Dominance Test is > 50%                             |               |                |
| _   |                  |              |           | $\checkmark$ 3 - Prevalence Index is $\le$ 3.01         |               |                |
| 8.  |                  |              |           | -  4 - Morphological Adaptations                        | ¹ (Provide s  | supporting     |
| 9   |                  |              |           | - data in Remarks or on a separate sl                   | neet)         |                |
|   | 0                | _= Total Cov |           | Problematic Hydrophytic Vege                            | tation¹ (Ex   | plain)         |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | ital cover:  | 0         | Indicators of hydric soil and wetlar                    | ıd hydrolog   | gy must be     |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )          |                  |              |           | present, unless disturbed or proble                     | matic         |                |
| 1. Sagittaria latifolia                             | 50               | <u>Yes</u>   | OBL       | Definitions of Four Vegetation Strat                    | a:            |                |
| 2. Solidago sp.                                     | 40               | Yes          | NI        | _   |               |                |
| 3. Microstegium vimineum                            | 15               | No           | FAC       | Tr <b>ee</b> – Woody plants, excluding vine             | s, 3 in. (7.6 | cm) or more    |
| 4. Scirpus atrovirens                               | 2                | No           | OBL       | in diameter at breast height (DBH),                     | regardless    | of height.     |
| 5. <i>Dichanthelium clandestinum</i>                | 2                | No           | FAC       | _   |               |                |
| 6. Impatiens capensis                               | 2                | No           | FACW      | Sapling/shrub – Woody plants, exclu                     | uding vines   | s, less than 3 |
| 7. Leersia oryzoides                                | 2                | No           | OBL       | in. DBH and greater than or equal t                     | o 3.28 ft (1  | m) tall.       |
| 8. Carex tribuloides                                | 2                | No           | FACW      |   |               |                |
| 9. <i>Lonicera japonica</i>                         | 2                | No No        | FACU      | Herb – All herbaceous (non-woody)                       | plants, reg   | ardless of     |
| 10.   |                  |              |           | size, and woody plants less than 3.2                    | 28 ft tall.   |                |
| 11.   |                  |              |           | -   |               |                |
|   | 117              | = Total Cov  | er        | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.1  | 28 ft in       |
| 50% of total cover:58.5                             |                  | tal cover:   | 23.4      | height.   |               |                |
| Woody Vine Stratum (Plot size: 10x20 )              | _ 20 /0 01 (0    | ital cover.  |           |   |               |                |
|   |                  |              |           |   |               |                |
|   |                  |              |           | -   |               |                |
| 2.  | · ——             |              |           | -   | = N =         | -              |
| 3.  |                  |              |           | Hydrophytic Vegetation Present?                         | yes ⊯ No L    | _              |
| 4   |                  |              |           | -   |               |                |
| 5   |                  |              |           | _   |               |                |
|   | 0                | = Total Cov  | er        |   |               |                |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | tal cover:   | 0         |   |               |                |
| Remarks: (Include photo numbers here or on a separa | te sheet )       |              |           | •   |               |                |
| Remarks. (Helade proto flambers here of orta separa | cc sneces        |              |           |   |               |                |
|   |                  |              |           |   |               |                |
|   |                  |              |           |   |               |                |
|   |                  |              |           |   |               |                |
|   |                  |              |           |   |               |                |
|   |                  |              |           |   |               |                |
|   |                  |              |           |   |               |                |
|   |                  |              |           |   |               |                |

| Profile De:<br>Depth | script <mark>ion: (De</mark> scribe to<br><b>Ma</b> trix | th <b>e d</b> ep | th needed to docume       | nt the i<br>Feature |                            | or confir           | n the absenc             | e of indicators.)                    |  |
|----------------------|--|------------------|---------------------------|---------------------|----------------------------|---------------------|--------------------------|--------------------------------------|--|
| (in <b>ches)</b>     | Color (moist)  | %                | Color (moist)             | %                   |                            | Locz                |                          | Toytura                              | Remarks                                    |
| <u> </u>             |  |                  | <del></del>               |                     | Type¹                      | Locz                |                          | Texture                              | Remarks                                    |
| 0-6                  | 10YR 5/2   | <u>75</u>        | 7.5YR 4/6                 | 25                  | . <u> </u>                 | M/PL                |                          | Clay Loam                            | -  |
| 6-8                  | 10Y 5/1  |                  | 7.5YR 4/6                 | 20                  |                            | M                   |                          | Clay Loam                            | ·  |
| 8 - 18               | 5GY 5/1  | 80               | 7.5YR 4/6                 | 20                  | . <u> </u>                 | M                   | Sa                       | ndy Clay Loam                        |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
| -                    |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
| ¹Type: C =           | Concentration, D = D                                     | epletion,        | , RM = Reduced Matrix     | <br>, MS = I        | Masked S                   | and Grai            | ns. <sup>z</sup> Locatio | on: PL = Pore Lining, M =            | Matrix.                                    |
|                      | l Indicators:  |                  |                           |                     |                            |                     |                          | Indicators for Problem               |  |
| _ Histosol           |  |                  | Dark S                    | urface (S           | S7)                        |                     |                          |                                      | •  |
|                      | ipedon (A2)  |                  |                           |                     |                            | e (S8) <b>(M</b> LI | RA 147, 148)             | 2 cm Muck (A10) (N                   |  |
| Black Hi             |  |                  | _Thin D                   | ark Surf            | ace (S9) <b>(</b>          | MLRA <b>14</b> 7,   |                          |                                      | (A16) (MLRA 147, 148)                      |
|                      | n Sulfide (A4)   |                  |                           | -                   | Matrix (F                  | 2)                  |                          |                                      | in Soils (F19) (ML <b>RA 1</b> 3 <b>6,</b> |
|                      | d Layers (A5)<br>ick (A10) <b>(</b> LR <b>R N)</b>       |                  | Deplet                    |                     |                            |                     |                          | 147) Very Shallow Dark S             | Eurfaco (TE12)                             |
| _                    | d Below Dark Surface (A                                  | \11\             |                           |                     | irface (F6)<br>: Surface ( |                     |                          | Other (Explain in Re                 |  |
|                      | rk Surface (A12)   | ,                | Redox                     | Depress             | sions (F8)                 |                     |                          |                                      | •  |
| Sandy M              | lucky Mineral (S1) (LRR                                  | N, MLRA          | . <b>147, 148)</b> Iron-M | langanes            | se Masse:                  | s (F12) (LR         | R N, MLRA 13             | <sup>6)</sup> ₃Indicators of hydroph | vtic vegetation and                        |
| _ ,                  | leyed Matrix (S4)  |                  |                           | c 50u.c.            | - t, t.                    |                     | ,                        | wetland hydrology mu                 | st he present lunless                      |
| _                    | edox (S5)  |                  |                           |                     |                            |                     | MLRA 148)                | disturbed or problema                |  |
|                      | Matrix (S6)  |                  | Red Pa                    | rent Ma             | aterial (F2                | 1) (MLRA            | 127, 147)                | distance of problema                 | Tita.                                      |
|                      | Layer (if observed):                                     |                  |                           |                     |                            |                     |                          |                                      |  |
|                      | Type:  |                  | None                      |                     |                            | Hydric S            | ioil Present?            |                                      | Yes ☑ No □                                 |
|                      | Depth (inches):  |                  |                           |                     |                            |                     |                          |                                      |  |
| Remarks:             |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |
|                      |  |                  |                           |                     |                            |                     |                          |                                      |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                         | City/County:  |  | Sampling Date: 2018-Jun                             | e-28                           |  |  |
|---|---|--|---|--------------------------------|--|--|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra |   | State:                                     | Sampling Point: V                                   | V-E18-43_PFO-1                 |  |  |
| nvestigator(s): _ Jenn Favela, TS                   | ,   | Section, Township,                         | Range:  |                                |  |  |
| Landform (hillslope, terrace, etc.                  | ): Intermittent Stream                                | Local relief (concave, conv                | ex, none): Concave                                  | Slop <b>e (%</b> ): 1 to 3     |  |  |
| Subregion (LRR or MLRA):                            | MLRA 136 of LRR P                                     | Lat: 36.6315806                            | Long: -79.5433665                                   | D <b>atu</b> m: WGS84          |  |  |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> :23C      |   |  | NWI classifica                                      | ation: None                    |  |  |
| Are climatic/hydrologic condition                   | ns on the site typical for this time o                | f year? Yes 🟒 No                           | (If no, explain in Remar                            | ks.)                           |  |  |
| Are Vegetation, Soil,                               | or Hydrology significantly                            | / disturbed? Are "Norma                    | al Circumstances" present?                          | Yes 🟒 No                       |  |  |
| Are Vegetation, Soil,                               | or Hydrology naturally pr                             | roblematic? (If needed,                    | explain any answers in Rema                         | rks.)                          |  |  |
|   |   |  |   |                                |  |  |
| SUMMARY OF FINDINGS - A                             | Attach site map showing sam                           | pling point locations, tran                | nsects, important feature                           | es, etc.                       |  |  |
|   | · -   | l  | <u> </u>  | ·                              |  |  |
| Hydrophytic Vegetation Present                      |   |  |   |                                |  |  |
| Hydric Soil Present?                                | Yes _✓ No   |  |   | (                              |  |  |
| Wetland Hydrology Present?                          | Yes No  | Is the Sampled Area withi                  | n a Wetland?  | ∕es <u> <b>. /      No</b></u> |  |  |
| Remarks:  |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
| County and is DEO. Associative time                 | وروا ومروان والمراور المراور المراور والمراور المراور |  |   |                                |  |  |
| Covertype is PFO. Area is wetiar                    | nd, all three wetland parameters ar                   | e present.                                 |   |                                |  |  |
|   |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
| INDROLOGY   |   |  |   |                                |  |  |
| HYDROLOGY   |   |  |   |                                |  |  |
| Wetland Hydrology Indicators:                       |   |  |   |                                |  |  |
| Primary Indicators (minimum of                      | f one is required; check all that app                 | <u>ly)</u>                                 | Secondary Indicators (minim                         | um of two required)            |  |  |
|   |   |  | Surface Soil Cracks (B6)                            |                                |  |  |
| Surface Water (A1)                                  | True Aquatic I  |  | Sparsely Vegetated Conc                             | ave Surface (B8)               |  |  |
| High Water Table (A2)                               |   | fide Odor (C1)                             | ✓ Drainage Patterns (B10)                           |                                |  |  |
| ✓ Saturation (A3)                                   |   | ospheres on Living Roots (C3)              | Moss Trim Lines (B16)                               |                                |  |  |
| Water Marks (B1)                                    |   | teduced Iron (C4)                          | ✓ Dry-Season Water Table (C2)                       |                                |  |  |
| Sediment Deposits (B2)                              |   | eduction in Tilled Soils (C6)              | Crayfish Burrows (C8)                               |                                |  |  |
| Drift Deposits (B3)                                 | Thin Muck Su  |  | Saturation Visible on Aer                           | ial Imagery (C9)               |  |  |
| Algal Mat or Crust (B4)                             | Other (Explain  | i in Remarks)                              | Chunhad au Chuaga ad Dlam                           | -a /D1\                        |  |  |
| Iron Deposits (B5) Inundation Visible on Aeria      | Imagan (P7)   |  | Stunted or Stressed Plan<br>Geomorphic Position (D2 |                                |  |  |
| ✓ Water-Stained Leaves (B9)                         | inlagery (67)   |  | Shallow Aquitard (D3)                               | )                              |  |  |
| Aquatic Fauna (B13)                                 |   |  | Microtopographic Relief                             | ·D4)                           |  |  |
| Aquatic Faulia (BTS)                                |   |  | ✓ FAC-Neutral Test (D5)                             | ,D <del>4</del> )              |  |  |
| Field Observations:                                 |   |  | TAC-Neutral rest (DS)                               |                                |  |  |
| Surface Water Present?                              | Vos. No. / Do   | nth (inches):                              |   |                                |  |  |
|   |   | pth (inches):                              | ·[  |                                |  |  |
| Water Table Present?                                | Yes No De   | pth (inches):                              | Wetland Hydrology Present?                          | Yes _ <b>∠</b> _ No            |  |  |
| Saturation Present?                                 | Yes 🔽 No De   | pth (inches): 2                            |   |                                |  |  |
| (includes capillary fringe)                         |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
| Describe Recorded Data (stream                      | n gauge, monitoring well, aerial pho                  | otos <b>, previous inspections</b> ), if a | avaliable:  |                                |  |  |
|   |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
| Remarks:  |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |
|   |   |  |   |                                |  |  |

| ,   | •            |                 |             |   |                   |             |
|---|--------------|-----------------|-------------|---|-------------------|-------------|
| Tree Stratum (Plot size:30)                         |              | Dominant        |             | Dominance Test worksheet:   |                   |             |
|   |              | Species?        | Status      | Number of Dominant Species That Are OBL, FACW, or FAC:  | 8                 | (A)         |
| Acer rubrum     Fraxinus pennsylvanica              | 25           | Yes Yes         | FAC<br>FACW | Total Number of Dominant Species  |                   |             |
| 3. Carpinus caroliniana                             | 15           | Yes -           | FAC         | Across All Strata:  | 8                 | (B)         |
| 4.  |              |                 | TAC         | Percent of Dominant Species That  | 100               | (A/B)       |
| 5.  |              |                 |             | Are OBL, FACW, or FAC:  |                   | (A/D)       |
| 6.  |              |                 |             | Prevalence Index worksheet:   |                   |             |
| 7.  | . ——         |                 |             | Total % Cover of:   | <u>Multiply B</u> | <u>y:</u>   |
| ·   | 75           | = Total Cov     | er          | OBL species 0   | x 1 =             | 0           |
| 50% of total cover: <u>37.5</u>                     |              | -               | <u>15</u>   | FACW species 70   | x 2 =             | 140         |
| Sapling/Shrub Stratum (Plot size:15)                | _ 20 % 01 00 | cover.          |             | FAC species 93  | x 3 =             | 279         |
| 1. Fraxinus pennsylvanica                           | 35           | Yes             | FACW        | FACU species 5  | x 4 =             | 20          |
| 2. Acer rubrum                                      | 10           | Yes             | FAC         | UPL species 0   | x 5 =             | 0           |
| 3.  |              |                 | 1710        | Column Totals 168   | (A)               | 439 (B)     |
| 4.  |              |                 |             | Prevalence Index = B/A =  | 2.6               |             |
| 5.  |              |                 |             | Hydrophytic Vegetation Indicators:  |                   |             |
| 6.  | . ———        |                 |             | 1- Rapid Test for Hydrophytic \   | egetation/        |             |
| 7.  |              |                 |             | 2 - Dominance Test is >50%  |                   |             |
| 8.  |              |                 |             | 3 - Prevalence Index is ≤ 3.01  |                   |             |
| 9.  |              |                 |             | 4 - Morphological Adaptations   |                   | upporting   |
| ·   | <b>4</b> 5   | = Total Cov     | or          | - data in Remarks or on a separate sh   |                   |             |
| 50% of total cover: 22.5                            |              | _= rotal cover: | 9           | Problematic Hydrophytic Vege  |                   | -           |
| Herb Stratum (Plot size: 5 )                        | _ 20 % 01 00 | cover.          |             | ¹Indicators of hydric soil and wetlan   |                   | y must be   |
| 1. Microstegium vimineum                            | 15           | Yes             | FAC         | present, unless disturbed or proble   |                   |             |
| Fraxinus pennsylvanica                              | 10           | Yes             | FACW        | Definitions of Four Vegetation Strate   | <b>3</b> :        |             |
| 3. Smilax hispida                                   | 10           | Yes             | FAC         | - Too Male a hard a second a discondination and a second | - 3:- /7.6        |             |
| 4. Vitis rotundifolia                               | 8            | No              | FAC         | <ul> <li>Tree - Woody plants, excluding vine<br/>in diameter at breast height (DBH),</li> </ul>   |                   |             |
| 5. Polystichum acrostichoides                       | 5            | No No           | FACU        | - In diameter at breast height (DBH),   | egaruless         | or neight.  |
| 6.  |              |                 | TACO        | -  <br>  <b>Saplin</b> g/ <b>shrub</b> – Woody plants, exclu  | ıding vinas       | loce than 3 |
| 7.  |              |                 |             | in. DBH and greater than or equal to  | -                 |             |
| 9   |              |                 |             | -   |                   | ,           |
|   | <del></del>  |                 |             | - Herb – All herbaceous (non-woody)   | plants, reg       | ardless of  |
| 10.   | . ——         |                 |             | size, and woody plants less than 3.2  |                   |             |
|   |              |                 |             | -   |                   |             |
| 11  |              |                 |             | - <b> </b><br>  <b>Wo</b> od <b>y vine</b> s – All woody vines grea   | tarthan 2°        | o Atio      |
| 5000 of habel 24                                    | 48           | = Total Cov     |             | height.   | .ci ulali 3.2     | .0 11 111   |
| 50% of total cover: 24                              | _ 20% 0110   | otal cover:     | 9.6         | Tieight.  |                   |             |
| Woody Vine Stratum (Plot size:)                     |              |                 |             |   |                   |             |
| 1.  |              |                 |             | -   |                   |             |
| 2.  |              |                 |             | -   | /                 |             |
| 3.  |              |                 |             | Hydrophytic Vegetation Present?   | :es ⊡ N0 □        |             |
| 4.  | . ——         |                 |             | -   |                   |             |
| 5   |              |                 |             | -   |                   |             |
| 50% - Fhatal  | 0            | = Total Cov     |             |   |                   |             |
| 50% of total cover: 0                               | _ 20% of to  | otal cover:     | 0           |   |                   |             |
| Remarks: (Include photo numbers here or on a separa | te sneet.)   |                 |             |   |                   |             |
|   |              |                 |             |   |                   |             |
|   |              |                 |             |   |                   |             |

| Profile De                | scription: (Describe t                               | o th <b>e d</b> ept | h n <b>eed</b> ed to docui | ment the i                 | in <b>dic</b> ator (            | or confir         | m the absen                | ce of indicators.)            |                            |
|---------------------------|--|---------------------|----------------------------|----------------------------|---------------------------------|-------------------|----------------------------|-------------------------------|----------------------------|
| Depth                     | <b>Ma</b> trix                                       |                     | R <b>edo</b> x Features    |                            |                                 |                   |                            |                               |                            |
| (inches)                  | Color (moist)  | %                   | Color (moist)              | %                          | Type <sup>1</sup>               | Loc²              |                            | T <b>extur</b> e              | Remarks                    |
| 0 - 2                     | 2.5Y 2.5/1   | 100                 |                            |                            |                                 |                   |                            | Loam                          |                            |
| 2 - 14                    | 2.5Y 4/2   | 90                  | 10YR 5/1                   | 10                         | D                               | M                 |                            | Sandy Loam                    |                            |
| 14 - 18                   | 2.5Y 5/1   | 100                 |                            |                            |                                 |                   |                            | Sand                          |                            |
|                           |  |                     |                            | _                          |                                 |                   |                            |                               |                            |
|                           |  |                     |                            | _                          |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               | _                          |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            | _                          |                                 |                   |                            |                               | _                          |
|                           |  |                     |                            |                            | - ——                            |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  | Depletion,          | RM = Reduced Ma            | trix, MS =                 | Masked S                        | and Gra           | ins. <sup>2</sup> Locatio  | on: PL = Pore Lining, M       |                            |
|                           | il Indicators:                                       |                     |                            |                            |                                 |                   |                            | Indicators for Problen        | natic Hydric Soils³:       |
| _ Histoso                 |  |                     |                            | k Surface (                |                                 | (CO) (BE)         | DA 147 140V                | 2 cm Muck (A10) (             | ML <b>RA 147)</b>          |
| _ HISTIC ER<br>_ Black Hi | oipedon (A2)   |                     |                            | /value Belo<br>n Dark Surf |                                 |                   | RA 147, 148)               | Coast Prairie Redo            | ox (A16) (MLRA 147, 148)   |
|                           | en Sulfide (A4)                                      |                     |                            | my Gleyed                  |                                 |                   | , 140)                     | Piedmont Floodpl              | ain Soils (F19) (MLRA 136, |
|                           | d Layers (A5)  |                     |                            | leted Matr                 |                                 | _,                |                            | 147)                          |                            |
| _ 2 cm Mu                 | uck (A10) (LRR N)                                    |                     |                            | ox Dark Su                 |                                 |                   |                            | Very Shallow Dark             | : Surface (TF12)           |
|                           | d Below Dark Surface                                 | (A11)               |                            | leted Dark                 |                                 | F7)               |                            | Other (Explain in F           | Remarks)                   |
|                           | ark Surface (A12)<br>łucky Mineral (S1) <b>(</b> LRI | ON MICOA            | Red                        | ox Depres                  | sions (⊦8)                      | - (=12) (1.5      | OD NI MILDA 10             | 061                           |                            |
| _ ,                       | ileyed Matrix (S4)                                   | K IN, IVILIKA       | 147, 148) Iron<br>Um       | i-Mangane<br>bric Surfac   | se Masses<br>e (F13) ( <b>M</b> | II R <b>A 136</b> | KK IV, IVILIKA 13<br>122)  | 36)₃<br>Indicators of hydropl | hytic vegetation and       |
|                           | edox (\$5)   |                     |                            |                            | , (                             |                   | MLRA 148)                  | wetland hydrology m           | ust be present, unless     |
| _                         | d Matrix (S6)  |                     | Red                        | Parent Ma                  | aterial (F21                    | I) (MLRA          | 1 <b>27</b> , <b>1</b> 47) | disturbed or problem          | atic.                      |
| Restrictive               | e Layer (if observed):                               |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           | Туре:  |                     | None                       |                            |                                 | Hydric:           | Soil Present?              |                               | Yes ☑ No □                 |
|                           | Depth (inches):                                      |                     |                            |                            |                                 | -                 |                            |                               |                            |
| Remarks:                  |  |                     |                            | _                          |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |
|                           |  |                     |                            |                            |                                 |                   |                            |                               |                            |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate          | City/County:                             |                                  | Sampling I                    | Date: 2018-June-28             | 3                          |  |
|--------------------------------------|--|----------------------------------|-------------------------------|--------------------------------|----------------------------|--|
| Applicant/Owner: NextEra             |  | State:                           | San                           | Sampling Point: W-E18-43_UPL-1 |                            |  |
| Investigator(s): Jenn Favela, Tro    | y Savage, TS,SB,MS                       | Section, Township, I             | Range:                        |                                |                            |  |
| Landform (hillslope, terrace, etc.): | : Hillslope                              | Local relief (concave, conve     | ex, none): Co                 | ncave                          | Slop <b>e (%</b> ): 2 to 5 |  |
| Subregion (LRR or MLRA): M           | ILRA 136 of LRR P                        | Lat: 36.6313425                  | Long: -79                     | 0.5435959                      | Datum: WGS84               |  |
| Soil <b>Map</b> Unit Name:           |  |                                  |                               | NWI classification             | n:                         |  |
| Are climatic/hydrologic conditions   | s on the site typical for this time of y | ear? Yes No                      | (If no, ex                    | plain in Remarks.)             |                            |  |
| Are Vegetation, Soil,                | or Hydrology significantly d             | isturbed? Are "Norma             | l Circumstanc                 | es" present? \                 | Yes 🟒 No                   |  |
| Are Vegetation, Soil,                | or Hydrology naturally prob              | olematic? (If needed, e          | explain any ar                | nswers in Remarks.)            | )                          |  |
|                                      |  |                                  |                               |                                |                            |  |
| SUMMARY OF FINDINGS – A              | ttach site map showing sampl             | ing point locations, tran        | sects, impo                   | rtant features, e              | etc.                       |  |
|                                      |  | I                                | <u> </u>                      |                                |                            |  |
| Hydrophytic Vegetation Present?      |  | l<br>i                           |                               |                                |                            |  |
| Hydric Soil Present?                 | Yes No _ <b>_</b>                        |                                  |                               |                                |                            |  |
| Wetland Hydrology Present?           | Yes No <b>∠</b>                          | Is the Sampled Area withi        | n a <b>W</b> etl <b>and</b> ? | Yes                            | No                         |  |
| Remarks:                             |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
| Covertype is UPL. Area is upland,    | , not all three wetland parameters ar    | re present.                      |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
| INDROLOGY                            |  |                                  |                               |                                |                            |  |
| HYDROLOGY                            |  |                                  |                               |                                |                            |  |
| Wetland Hydrology Indicators:        |  |                                  |                               |                                |                            |  |
| Primary Indicators (minimum of       | one is required; check all that apply)   | 1                                | Secondary Inc                 | dicators (minimum              | of two required)           |  |
| •                                    |  |                                  | =                             | oil Cracks (B6)                | <del>.</del>               |  |
| Surface Water (A1)                   | True Aquatic Pla                         | ants (B14)                       |                               | egetated Concave :             | Surface (B8)               |  |
| High Water Table (A2)                | Hydrogen Sulfid                          | le Odor (C1)                     |                               | Patterns (B10)                 |                            |  |
| Saturation (A3)                      | Oxidized Rhizos                          | pheres on Living Roots (C3)      | -                             | Lines (B16)                    |                            |  |
| Water Marks (B1)                     | Presence of Rec                          | luced Iron (C4)                  | Dry-Seaso                     | n Water Table (C2)             |                            |  |
| Sediment Deposits (B2)               | Recent Iron Red                          | luction in Tilled Soils (C6)     |                               | lurrows (C8)                   |                            |  |
| Drift Deposits (B3)                  | Thin Muck Surfa                          |                                  | Saturation                    | n Visible on Aerial Ir         | nagery (C9)                |  |
| Algal Mat or Crust (B4)              | Other (Explain in                        | n Remarks)                       |                               |                                |                            |  |
| Iron Deposits (B5)                   |  |                                  | Stunted o                     | r Stressed Plants (D           | 91)                        |  |
| Inundation Visible on Aerial         | Imagery (B7)                             |                                  |                               | hic Position (D2)              |                            |  |
| Water-Stained Leaves (B9)            |  |                                  |                               | quitard (D3)                   |                            |  |
| Aquatic Fauna (B13)                  |  |                                  |                               | ographic Relief (D4)           |                            |  |
|                                      |  |                                  | FAC-Neutr                     | ral Test (D5)                  |                            |  |
| Field Observations:                  |  |                                  |                               |                                |                            |  |
| Surface Water Present?               | Yes No 🟒 Depth                           | (inches):                        |                               |                                |                            |  |
| Water Table Present?                 | Yes No Depth                             | (inches):                        | <b>W</b> etl <b>and</b> Hydi  | rology Present?                | Yes No <b>∠</b>            |  |
| Saturation Present?                  | Yes No <u></u> Depth                     | (inches):                        |                               |                                |                            |  |
| (includes capillary fringe)          |  |                                  |                               |                                |                            |  |
|                                      | gauge, monitoring well, aerial photo     | or provious inspections) if a    | kailable:                     |                                |                            |  |
|                                      | gauge, monitoring well, aeriai prioto    | os, previous irispections), ii a | valiable:                     |                                |                            |  |
| 24 inch wt                           |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
| Remarks:                             |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |
|                                      |  |                                  |                               |                                |                            |  |

| · · · · · · · · · · · · · · · · · · ·                    | •           |              |        |   |                   |              |
|--|-------------|--------------|--------|---|-------------------|--------------|
| Tree Stratum (Plot size:30)                              |             | Dominant     |        | Dominance Test worksheet:   |                   |              |
|  | -           | Species?     | Status | Number of Dominant Species That   | 4                 | (A)          |
| 1. Acer rubrum   | 65          | Yes          | FAC    | Are OBL, FACW, or FAC: Total Number of Dominant Species                 |                   |              |
| 2.   |             |              |        | Across All Strata:  | 5                 | (B)          |
| 3.   |             |              |        | Percent of Dominant Species That  |                   |              |
| 4.   |             |              |        | - Are OBL, FACW, or FAC:  | 80                | (A/B)        |
| 5.   |             |              |        | Prevalence Index worksheet:   |                   |              |
| 6.   |             |              |        | Total % Cover of:   | <u>Multiply</u> l | Ву:          |
| 7  |             |              |        | OBL species 0   | x 1 =             | 0            |
| 500 50 1   | 65          | = Total Cov  |        | FACW species 3  | x 2 =             | 6            |
| 50% of total cover: 32.5                                 | _ 20% of to | otal cover:  | 13     | FAC species 159   | x 3 =             | 477          |
| Sapling/Shrub Stratum (Plot size:15)                     | 15          | Yes          | EAC    | FACU species 25   | x 4 =             | 100          |
| 1. Acer rubrum   |             |              | FAC    | UPL species0  | x 5 = _           | 0            |
| 2.<br>3.   |             |              |        | Column Totals 187   | (A)               | 583 (B)      |
|  |             |              |        | Prevalence Index = B/A =  | 3.1               |              |
| 4  |             |              |        | Hydrophytic Vegetation Indicators:                                      |                   |              |
| 5.   |             |              |        | 1- Rapid Test for Hydrophytic \   | √egetation        |              |
| 6.   |             |              |        | 2 - Dominance Test is >50%  |                   |              |
| /  |             |              |        | 3 - Prevalence Index is ≤ 3.01  |                   |              |
| 8.   |             |              |        | -  4 - Morphological Adaptations  | ¹ (Provide        | supporting   |
| 9  |             |              |        | data in Remarks or on a separate sh                                     | neet)             |              |
| 500 50 1   | 15          | = Total Cov  |        | Problematic Hydrophytic Vege  | tation¹ (Ex       | plain)       |
| 50% of total cover: 7.5                                  | _ 20% of to | otal cover:  | 3      | Indicators of hydric soil and wetlan                                    | , ,               | gy must be   |
| Herb Stratum (Plot size: 5 )                             | 25          | V            | EAG    | present, unless disturbed or proble                                     |                   |              |
| Microstegium vimineum     Parthan a singua mainrua falia | 35          | Yes -        | FAC    | Definitions of Four Vegetation Strat                                    | a:                |              |
| 2. Parthenocissus quinquefolia                           | 25          | Yes -        | FACU   | -   |                   |              |
| 3. Agrostis hyemalis                                     |             | No .         | FAC    | Tree - Woody plants, excluding vine                                     |                   |              |
| 4. Liquidambar styraciflua                               |             | No No        | FAC    | in diameter at breast height (DBH),                                     | regardless        | of height.   |
| 5. Onoclea sensibilis                                    |             | No           | FACW   | - Configurate NATO of the color of the color                            |                   |              |
| 6. Toxicodendron radicans                                |             | No .         | FAC    | Sapling/shrub – Woody plants, excluin. DBH and greater than or equal to | -                 |              |
| 7. Smilax hispida  | 3           | No           | FAC    | -   | J J.20 IC(1       | m) tan.      |
| 8.   |             |              |        | - Herb – All herbaceous (non-woody)                                     | nlants rec        | ardless of   |
| 9.   |             |              |        | size, and woody plants less than 3.2                                    |                   | suruiciss or |
| 10   |             |              |        | -   |                   |              |
|  |             |              |        | -   |                   | 00.6         |
|  | 89          | = Total Cov  |        | <b>Woody vine</b> s – All woody vines grea                              | ter than 3.       | .28 π in     |
| 50% of total cover: <u>44.5</u>                          | _ 20% of to | otal cover:  | 17.8   | height.   |                   |              |
| Woody Vine Stratum (Plot size: 30 )                      |             |              |        |   |                   |              |
| Toxicodendron radicans                                   | 18          | Yes          | FAC    | -   |                   |              |
| 2  |             |              |        | -   |                   |              |
| 3  |             |              |        | Hydrophytic Vegetation Present? `                                       | ∕es ☑ No L        |              |
| 4  |             |              |        | -   |                   |              |
| 5  |             |              |        | -   |                   |              |
|  | 18          | _= Total Cov |        |   |                   |              |
| 50% of total cover: 9                                    | _ 20% of to | otal cover:  | 3.6    |   |                   |              |
| Remarks: (Include photo numbers here or on a separat     | e sheet.)   |              |        |   |                   |              |
|  |             |              |        |   |                   |              |

| D <b>ep</b> th         | <b>Ma</b> trix                                      |              |                      | Feature               |                     |                              | m the absence of indicators.)  |  |
|------------------------|---|--------------|----------------------|-----------------------|---------------------|------------------------------|--|--|
| (inches)               | Color (moist)                                       | %            | Color (moist)        | %                     | Type¹               | Loc²                         | Te <b>xture</b>  | R <b>emark</b> s   |
| 0 - 1                  | 10YR 3/3  | 100          |                      |                       |                     |                              | Loam   |  |
| 1 - 12                 | 2.5Y 5/3  | 100          |                      |                       |                     |                              | Sandy Loam   |  |
| 12 - 18                | 2.5Y 6/3  | 95           | 2.5Y 4/4             | 5                     | С                   |                              | Loamy Sand   |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              | -  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       | · ——                |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
| 1T C =                 | Carantustian D - F                                  |              | Dis - Dadward Market |                       | Nandand C           |                              | ing 31 gentions DL — Dave Lining                                       | D.A. — D. |
|                        |   | epietion,    | RM = Reduced Matrix  | (, MS =               | маѕкеа Ѕ            | and Gra                      | ins. <sup>2</sup> Location: PL = Pore Lining,                          |  |
|                        | I Indicators:                                       |              | 5 16                 | · ·                   | <b>т</b> -7.        |                              | Indicators for Prob  | olematic Hydric Soils3:  |
| _ Histosol             | (A1)<br>ipedon (A2)                                 |              |                      | urface (:<br>lue Belo |                     | (SS) (MI                     | RA 147, 148) 2 cm Muck (A1   | 0) <b>(MLR</b> A 1 <b>47</b> )   |
| HISTIC EP<br>Black Hi: |   |              |                      |                       | ace (S9) <b>(</b> N |                              |  | edox (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b>  |
|                        | n Sulfide (A4)                                      |              |                      |                       | Matrix (F2          |                              | Piedmont Floo  | dplain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b>   |
|                        | d Layers (A5)                                       |              | Deplet               | -                     |                     |                              | 147)   |  |
|                        | ick (A10) <b>(</b> LR <b>R N)</b>                   |              |                      |                       | ırface (F6)         |                              | Very Shallow D   | ark Surface (TF12)   |
|                        | d Below Dark Surface (                              | A11)         |                      |                       | Surface (F          | 7)                           | Other (Explain   | in Remarks)  |
|                        | rk Surface (A12)<br>lucky Mineral (S1) <b>(</b> LRF | NI MIDA      | Kedox                | Depress               | sions (F8)          | /E12\ /LE                    | PD NI MI DA 1363   |  |
| _                      | leyed Matrix (S4)                                   | CIN, IVILITY | Umbri                | angane:<br>- Surfan   | e (F13) ( <b>M</b>  | (F12) (E1<br>LR <b>A 136</b> | RR N <b>, M</b> LR <b>A 136)<sub>3</sub>Indicators of hydr</b><br>122) | ophytic vegetation and   |
|                        | edox (S5)   |              |                      |                       |                     |                              | MLRA 148) Wetland nydrology  | / must be present, unless  |
| Stripped               | Matrix (S6)   |              |                      |                       | iterial (F21        |                              |  | ematic.  |
| Restrictive            | Layer (if observed):                                |              |                      |                       |                     |                              |  |  |
|                        | Туре:   |              | None                 |                       |                     | Hydric                       | Soil <b>Present?</b>   | Yes □ No ☑   |
|                        | Depth (inches):                                     |              |                      |                       |                     |                              |  |  |
| Remarks:               |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
| 1                      |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |
|                        |   |              |                      |                       |                     |                              |  |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                     | Ci <b>ty/Coun</b> ty:_We          | stover, Pittsylvania Sam        | pling Date: 201                                | 8-June-24   |                              |  |  |
|---|-----------------------------------|---------------------------------|--|---|------------------------------|--|--|
| Applicant/Owner: NextEra                        |                                   | State:                          | State: Virginia Sampling Point: W-D18-32_PFO-1 |   |                              |  |  |
| Investigator(s): _ Jen Feese, B C,              | S B, J F, E N                     | Secti <b>on</b> , Towr          | nship, Range:                                  |   |                              |  |  |
| Landform (hillslope, terrace, etc.):            | : Swale                           | Local relief (concave,          | .convex, none):_                               | Convex  | Slop <b>e (%</b> ): 10 to 15 |  |  |
| Subregion (LRR or MLRA): M                      | ILRA 136 of LRR P                 | Lat: 36.6263                    | 3263 <b>Long</b> :                             | :-79.5487486  | Datum: WGS84                 |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :23C |                                   |                                 |  | NWI classificatio   | n: None                      |  |  |
| Are climatic/hydrologic condition:              | s on the site typical for this ti | me of year? Yes 🟒               | No (If no                                      | o, explain in Remarks.)   | )                            |  |  |
| Are Vegetation, Soil,                           | or Hydrology signific             |                                 | Normal Circumst                                | tances" present?  | Yes 🔽 No                     |  |  |
| Are Vegetation, Soil,                           | or Hydrology natura               | ally problematic? (If nee       | eded, explain an                               | y answers in Remarks  | i.)                          |  |  |
|   |                                   |                                 |  |   |                              |  |  |
| SUMM <mark>ARY OF FINDI</mark> NGS – A          | ttach site map showing            | sampling point locations        | , t <mark>ransects, i</mark> m                 | portant features,   | etc.                         |  |  |
| Hydrophytic Vegetation Present?                 | ? Yes <u></u> ✓ No                | 1                               |  | ·   |                              |  |  |
| Hydric Soil Present?                            | Yes _ 🗸 No                        | i                               |  |   |                              |  |  |
| •   |                                   | i                               | within a Motlan                                | oo. Ch.   | / No                         |  |  |
| Wetland Hydrology Present?                      | Yes <b>∠</b> _ No                 | Is the Sampled Area             | within a wetan                                 | dr res  | No                           |  |  |
| Remarks:  |                                   |                                 |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
| Covertype is PFO. Area is wetland               | d, all three wetland paramete     | ers are present.                |  |   |                              |  |  |
| 31  |                                   | 1                               |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
| HYDROLOGY                                       |                                   |                                 |  |   |                              |  |  |
| Mattend I broke lam I hali catava               |                                   |                                 |  |   |                              |  |  |
| Wetland Hydrology Indicators:                   |                                   | + l- A                          | Casandan                                       |   | N                            |  |  |
| <u>Primary Indicators (minimum of</u>           | one is required; check all tha    | т <u>аррі<b>у</b>)</u>          | -  | y Indicators (minimum   | ı or two requirea)           |  |  |
| Surface Water (A1)                              | True Agu                          | uatic Plants (B14)              | <del></del>                                    | e Soil Cracks (B6)  | Surface (P9)                 |  |  |
| High Water Table (A2)                           | •                                 | n Sulfide Odor (C1)             |  | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) |                              |  |  |
| Saturation (A3)                                 |                                   | Rhizospheres on Living Roots    | · // 3\  | Moss Trim Lines (B16)   |                              |  |  |
| Water Marks (B1)                                | Presence                          | e of Reduced Iron (C4)          |  | Moss Hill Lines (BT0) Dry-Season Water Table (C2)               |                              |  |  |
| Sediment Deposits (B2)                          | Recent In                         | on Reduction in Tilled Soils (C | ·C\  | Crayfish Burrows (C8)   |                              |  |  |
| Drift Deposits (B3)                             |                                   | ck Surface (C7)                 |  | ntion Visible on Aerial I                                       | Imagery (C9)                 |  |  |
| Algal Mat or Crust (B4)                         | Other (E                          | xplain in Remarks)              |  |   |                              |  |  |
| Iron Deposits (B5)                              |                                   |                                 | Stunte   | ed or Stressed Plants (   | D1)                          |  |  |
| Inundation Visible on Aerial                    | Imagery (B7)                      |                                 |  | orphic Position (D2)  |                              |  |  |
| Water-Stained Leaves (B9)                       |                                   |                                 |  | w Aquitard (D3)   |                              |  |  |
| Aquatic Fauna (B13)                             |                                   |                                 |  | topographic Relief (D4  | ·)                           |  |  |
| Field Observations:                             |                                   |                                 |  | eutral Test (D5)  |                              |  |  |
|   | Van Na 6                          | Dante (in de sa)                |  |   |                              |  |  |
| Surface Water Present?                          | Yes No _ <b>_</b>                 | Depth (inches):                 |  |   |                              |  |  |
| Water Table Present?                            | Yes No <b>_∠</b> _                | Depth (inches):                 | Wetland I                                      | Hydrology Present?  | Yes _ <b>∠</b> _ No          |  |  |
| Saturation Present?                             | Yes No                            | Depth (inches):                 |  |   |                              |  |  |
| (includes capillary fringe)                     |                                   |                                 |  |   |                              |  |  |
| Describe Recorded Data (stream                  | gauge, monitoring well, aeri      | al photos, previous inspection  | s), if available:                              |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
| Remarks:  |                                   |                                 |  |   |                              |  |  |
| Kemarks.  |                                   |                                 |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |
|   |                                   |                                 |  |   |                              |  |  |

| ·  | •             |             |        |   |                   |             |
|--|---------------|-------------|--------|---|-------------------|-------------|
| Tree Stratum (Plot size: _5' × 40')                  |               | Dominant    |        | Dominance Test worksheet:   |                   |             |
|  |               | Species?    | Status | Number of Dominant Species That Are OBL, FACW, or FAC:  | 6                 | (A)         |
| 1. Acer rubrum                                       | 75            | Yes .       | FAC    | Total Number of Dominant Species  |                   | _           |
| 2. <u>Liquidambar styraciflua</u>                    | 5             | No          | FAC    | Across All Strata:  | 6                 | (B)         |
| 3.   |               |             |        | Percent of Dominant Species That  | 100               |             |
| 5.   |               |             |        | Are OBL, FACW, or FAC:  |                   | (A/B)       |
| 6.   |               |             |        | Prevalence Index worksheet:   |                   |             |
| 7.   |               |             |        | Total % Cover of:   | <u>Multiply B</u> | <u>y:</u>   |
|  | 80            | = Total Cov | or     | OBL species 0   | x 1 =             | 0           |
| 50% of total cover: 40                               |               | •           |        | FACW species 5  | x 2 =             | 10          |
| Sapling/Shrub Stratum (Plot size: _ 5' x 40')        | _ 20% 01 (0   | itai cover. | 16     | FAC species 115   | x 3 =             | 345         |
| 1. Quercus phellos                                   | 5             | Yes         | FAC    | FACU species 6  | x 4 =             | 24          |
| 2.   |               |             | 1/10   | UPL species 0   | x 5 =             | 0           |
| 3.   |               |             |        | Column Totals 126   | (A)               | 379 (B)     |
| 4.   |               |             |        | Prevalence Index = B/A =  | 3                 |             |
| 5.   |               |             |        | Hydrophytic Vegetation Indicators:  |                   |             |
| 6.   |               |             |        | 1- Rapid Test for Hydrophytic \   | √egetation        |             |
| 7  |               |             |        | 2 - Dominance Test is >50%  |                   |             |
| 8.   |               |             |        |   |                   |             |
| 9.   |               |             |        | -  4 - Morphological Adaptations  | ¹ (Provide s      | upporting   |
| J  |               | = Total Cov | or     | - data in Remarks or on a separate sh   |                   |             |
| 50% of total cover: 2.5                              |               | -           | 1      | Problematic Hydrophytic Vege  |                   | -           |
| Herb Stratum (Plot size: 5 )                         | _ 20 % 01 (0  | ital cover. |        | ¹Indicators of hydric soil and wetlan   | , 0.              | y must be   |
| 1. Quercus phellos                                   | 10            | Yes         | FAC    | present, unless disturbed or proble   |                   |             |
| 2. Smilax rotundifolia                               | 5             | Yes         | FAC    | Definitions of Four Vegetation Strate   | a:                |             |
| 3. Juncus coriaceus                                  | 5             | Yes         | FACW   | - Too Marie de la   | - 21- /7.6        |             |
| 4. Parthenocissus quinquefolia                       | 3             | No          | FACU   | <ul> <li>Tree - Woody plants, excluding vine<br/>in diameter at breast height (DBH),</li> </ul> |                   |             |
| 5. Lonicera japonica                                 | 3             | No No       | FACU   | - In diameter at breast height (DBH),   | regardiess i      | or neight.  |
| 6.   |               |             | 17.00  | -  <br>  <b>Saplin</b> g/ <b>sh</b> r <b>ub</b> – Woody plants, exclu                           | ıding vines       | less than 3 |
| 7.   |               |             |        | in. DBH and greater than or equal to  | _                 |             |
|  |               |             |        | •   |                   | ,           |
|  |               |             |        | Herb – All herbaceous (non-woody)   | plants, reg       | ardless of  |
| 10   |               |             |        | size, and woody plants less than 3.2  | 8 ft tall.        |             |
| 11.  |               |             |        |   |                   |             |
|  | 26            | = Total Cov | or     | -<br>  <b>Wo</b> od <b>y vine</b> s – All woody vines grea                                      | ter than 3.2      | 28 ft in    |
| 50% of total cover: <u>13</u>                        |               | •           | 5.2    | height.   | car criair biz    |             |
| Woody Vine Stratum (Plot size: _5' x 40' )           | _ 20 /0 01 (0 | ital cover. |        |   |                   |             |
| Smilax rotundifolia                                  | 15            | Yes         | FAC    |   |                   |             |
| 2.   |               |             | 1710   | -   |                   |             |
|  |               |             |        | -  <br>  Hydrophytic Vegetation Present?   \  | Ves 🖾 No 🗀        | 1           |
|  |               |             |        | - Hydrophydd Vegetadoir resent.   | ics E ito E       | '           |
| 5.   |               |             |        |   |                   |             |
|  | 15            | = Total Cov | or     |   |                   |             |
| 50% of total cover: 7.5                              |               | •           | 3      |   |                   |             |
|  |               | car cover.  |        |   |                   |             |
| Remarks: (Include photo numbers here or on a separat | e sneet.)     |             |        |   |                   |             |
|  |               |             |        |   |                   |             |
|  |               |             |        |   |                   |             |
|  |               |             |        |   |                   |             |
|  |               |             |        |   |                   |             |

| Profile Des<br>Depth | scription: (Describe to<br>Matrix                           | o t <b>he d</b> ept | th needed to docume<br>Redox | ent the i<br>Feature |                            | or confir        | m the absend              | ce of indicators.)                                |                              |
|----------------------|---|---------------------|------------------------------|----------------------|----------------------------|------------------|---------------------------|---|------------------------------|
| (inches)             | Color (moist)   | %                   | Color (moist)                | 96                   | Type¹                      | Loc <sup>2</sup> |                           | Texture   | Remarks                      |
| 0 - 1                | 10YR 5/2  | 100                 | color (moise)                |                      | . <u>-19PC</u>             |                  |                           | Loam  | Terrario                     |
|                      |   |                     | 1 OV E /1                    |                      | · —                        |                  |                           | Loani   |                              |
| 1 - 18               | 10YR 6/1  | 70                  | 10Y 5/1                      | 7                    |                            | M                |                           |   |                              |
| 1 - 18               |   |                     | 10YR 4/6                     | 15                   |                            | M                |                           |   |                              |
| 1 - 18               |   |                     | 10YR 5/6                     | 5                    | C                          | M                |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   | <del>-</del> -               |
| <u>¹</u> Type: C =   | Concentration, D = D  | epletion,           | RM = Reduced Matri:          | x, MS =              | Masked S                   | Sand Gra         | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M =                         |                              |
| _                    | Indicators:   |                     |                              |                      |                            |                  |                           | Indicators for Problem                            | natic Hydric Soils³:         |
| _ Histosol           |   |                     |                              | urface (             |                            |                  |                           | 2 cm Muck (A10) (i                                | ML <b>RA 147)</b>            |
|                      | ipedon (A2)   |                     |                              |                      |                            |                  | RA 147, 148)              |   | ox (A16) (MLRA 147, 148)     |
| _ Black His          |   |                     |                              |                      | ace (S9) <b>(</b> I        |                  | , 148)                    |   | ain Soils (F19) (MLRA 136,   |
|                      | n Sulfide (A4)  |                     |                              | -                    | Matrix (F                  | 2)               |                           | 1 ledi none i locupia<br>147)                     | aiii 30ii3 (F13) (MEIQA 130, |
|                      | d Layers (A5)   |                     | Deplet                       |                      |                            |                  |                           | •   | Cuefo eo /TE13\              |
|                      | ick (A10) <b>(</b> LR <b>R N)</b><br>d Below Dark Surface ( | A 1 1 \             |                              |                      | ırface (F6)<br>: Surface ( |                  |                           | Very Shallow Dark                                 |                              |
|                      | rk Surface (A12)  | A11)                |                              |                      | sions (F8)                 | <b>□</b> 7 )     |                           | Other (Explain in F                               | kemarks)                     |
|                      | ucky Mineral (S1) (LRF                                      | R N. MI RA          | 147. 148) Iron-M             | langane              | se Masses                  | s (F12) (LF      | R N. MI RA 13             | <sup>6</sup> ) <sub>3</sub> Indicators of hydroph |                              |
| _                    | leyed Matrix (S4)   | ,                   | Umbri                        | c Surfac             | e (F13) ( <b>N</b>         | ILRA 136.        | 122)                      | alndicators of hydroph                            | nytic vegetation and         |
|                      | edox (S5)   |                     |                              |                      |                            |                  | MLRA 148)                 | wetland hydrology mi                              |                              |
| _                    | Matrix (S6)   |                     |                              |                      | aterial (F2                |                  |                           | disturbed or problem                              | atic.                        |
| Restrictive          | Layer (if observed):  |                     |                              |                      |                            |                  |                           |   |                              |
| -                    | Type:   |                     | None                         |                      |                            | Hvdric 9         | Soil Present?             |   | Yes ☑ No □                   |
|                      | Depth (inches):   |                     |                              |                      |                            | ,u               | Jon I rabarra             |   | 145 = 116 =                  |
|                      | ocpar (menes).  |                     |                              |                      |                            |                  |                           |   |                              |
| Remarks:             |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
| ĺ                    |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |
|                      |   |                     |                              |                      |                            |                  |                           |   |                              |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                     | City/County:_Westov                    | ver, Pittsylvania Sam <b>p</b> lin <b>g</b> | Date: 2018-June-24   |                              |  |  |
|---|--|---|--|------------------------------|--|--|
| Applicant/Owner: NextEra                        |  | State: Virgin                               | nia Sampling Point:  | W-D18-32_UPL-1               |  |  |
| Investigator(s): Jen Feese, B C,                | S B, J F, E N                          | Section, Township,                          | Range:   |                              |  |  |
| Landform (hillslope, terrace, etc.)             | ): Swale                               | Local relief (concave, conv                 | ex, none): Convex  | Slop <b>e (%</b> ): 10 to 15 |  |  |
| Subregion (LRR or MLRA):                        | VILRA 136 of LRR P                     | Lat: 36.6262625                             | Long: -79.5489529  | Datum: WGS84                 |  |  |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> :23C  |  |   | NWI classifi   | ic <b>ation</b> : None       |  |  |
| Are climatic/hydrologic condition               | ns on the site typical for this time o | of year? Yes 🟒 No                           | (If no, explain in Rema  | arks.)                       |  |  |
| Are Vegetation, Soil,                           | or Hydrology significant               |   | al Circumstances" present?   | Yes 🟒 No                     |  |  |
| Are Vegetation, Soil,                           | or Hydrology naturally p               | problematic? (If needed,                    | explain any answers in Ren   | narks.)                      |  |  |
|   |  |   |  |                              |  |  |
| SU <b>M</b> M <mark>ARY OF FINDI</mark> NGS - A | Attach site map showing san            | npling point locations, trai                | nsects, important featu  | res, etc.                    |  |  |
| Hydrophytic Vegetation Present                  | :? Yes <u></u> √ No                    |   |  |                              |  |  |
| Hydric Soil Present?                            | Yes No _ <b>_</b> _                    | İ   |  |                              |  |  |
| Wetland Hydrology Present?                      | No _ <b>_</b> _                        | is the Sampled Area with                    | in a Wetland?  | Yes <b>No _</b> ✓            |  |  |
| Remarks:  |  |   |  |                              |  |  |
| remarks.  |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
| Covertype is UPL. Area is upland                | d, not all three wetland parameter     | rs are present.                             |  |                              |  |  |
|   |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
| HYDROLOGY                                       |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
| Wetland Hydrology Indicators:                   |  |   |  |                              |  |  |
| Primary Indicators (minimum of                  | one is required; check all that ap     | pl <b>y)</b>                                | Secondary Indicators (mini   | •                            |  |  |
| Surface Water (A1)                              | True Aquatio                           | : Plants (B14)                              | Surface Soil Cracks (B6)   |                              |  |  |
| High Water Table (A2)                           | ·                                      | ulfide Odor (C1)                            | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)        |                              |  |  |
| Saturation (A3)                                 | Oxidized Rhi                           | izospheres on Living Roots (C3)             | Moss Trim Lines (B16)  |                              |  |  |
| Water Marks (B1)                                | Presence of                            | Reduced Iron (C4)                           | Dry-Season Water Table (C2)  |                              |  |  |
| Sediment Deposits (B2)                          | Recent Iron                            | Reduction in Tilled Soils (C6)              | Crayfish Burrows (C8)  |                              |  |  |
| Drift Deposits (B3)                             | Thin Muck Si                           |   | Saturation Visible on A  | erial Imagery (C9)           |  |  |
| Algal Mat or Crust (B4)                         | Other (Expla                           | in in Remarks)                              |  |                              |  |  |
| Iron Deposits (B5)                              |  |   | Stunted or Stressed Pla  |                              |  |  |
| Inundation Visible on Aerial                    | Imagery (B7)                           |   | Geomorphic Position (I   | 02)                          |  |  |
| Water-Stained Leaves (B9)                       |  |   | <ul><li>Shallow Aquitard (D3)</li><li>Microtopographic Relie</li></ul> | £ (D4)                       |  |  |
| Aquatic Fauna (B13)                             |  |   | FAC-Neutral Test (D5)  | ii (D4)                      |  |  |
| Field Observations:                             |  |   |  |                              |  |  |
| Surface Water Present?                          | Yes No <u></u> ✓ De                    | epth (inches):                              |  |                              |  |  |
| Water Table Present?                            |  | epth (inches):                              | Wetland Hydrology Presen   | it? Yes No                   |  |  |
| Saturation Present?                             |  | epth (inches):                              | · · · · · · · · · · · · · · · · · · ·                                  | 105110                       |  |  |
|   | 163 NO <u>▼</u> De                     | eptif (interies).                           |  |                              |  |  |
| (includes capillary fringe)                     |  |   |  |                              |  |  |
| Describe Recorded Data (stream                  | n gauge, monitoring well, aerial ph    | notos, previous inspections), if a          | available:   |                              |  |  |
|   |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
| Remarks:  |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |
|   |  |   |  |                              |  |  |

| ,  | <u> </u>    |                   |                     | B  |                   |              |
|--|-------------|-------------------|---------------------|--|-------------------|--------------|
| <u>Tree Stratum</u> (Plot size: <u>5' × 40')</u>     |             | Dominant Species? | Indicator<br>Status | Dominance Test worksheet:  Number of Dominant Species That                 |                   |              |
| 1. Acer rubrum                                       | 65          | Yes               | FAC                 | Are OBL, FACW, or FAC:   | 9                 | (A)          |
| 2. Liquidambar styraciflua                           | 20          | Yes               | FAC                 | Total Number of Dominant Species   | 10                | (B)          |
| 3. Pinus taeda                                       | 10          | No No             | FAC                 | Across All Strata:   |                   |              |
| 4.   |             |                   |                     | Percent of Dominant Species That   | 90                | (A/B)        |
| 5.   |             |                   |                     | Are OBL, FACW, or FAC:   |                   |              |
| 6.   |             |                   |                     | Prevalence Index worksheet:  | B. B. aladan I. a | D            |
| 7.   |             |                   |                     | Total % Cover of:  | <u>Multiply</u>   | -            |
|  | 95          | = Total Cov       | er                  | OBL species 0  | x 1 = _           |              |
| 50% of total cover: <u>47.5</u>                      | 20% of to   | ital cover:       | 19                  | FACW species 5   | x 2 = _           | 10           |
| Sapling/Shrub Stratum (Plot size:5' x 40')           | _           |                   |                     | FAC species 148  | x3= -             | 444          |
| 1. Liquidambar styraciflua                           | 15          | Yes               | FAC                 | FACU species 8   | × 4 = _           | 32           |
| 2. Quercus phellos                                   | 10          | Yes               | FAC                 | UPL species5   | x5=_              | 25           |
| 3. Acer rubrum                                       | 5           | No                | FAC                 | Column Totals 166  | (A) _             | 511 (B)      |
| 4. Juniperus virginiana                              | 5           | No No             | FACU                | Prevalence Index = B/A =   | 3.1               |              |
| 5. Quercus marilandica                               | 5           | No No             | UPL                 | Hydrophytic Vegetation Indicators:   |                   |              |
| 6.   |             |                   | 0.2                 | - Land Test for Hydrophytic \  | √egetation        | 1            |
| 7.   |             |                   |                     | ✓ 2 - Dominance Test is >50%   |                   |              |
| 8.   |             |                   |                     | 3 - Prevalence Index is ≤ 3.0¹   |                   |              |
| 9.   |             |                   |                     | ·  4 - Morphological Adaptations   | ¹ (Provide        | supporting   |
| j  | 40          | = Total Cov       | or.                 | - data in Remarks or on a separate sh                                      |                   |              |
| FOR of total revers 30                               | 40          | •                 |                     | Problematic Hydrophytic Vege   |                   |              |
| 50% of total cover: 20                               | _ 20% 01 to | ital cover:       | 8                   | Indicators of hydric soil and wetlan                                       | •                 | gy must be   |
| Herb Stratum (Plot size: 5 )                         | _           | Vos               | E A C               | present, unless disturbed or proble  |                   |              |
| 1. Quercus phellos                                   | 5 5         | Yes .             | FAC                 | Definitions of Four Vegetation Strate                                      | a:                |              |
| 2. Juncus compressus                                 |             | Yes .             | FACW                |  |                   |              |
| 3. <u>Smilax rotundifolia</u>                        |             | Yes .             | FAC                 | Tree – Woody plants, excluding vine  |                   | -            |
| 4. Lonicera japonica                                 | 3           | Yes               | FACU                | · in diameter at breast height (DBH),                                      | regardless        | s of height. |
| 5. Toxicodendron radicans                            | 3           | Yes               | FAC                 |  |                   |              |
| 6. <u>Liquidambar styraciflua</u>                    |             | No                | FAC                 | Sapling/shrub - Woody plants, exclusion DRU and greater them are a greater | •                 |              |
| 7  |             |                   |                     | in. DBH and greater than or equal to                                       | J 3.26 IL (1      | i mij tali.  |
| 8.   |             |                   |                     | Lione All boules con us (non a vice sky)                                   | n la nata un      | anual oaa of |
| 9  |             |                   |                     | Herb – All herbaceous (non-woody)<br>size, and woody plants less than 3.2  |                   | gardiess of  |
| 10   |             |                   |                     | - Size, and woody plants less than 5.2                                     | o it tail.        |              |
| 11   |             |                   |                     |  |                   |              |
|  | 21          | = Total Cov       | er                  | <b>Wo</b> od <b>y vine</b> s – All woody vines grea                        | ter than 3        | .28 ft in    |
| 50% of total cover: <u>10.5</u>                      | _ 20% of to | tal cover:        | 4.2                 | height.  |                   |              |
| Woody Vine Stratum (Plot size: 5' x 40')             |             |                   |                     |  |                   |              |
| 1. Smilax rotundifolia                               | 10          | Yes               | FAC                 |  |                   |              |
| 2  |             |                   |                     |  |                   |              |
| 3.   |             |                   |                     | Hydrophytic Vegetation Present?  | ∕es 🛭 No 🏾        |              |
| 4  |             |                   |                     |  |                   |              |
| 5  |             |                   |                     |  |                   |              |
|  | 10          | = Total Cov       | er                  |  |                   |              |
| 50% of total cover: <u>5</u>                         | 20% of to   | tal cover:        | 2                   |  |                   |              |
| Remarks: (Include photo numbers here or on a separat | e sheet )   |                   |                     |  |                   |              |
|  |             |                   |                     |  |                   |              |
|  |             |                   |                     |  |                   |              |

| D <b>ep</b> th          | scription: (Describe t<br>Matrix                     |               | Redox Features    |             |                                    | •         |                           |                                       |   |
|-------------------------|--|---------------|-------------------|-------------|------------------------------------|-----------|---------------------------|---------------------------------------|---|
| (inches)                | Color (moist)  | %             | Color (moist)     | %           | Type¹                              | Loc²      |                           | Te <b>xtu</b> r <b>e</b>              | R <b>emark</b> s                            |
| 0 - 1                   | 10YR 3/4   | 100           |                   |             |                                    |           |                           | Loam                                  |   |
| 1 - 2                   | 2.5Y 6/2   | 100           | 2.5Y 6/2          | 0           |                                    |           |                           | Sandy Loam                            |   |
| 2 - 18                  | 2.5Y 6/3   | 100           |                   |             |                                    |           |                           | Sandy Loam                            | _   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  | · ·           |                   |             | - —                                |           |                           |                                       |   |
|                         |  |               |                   |             | - —                                |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       | _   |
|                         |  |               |                   |             |                                    |           |                           |                                       | _   |
|                         |  |               | <del></del>       |             |                                    |           |                           |                                       | -   |
|                         |  | · ·           |                   |             | - —                                |           |                           |                                       | _   |
| <del>-</del>            |  |               |                   | <del></del> |                                    |           |                           |                                       |   |
|                         |  | Depletion,    | RM = Reduced Matr | ix, MS =    | Masked S                           | and Gra   | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M =             |   |
|                         | l Indicators:  |               |                   |             |                                    |           |                           | Indicators for Problen                | natic Hydric Soils <sup>3</sup> :           |
| _ Histosol              |  |               |                   | Surface (   |                                    | (CO) (AF) | DA 147 1461               | 2 cm Muck (A10) (                     | MLRA 147)                                   |
| — HISTIC ED<br>Black Hi | sipedon (A2)   |               |                   |             | ow Surtace<br>face (S9) <b>(</b> N |           | RA 147, 148)<br>7-148)    | Coast Prairie Redo                    | ox (A16) (MLRA 147, 148)                    |
| _                       | en Sulfide (A4)                                      |               |                   |             | Matrix (F2                         |           | ,0/                       | Piedmont Floodpl                      | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
|                         | d Layers (A5)  |               |                   | ted Matr    |                                    | ,         |                           | 147)                                  |   |
|                         | ıck (A10) <b>(</b> LR <b>R N)</b>                    |               |                   |             | ırface (F6)                        |           |                           | Very Shallow Dark                     | : Surface (TF12)                            |
|                         | d Below Dark Surface (                               | (A11)         |                   |             | Surface (F                         | -7)       |                           | Other (Explain in F                   | Remarks)                                    |
|                         | ark Surface (A12)<br>Tucky Mineral (S1) <b>(</b> LRF | ON MIDA       | Redox             | x Depres    | sions (F8)                         | (E10) (LE | DD NI MIIDA 13            | )6\                                   |   |
| _                       | leyed Matrix (S4)                                    | X IV, IVILITY | Umbr              | ic Surfac   | e (F13) ( <b>M</b>                 | LRA 136   | 122)                      | <sup>:6)</sup> ₃Indicators of hydropl | hytic vegetation and                        |
|                         | edox (S5)  |               |                   |             |                                    |           | MLRA 148)                 |                                       | ust be present, unless                      |
| Stripped                | l Matrix (S6)  |               |                   |             | aterial (F21                       |           |                           | disturbed or problem                  | atic.                                       |
| Restrictive             | Layer (if observed):                                 |               |                   |             |                                    |           |                           |                                       |   |
|                         | Туре:  |               | None              | _           |                                    | Hydric:   | Soil <b>Present?</b>      |                                       | Yes □ No ☑                                  |
|                         | Depth (inches):                                      |               |                   |             |                                    |           |                           |                                       |   |
| Remarks:                |  |               |                   | _           |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |
|                         |  |               |                   |             |                                    |           |                           |                                       |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate       | City/County:                           |   | Sampling Date: 2018-Jul   | y-28                       |  |  |
|-----------------------------------|--|---|---|----------------------------|--|--|
| Applicant/Owner: NextEra          |  | State:  | Sampling Point: \   | V-D18-42_PEM-1             |  |  |
| nvestigator(s): Beth Clement      | s, JDF                                 | Section, Township,  | Range:  |                            |  |  |
| andform (hillslope, terrace, etc  | .): Swale                              | Local relief (concave, conv                                   | ex, none): Concave  | Slop <b>e (%</b> ): 1 to 3 |  |  |
| Subregion (LRR or MLRA):          |  | Lat: 36.6172873   | Long: -79.5597776   | Datum: WGS84               |  |  |
| Soil <b>Map</b> Unit Name:5C3     |  |   | NWI classific   | ation: None                |  |  |
| Are climatic/hydrologic conditio  | ns on the site typical for this time o | of year? Yes 🔽 No   | (If no, explain in Remar  | ks.)                       |  |  |
| Are Vegetation, Soil,             |  |   | al Circumstances" present?                                      | Yes 🟒 No                   |  |  |
| Are Vegetation, Soil,             | or Hydrology naturally p               | roblematic? (If needed,                                       | explain any answers in Rema                                     | ırks.)                     |  |  |
|                                   |  |   |   |                            |  |  |
| SUMMARY OF FINDINGS -             | Attach site map showing sam            | ipling point locations, tran                                  | nsects, important feature                                       | es, etc.                   |  |  |
| Hydrophytic Vegetation Presen     | t? Yes _ 🗸 No                          |   |   |                            |  |  |
| Hydric Soil Present?              | Yes <u>✓</u> No                        |   |   |                            |  |  |
| Wetland Hydrology Present?        | Yes No                                 | Is the Sampled Area withi                                     | n a Wetland?  | Yes <b>/ No</b>            |  |  |
|                                   | 163 😿 110                              | is the sampled Area with                                      | 1 a vicualiu:   | 163 <u>7</u> 140           |  |  |
| Remarks:                          |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
| Covertype is DEM. Area is wette   | nd, all three wetland parameters a     | re present  |   |                            |  |  |
| covertype is FLIVI. Area is wella | nd, all tillee wetland parameters a    | re present.   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
| HYDROLOGY                         |  |   |   |                            |  |  |
| Wational Hudrology Indicators     |  |   |   |                            |  |  |
| Wetland Hydrology Indicators:     | £ :                                    | - h-a   |   |                            |  |  |
| Primary indicators (minimum o     | f one is required; check all that app  | oi <b>y</b> j   | Secondary Indicators (minim                                     | ium or two requirea)       |  |  |
| Surface Water (A1)                | True Aquatic                           | Plants (B14)  | Surface Soil Cracks (B6)  | envo Curfaco (PS)          |  |  |
| High Water Table (A2)             | · ·                                    | lfide Odor (C1)   | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) |                            |  |  |
| Saturation (A3)                   | — , v                                  | zospheres on Living Roots (C3)                                | Dramage Patterns (B10)  Moss Trim Lines (B16)                   |                            |  |  |
| Water Marks (B1)                  | Presence of I                          | Reduced Iron (C4)   | Moss mm Lines (BTd) Dry-Season Water Table (C2)                 |                            |  |  |
| Sediment Deposits (B2)            | Recent Iron I                          | Reduction in Tilled Soils (C6)                                | Crayfish Burrows (C8)   | ,,                         |  |  |
| Drift Deposits (B3)               | Thin Muck Su                           | ırface (C7)   | Saturation Visible on Aer                                       | ial Imagery (C9)           |  |  |
| Algal Mat or Crust (B4)           | Other (Expla                           | n in Remarks)   |   | .aaga. y (es)              |  |  |
| Iron Deposits (B5)                |  |   | Stunted or Stressed Plan  | ts (D1)                    |  |  |
| Inundation Visible on Aeria       | ıl Imagery (B7)                        |   | Geomorphic Position (D2   | <u>?</u> )                 |  |  |
| Water-Stained Leaves (B9)         |  |   | Shallow Aquitard (D3)   |                            |  |  |
| Aquatic Fauna (B13)               |  |   | Microtopographic Relief   | (D4)                       |  |  |
|                                   |  |   | ✓ FAC-Neutral Test (D5)   |                            |  |  |
| Field Observations:               |  |   |   |                            |  |  |
| Surface Water Present?            | Yes No <u></u> ✓ De                    | pth (inches):   |   |                            |  |  |
| Water Table Present?              | Yes No _ <b>_</b> _ De                 | pth (inches):   | <br> Wetland Hydrology Present                                  | ? Yes _ <b>∠</b> _ No      |  |  |
| Saturation Present?               |  | pth (inches):   |   | -                          |  |  |
| (includes capillary fringe)       |  |   |   |                            |  |  |
|                                   | <del></del>                            |   |   |                            |  |  |
| Describe Recorded Data (stream    | m gauge, monitoring well, aerial ph    | iotos <b>, p</b> re <b>vious inspec</b> ti <b>ons</b> ), if a | vailable:   |                            |  |  |
|                                   |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
| -                                 |  |   |   |                            |  |  |
| Remarks:                          |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |
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|                                   |  |   |   |                            |  |  |
|                                   |  |   |   |                            |  |  |

| · · ·  | •            |                  |          |   |                 |                |
|--|--------------|------------------|----------|---|-----------------|----------------|
| Tree Stratum (Plot size:30)  |              | Dominant         |          | Dominance Test worksheet:   |                 |                |
|  |              | Species?         | Status   | Number of Dominant Species That Are OBL, FACW, or FAC:  | 3               | (A)            |
| 1. Acer rubrum 2.  | 5            |                  | FAC      | Total Number of Dominant Species Across All Strata:   | 4               | (B)            |
| 3  |              |                  |          | Percent of Dominant Species That  |                 |                |
| 4.   |              |                  |          | Are OBL, FACW, or FAC:  | 75              | (A/B)          |
| 5.   |              |                  |          | Prevalence Index worksheet:   |                 |                |
| 6.   |              |                  |          | <u>Total % Cover of:</u>  | <u>Multiply</u> | By:            |
| 7  |              | = Total Cov      |          | OBL species 30  | x 1 = _         | 30             |
| FOW of the tell review 2.5   |              | •                | er       | FACW species 96   | x 2 = _         | 192            |
| 50% of total cover: <u>2.5</u> Sapling/Shrub Stratum (Plot size: <u>15</u> ) | _ 20% 0110   | otal cover:      |          | FAC species 65  | x 3 =           | 195            |
| 1 0.4  | 10           | Yes              | FACU     | FACU species 15   | × 4 =           | 60             |
| 2.   |              |                  | TACO     | UPL species 0   | x 5 = _         | 0              |
| 3.   |              |                  |          | Column Totals 206   | (A) _           | 477 (B)        |
| 4.   |              |                  |          | Prevalence Index = B/A =  | 2.3             |                |
| 5.   |              |                  |          | Hydrophytic Vegetation Indicators:  |                 |                |
| 6.   |              |                  |          | 1- Rapid Test for Hydrophytic   | √egetation      | ı              |
|  |              |                  |          | 2 - Dominance Test is >50%  |                 |                |
| _  |              |                  |          | $\sqrt{}$ 3 - Prevalence Index is ≤ 3.01  |                 |                |
| 8.<br>9.   |              |                  |          | -  4 - Morphological Adaptations  |                 | supporting     |
| J  | 10           | = Total Cov      | or       | - data in Remarks or on a separate sh   |                 |                |
| 50% of total cover: 5  |              | -                | <u> </u> | Problematic Hydrophytic Vege  |                 |                |
| Herb Stratum (Plot size: 5 )   | _ 20 / 01 (0 | ital cover.      |          | ¹Indicators of hydric soil and wetlan   | •               | gy must be     |
| 1. Juncus effusus  | 60           | Yes              | FACW     | present, unless disturbed or proble   |                 |                |
| Microstegium vimineum  | 60           | Yes              | FAC      | Definitions of Four Vegetation Strate   | a:              |                |
| 3. Solidago gigantea   | 20           | No               | FACW     | Tree Meady plants evaluating vine   | c 2 in 77       | 5 cm) as masa  |
| 4. Eupatorium perfoliatum  | 15           | No No            | FACW     | <ul> <li>Tree - Woody plants, excluding vine<br/>in diameter at breast height (DBH),</li> </ul> |                 |                |
| 5. Carex crinita   | 15           | No No            | OBL      | In diameter at breast height (bbin),  | regulates       | or neight.     |
| 6. Carex lurida  | 15           | No No            | OBL      | -  <br>  <mark>Sapling/shrub</mark>   | uding vine      | s. less than 3 |
| 7. Rubus argutus   | 5            | No No            | FACU     | in. DBH and greater than or equal to  | _               |                |
| 8. Vernonia noveboracensis   | 1            | No No            | FACW     | •   |                 |                |
| 9.   | <u> </u>     |                  |          | Herb – All herbaceous (non-woody)   | plants, re      | gardless of    |
| 10.  |              |                  |          | size, and woody plants less than 3.2  | 8 ft tall.      |                |
| 11.  |              |                  |          | -   |                 |                |
| ···  | 191          | = Total Cov      | er       | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea   | ter than 3      | .28 ft in      |
| 50% of total cover: <u>95.5</u>  |              | tal cover:       | 38.2     | height.   |                 |                |
| Woody Vine Stratum (Plot size:30)  |              |                  |          |   |                 |                |
| 1  |              |                  |          |   |                 |                |
| 2.   |              |                  |          |   |                 |                |
| 3.   |              |                  |          | Hydrophytic Vegetation Present?   | res ☑ No 「      |                |
| 4.   |              |                  |          |   |                 |                |
| 5.   |              |                  |          |   |                 |                |
|  | 0            | = Total Cov      | er       |   |                 |                |
| 50% of total cover: <u>0</u>   | 20% of to    | -<br>otal cover: | 0        |   |                 |                |
| Remarks: (Include photo numbers here or on a separat                         | o choot)     |                  |          |   |                 |                |
| Remarks. (include prioto numbers here or on a separal                        | e sneet.)    |                  |          |   |                 |                |
|  |              |                  |          |   |                 |                |
|  |              |                  |          |   |                 |                |
|  |              |                  |          |   |                 |                |
|  |              |                  |          |   |                 |                |
|  |              |                  |          |   |                 |                |
|  |              |                  |          |   |                 |                |

| Depth       | Matrix                           | io inc dep | th needed to docume<br>Redox | Featur       |                                   | or comm     | m are absent              | ac of moreacors.)                    |                              |
|-------------|----------------------------------|------------|------------------------------|--------------|-----------------------------------|-------------|---------------------------|--------------------------------------|------------------------------|
| (inches)    | Color (moist)                    | %          | Color (moist)                | %            | Туре¹                             | Loc²        |                           | Te <b>xtu</b> r <b>e</b>             | Remarks                      |
| 0 - 1       | 10YR 4/3                         | 100        |                              |              |                                   |             |                           | Loam                                 |                              |
| 1 - 9       | 2.5Y 5/2                         | 70         | 7.5YR 4/6                    | 30           | С С                               | M/PL        |                           | Clay Loam                            |                              |
| 9 - 13      | 2.5Y 6/1                         | 60         | 7.5YR 4/6                    | 40           | С                                 | M/PL        |                           | Clay                                 |                              |
| 13 - 20     | 2.5Y 5/2                         | 60         | 7.5YR 4/6                    | 40           | · — c                             | M/PL        |                           | Clay                                 |                              |
| 15 20       | 2.51 572                         |            | 7.511(4/0                    |              |                                   | 14171 E     |                           | ciuy                                 | -                            |
|             |                                  |            |                              |              |                                   |             |                           |                                      | -                            |
|             |                                  | · ·        |                              |              | · ——                              |             |                           |                                      |                              |
| <u> </u>    |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  | . ——       |                              |              | . ——                              |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
| ¹Type: C =  | Concentration, D = I             | Depletion, | RM = Reduced Matri:          | x, MS =      | Masked :                          | Sand Gra    | ins. <sup>z</sup> Locatio | on: PL = Pore Lining, M =            | : Matrix.                    |
| Hydric Soi  | l Indicators:                    |            |                              |              |                                   |             |                           | Indicators for Problem               | a <b>tic Hy</b> dric Soils³: |
| _ Histosol  | •                                |            |                              | urface (     |                                   |             |                           | 2 cm Muck (A10) (N                   | /ILRA 147)                   |
|             | pipedon (A2)                     |            |                              |              |                                   |             | RA 147, 148)              |                                      | x (A16) (MLRA 147, 148)      |
| _ Black Hi: | stic (A3)<br>en Sulfide (A4)     |            |                              |              | face (S9) <b>(</b><br>l Matrix (F |             | / <b>,</b> 148)           |                                      | in Soils (F19) (MLRA 136,    |
|             | d Layers (A5)                    |            | Loaniy<br>Deplet             | _            |                                   | ۷,          |                           |                                      |                              |
|             | ıck (A10) <b>(</b> LRR <b>N)</b> |            |                              |              | urface (F6                        | )           |                           | Very Shallow Dark                    | Surface (TF12)               |
| _ Depleted  | d Below Dark Surface             | (A11)      | _ Deplet                     | ed Dark      | Surface (                         | (F7)        |                           | Other (Explain in R                  |                              |
|             | ark Surface (A12)                |            | Redox                        | Depres       | sions (F8)                        |             |                           |                                      |                              |
| _           | lucky Mineral (S1) (LR           | R N, MLRA  | 147, 148) Iron-N             | langane      | se Masse                          | s (F12) (LI | RR N, MLRA 13             | <sup>6)</sup> 3Indicators of hydroph | ytic vegetation and          |
|             | leyed Matrix (S4)<br>edox (S5)   |            |                              | C 50. 10.    |                                   |             | 122)<br>MLRA 148)         | wetland hydrology mu                 | ist be present, unless       |
| _           | edox (55)<br>I Matrix (S6)       |            |                              |              |                                   |             | MILKA 148)<br>127, 147)   | disturbed or problema                | atic.                        |
|             |                                  |            |                              | ar Circ ivic | accinal (12                       |             | 121, 141,                 |                                      |                              |
|             | : Layer (if observed):           |            | None                         |              |                                   |             | r-8 p                     |                                      | V = N- =                     |
|             | Type:                            |            | None                         |              |                                   | Hyaric      | Soil Present?             |                                      | Yes ☑ No □                   |
|             | Depth (inches):                  |            |                              |              |                                   |             |                           |                                      |                              |
| Remarks:    |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |
|             |                                  |            |                              |              |                                   |             |                           |                                      |                              |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate             | City/County:                           |                                   | Sampling Date: 2018-Jul     | y-28                              |  |  |
|---|--|-----------------------------------|-----------------------------|-----------------------------------|--|--|
| Applicant/Owner: NextEra                |  | State:                            | Sampling Point: \           | N-D18-42_UPL-1                    |  |  |
| nvestigator(s): Beth Clement            | s, JDF                                 | Section, Township,                | Range:                      |                                   |  |  |
| andform (hillslope, terrace, etc        | :.): Swale                             | Local relief (concave, conve      | ex, none): Concave          | Slop <b>e (%</b> ): <u>1 to 3</u> |  |  |
| Subregion (LRR or MLRA):                |  | Lat: 36.6174428                   | Long: -79.5599484           | Datum: WGS84                      |  |  |
| Soil <b>Map</b> Unit Name: 5C3          |  |                                   | NWI classific               | ation: None                       |  |  |
| Are climatic/hydrologic conditio        | ns on the site typical for this time o | f ye <b>ar?</b> Yes 🟒 No          | (If no, explain in Remar    | ·ks.)                             |  |  |
| Are Vegetation, Soil,                   | or Hydrology significantly             | y disturbed? Are "Norma           | al Circumstances" present?  | Yes 🟒 No                          |  |  |
| Are Vegetation, Soil,                   | , or Hydrology naturally pr            | roblematic? (If needed,           | explain any answers in Rema | arks.)                            |  |  |
|   |  |                                   |                             |                                   |  |  |
| SUMMARY OF FINDINGS -                   | Attach site map showing sam            | pling point locations, tran       | sects, important feature    | es, etc.                          |  |  |
| Hydrophytic Vegetation Presen           | nt? Yes/_ No                           | 1                                 |                             |                                   |  |  |
| Hydric Soil Present?                    | Yes No _ <b>_</b> _                    | i                                 |                             |                                   |  |  |
| Wetland Hydrology Present?              | Yes _ <b>✓</b> No                      | Is the Sampled Area with          | in a Wetland?               | Yes <b>No</b> ∠_                  |  |  |
|   | 163 <u>7</u> NO                        | is the sampled Area with          | iii a vectana:              |                                   |  |  |
| Remarks:                                |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
| Covertune is LIPI. Area is unlan        | nd, not all three wetland parameters   | s ara procent                     |                             |                                   |  |  |
| Covertype is OFL. Area is upidin        | id, flocali triree wetiand parameters  | s are present.                    |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
| HYDROLOGY                               |  |                                   |                             |                                   |  |  |
| Wetland Hydrology Indicators:           |  |                                   |                             |                                   |  |  |
| , ,,                                    | of one is required; check all that app | nlv)                              | Secondary Indicators (minin | num of two required)              |  |  |
| I III i i i i i i i i i i i i i i i i i | 1 One 13 . again                       | <u></u>                           | Surface Soil Cracks (B6)    |                                   |  |  |
| Surface Water (A1)                      | True Aquatic                           | Plants (B14)                      | Sparsely Vegetated Cond     | tave Surface (B8)                 |  |  |
| High Water Table (A2)                   | Hydrogen Sul                           | lfide Odor (C1)                   | Drainage Patterns (B10)     |                                   |  |  |
| Saturation (A3)                         |  | cospheres on Living Roots (C3)    | Moss Trim Lines (B16)       |                                   |  |  |
| Water Marks (B1)                        | Presence of R                          | Reduced Iron (C4)                 | Dry-Season Water Table (C2) |                                   |  |  |
| Sediment Deposits (B2)                  | Recent Iron R                          | Reduction in Tilled Soils (C6)    | Crayfish Burrows (C8)       |                                   |  |  |
| ✓ Drift Deposits (B3)                   | Thin Muck Su                           | ırface (C7)                       | Saturation Visible on Aer   | ial Imagery (C9)                  |  |  |
| Algal Mat or Crust (B4)                 | Other (Explain                         | n in Remarks)                     | _                           | 0 2                               |  |  |
| Iron Deposits (B5)                      |  |                                   | Stunted or Stressed Plan    | its (D1)                          |  |  |
| Inundation Visible on Aeria             | al Imagery (B7)                        |                                   | Geomorphic Position (D2     | 2)                                |  |  |
| Water-Stained Leaves (B9)               |  |                                   | Shallow Aquitard (D3)       |                                   |  |  |
| Aquatic Fauna (B13)                     |  |                                   | Microtopographic Relief     | (D4)                              |  |  |
|   |  |                                   | FAC-Neutral Test (D5)       |                                   |  |  |
| Field Observations:                     |  |                                   |                             |                                   |  |  |
| Surface Water Present?                  | Yes No 🟒 Dep                           | oth (inches):                     |                             |                                   |  |  |
| Water Table Present?                    | Yes No 🟒 Dep                           | oth (inches):                     | Wetland Hydrology Present   | ? Yes No                          |  |  |
| Saturation Present?                     |  | oth (inches):                     |                             |                                   |  |  |
| (includes capillary fringe)             |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
| Describe Recorded Data (stream          | m gauge, monitoring well, aerial ph    | otos, previous inspections), if a | vailable:                   |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
| Domander                                |  |                                   |                             |                                   |  |  |
| Remarks:                                |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |
|   |  |                                   |                             |                                   |  |  |

| ,   | •                |             |           |   |              |                |
|---|------------------|-------------|-----------|---|--------------|----------------|
| Tree Stratum (Plot size:30)                         | <b>A</b> bsolute | Dominant    | Indicator | Dominance Test worksheet:   |              |                |
| Tree structure (Frot Sizes                          | % Cover          | Species?    | Status    | Number of Dominant Species That                                     | 5            | (A)            |
| 1. Acer rubrum                                      | 80               | Yes         | FAC       | Are OBL, FACW, or FAC:  |              |                |
| 2. Nyssa sylvatica                                  | 20               | Yes         | FAC       | Total Number of Dominant Species Across All Strata:                 | 7            | (B)            |
| 3.  |                  |             |           | Percent of Dominant Species That                                    |              |                |
| 4   |                  |             |           | - Are OBL, FACW, or FAC:  | <b>71.4</b>  | (A/B)          |
| 5.  |                  |             |           | Prevalence Index worksheet:   |              |                |
| 6   |                  |             |           | - Total % Cover of:   | Multiply E   | 3v:            |
| 7   |                  |             |           | OBL species 0   | x 1 =        | 0              |
|   | 100              | = Total Cov | er        | FACW species 2  | x 2 =        | 4              |
| 50% of total cover: <u>50</u>                       | _ 20% of to      | otal cover: | 20        | FAC species 158   | x3=          | 474            |
| Sapling/Shrub Stratum (Plot size:15)                |                  |             |           | FACU species 22   | × 4 =        | 88             |
| 1. <i>Liquidambar styraciflua</i>                   | 10               | Yes         | FAC       | - UPL species 0   | x5=          | 0              |
| 2.  |                  |             |           | Column Totals 182   | (A)          | 566 (B)        |
| 3.  |                  |             |           | Prevalence Index = B/A =  | 3.1          | 300 (b)        |
| 4.  |                  |             |           |   |              |                |
| 5.  |                  |             |           | Hydrophytic Vegetation Indicators:                                  |              |                |
| 6.  |                  |             |           | 1- Rapid Test for Hydrophytic                                       | /egetation   |                |
| 7.  |                  |             |           | 2 - Dominance Test is >50%  |              |                |
| 8.  |                  |             |           | 3 - Prevalence Index is ≤ 3.0¹                                      |              |                |
| 9.  |                  |             |           | - 4 - Morphological Adaptations                                     |              | supporting     |
|   | 10               | = Total Cov | er        | - data in Remarks or on a separate sh                               |              | alaia)         |
| 50% of total cover: 5                               |                  | -           | 2         | Problematic Hydrophytic Vege Indicators of hydric soil and wetlan   |              |                |
| Herb Stratum (Plot size: 5 )                        |                  |             |           | present, unless disturbed or proble                                 | , .          | y must be      |
| 1. Microstegium vimineum                            | 20               | Yes         | FAC       | <del>                                   </del>                      |              |                |
| 2. Symphoricarpos orbiculatus                       | 10               | Yes         | FACU      | Definitions of Four Vegetation Strat                                | d.           |                |
| 3. Smilax rotundifolia                              | 5                | No          | FAC       | -   | s 3 in 176   | cm) or more    |
| 4. Liriodendron tulipifera                          | 5                | No No       | FACU      | in diameter at breast height (DBH),                                 |              |                |
| 5. Sanicula odorata                                 | 2                | No No       | FACU      | - In diameter at 51 days height (5511),                             | regardress   | of field file. |
| 6. Toxicodendron radicans                           | 2                | No No       | FAC       | -  <br>  <b>Sapling/shrub</b>                                       | ıding vines  | less than 3    |
| 7. Cìnna arundinacea                                | 2                | No No       | FACW      | in. DBH and greater than or equal to                                | •            |                |
| 8. Acer rubrum                                      | 1                | No No       | FAC       | -  " "  | ,            | ,              |
| 9.  | - <u>'</u>       |             | TAC       | - Herb – All herbaceous (non-woody)                                 | plants, reg  | ardless of     |
| 10.   |                  |             |           | size, and woody plants less than 3.2                                |              |                |
|   |                  |             |           | -   |              |                |
| 11  |                  |             |           | - <b> </b><br>  <b>Wo</b> od <b>y vine</b> s – All woody vines grea | touthon 3:   | 70 & in        |
| 500 6   | 47               | = Total Cov |           | height.   | ter than 5.2 | 20 IL III      |
| 50% of total cover: 23.5                            | _ 20% of to      | otal cover: | 9.4       | Ticignic.   |              |                |
| Woody Vine Stratum (Plot size: 30 )                 | 20               |             | EA.C      |   |              |                |
| 1. Smilax rotundifolia                              |                  | Yes .       | FAC       | -   |              |                |
| 2. <u>Vitis labrusca</u>                            | 5                | Yes         | FACU      | -   |              | _              |
| 3   |                  |             |           | Hydrophytic Vegetation Present? `                                   | res ☑ No ∟   |                |
| 4   |                  |             |           | -   |              |                |
| 5   |                  |             |           | .   |              |                |
|   | 25               | = Total Cov | er        |   |              |                |
| 50% of total cover: <u>12.5</u>                     | _ 20% of to      | otal cover: | 5         |   |              |                |
| Remarks: (Include photo numbers here or on a separa | te sheet.)       |             |           |   |              |                |
|   |                  |             |           |   |              |                |

| Depth        | Matrix  | cita dep       | lepth needed to document the indicator or confirm the a<br>Redox Features |                       | ara unation of indicators, |            |  |  |
|--------------|---|----------------|---|-----------------------|----------------------------|------------|--|--|
| (inches)     | Color (moist)                                       | %              | Color (moist)   | 96                    | Type¹                      | Loc²       | ⊺ <b>extur</b> e   | Remarks  |
| 0 - 2        | 10YR 4/3  | 100            |   |                       |                            |            | Loam   |  |
| 2 - 12       | 10YR 5/4  | 80             | 7.5YR 4/6   | 20                    |                            |            | Clay Loam  |  |
| 12 - 18      | 10YR 5/4  | 83             | 7.5YR 4/6   | 15                    | C                          |            | Sandy Loam   |  |
| 12 - 18      |   |                | 10YR 5/3  | 2                     |                            |            |  |  |
| 12 10        |   |                | 1011(3/3  |                       |                            |            |  | _  |
|              |   |                |   |                       |                            |            | -  | _  |
|              |   |                |   |                       |                            |            |  |  |
| -            |   |                |   |                       | - ——                       |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  | _  |
| 1T           | Composition Del                                     | Danletien.     | Dis - Dadward Marri   |                       | Nandand C                  |            | ing 71 anning DI - Dans Lining M   |  |
|              |   | Depletion,     | RM = Reduced Matrix   | (, IVIS =             | Masked S                   | and Gra    | ains. <sup>2</sup> Location: PL = Pore Lining, M                                     |  |
|              | l Indicators:                                       |                | Dorle   | urfoso (              | C7)                        |            | Indicators for Proble  | matic Hydric Solls:  |
| _ Histosol   | (AT)<br>sipedon (A2)                                |                |   | urface (:<br>lue Belo |                            | (S2) (MI   | 2 cm Muck (A10)  | (ML <b>RA 147)</b>   |
| Black Hi     |   |                |   |                       | face (S9) <b>(</b> f       |            | 7, 148) — Coast Prairie Red  | ox (A16) <b>(MLR</b> A 1 <b>47</b> , 1 <b>4</b> 8 <b>)</b> |
|              | en Sulfide (A4)                                     |                |   |                       | Matrix (F2                 |            | Piedmont Floodp  | lain Soils (F19) (MLRA 136,                                |
| _ Stratified | d Layers (A5)                                       |                | _ Deplet  | ed Matr               | rix (F3)                   |            | 147)   |  |
|              | ick (A10) (LRR N)                                   |                |   |                       | ırface (F6)                |            | Very Shallow Dari  |  |
|              | d Below Dark Surface                                | (A11)          |   |                       | Surface (I                 | =7)        | Other (Explain in  | Remarks)   |
|              | irk Surface (A12)<br>Iucky Mineral (S1) <b>(</b> LR | RN MIRA        | Redux   | angane                | sions (F8)<br>se Masses    | : (E12) (L | RR N. MIRA 136)  |  |
| _            | leyed Matrix (S4)                                   | ik iv, ivicios | Umbrie  | c Surfac              | e (F13) (M                 | ILRA 136   | RR N <b>, M</b> LR <b>A 136)</b> <sub>3</sub> Indicators of hydrop<br>. <b>12</b> 2) | hytic vegetation and                                       |
|              | edox (S5)   |                |   |                       |                            |            | MLRA 148) wetland nydrology m  | iust be present, unless                                    |
| Stripped     | l Matrix (S6)                                       |                |   |                       | aterial (F21               |            |  | natic.   |
| Restrictive  | Layer (if observed):                                |                |   |                       |                            |            |  |  |
| -            | Туре:   |                | None  |                       |                            | Hydric     | Soil Present?  | Yes □ No ☑   |
|              | Depth (inches):                                     |                |   |                       |                            |            |  |  |
| Remarks:     |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
| !            |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
| 1            |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |
|              |   |                |   |                       |                            |            |  |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Proj <b>ec</b> t/ <b>Site</b> : MVP Southgate       | City/County:                            |  | Sampling Date: 2018-Aug     | इ-06                      |  |  |
|---|---|--|-----------------------------|---------------------------|--|--|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra |   | State:   | State: Sampling Point: W    |                           |  |  |
| nvestigator(s): Beth Clement                        | ts, SES                                 | Section, Township,                                 | Range:                      |                           |  |  |
| andform (hillslope, terrace, etc                    | c.): Swale                              | Local relief (concave, conv                        | ex, none): Concave          | Slop <b>e (%</b> ):2 to 5 |  |  |
| Subregion (LRR or MLRA):                            | MLRA 136 of LRR P                       | Lat: 36.6139083                                    | Long: -79.5620011           | Datum: WGS84              |  |  |
| Soil <b>Map</b> Unit Name: 21D                      |   |  | NWI classifica              | ation: None               |  |  |
| Are climatic/hydrologic conditio                    | ons on the site typical for this time o | f year? Yes 🔽 No                                   | (If no, explain in Remar    | ks.)                      |  |  |
| Are Vegetation, Soil,                               | , or Hydrology significantly            | y disturbed? Are "Norma                            | al Circumstances" present?  | Yes 🟒 No                  |  |  |
| Are Vegetation, Soil,                               | , or Hydrology naturally p              | roblematic? (If needed,                            | explain any answers in Rema | rks.)                     |  |  |
|   |   |  |                             |                           |  |  |
| SUMMARY OF FINDINGS -                               | Attach site map showing sam             | ipling point locations, tran                       | nsects, important feature   | es, etc.                  |  |  |
| Hydrophytic Vegetation Presen                       | nt? Yes <u></u> √ No                    |  |                             |                           |  |  |
| Hydric Soil Present?                                | Yes No                                  |  |                             |                           |  |  |
| Wetland Hydrology Present?                          | Yes No                                  | Is the <b>Sam</b> pl <b>ed</b> A <b>rea</b> within | n a Wetland?                | ∕es <b>_ ✓_ No</b>        |  |  |
|   | 163 <u>*</u> 140                        | is the sampled Area with                           | Ta Wedand:                  | 62 140                    |  |  |
| Remarks:  |   |  |                             |                           |  |  |
|   |   |  |                             |                           |  |  |
|   |   |  |                             |                           |  |  |
|   |   |  |                             |                           |  |  |
| Covertype is PEM. Area is wetla                     | and, all three wetland parameters a     | re present.  |                             |                           |  |  |
| 20var 2, pa 12 · 2                                  | may an an account purchase              | i c pi asaiici                                     |                             |                           |  |  |
|   |   |  |                             |                           |  |  |
|   |   |  |                             |                           |  |  |
|   |   |  |                             |                           |  |  |
|   |   |  |                             |                           |  |  |
| HYDROLOGY   |   |  |                             |                           |  |  |
| Wetland Hydrology Indicators:                       |   |  |                             |                           |  |  |
| Primary Indicators (minimum c                       | of one is required; check all that app  | <u>)(y)</u>  | Secondary Indicators (minim | um of two required)       |  |  |
| -   | ·                                       |  | Surface Soil Cracks (B6)    |                           |  |  |
| Surface Water (A1)                                  | True Aquatic                            |  | Sparsely Vegetated Conc     | ave Surface (B8)          |  |  |
| ✓ High Water Table (A2)                             | , , ,                                   | lfide Odor (C1)                                    | Drainage Patterns (B10)     |                           |  |  |
| Saturation (A3)                                     |   | cospheres on Living Roots (C3)                     | Moss Trim Lines (B16)       |                           |  |  |
| Water Marks (B1)                                    |   | Reduced Iron (C4)                                  | Dry-Season Water Table (    | C2)                       |  |  |
| Sediment Deposits (B2)                              |   | Reduction in Tilled Soils (C6)                     | Crayfish Burrows (C8)       |                           |  |  |
| Drift Deposits (B3)                                 | Thin Muck Su                            |  | Saturation Visible on Aeri  | al Imagery (C9)           |  |  |
| Algal Mat or Crust (B4)                             | Otner (Expiai                           | n in Remarks)                                      |                             |                           |  |  |
| Iron Deposits (B5)                                  | ·                                       |  | Stunted or Stressed Plant   |                           |  |  |
| Inundation Visible on Aeria                         |   |  | Geomorphic Position (D2     | )                         |  |  |
| Water-Stained Leaves (B9)                           |   |  | Shallow Aquitard (D3)       |                           |  |  |
| Aquatic Fauna (B13)                                 |   |  | Microtopographic Relief (   | D4)                       |  |  |
|   |   |  | FAC-Neutral Test (D5)       |                           |  |  |
| Field Observations:                                 | _                                       |  |                             |                           |  |  |
| Surface Water Present?                              | Yes No <u></u> ✓ De                     | pth (inches):                                      |                             |                           |  |  |
| Water Table Present?                                | Yes 🟒 No De                             | pth (inches): 0                                    | Wetland Hydrology Present?  | Yes No                    |  |  |
| Saturation Present?                                 | Yes <u></u> √ No De                     | pth (inches): 0                                    |                             |                           |  |  |
| (includes capillary fringe)                         |   |  |                             |                           |  |  |
|   | m gauge, monitoring well, aerial ph     | votos, provious inspections), if :                 | wailable:                   |                           |  |  |
| Describe Recorded Data (stream                      | m gauge, monitoring weil, aenar pri     | otos, previous irispections), ir a                 | avallable.                  |                           |  |  |
|   |   |  |                             |                           |  |  |
|   |   |  |                             |                           |  |  |
| Remarks:  |   |  |                             |                           |  |  |
| I   |   |  |                             |                           |  |  |
|   |   |  |                             |                           |  |  |
|   |   |  |                             |                           |  |  |
|   |   |  |                             |                           |  |  |
| I   |   |  |                             |                           |  |  |
| I   |   |  |                             |                           |  |  |
| I   |   |  |                             |                           |  |  |
|   |   |  |                             |                           |  |  |

| · · · · · · · · · · · · · · · · · · ·               | •           |              |           |  |              |             |
|---|-------------|--------------|-----------|--|--------------|-------------|
| Tree Stratum (Plot size: _30)                       | Absolute    | Dominant     | Indicator | Dominance Test worksheet:  |              |             |
| <u>niee Stratum (Flot Size 30)</u>                  | % Cover     | Species?     | Status    | Number of Dominant Species That  | 2            | (A)         |
| 1   |             |              |           | Are OBL, FACW, or FAC:   |              |             |
| 2.  |             |              |           | Total Number of Dominant Species Across All Strata:  | 2            | (B)         |
| 3   | - ——        |              |           | Percent of Dominant Species That   |              |             |
| 4   | . ——        |              |           | - Are OBL, FACW, or FAC:   | 100          | (A/B)       |
| 5   |             |              |           | Prevalence Index worksheet:  |              |             |
| 6   |             |              |           | Total % Cover of:  | Multiply B   | By:         |
| 7   |             |              |           | - OBL species 65   | x 1 =        | 65          |
|   | 0           | _= Total Cov | er        | FACW species 7   | x 2 =        | 14          |
| 50% of total cover: <u>0</u>                        | _ 20% of to | otal cover:  | 0         | FAC species 36   | x 3 =        | 108         |
| Sapling/Shrub Stratum (Plot size:15)                |             |              |           | FACU species 0   | × 4 =        | 0           |
| 1   |             |              |           | - UPL species 0  | x 5 =        | 0           |
| 2.  |             |              |           | - Column Totals 108  | (A)          | 187 (B)     |
| 3   |             |              |           | Prevalence Index = B/A =   |              | 107 (b)     |
| 4   |             |              |           |  |              |             |
| 5.  |             |              |           | Hydrophytic Vegetation Indicators:   |              |             |
| 6.  |             |              |           | 1- Rapid Test for Hydrophytic  | √egetation   |             |
| 7.  |             |              |           | 2 - Dominance Test is >50%   |              |             |
| 8.  |             |              |           | 3 - Prevalence Index is ≤ 3.0¹   |              |             |
| 9.  |             |              |           | 4 - Morphological Adaptations  |              | upporting   |
|   |             | = Total Cov  | er        | data in Remarks or on a separate sh  |              |             |
| 50% of total cover: 0                               |             | -            | 0         | Problematic Hydrophytic Vege   |              |             |
| Herb Stratum (Plot size: _ 5 _)                     |             |              |           | ¹Indicators of hydric soil and wetlan  | , ,          | y must be   |
| 1. Juncus canadensis                                | 50          | Yes          | OBL       | present, unless disturbed or proble  |              |             |
| Arthraxon hispidus                                  | 30          | Yes          | FAC       | Definitions of Four Vegetation Strat   | a:           |             |
| 3. Persicaria arifolia                              | 10          | No           | OBL       | -  | 2: /2.6      | ,           |
| 4. Murdannia keisak                                 | 5           | No No        | OBL       | Tree – Woody plants, excluding vine  |              |             |
|   |             | No No        | FAC       | in diameter at breast height (DBH),  | regardiess   | or neight.  |
| 5. Microstegium vimineum                            | - —         |              |           | Familia of classical and the same of the s | iding vinog  | loca than 2 |
| 6. Vernonia noveboracensis                          | 5           | No           | FACW      | Sapling/shrub – Woody plants, excluin. DBH and greater than or equal to  | _            |             |
| 7. Symphyotrichum lanceolatum                       |             | No No        | FACW      | -  | 3 3.20 10 (1 | m) can.     |
| 8. Amphicarpaea bracteata                           |             | No           | FAC       | -  <br>  <b>Herb</b> – All herbaceous (non-woody)  | nlants reg   | ardless of  |
| 9   | - ——        |              |           | size, and woody plants less than 3.2   |              | aruress or  |
| 10  |             |              |           | -  |              |             |
| 11  |             |              |           | -  |              |             |
|   |             | _= Total Cov |           | <b>Wo</b> od <b>y vine</b> s – All woody vines grea  | ter than 3.2 | 28 ft in    |
| 50% of total cover: <u>54</u>                       | _ 20% of to | otal cover:  | 21.6      | height.  |              |             |
| Woody Vine Stratum (Plot size: 30 )                 |             |              |           |  |              |             |
| 1   |             |              |           | _  |              |             |
| 2   |             |              |           |  |              |             |
| 3.  |             |              |           | Hydrophytic Vegetation Present?  | Yes ☑ No □   | ]           |
| 4   |             |              |           | _  |              |             |
| 5   |             |              |           | _  |              |             |
|   | 0           | = Total Cov  | er        |  |              |             |
| 50% of total cover: <u>0</u>                        | _ 20% of to | otal cover:  | 0         |  |              |             |
| Remarks: (Include photo numbers here or on a separa | te sheet )  |              |           |  |              |             |
|   |             |              |           |  |              |             |
|   |             |              |           |  |              |             |
|   |             |              |           |  |              |             |
|   |             |              |           |  |              |             |
|   |             |              |           |  |              |             |
|   |             |              |           |  |              |             |

| Profile Des<br>Depth | s <mark>cription: (De</mark> scribe to<br>Matrix | th <b>e d</b> ep | oth needed to |           | ent the i<br>Feature |                                   | or confir   | m the absenc               | e of indicators.)                     |                           |
|----------------------|--|------------------|---------------|-----------|----------------------|-----------------------------------|-------------|----------------------------|---------------------------------------|---------------------------|
| (inches)             | Color (moist)                                    | 96               | Color (m      |           | %                    | Typ <b>e¹</b>                     | Loc²        |                            | Texture                               | Remarks                   |
| 0 - 2                | 2.5Y 4/2   | 95               | 10YR 3        |           | 5                    | . <u></u>                         | M/PL        |                            | Loam                                  | Treme is                  |
| 2 - 18               | 2.5Y 5/2   | 90               | 10YR 4        |           | 10                   |                                   | M/PL        |                            | Loam                                  |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      | _  |                  |               |           |                      |                                   |             |                            |                                       |                           |
| _                    |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      | ·                                 |             |                            |                                       |                           |
| -                    |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
| -                    |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
| -                    |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
| ¹Type: C =           | Concentration, D = D                             | <br>epletion     | , RM = Reduc  | ed Matri: | x, MS =              | Masked S                          | Sand Gra    | ins. <sup>2</sup> Locatio  | on: PL = Pore Lining, M =             | : Matrix.                 |
| Hydric Soil          | Indicators:                                      |                  |               |           |                      |                                   |             |                            | Indicators for Problem                | atic Hydric Soils³:       |
| _ Histosol           | (A1)   |                  |               | _ Dark S  |                      |                                   |             |                            | 2 cm Muck (A10) (M                    | #I <b>PA 1</b> 47)        |
|                      | ipedon (A2)                                      |                  |               |           |                      |                                   |             | RA 147, 148)               |                                       | x (A16) (MLRA 147, 148)   |
| _ Black His          | stic (A3)<br>·n Sulfide (A4)                     |                  |               |           |                      | face (S9) <b>(</b><br>  Matrix (F |             | , 148)                     |                                       | in Soils (F19) (MLRA 136, |
|                      | d Layers (A5)                                    |                  |               | Deplet    | -                    |                                   | ۷,          |                            | 147)                                  |                           |
|                      | ick (A10) (LRR N)                                |                  |               |           |                      | ırface (F6)                       | )           |                            | Very Shallow Dark                     | Surface (TF12)            |
|                      | d Below Dark Surface (A                          | A11)             |               |           |                      | Surface (                         |             |                            | Other (Explain in R                   | emarks)                   |
|                      | rk Surface (A12)<br>ucky Mineral (S1) (LRR       | N MIDA           | 147 1401      | Redox     | Depres               | sions (F8)                        | c (E12) (LE | DD NI MIDA 12              | 6)                                    |                           |
|                      | leyed Matrix (\$4)                               | IN, IVILITY      | ( 147, 140)   | Umbri     | c Surfac             | e (F13) (N                        | 1LRA 136.   | 122)                       | 6) <sub>3</sub> Indicators of hydroph | ytic vegetation and       |
| Sandy Re             |  |                  |               |           |                      |                                   |             | MLRA 148)                  | wetland hydrology mu                  |                           |
| Stripped             | Matrix (S6)                                      |                  |               | Red Pa    | arent Ma             | aterial (F2                       | 1) (MLRA    | 1 <b>27</b> , <b>1</b> 47) | disturbed or problema                 | atic.                     |
| Restrictive          | Layer (if observed):                             |                  |               |           |                      |                                   |             |                            |                                       |                           |
| -                    | Type:  |                  | None          |           |                      |                                   | Hydric :    | Soil Present?              |                                       | Yes ☑ No □                |
|                      | Depth (inches):                                  |                  |               |           |                      |                                   |             |                            |                                       |                           |
| Remarks:             |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |
|                      |  |                  |               |           |                      |                                   |             |                            |                                       |                           |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                                  | City/County:                        |                                     | Sampling Date: 2018-Ju      | y-17                        |
|--|-------------------------------------|-------------------------------------|-----------------------------|-----------------------------|
| Applicant/Owner: NextEra                                     |                                     | State:                              | Sampling Point:             | W-F18-51_PFO-1              |
| nvestigator(s): Alexi Weber, S                               | SES, JSF                            | Section, Township,                  | Range:                      |                             |
| andform (hillslope, terrace, etc                             | :.): <u>Toe</u>                     | Local relief (concave, conv         | ex, none): Concave          | Slop <b>e (%</b> ): 10 to 1 |
| Subregion (LRR or MLRA):                                     | MLRA 136 of LRR P                   | Lat: 36.6137533                     | Long: -79.5629199           | Datum:WGS84                 |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : <u>Cecil Sa</u> | indy loam                           |                                     | NWI classific               | tation: None                |
| Are climatic/hydrologic conditio                             | ns on the site typical for this tim | ne of year? Yes <u>✓</u> No         | (If no, explain in Rema     | rks.)                       |
| Are Vegetation, Soil,  | or Hydrology significa              | antly disturbed? Are "Norma         | al Circumstances" present?  | Yes No                      |
| Are Vegetation, Soil,  | , or Hydrology naturall             | y problematic? (If needed,          | explain any answers in Rem  | arks.)                      |
|  |                                     |                                     |                             |                             |
| SUMMARY OF FINDINGS -  | Attach site map showing s           | ampling point locations, tran       | nsects, important featur    | es, etc.                    |
| Hydrophytic Vegetation Preser                                |                                     | i                                   |                             |                             |
| Hydric Soil Present?   | Yes <u></u> ✓ No                    | i                                   |                             |                             |
| Wetland Hydrology Present?                                   | Yes <b>∠</b> _ No                   | Is the Sampled Area withi           | n <b>a Wetlan</b> d?        | Yes No                      |
| Remarks:   |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
| Covertype is PFO. Area is wetla                              | nd, all three wetland parameter     | s are present.                      |                             |                             |
|  |                                     | •                                   |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
| HYDROLOGY  |                                     |                                     |                             |                             |
| Wetland Hydrology Indicators:                                |                                     |                                     |                             |                             |
|  | of one is required; check all that  | annivi)                             | Secondary Indicators (minir | num of two required)        |
| Timaly indicators (minimum e                                 | Tone is required, check an chac     | <u>appi<b>y)</b></u>                | Surface Soil Cracks (B6)    | num or avo required)        |
| Surface Water (A1)   | True Aqua                           | atic Plants (B14)                   | Sparsely Vegetated Cond     | ravo Surfaco (R8)           |
| High Water Table (A2)  | Hydrogen                            | Sulfide Odor (C1)                   | Drainage Patterns (B10)     | ave sarrace (Bo)            |
| ✓ Saturation (A3)  | _✓_ Oxidized I                      | Rhizospheres on Living Roots (C3)   | Moss Trim Lines (B16)       |                             |
| Water Marks (B1)   | Presence                            | of Reduced Iron (C4)                | Dry-Season Water Table      | (C2)                        |
| Sediment Deposits (B2)                                       | Recent Iro                          | on Reduction in Tilled Soils (C6)   | Crayfish Burrows (C8)       |                             |
| Drift Deposits (B3)  |                                     | c Surface (C7)                      | Saturation Visible on Ae    | rial Imagery (C9)           |
| Algal Mat or Crust (B4)                                      | Other (Ex                           | olain in Remarks)                   |                             |                             |
| Iron Deposits (B5)   |                                     |                                     | Stunted or Stressed Plan    |                             |
| Inundation Visible on Aeria                                  | • •                                 |                                     | ✓ Geomorphic Position (D:   | 2)                          |
| ✓ Water-Stained Leaves (B9)                                  |                                     |                                     | Shallow Aquitard (D3)       | (D.4)                       |
| Aquatic Fauna (B13)  |                                     |                                     | Microtopographic Relief     | (D4)                        |
|  |                                     |                                     | FAC-Neutral Test (D5)       |                             |
| Field Observations:  |                                     |                                     |                             |                             |
| Surface Water Present?                                       | Yes No _ <b>_</b>                   | Depth (inches):                     |                             |                             |
| Water Table Present?   | Yes No                              | Depth (inches): 16                  | Wetland Hydrology Present   | ? Yes No                    |
| Saturation Present?  | Yes No                              | Depth (inches): 1                   |                             |                             |
| (includes capillary fringe)                                  |                                     |                                     |                             |                             |
| Describe Recorded Data (strea                                | m gauge monitoring well periol      | photos, previous inspections), if a | vailable:                   |                             |
| Describe Recorded Data (seed                                 | in gaage, morntoning wen, acriai    | priotos, previous irispeccions, ire | available.                  |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
| Remarks:   |                                     |                                     |                             |                             |
| Kemarks.   |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |
|  |                                     |                                     |                             |                             |

|  | •             |             |        | Τ   |              |             |
|--|---------------|-------------|--------|---|--------------|-------------|
| <u>Tree Stratum</u> (Plot size: <u>10x20)</u>        |               | Dominant    |        | Dominance Test worksheet:                                 |              |             |
| 1 Acoustic forms                                     |               | Species?    | Status | Number of Dominant Species That<br>Are OBL, FACW, or FAC: | 4            | (A)         |
| 1. Acer rubrum                                       | 40            | Yes         | FAC    | Total Number of Dominant Species                          |              |             |
| 2. Carpinus caroliniana                              | 30            | Yes         | FAC    | Across All Strata:  | 5            | (B)         |
| 3. <u>Liquidambar styraciflua</u>                    | 15            | No          | FAC    | Percent of Dominant Species That                          |              |             |
| 4. Liriodendron tulipifera                           | 10            | No          | FACU   | Are OBL, FACW, or FAC:                                    | 80           | (A/B)       |
| 5  |               |             |        | Prevalence Index worksheet:                               |              |             |
| 6  |               |             |        | Total % Cover of:   | Multiply     | By:         |
| 7  |               |             |        | OBL species 3   | x 1 =        | 3           |
|  | 95            | = Total Cov | er     | FACW species 5  | x 2 =        | 10          |
| 50% of total cover: <u>47.5</u>                      | _ 20% of to   | tal cover:  | 19     | FAC species 178   | x3=          | 534         |
| Sapling/Shrub Stratum (Plot size:10x5)               |               |             |        | FACU species 25   | × 4 =        | 100         |
| 1. Magnolia acuminata                                | 15            | Yes         | FACU   | - UPL species 0   | x5=          | 0           |
| 2.   |               |             |        | Column Totals 211   | (A)          | 647 (B)     |
| 3.   |               |             |        |   | -            | 047 (B)     |
| 4.   |               |             |        | Prevalence Index = B/A =                                  | 3.1          |             |
| 5.   |               |             |        | Hydrophytic Vegetation Indicators:                        |              |             |
| 6.   |               |             |        | 1- Rapid Test for Hydrophytic \                           | /egetation   | l           |
| 7.   |               |             |        | 2 - Dominance Test is >50%                                |              |             |
| 8.   |               |             |        | - 3 - Prevalence Index is ≤ 3.01                          |              |             |
| 9.   |               |             |        | -  4 - Morphological Adaptations                          |              | supporting  |
| ·  |               | = Total Cov | or     | - data in Remarks or on a separate sh                     |              |             |
| 50% of total cover: <u>7.5</u>                       |               | •           |        | Problematic Hydrophytic Vege                              |              |             |
|  | _ 20% 01 (0   | itai tover. | 3      | ¹Indicators of hydric soil and wetlan                     | •            | gy must be  |
| Herb Stratum (Plot size: 5 )                         | F0            | Vaa         | EA.C   | present, unless disturbed or proble                       |              |             |
| 1. Microstegium vimineum                             | 50            | Yes         | FAC    | Definitions of Four Vegetation Strate                     | a:           |             |
| 2. Arthraxon hispidus                                | 30            | Yes         | FAC    |   |              |             |
| 3. Parathelypteris noveboracensis                    | 10            | No          | FAC    | Tr <b>ee</b> – Woody plants, excluding vine               |              |             |
| 4. Arisaema triphyllum                               | 5             | No          | FACW   | I in diameter at breast height (DBH), I                   | regardless   | of height.  |
| 5. Smilax rotundifolia                               | 3             | No          | FAC    |   |              |             |
| 6. <i>Carex lurida</i>                               | 2             | No          | OBL    | _   <mark>Sapling/shrub – W</mark> oody plants, exclu     | •            |             |
| 7. <i>Dulichium arundinaceum</i>                     | 1             | No          | OBL    | in. DBH and greater than or equal to                      | o 3.28 ft (1 | m) tall.    |
| 8  |               |             |        | _   |              |             |
| 9  |               |             |        | Herb – All herbaceous (non-woody)                         |              | gardless of |
| 10.  |               |             |        | size, and woody plants less than 3.2                      | .8 ft tall.  |             |
| 11.  |               |             |        |   |              |             |
|  | 101           | = Total Cov | er     | <b>Wo</b> od <b>y vine</b> s – All woody vines grea       | ter than 3   | .28 ft in   |
| 50% of total cover: <u>50.5</u>                      |               | tal cover:  | 20.2   | height.   |              |             |
| Woody Vine Stratum (Plot size: 10x20 )               | _ 20 /0 01 00 | tui co tui. |        |   |              | -           |
|  |               |             |        |   |              |             |
|  |               |             |        | -   |              |             |
|  |               |             |        | - Hydrophytic Vegetation Present?                         | Voc.⊡ Ne.í   |             |
| 3.   |               |             |        | -   Hydrophytic Vegetation Present?                       | res 🖂 No L   |             |
| 4  |               |             |        |   |              |             |
| 5  |               |             |        | .   |              |             |
|  | 0             | = Total Cov | er     |   |              |             |
| 50% of total cover: <u>0</u>                         | _ 20% of to   | tal cover:  | 0      |   |              |             |
| Remarks: (Include photo numbers here or on a separat | e sheet.)     |             |        |   |              |             |
|  |               |             |        |   |              |             |
|  |               |             |        |   |              |             |
|  |               |             |        |   |              |             |
|  |               |             |        |   |              |             |
|  |               |             |        |   |              |             |
|  |               |             |        |   |              |             |
|  |               |             |        |   |              |             |
|  |               |             |        |   |              |             |

| Profile De     | scription: (Describe to          | the dept  | th n <b>eed</b> ed to do | ocument the                    | in <b>dicator</b> o | or confir | m the absenc              | ce of indicators.)              |                                  |
|----------------|----------------------------------|-----------|--------------------------|--------------------------------|---------------------|-----------|---------------------------|---------------------------------|----------------------------------|
| D <b>ep</b> th | <b>Ma</b> trix                   |           |                          | R <b>edo</b> x Featur          | es                  |           |                           |                                 |                                  |
| (inches)       | Color (moist)                    | %         | Color (mois              | it) <b>%</b>                   | Type¹               | Loc²      |                           | T <b>e</b> xture                | Remarks                          |
| 0 - 5          | 10YR 2/2                         | 97        | 10YR 3/3                 |                                | C                   | PL        |                           | Loam                            |                                  |
| 5 - 7          | 10YR 4/1                         | 96        | 10YR 3/4                 | 4                              | С С                 | PL        |                           | Silt Loam                       |                                  |
| 7 - 18         | 10YR 3/1                         | 100       |                          |                                |                     |           |                           | Silt Loam                       |                                  |
|                |                                  |           |                          |                                |                     |           |                           | Site 200iii                     | _                                |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 | _                                |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 | _                                |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
| ¹⊤ype: C =     | Concentration, D = D             | epletion, | RM = Reduced             | Matrix, MS =                   | Masked S            | and Gra   | ins. <sup>z</sup> Locatio | on: PL = Pore Lining, M         | = Matrix.                        |
| Hydric So      | il Indicators:                   |           |                          |                                |                     |           |                           | Indicators for Proble           | matic Hydric Soils³:             |
| _ Histoso      |                                  |           |                          | Dark Surface (                 |                     |           |                           | 2 cm Muck (A10) (               | (MLRA 147)                       |
|                | pipedon (A2)                     |           |                          | Polyvalue Beld                 |                     |           | -                         |                                 | ox (A16) (MLRA 147, 148)         |
|                | istic (A3)                       |           |                          | Thin Dark Surf                 |                     |           | , 148)                    |                                 | lain Soils (F19) (MLRA 136,      |
|                | en Sulfide (A4)<br>d Layers (A5) |           |                          | Loamy Gleyed<br>Depleted Mati  |                     | .)        |                           | 147)                            | (1.13) ( <b>212</b> ( <b>22)</b> |
|                | uck (A10) (LRR N)                |           |                          | Redox Dark Si                  |                     |           |                           | Very Shallow Dark               | k Surface (TF12)                 |
|                | d Below Dark Surface (A          | A11)      |                          | Depleted Dark                  |                     | 7)        |                           | Other (Explain in               |                                  |
|                | ark Surface (A12)                |           | _                        | Redox Depres                   | sions (F8)          |           |                           |                                 |                                  |
| _              | /lucky Mineral (S1) (LRR         | N, MLRA   | 147, 148)                | Iron-Mangane                   | se Masses           | (F12) (LF | RR N, MLRA 13             | <b>6)</b> ₃Indicators of hydrop | hytic vegetation and             |
|                | ileyed Matrix (S4)<br>Redox (S5) |           | _                        | Umbric Surfac<br>Piedmont Floc |                     |           | ,                         | wetland hydrology m             | ust be present, unless           |
| _              | d Matrix (S6)                    |           |                          | Red Parent Ma                  |                     |           |                           | disturbed or problem            | natic.                           |
|                | e Layer (if observed):           |           |                          |                                |                     |           | ,,                        |                                 |                                  |
| Reserver.      | Type:                            |           | None                     |                                |                     | Usalsia ( | Soil <b>Present?</b>      |                                 | Yes ☑ No □                       |
|                | Depth (inches):                  |           | None                     |                                |                     | myunc.    | SUII Fresenc              |                                 | tes ₪ NO □                       |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
| Remarks:       |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |
|                |                                  |           |                          |                                |                     |           |                           |                                 |                                  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                                     | City/County:                           |  | Sampling Date: 2018-Jul         | y-17                         |
|---|--|--|---------------------------------|------------------------------|
| Appl <b>ica</b> nt <b>/O</b> wner: NextEra                      |  | State:   | Sampling Point: \               | V-F18-51_UPL-1               |
| Investigator(s): Alexi Weber, SE                                | S, JSF                                 | Section, Township,                                   | Range:                          |                              |
| Landform (hillslope, terrace, etc.):                            | : Hillslope                            | Local relief (concave, conv                          | ex, none): Concave              | Slop <b>e (%</b> ): 10 to 15 |
| Subregion (LRR or MLRA): M                                      | ILRA 136 of LRR P                      | Lat: 36.6138086                                      | Long: -79.5628612               | Datum: WGS84                 |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : <u>Cecil San</u> e | dy Loam                                |  | NWI classific                   | ation: None                  |
| Are climatic/hydrologic conditions                              | s on the site typical for this time of | ye <b>ar?</b> Yes <u></u> ✓ No                       | (If no, explain in Remar        | ks.)                         |
| Are Vegetation, Soil,   | or Hydrology significantly             | disturbed? Are "Norma                                | al Circumstances" present?      | Yes 🟒 No                     |
| Are Vegetation, Soil,   | or Hydrology naturally pro             | oblematic? (If needed,                               | explain any answers in Rema     | arks.)                       |
|   |  |  |                                 |                              |
| SU <b>MMARY OF FINDI</b> NG <b>S</b> – A                        | ttach site map showing samp            | oling point locations, tran                          | isects, important feature       | es, etc.                     |
| Hydrophytic Vegetation Present?                                 | Yes No <b>_</b> ✓                      |  |                                 |                              |
| Hydric Soil Present?  | Yes No                                 |  |                                 |                              |
| Wetland Hydrology Present?                                      | Yes No <b>_</b> ✓                      | Is the <b>Sam</b> pl <b>ed</b> Area within           | n a Wetland?                    | Yes No _ <b>_</b>            |
| Remarks:  |  | 15 510 5510p 152 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |                                 |                              |
| Remarks.  |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
| Covertype is UPL. Area is upland,                               | , not all three wetland parameters     | are present.   |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
| HYDROLOGY   |  |  |                                 |                              |
| Wetland Hydrology Indicators:                                   |  |  |                                 |                              |
|   | one is required; check all that apple  | v)   | Secondary Indicators (minim     | num of two required)         |
| •   |  | _  | Surface Soil Cracks (B6)        | •                            |
| Surface Water (A1)  | True Aquatic P                         |  | Sparsely Vegetated Conc         | ave Surface (B8)             |
| High Water Table (A2)   | Hydrogen Sulf                          |  | Drainage Patterns (B10)         |                              |
| Saturation (A3)   |  | ospheres on Living Roots (C3)                        | Moss Trim Lines (B16)           |                              |
| Water Marks (B1)  |  | educed Iron (C4)                                     | Dry-Season Water Table          | (C2)                         |
| Sediment Deposits (B2)  |  | eduction in Tilled Soils (C6)                        | Crayfish Burrows (C8)           |                              |
| Drift Deposits (B3)<br>Algal Mat or Crust (B4)                  | Thin Muck Sur<br>Other (Explain        |  | Saturation Visible on Aer       | ial Imagery (C9)             |
| Iron Deposits (B5)  | Other (Explain                         | III Kelliu Koj                                       | Stunted or Stressed Plan        | te (D1)                      |
| Inundation Visible on Aerial                                    | Imageny (B7)                           |  | Geomorphic Position (D2         |                              |
| Water-Stained Leaves (B9)                                       | magery (B7)                            |  | Shallow Aquitard (D3)           | - <i>/</i>                   |
| Aquatic Fauna (B13)   |  |  | Microtopographic Relief         | (D4)                         |
| <del></del>   |  |  | FAC-Neutral Test (D5)           |                              |
| Field Observations:   |  |  |                                 |                              |
| Surface Water Present?  | Yes No <u></u> ✓ Dept                  | th (inches):   |                                 |                              |
| Water Table Present?  | Yes No _ <b>∠</b> Dept                 | th (inches):   | <br>  Wetland Hydrology Present | ? Yes No                     |
| Saturation Present?   | ·                                      | th (inches):   | <b></b>                         | - <u>-</u> -                 |
|   | resNo_ <u>-</u> y                      |  |                                 |                              |
| (includes capillary fringe)                                     |  |  |                                 |                              |
| Describe Recorded Data (stream                                  | gauge, monitoring well, aerial pho     | tos <b>, p</b> re <b>vious inspections</b> ), if a   | vailable:                       |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
| Remarks:  |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |

| New Part    · · · · · · · · · · · · · · · · · · ·                | •           |             |      |  |                |             |
|--|--|-------------|-------------|------|--|----------------|-------------|
|  | Tree Stratum (Plot size: 10x20)                      |             |             |      |  |                |             |
| 2. Magnolia acuminata 2. 20 Yes FACU 3. Lincidentron tulipitera 2. 20 Yes FACU 4. Siguidamate styraciflus 3. Decrease montana 5. No UPL 5. Quercus montana 5. No UPL 6. Sapiling/Shrub Stratum (Pfot size: _15.) 1. Myssa sylvatita 3. See FACU 4. Liquidamate styraciflus 3. UPL 1. Myssa sylvatita 4. UPL species 4. UPL |  |             | <u>.</u>    |      | - l  | 3              | (A)         |
| Magnetic Notion   Magnetic Note   Magnetic N |  |             |             |      | _ I  |                |             |
|  |  |             |             |      | 1  | 7              | (B)         |
| 5 No   |  |             |             |      | Percent of Dominant Species That   | 43.0           | — (1.4P)    |
| C  |  |             |             |      | Are OBL, FACW, or FAC:   | 42.9           | (A/R)       |
|  | <del></del>  |             | NO          | UPL  | Prevalence Index worksheet:  |                |             |
| Solition   |             |             |      | <u>Total % Cover of:</u>   | Multiply P     | <u> </u>    |
| Solit   Stratum (Plot size:   15'.   | <i>'</i>   |             |             |      | OBL species 0  | x 1 =          | 0           |
| Note   Stratum (Plot size: 15')   Separation   Separati |  |             | -           |      | FACW species 3   | x 2 =          | 6           |
| 1. Nyssa sylvatica 2. Liquidambar styraciflua 3. 10 Yes FAC 1. Liquidambar styraciflua 4.  |  | _ 20% of to | otal cover: | 16   | FAC species 82   | x 3 =          | 246         |
| Liquidambar styraciflua  |  | 95          | v           | E. E | FACU species 46  | × 4 =          | 184         |
| Column lotals  |  |             |             |      | - UPL species 13   | x 5 =          | 65          |
| Prevalence Index = B/A = 3.5   |  | 10          | Yes         | FAC  | - Column Totals 144  | (A)            | 501 (B)     |
| Hydrophytic Vegetation Indicators:   | 3  |             |             |      | Prevalence Index = B/A =   |                |             |
| 1. Rapid Test for Hydrophytic Vegetation   2. Dominance Test is > 50%  | 4  |             |             |      | <u> </u>   |                |             |
| 2 - Dominance Test is > 50%     3 - Prevalence Index is s 3.01     4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)  | 5  |             |             |      | 1  | /egetation     |             |
| 3 - Prevalence Index is ≤ 3.0°   | 6.   |             |             |      |  | regetation     |             |
| 8.   | 7  |             |             |      |  |                |             |
| 45 = Total Coversum (Plot size: _50% of total cover: _22.5   | 8.   |             |             |      |  | 1 (Dravida c   | upporting   |
| As   Float   Cover   Slow of total cover   22.5   20% of total cover   9   Problematic Hydrophystic Vegetation (Explain)   Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic   Definitions of Four Vegetation Strata:   | 9.   |             |             |      |  |                | upporting   |
| Some of total cover:   22.5   20% of total cover:   9   Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic   |  | 45          | = Total Cov | er   | '  |                | nlain)      |
| Percent with the problematic   Percent with the problematic   Percent with the problematic   Percent with the problematic  | 50% of total cover: <u>22.5</u>                      | 20% of to   | tal cover:  | 9    |  |                |             |
| 1. Quercus montana 2. Vitis labrusca 3. Vaccinium corymbosum 3. No FACW 4. Smilax rotundifolia 5. Magnolia acuminata 6.  | Herb Stratum (Plot size: 5 )                         |             |             |      | 1  | , ,            | y mase be   |
| 2. Vitis labrusca 3. Vaccinium corymbosum 4. Smilax rotundifolia 5. Magnolia acuminata 6.  | 1. Quercus montana                                   | 8           | Yes         | UPL  |  |                |             |
| 4. Smilax rotundifolia 5. Magnolia acuminata 6.  | 2. Vitis labrusca                                    | 5           | Yes         | FACU | Demindons of Fodi Vegetation Strate  | -              |             |
| 4. Smilax rotundifolia 5. Magnolia acuminata 6.  | 3. Vaccinium corymbosum                              | 3           | No No       | FACW | -  <br>  Tr <b>ee</b>  | e 3 in 176     | cm) or more |
| 5. Magnolia acuminata  1   | -  |             |             |      |  |                |             |
| Sapling/shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  8.  |  |             |             |      | - I was a second of the control of t |                | 51 114 6 14 |
| 7.   |  | · ——        |             |      | -  <br>  Sanling/shruh   | ıding vines    | less than 3 |
| 8.   | -  |             |             |      | -   · · · · · · · · · · · · · · · · · ·  | _              |             |
| 9. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  11  |  |             |             |      | ·  |                | •           |
| 10.  |  |             |             |      | - Herb – All herbaceous (non-woody)  | plants, reg    | ardless of  |
| 11   |  | · ——        |             |      | 1  |                |             |
| 19   |  | ·           |             |      | -  |                |             |
| Solve of total cover: 9.5   20% of total cover: 3.8   height.  | II   |             |             |      | - Net-coloring All respectively  | ************ 7 | 10 ft la    |
| Woody Vine Stratum (Plot size: _10x20 )  |  |             | •           |      | , , ,  | ter triari 5.2 | 20 11 111   |
| 1  |  | _ 20% of to | ital cover: | 3.8  | rieight.   |                |             |
| 2.   |  |             |             |      |  |                |             |
| 3.   |  |             |             |      |  |                |             |
| 4  |  |             |             |      |  |                |             |
| 5  | 3  |             |             |      | Hydrophytic Vegetation Present?  | ∕es □ No ☑     |             |
| 0         = Total Cover           50% of total cover:         0           20% of total cover:         0  | 4  |             |             |      |  |                |             |
| 50% of total cover: 0 20% of total cover: 0  | 5  |             |             |      | .  |                |             |
|  |  | 0           | = Total Cov | er   |  |                |             |
| Remarks: (Include photo numbers here or on a separate sheet.)  | 50% of total cover: <u>0</u>                         | _ 20% of to | tal cover:  | 0    |  |                |             |
| Remarks. (Interdet prioto nambers here of on a separate sheet)   | Remarks: (Include photo numbers here or on a separa: | te sheet )  |             |      | •  |                |             |
|  | Remarks. (Helade proto fambers here of orta separa   | ac sincecy  |             |      |  |                |             |
|  |  |             |             |      |  |                |             |
|  |  |             |             |      |  |                |             |
|  |  |             |             |      |  |                |             |
|  |  |             |             |      |  |                |             |
|  |  |             |             |      |  |                |             |
|  |  |             |             |      |  |                |             |
|  |  |             |             |      |  |                |             |

|                  | s <b>c</b> rip <b>tion: (De</b> s <b>c</b> ri <b>be</b> to | t <b>he d</b> e <b>pt</b> h | n n <b>eed</b> e <b>d to</b> d <b>oc</b> un | nent the i | in <b>dic</b> ator o               | or confir   | m the absence             | ce of indicators.)              |   |
|------------------|--|-----------------------------|---|------------|------------------------------------|-------------|---------------------------|---------------------------------|---|
| D <b>ep</b> th _ | <b>Ma</b> trix   |                             |   | ox Featur  |                                    |             |                           |                                 |   |
| (inches)         | Color (moist)  |                             | Color (moist)                               | %          | Type¹                              | _Loc²       |                           | Te <b>xtu</b> r <b>e</b>        | Remarks   |
| 0 - 2            | 2.5Y 6/3   | 100                         |   | _          |                                    |             |                           | Loam                            | _   |
| 2 - 18           | 2.5Y 7/4   | 100                         |   |            |                                    |             |                           | Loam                            |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  | _  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 | -   |
|                  | -  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 | _   |
|                  |  |                             |   |            | - ——                               |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 | <u> </u>  |
|                  |  | epletion, F                 | RM = Reduced Mat                            | rix, MS =  | Masked S                           | and Grai    | ins. <sup>z</sup> Locatio | on: PL = Pore Lining, M         |   |
| *                | l Indicators:  |                             |   |            |                                    |             |                           | Indicators for Problem          | matic Hydric Soils³:                                      |
| _ Histosol       |  |                             |   | Surface (  |                                    | (0.0)       | D1 447 440:               | 2 cm Muck (A10) (               | (MLRA 147)  |
|                  | nipedon (A2)   |                             |   |            | ow Surface<br>face (S9) <b>(</b> N |             | RA 147, 148)              |                                 | ox (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b> |
| _ Black Hi       | stic (A3)<br>en Sulfide (A4)                               |                             |   |            | race (S9) (r<br>  Matrix (F2       |             | , 140)                    |                                 | lain Soils (F19) (MLRA 136,                               |
|                  | d Layers (A5)  |                             |   | leted Matr |                                    | -,          |                           | 147)                            | ·   |
| 2 cm Mu          | ick (A10) (LRR N)  |                             |   |            | ırface (F6)                        |             |                           | Very Shallow Darl               | k Surface (TF12)  |
|                  | d Below Dark Surface (/                                    | A11)                        |   |            | Surface (F                         | =7)         |                           | Other (Explain in               | Remarks)  |
|                  | irk Surface (A12)  |                             | Red   | ox Depres  | sions (F8)                         |             |                           |                                 |   |
|                  | lucky Mineral (S1) (LRR                                    | N, MLRA 1                   | 47, 148) Iron                               | -Mangane   | se Masses<br>e (F13) ( <b>M</b>    | 5 (F12) (LR | R N, MERA 13              | <b>6)</b> ₃Indicators of hydrop | hytic vegetation and                                      |
|                  | leyed Matríx (S4)<br>edox (S5)                             |                             |   | ine Bankae |                                    | L           | 122)<br>VILRA 148)        | wetland hydrology m             | ust be present, unless                                    |
| _                | Matrix (S6)  |                             | _   |            | aterial (F21                       |             |                           | disturbed or problem            | natic.  |
|                  | Layer (if observed):                                       |                             |   |            | •                                  | Ì           |                           |                                 |   |
|                  | Type:  |                             | None  |            |                                    | Hydric      | Soil <b>Present?</b>      |                                 | Yes □ No ☑  |
|                  | Depth (inches):  |                             |   | _          |                                    | i iyanc.    | JOH I TESCHE              |                                 | les 🗆 No 🖭  |
|                  | Depart (menes):  |                             |   | _          |                                    |             |                           |                                 |   |
| Remarks:         |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |
|                  |  |                             |   |            |                                    |             |                           |                                 |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Applicant/Owner: NextEra Investigator(s): Troy Savage, MS JB Landform (hillslope, terrace, etc.): Subregion (LRR or MLRA): Soil Map Unit Name: 5C3 |                             |                                    |                                 | ate: 2018-July-18                           |                            |
|--|-----------------------------|------------------------------------|---------------------------------|---|----------------------------|
| Landform (hillslope, terrace, etc.):<br>Subregion (LRR or MLRA):   |                             |                                    | State: Virgini                  | a Sampling Po                               | oint: W-E18-53_PEM-1       |
| Subregion (LRR or MLRA):   | ı                           | Secti                              | on, Township, F                 | tange:                                      |                            |
|  | Flood Plain                 | Local relief (                     | concave, conve                  | x, none): Concave                           | Slop <b>e (%</b> ): 2 to 5 |
| Soil Man Unit Name: 503  |                             | Lat:                               | 36.605974                       | Long: -79.5680586                           | Datum: WGS84               |
| John Wap Offic Name  |                             |                                    |                                 | NWI da                                      | assification: None         |
| Are climatic/hydrologic conditions or  | the site typical for this   | time of year?                      | Yes 🚣 No                        | (If no, explain in I                        | Remarks.)                  |
| Are Vegetation, Soil,  | or Hydrology signi          | ficantly disturbed?                | Are "Norma                      | Circumstances" prese                        | ent? Yes 🟒 No              |
| Are Vegetation, Soil,  | or Hydrology natu           | rally problematic?                 | (If needed, e                   | xplain any answers in                       | Remarks.)                  |
|  |                             |                                    |                                 |   |                            |
| SU <mark>MMARY OF FINDI</mark> NGS – Atta  | ch site map showing         | g sampling point lo                | cations, trans                  | sects, important fe                         | atures, etc.               |
| Hydrophytic Vegetation Present?  | Yes _✓_ No _                | 1                                  |                                 | -   |                            |
| Hydric Soil Present?   | Yes <u></u> No _            | i                                  |                                 |   |                            |
| Wetland Hydrology Present?   | Yes <u>✓</u> No _           | i                                  | l <b>ed</b> A <b>rea</b> within | a Wetland?                                  | Voc. / No.                 |
|  |                             | is the samp                        | led Area Within                 | a wedand:                                   | Yes _ <b>_∕ No</b>         |
| Remarks:   |                             |                                    |                                 |   |                            |
|  |                             |                                    |                                 |   |                            |
|  |                             |                                    |                                 |   |                            |
| Covertype is PEM. Area is wetland, a   | ıll three wetland parame    | eters are present.                 |                                 |   |                            |
|  | ,                           | ·                                  |                                 |   |                            |
|  |                             |                                    |                                 |   |                            |
|  |                             |                                    |                                 |   |                            |
|  |                             |                                    |                                 |   |                            |
| HYDROLOGY  |                             |                                    |                                 |   |                            |
| Wetland Hydrology Indicators:  |                             |                                    |                                 |   |                            |
| Primary Indicators (minimum of one   | a is required; check all th | at anniv)                          |                                 | Secondary Indicators (                      | minimum of two required)   |
| Frimary indicators (minimum or one   | : is required, check an cr  | iac appiy)                         | =                               | Surface Soil Cracks                         | minimum of two required)   |
| Surface Water (A1)   | True Ar                     | quatic Plants (B14)                | -                               |   | l Concave Surface (B8)     |
| High Water Table (A2)  | Hydrog                      | gen Sulfide Odor (C1)              | -                               | Drainage Patterns                           |                            |
| ✓ Saturation (A3)  | Oxidize                     | ed Rhizospheres on Livi            | ng Roots (C3)                   | Moss Trim Lines (B                          |                            |
| Water Marks (B1)   | Presen                      | ce of Reduced Iron (C4             | )                               | Dry-Season Water                            |                            |
| Sediment Deposits (B2)   |                             | Iron Reduction in Tille            | d Soils (C6)                    | Crayfish Burrows (                          | C8)                        |
| Drift Deposits (B3)  |                             | uck Surface (C7)                   | -                               | Saturation Visible o                        | on Aerial Imagery (C9)     |
| Algal Mat or Crust (B4)  | Other (                     | Explain in Remarks)                |                                 |   |                            |
| Iron Deposits (B5)   |                             |                                    | -                               | Stunted or Stresse                          |                            |
| Inundation Visible on Aerial Ima   | agery (B7)                  |                                    |                                 | Geomorphic Positi                           |                            |
| Water-Stained Leaves (B9)  |                             |                                    | =                               | Shallow Aquitard (I                         |                            |
| Agustic Fausa (B13)  |                             |                                    | -                               | Microtopographic  <br>_ FAC-Neutral Test (E |                            |
| Aquatic Fauna (B13)  |                             |                                    |                                 | V FAC-Neutral Test (L                       | וכי                        |
| ·  |                             |                                    |                                 |   |                            |
| Field Observations:  | Voc. No. /                  | Donth (inches)                     |                                 |   |                            |
| Field Observations: Surface Water Present?   | Yes No <u></u> ✓            | Depth (inches):                    |                                 |   |                            |
| Field Observations: Surface Water Present? Water Table Present?  | Yes No                      | Depth (inches):<br>Depth (inches): | 18                              | <b>Ne</b> tland Hydrology Pr                | esent? Yes No              |
| Field Observations: Surface Water Present? Water Table Present?  |                             |                                    |                                 | Wetland Hydrology Pr                        | esent? Yes _∡_ No          |

| · · · · · · · · · · · · · · · · · · ·               |                  |              |           |   |               |             |
|---|------------------|--------------|-----------|---|---------------|-------------|
| Tree Stratum (Plot size:30)                         | <b>A</b> bsolute | Dominant     | Indicator | Dominance Test worksheet:                               |               |             |
| <u>rree stratum</u> (Plot size. <u>So)</u>          | % Cover          | Species?     | Status    | Number of Dominant Species That                         | 2             | (A)         |
| 1   |                  |              |           | Are OBL, FACW, or FAC:                                  |               | (A)         |
| 2.  |                  |              |           | Total Number of Dominant Species Across All Strata:     | 2             | (B)         |
| 3.  | . ——             |              |           | Percent of Dominant Species That                        |               |             |
| 4.  |                  |              |           | - Are OBL, FACW, or FAC:                                | 100           | (A/B)       |
| 5   |                  |              |           | Prevalence Index worksheet:                             |               |             |
| 6.  |                  |              |           | Total % Cover of:                                       | Multiply B    | By:         |
| 7   |                  |              |           | - OBL species 48  | x 1 =         | 48          |
|   | 0                | _= Total Cov | er        | FACW species 46   | x 2 =         | 92          |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:  | 0         | FAC species 40  | x3=           | 120         |
| Sapling/Shrub Stratum (Plot size:15)                |                  |              |           | FACU species 0  | × 4 =         | 0           |
| 1   |                  |              |           | - UPL species 0   | x5=           | 0           |
| 2.  |                  |              |           | Column Totals 134                                       | _             | 260 (B)     |
| 3.  |                  |              |           |   | (A) _         | 200 (b)     |
| 4.  |                  |              |           | Prevalence Index = B/A =                                | 1.9           |             |
| 5.  |                  |              |           | Hydrophytic Vegetation Indicators:                      |               |             |
| 6.  |                  |              |           | 1- Rapid Test for Hydrophytic                           | √egetation    |             |
| 7   |                  |              |           | 2 - Dominance Test is >50%                              |               |             |
| _   |                  |              |           |   |               |             |
| 8.<br>9.  |                  |              |           | -  4 - Morphological Adaptations                        | ¹ (Provide s  | upporting   |
| J   |                  |              |           | - data in Remarks or on a separate sh                   | neet)         |             |
| 500/ - Frank  | -                | _= Total Cov |           | Problematic Hydrophytic Vege                            |               |             |
| 50% of total cover: 0                               | _ 20% or to      | otal cover:  | 0         | Indicators of hydric soil and wetlan                    | , 0           | y must be   |
| Herb Stratum (Plot size: 5 )                        | 40               | .,           |           | present, unless disturbed or proble                     | matic         |             |
| 1. Microstegium vimineum                            | 40               | Yes          | FAC       | Definitions of Four Vegetation Strat                    | a:            |             |
| 2. <u>Murdannia keisak</u>                          | 30               | Yes          | OBL       | -   |               |             |
| 3. Boehmeria cylindrica                             | 25               | No           | FACW      | Tr <b>ee</b> – Woody plants, excluding vine             | s, 3 in. (7.6 | cm) or more |
| 4. Eupatorium perfoliatum                           | 12               | No           | FACW      | in diameter at breast height (DBH),                     | regardless    | of height.  |
| 5. <i>Dulichium arundinaceum</i>                    | 10               | No           | OBL       | _   |               |             |
| 6. <i>Woodwardia virginica</i>                      | 8                | No           | OBL       | Sapling/shrub – Woody plants, exclu                     | _             |             |
| 7. Juncus effusus                                   | 5                | No           | FACW      | in. DBH and greater than or equal to                    | o 3.28 ft (1  | m) tall.    |
| 8. Bidens aristosa                                  | 4                | No           | FACW      |   |               |             |
| 9.  |                  |              |           | Herb – All herbaceous (non-woody)                       |               | ardless of  |
| 10.   |                  |              |           | size, and woody plants less than 3.2                    | 28 ft tall.   |             |
| 11.   |                  |              |           | -   |               |             |
|   | 134              | = Total Cov  | er        | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.2  | 28 ft in    |
| 50% of total cover: <u>67</u>                       |                  | -            | 26.8      | height.   |               |             |
| Woody Vine Stratum (Plot size:)                     | _ 20 % 01 (0     | rui covei.   |           |   |               |             |
| 1   |                  |              |           |   |               |             |
|   |                  |              |           | -   |               |             |
| -   |                  |              |           | -   | Vaa ⊡ Na ⊏    | 1           |
| 3   |                  |              |           | Hydrophytic Vegetation Present? `                       | res ₪ No ∟    | J           |
| 4   |                  |              |           | -   |               |             |
| 5   |                  |              |           | .   |               |             |
|   | 0                | = Total Cov  | er        |   |               |             |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:  | 0         |   |               |             |
| Remarks: (Include photo numbers here or on a separa | te sheet.)       |              |           |   |               |             |
|   |                  |              |           |   |               |             |
|   |                  |              |           |   |               |             |
|   |                  |              |           |   |               |             |
|   |                  |              |           |   |               |             |
|   |                  |              |           |   |               |             |
|   |                  |              |           |   |               |             |
|   |                  |              |           |   |               |             |

| Profile De:<br>Depth | scription: (Describe to                             | o t <b>he d</b> ept | th needed to docume<br>Redox | nt the i |                                   | or confir        | m the absenc               | e of indicators.)                |                              |
|----------------------|---|---------------------|------------------------------|----------|-----------------------------------|------------------|----------------------------|----------------------------------|------------------------------|
| (in <b>ch</b> es)    | Color (moist)                                       | <del></del> .       | Color (moist)                | %        | Type¹                             | Loc²             |                            | Texture                          | R <b>emark</b> s             |
| 0 - 4                | 10YR 4/3  | 100                 |                              |          |                                   |                  |                            | Sandy Clay                       |                              |
| 4 - 10               | 10YR 4/2  | 80                  | 10YR 5/4                     | 20       |                                   | PL               |                            | Loamy Sand                       |                              |
| 10 - 18              | 10YR 4/1  | 90                  | 10YR 4/4                     | 10       | С                                 | PL               |                            | Sand                             |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
| -                    |   |                     |                              |          |                                   |                  |                            |                                  |                              |
| -                    |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
| -                    |   |                     |                              |          |                                   |                  |                            |                                  |                              |
| -                    |   |                     |                              |          |                                   |                  |                            |                                  |                              |
| -                    |   |                     |                              |          |                                   |                  |                            |                                  |                              |
| ¹Type: C =           | Concentration, D = D                                | epletion,           | RM = Reduced Matrix          | , MS =   | Masked S                          | and Gra          | ins. ²Locatio              | on: PL = Pore Lining, M =        | Matrix.                      |
| Hydric Soi           | l Indicators:                                       |                     |                              |          |                                   |                  |                            | Indicators for Problema          | atic Hydric Soils³:          |
| _ Histosol           |   |                     | _ Dark S                     |          |                                   |                  |                            | 2 cm Muck (A10) <b>(M</b>        | ILRA 147)                    |
|                      | ipedon (A2)   |                     |                              |          |                                   |                  | RA 147, 148)               |                                  | (A16) <b>(MLRA 147, 148)</b> |
| _ Black Hi:          | stic (A3)<br>en Sulfide (A4)                        |                     |                              |          | ace (S9) <b>(</b> N<br>Matrix (F2 |                  | , 146)                     |                                  | in Soils (F19) (MLRA 136,    |
|                      | d Layers (A5)                                       |                     | _ Deplet                     | -        | •                                 | .,               |                            | 147)                             |                              |
| _ 2 cm Mu            | ick (A10) (LRR N)                                   |                     |                              |          | ırface (F6)                       |                  |                            | Very Shallow Dark S              | Surface (TF12)               |
|                      | d Below Dark Surface (                              | A11)                |                              |          | Surface (F                        | -7)              |                            | Other (Explain in Re             | emarks)                      |
| _                    | rk Surface (A12)<br>lucky Mineral (S1) <b>(</b> LRR | N MIRA              | Redox<br>147 148)            | angane   | sions (F8)<br>se Masses           | (E12) (LE        | R N MIRA 13                | <b>6)</b> ₃Indicators of hydroph |                              |
| _                    | leyed Matrix (S4)                                   | tre, micro t        | Umbrid                       | c Surfac | e (F13) ( <b>M</b>                | LR <b>A 136.</b> | <b>12</b> 2)               | Indicators of hydrophy           | ytic vegetation and          |
|                      | edox (S5)   |                     |                              |          |                                   |                  | MLRA 148)                  | wetland hydrology mu             | · ·                          |
| Stripped             | Matrix (S6)   |                     | Red Pa                       | rent Ma  | aterial (F21                      | ) (MLRA          | 1 <b>2</b> 7, <b>1</b> 47) | disturbed or problema            | TIC.                         |
| Restrictive          | Layer (if observed):                                |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      | Туре:   |                     | None                         |          |                                   | Hydric :         | Soil <b>Present?</b>       |                                  | Yes ☑ No □                   |
|                      | Depth (inches):                                     |                     |                              |          |                                   |                  |                            |                                  |                              |
| Remarks:             |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
| Soils pote           | ntially disturbed from                              | n agricultu         | ıral activities, but not     | conside  | ered to be                        | a signif         | icant disturba             | ance.                            |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |
|                      |   |                     |                              |          |                                   |                  |                            |                                  |                              |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                     | City/County:                                    |                             | Sampling Date: 2018-July-  | 18                        |  |  |
|---|---|-----------------------------|--|---------------------------|--|--|
| Applicant/Owner: NextEra                        |   | State:                      | Sampling Point: W-E18-53_UPL-1   |                           |  |  |
| Investigator(s): Troy Savage, N                 | //S JB  | Section, Township,          | Range:   |                           |  |  |
| Landform (hillslope, terrace, etc.              | .): Foot slope L                                | ocal relief (concave, conve | ex, none): Convex  | Slop <b>e (%</b> ):2 to 5 |  |  |
| Subregion (LRR or MLRA):                        |   | Lat: 36.6059772             | Long: -79.5678573  | Datum:WGS84               |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :5c3 |   |                             | NWI classificat  | i <b>on</b> : None        |  |  |
|   | ns on the site typical for this time of year    |                             | (If no, explain in Remarks   | 5.)                       |  |  |
| Are Vegetation 🟒, Soil,                         | or Hydrology significantly distu                | urbed? Are "Norma           | al Circumstances" present?   | Yes 🟒 No                  |  |  |
| Are Vegetation, Soil,                           | or Hydrology naturally probler                  | matic? (If needed,          | explain any answers in Remark  | ks.)                      |  |  |
|   |   |                             |  |                           |  |  |
| SUMMARY OF FINDINGS - A                         | Attach site ma <mark>p sho</mark> wing sampling | g point locations, tran     | isects, important features   | s, etc.                   |  |  |
| Hydrophytic Vegetation Present                  | t? Yes No ✓                                     |                             |  |                           |  |  |
| Hydric Soil Present?                            | Yes No _ <b>✓</b>                               |                             |  |                           |  |  |
| •   |   |                             |  | Yes No                    |  |  |
| Wetland Hydrology Present?                      | Yes No _ <b>_</b> _                             | Is the Sampled Area w       | rithin a W <b>e</b> tlan <b>d?</b>   |                           |  |  |
| Remarks:  |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
| Covertype is UPL. Area is upland                | d, not all three wetland parameters are p       | oresent. Circumstances a    | re not normal due to agricultu   | ral                       |  |  |
| activities.                                     | , · · · - · · · · · · · · · · · · · ·           |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
| HYDROLOGY                                       |   |                             |  |                           |  |  |
| Wetland Hydrology Indicators:                   |   |                             |  |                           |  |  |
|   | f one is required; check all that apply)        |                             | Secondary Indicators (minimu   | ım of two required)       |  |  |
| •   | •   |                             |  | ini or two required)      |  |  |
| Surface Water (A1)                              | True Aquatic Plants                             |                             | <ul><li>Surface Soil Cracks (B6)</li><li>Sparsely Vegetated Concav</li></ul> | vo Surfaco (BR)           |  |  |
| High Water Table (A2)                           | Hydrogen Sulfide C                              | Odor (C1)                   |  | ve surface (bo)           |  |  |
| Saturation (A3)                                 |   |                             | Drainage Patterns (B10)<br>Moss Trim Lines (B16)                             |                           |  |  |
| Water Marks (B1)                                | Presence of Reduct                              |                             | Dry-Season Water Table (C  | 71                        |  |  |
| Sediment Deposits (B2)                          | <del></del>                                     | tion in Tilled Soils (C6)   | Crayfish Burrows (C8)  | ,                         |  |  |
| Drift Deposits (B3)                             | Thin Muck Surface                               | (C7)                        | Saturation Visible on Aeria  | il Imagery (C9)           |  |  |
| Algal Mat or Crust (B4)                         | Other (Explain in R                             | emarks)                     | Stunted or Stressed Plants   | 0 ,                       |  |  |
| Iron Deposits (B5)                              | Ocher (Explain in it                            | emantsy                     | Geomorphic Position (D2)   | , (51)                    |  |  |
| Inundation Visible on Aeria                     | l Imagery (B7)                                  |                             | Shallow Aquitard (D3)  |                           |  |  |
| Water-Stained Leaves (B9)                       |   |                             | Microtopographic Relief (D   | 04)                       |  |  |
| Aquatic Fauna (B13)                             |   |                             | FAC-Neutral Test (D5)  | ,                         |  |  |
| Field Observations:                             |   |                             |  |                           |  |  |
| Surface Water Present?                          | Yes No 🟒             Depth (ir                  | nches):                     |  |                           |  |  |
| Water Table Present?                            | Yes No Depth (in                                |                             | <br>  Wetland Hydrology Present?   | Yes No                    |  |  |
| Saturation Present?                             | Yes No /_ Depth (ir                             |                             | Treatment Tyurology Treserie   |                           |  |  |
|   | resno_ <u>₽</u> bepur(ii                        |                             |  |                           |  |  |
| (includes capillary fringe)                     |   |                             |  |                           |  |  |
| Describe Recorded Data (stream                  | n gauge, monitoring well, aerial photos,        | previous inspections), if a | vailable:  |                           |  |  |
|   |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
| Remarks:  |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |
|   |   |                             |  |                           |  |  |

| · · ·   |                  |                 |           | _   |                  |                |
|---|------------------|-----------------|-----------|---|------------------|----------------|
| Tree Stratum (Plot size:30)                         | <b>A</b> bsolute | Dominant        | Indicator | Dominance Test worksheet:                                     |                  |                |
| <u>Tree Stratum</u> (Plot Size. <u>50)</u>          | % Cover          | Species?        | Status    | Number of Dominant Species That                               | 1                | (A)            |
| 1.  |                  |                 |           | Are OBL, FACW, or FAC:  |                  | (A)            |
| 2.  |                  |                 |           | Total Number of Dominant Species Across All Strata:           | 2                | (B)            |
| 3.  |                  |                 |           |   |                  | <del></del>    |
| 4   |                  |                 |           | Percent of Dominant Species That Are OBL, FACW, or FAC:       | 50               | (A/B)          |
| 5   |                  |                 |           | Prevalence Index worksheet:                                   |                  | <del></del>    |
| 6.  |                  |                 |           |   | B de electronico | D              |
| 7.  |                  |                 |           | Total % Cover of:   | <u>Multiply</u>  | -              |
|   |                  | = Total Cov     | er        | - OBL species 0   | x 1 = _          |                |
| 50% of total cover: <u>0</u>                        | 20% of to        | -<br>otal cover | 0         | FACW species 0  | x 2 = _          | 0              |
| Sapling/Shrub Stratum (Plot size:15)                | _ 20% 01 00      | Jean Co Ven.    |           | FAC species 20  | x3=_             | 60             |
|   |                  |                 |           | FACU species 35   | × 4 =            | 140            |
| -   | ·                |                 |           | UPL species 40  | x 5 = _          | 200            |
| 2.  |                  |                 |           | Column Totals 95  | (A)              | 400 (B)        |
| 3   |                  |                 |           | Prevalence Index = B/A =                                      | 4.2              |                |
| 4   |                  |                 |           | Hydrophytic Vegetation Indicators:                            |                  |                |
| 5   |                  |                 |           | 1- Rapid Test for Hydrophytic                                 | Vegetation       |                |
| 6   |                  |                 |           | 2 - Dominance Test is > 50%                                   | regetation       |                |
| 7   |                  |                 |           |   |                  |                |
| 8.  |                  |                 |           | 3 - Prevalence Index is ≤ 3.0¹                                | 170 11           |                |
| 9.  |                  |                 |           | 4 - Morphological Adaptations                                 |                  | supporting     |
|   | 0                | = Total Cov     | er        | data in Remarks or on a separate sh                           |                  |                |
| 50% of total cover: 0                               |                  | -               | 0         | Problematic Hydrophytic Vege                                  | · ·              |                |
| Herb Stratum (Plot size: 5 )                        | _ 20 % 01 (0     | otal cover.     |           | ¹Indicators of hydric soil and wetlan                         | -                | gy must be     |
|   | 40               | Vaa             | LIDI      | present, unless disturbed or proble                           |                  |                |
| 1. Sorghum bicolor                                  | 40               | Yes -           | UPL       | Definitions of Four Vegetation Strat                          | a:               |                |
| 2. Microstegium vimineum                            |                  | Yes             | FAC       | -   |                  |                |
| 3. Phytolacca americana                             | 15               | No              | FACU      | Tr <b>ee</b> – Woody plants, excluding vine                   |                  |                |
| 4. Cenchrus americanus                              | 15               | No              | FACU      | in diameter at breast height (DBH),                           | regardless       | of height.     |
| 5. Smìlax glauca                                    | 5                | No              | FACU      | _   |                  |                |
| 6   |                  |                 |           | Sapling/shrub – Woody plants, exclu                           | uding vine:      | s, less than 3 |
| 7.  |                  |                 |           | in. DBH and greater than or equal to                          | o 3.28 ft (1     | m) tall.       |
| 8.  |                  |                 |           |   |                  |                |
| 9.  |                  |                 |           | Herb – All herbaceous (non-woody)                             | plants, reg      | gardless of    |
| 10  |                  |                 |           | size, and woody plants less than 3.2                          | 8 ft tall.       |                |
| 11.   |                  |                 |           | -   |                  |                |
|   | 95               | = Total Cove    |           | - <b> <br/>  Wo</b> od <b>y vine</b> s – All woody vines grea | tarthan 3        | 28 ft in       |
| 500/ 51 1 47 5                                      |                  | -               |           | height.   | cer chairs.      | .20 10 111     |
| 50% of total cover: <u>47.5</u>                     | _ 20% of to      | otal cover:     | 19        | neight.   |                  |                |
| Woody Vine Stratum (Plot size:)                     |                  |                 |           |   |                  |                |
| 1   |                  |                 |           | -   |                  |                |
| 2   |                  |                 |           | _   |                  |                |
| 3.  |                  |                 |           | Hydrophytic Vegetation Present?                               | Yes □ No 🛭       | <b>7</b>       |
| 4   |                  |                 |           | _   |                  |                |
| 5.  |                  |                 |           |   |                  |                |
|   | 0                | = Total Cove    | er        |   |                  |                |
| 50% of total cover: 0                               | 20% of to        | tal cover:      | 0         |   |                  |                |
| Barrada da         |                  |                 |           |   |                  |                |
| Remarks: (Include photo numbers here or on a separa | te sheet.)       |                 |           |   |                  |                |
|   |                  |                 |           |   |                  |                |
|   |                  |                 |           |   |                  |                |
|   |                  |                 |           |   |                  |                |
|   |                  |                 |           |   |                  |                |
|   |                  |                 |           |   |                  |                |
|   |                  |                 |           |   |                  |                |
|   |                  |                 |           |   |                  |                |

|                           | s <b>c</b> rip <b>tion: (De</b> scri <b>be</b> to     | t <b>he d</b> ep | th n <b>eed</b> ed to |               |                       |                                  | or confir                      | m the absenc              | e of indicators.)                    |                                   |
|---------------------------|---|------------------|-----------------------|---------------|-----------------------|----------------------------------|--------------------------------|---------------------------|--------------------------------------|-----------------------------------|
| Depth _                   | Matrix  |                  |                       | Redox         | Feature               |                                  |                                |                           |                                      |                                   |
| (in <b>ches)</b>          | Color (moist)   | %                | Color (m              | ois <b>t)</b> | %                     | Type¹                            | Loc²                           |                           | T <b>ex</b> ture                     | Remarks                           |
| 0 - 12                    | 7.5YR 4/4   | _100_            |                       |               |                       |                                  |                                | Sa                        | ndy Clay Loam                        |                                   |
| 12 - 18                   | 2.5Y 4/2  | 90               | 7.5YR 4               | l/3           | 10                    | C                                | M                              | Sa                        | ndy Clay Loam                        |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      | -                                 |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      | <del>.</del> . <del></del>        |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
| <u> </u>                  |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   | epletion,        | RM = Reduc            | ed Matrix     | K, MS = 1             | Masked S                         | and Gra                        | ins. <sup>2</sup> Locatio | n: PL = Pore Lining, M =             |                                   |
| 1 -                       | il Indicators:  |                  |                       |               |                       |                                  |                                |                           | Indicators for Problem               | natic Hydric Soils <sup>3</sup> : |
| _ Histosol                |   |                  |                       | _ Dark S      |                       |                                  | (0.0)                          | D. 447 4401               | 2 cm Muck (A10) (N                   | MLRA 147)                         |
| _ HISTIC ED<br>_ Black Hi | oipedon (A2)  |                  |                       |               |                       | w Surтасе<br>ace (S9) <b>(</b> N |                                | RA 147, 148)              | Coast Prairie Redo                   | x (A16) (MLRA 147, 148)           |
|                           | en Sulfide (A4)                                       |                  |                       |               |                       | Matrix (F2                       |                                | , 140)                    | Piedmont Floodpla                    | ain Soils (F19) (MLRA 136,        |
|                           | d Layers (A5)   |                  |                       | _ Deplet      | -                     |                                  | -,                             |                           | 147)                                 |                                   |
|                           | uck (A10) (LRR N)                                     |                  |                       |               |                       | rface (F6)                       |                                |                           | Very Shallow Dark                    | Surface (TF12)                    |
|                           | d Below Dark Surface (                                | A11)             |                       |               |                       | Surface (F                       | 7)                             |                           | Other (Explain in R                  | emarks)                           |
|                           | ark Surface (A12)                                     |                  | 4.47 4.40)            | Redox         | Depress               | ions (F8)                        | /E40) /I I                     | 30 N. M. DA 40            | cs.                                  |                                   |
| 1—                        | łucky Mineral (S1) <b>(</b> LRR<br>ileyed Matrix (S4) | KN,MILKA         | 147, 148)             | Iron-M        | ianganes<br>c Surface | е маsses<br>e (F13) ( <b>М</b>   | (FIZ) (LI<br>I D <b>A 1</b> 36 | (R N, MERA 130<br>122)    | <sup>6)</sup> ₃Indicators of hydroph | ytic vegetation and               |
| _ ,                       | edox (\$5)  |                  |                       |               | c 50                  | ι, , ι                           |                                | MLRA 148)                 | wetland hydrology mu                 | ist be present, unless            |
| _                         | d Matrix (S6)   |                  |                       | _             |                       |                                  |                                | 127, <b>1</b> 47)         | disturbed or problema                | atic.                             |
| Restrictive               | e Layer (if observed):                                |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           | Type:   |                  | None                  |               |                       |                                  | Hydric                         | Soil <b>Present?</b>      |                                      | Yes □ No ☑                        |
|                           | Depth (inches):                                       |                  |                       |               |                       |                                  | ''-''-                         |                           |                                      |                                   |
| Remarks:                  |   | 4                |                       |               |                       |                                  |                                |                           |                                      |                                   |
| Remarks.                  |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
|                           |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |
| <u> </u>                  |   |                  |                       |               |                       |                                  |                                |                           |                                      |                                   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                                     | City/County:_ [              | anville, Pittsylvania C                   | Sampling D                       | ate: 2018-July-18                                |                              |
|---|------------------------------|---|----------------------------------|--|------------------------------|
| Applicant/Owner: NextEra  |                              |   | State: Virginia                  | Sampling Point:                                  | : W-F18-54_PEM-1             |
| nvestigator(s): Troy Savage, A                                  | W,SS,JF                      | Secti                                     | <b>on</b> , Tow <b>nship</b> , R | ange:  |                              |
| Landform (hillslope, terrace, etc.                              | ): Channel                   | Local relief                              | concave, conve                   | x, none): Concave                                | Slop <b>e (%</b> ):_ 1 to 10 |
| Subregion (LRR or MLRA):  | MLRA 136 of LRR P            | Lat:                                      | 36.6004183                       | Long: -79.5633118                                | Datum:_WGS84                 |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :9B                  |                              |   |                                  | NWI classi                                       | fication: None               |
| A <mark>re climatic/hyd</mark> rol <mark>ogic cond</mark> itior |                              | •   | Yes 🟒 No _                       | (If no, explain in Rem                           | narks.)                      |
| Are Vegetation, Soil,   | or Hydrology sign            |   | Are "Normal                      | Circumstances" present                           | ? Yes 🔽 No                   |
| Are Vegetation, Soil,   | or Hydrology natu            | rally problematic?                        | (If needed, e                    | xplain any answers in Rei                        | marks.)                      |
| SUMMARY OF FINDINGS – A   | Attach site man showin       | g sampling point lo                       | cations trans                    | ects important feat                              | ires etc                     |
| Hydrophytic Vegetation Present                                  | •                            |   | cacions, crans                   | ices, important reac                             |                              |
| Hydric Soil Present?  | Yes <u></u> ✓ No _           | İ   |                                  |  |                              |
| Wetland Hydrology Present?                                      | Yes 🔽 No _                   | is the Samp                               | l <b>ed</b> A <b>rea</b> within  | a Wetland?                                       | Yes <b>∕_ No</b>             |
| Remarks:  |                              |   |                                  |  |                              |
| Covertype is PEM. Area is wetlar                                | nd, all three wetland param  | eters are present.                        |                                  |  |                              |
| HYDROLOGY   |                              |   |                                  |  |                              |
| Wetland Hydrology Indicators:                                   |                              |   | _                                |  |                              |
| <u>Primary Indicators (minimum of</u>                           | one is required; check all t | nat apply)                                | <u>S</u>                         | econdary Indicators (min                         | ·                            |
| Surface Water (A1)  | True A                       | quatic Plants (B14)                       | -                                | Surface Soil Cracks (B6<br>Sparsely Vegetated Co |                              |
| High Water Table (A2)   |                              | gen Sulfide Odor (C1)                     | _                                | Sparsely Vegetated Co<br>Drainage Patterns (B1)  |                              |
| ✓ Saturation (A3)   | _ <b>∠</b> Oxidiz            | ed Rhizospheres on Liv                    | ing Roots (C3)                   | Moss Trim Lines (B16)                            |                              |
| Water Marks (B1)  |                              | nce of Reduced Iron (C4                   | · _                              | Dry-Season Water Tab                             |                              |
| Sediment Deposits (B2)  |                              | t Iron Reduction in Tille                 | d Soils (C6)<br>_                | Crayfish Burrows (C8)                            |                              |
| Drift Deposits (B3) Algal Mat or Crust (B4)                     |                              | luck Surface (C7)<br>(Explain in Remarks) | _                                | Saturation Visible on A                          | erial Imagery (C9)           |
| Iron Deposits (B5)  | 0tilei                       | (Explain in Remarks)                      |                                  | Stunted or Stressed Pl                           | ants (D1)                    |
| Inundation Visible on Aeria                                     | Imagery (B7)                 |   | -                                | Geomorphic Position (                            |                              |
| Water-Stained Leaves (B9)                                       |                              |   | _                                | Shallow Aquitard (D3)                            | <b>,</b>                     |
| Aquatic Fauna (B13)   |                              |   | =                                | Microtopographic Reli                            | ef (D4)                      |
|   |                              |   |                                  | ✓ FAC-Neutral Test (D5)                          |                              |
| Field Observations:   |                              |   |                                  |  |                              |
| Surface Water Present?  | Yes No _ <b>_/</b>           | Depth (inches):                           |                                  |  |                              |
| Water Table Present?  | Yes No                       | Depth (inches):                           |                                  | <b>Ve</b> tland Hydrology Prese                  | nt? Yes _∠_ No               |
| Saturation Present?   | Yes 🗸 No                     | Depth (inches):                           | 6                                |  |                              |
| (includes capillary fringe)                                     | <del>-</del> -               | , , ,                                     |                                  |  |                              |
| Describe Recorded Data (stream                                  | n gauge monitoring well a    | rial photos, provious ir                  | spections) if av                 | railahle   |                              |
| Describe Recorded Data (Stream                                  | r gauge, monitoring well, ac | enar priotos, previous ir                 | ispections), ii av               | anable.  |                              |
| Remarks:  |                              |   |                                  |  |                              |
|   |                              |   |                                  |  |                              |
|   |                              |   |                                  |  |                              |
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| · · · · · · · · · · · · · · · · · · ·               | •                |              |             | 1   |               |               |
|---|------------------|--------------|-------------|---|---------------|---------------|
| Tree Stratum (Plot size:20x5)                       | <b>A</b> bsolute | Dominant     | Indicator   | Dominance Test worksheet:                               |               |               |
| <u>Tree Stratum</u> (Plot Size. <u>20x5)</u>        | % Cover          | Species?     | Status      | Number of Dominant Species That                         | 2             | (A)           |
| 1   |                  |              |             | Are OBL, FACW, or FAC:                                  |               | (//)          |
| 2.  |                  |              |             | Total Number of Dominant Species Across All Strata:     | 2             | (B)           |
| 3   |                  |              |             | Percent of Dominant Species That                        |               |               |
| 4   |                  |              |             | - Are OBL, FACW, or FAC:                                | 100           | (A/B)         |
| 5   |                  |              |             | Prevalence Index worksheet:                             |               |               |
| 6.  |                  |              |             | Total % Cover of:                                       | Multiply E    | By:           |
| 7   |                  |              |             | - OBL species 30  | x 1 =         | 30            |
|   | 0                | _= Total Cov | er          | FACW species 74   | x 2 =         | 148           |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:  | 0           | FAC species 2   | x3=           | 6             |
| Sapling/Shrub Stratum (Plot size:10x5)              |                  |              |             | FACU species 0  | × 4 =         | 0             |
| 1   |                  |              |             | - UPL species 0   | x5=           | 0             |
| 2.  |                  |              |             | Column Totals 106                                       | _             | 184 (B)       |
| 3.  |                  |              |             |   | (A) _         | 104 (D)       |
| 4.  |                  |              |             | Prevalence Index = B/A =                                |               |               |
| 5.  |                  |              |             | Hydrophytic Vegetation Indicators:                      |               |               |
| 6.  |                  |              |             | 1- Rapid Test for Hydrophytic                           | /egetation    |               |
| 7.  |                  |              |             | 2 - Dominance Test is >50%                              |               |               |
| _   |                  |              |             |   |               |               |
| 8.<br>9.  |                  |              |             | -  4 - Morphological Adaptations                        | ¹ (Provide s  | upporting     |
| J   |                  | = Total Cove |             | - data in Remarks or on a separate sh                   |               |               |
| 50% - francis                                       | -                | -            |             | Problematic Hydrophytic Vege                            |               | · · ·         |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:  | 0           | Indicators of hydric soil and wetlan                    |               | y must be     |
| Herb Stratum (Plot size: 2x3 )                      | 70               |              | E 1 E 1 1 1 | present, unless disturbed or proble                     | matic         |               |
| 1. Bidens aristosa                                  |                  | Yes .        | FACW        | Definitions of Four Vegetation Strat                    | a:            |               |
| 2. Leersia oryzoides                                | 30               | Yes          | OBL         | -   |               |               |
| 3. Solidago sp.                                     | 8                | No           | NI          | Tr <b>ee</b> – Woody plants, excluding vine             | s, 3 in. (7.6 | cm) or more   |
| 4. <u>Dichanthelium scoparium</u>                   | 2                | No           | FACW        | in diameter at breast height (DBH),                     | regardless    | of height.    |
| 5. Arthraxon hispidus                               | 2                | No           | FAC         | _   |               |               |
| 6. Juncus effusus                                   | 2                | No           | FACW        | Sapling/shrub – Woody plants, exclu                     | uding vines   | , less than 3 |
| 7   |                  |              |             | in. DBH and greater than or equal to                    | o 3.28 ft (1  | m) tall.      |
| 8.  |                  |              |             |   |               |               |
| 9.  |                  |              |             | Herb – All herbaceous (non-woody)                       |               | ardless of    |
| 10.   |                  |              |             | size, and woody plants less than 3.2                    | 8 ft tall.    |               |
| 11.   |                  |              |             | -   |               |               |
|   | 114              | = Total Cov  | or          | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.2  | 28 ft in      |
| 50% of total cover: <u>57</u>                       |                  | -            |             | height.   |               |               |
| Woody Vine Stratum (Plot size: 20x5 )               | _ 20 /0 01 (0    | cai covei.   |             |   |               |               |
|   |                  |              |             |   |               |               |
|   | . ——             |              |             | -   |               |               |
| 2.  |                  |              |             | -   | /             | ,             |
| 3   |                  |              |             | Hydrophytic Vegetation Present? `                       | res ₪ No ∟    | J             |
| 4   |                  |              |             | -   |               |               |
| 5   |                  |              |             | -   |               |               |
|   | 0                | = Total Cov  | er          |   |               |               |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:  | 0           |   |               |               |
| Remarks: (Include photo numbers here or on a separa | te sheet.)       |              |             | •   |               |               |
|   | ,                |              |             |   |               |               |
|   |                  |              |             |   |               |               |
|   |                  |              |             |   |               |               |
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|   |                  |              |             |   |               |               |
|   |                  |              |             |   |               |               |
|   |                  |              |             |   |               |               |

|                         | scription: (Describe to    | th <b>e d</b> ep |                             |                 |                     | or confir   | m the absenc              | ce of indicators.)               |   |
|-------------------------|----------------------------|------------------|-----------------------------|-----------------|---------------------|-------------|---------------------------|----------------------------------|---|
| Depth _                 | <b>Ma</b> trix             |                  |                             | <b>Feat</b> ure | es                  |             |                           |                                  |   |
| <u>(in<b>ch</b>es)</u>  | Color (moist)              | <u></u> %        | Color (moist)               | %               | Type <sup>1</sup>   | _Loc²       |                           | ⊤exture                          | Remarks                                     |
| 0-6                     | 10YR 5/2                   | 93               | 7.5YR 4/6                   | 7               | C                   | M           |                           | Silt Loam                        |   |
| 6 - 15                  | 10YR 4/1                   | 90               | 10YR 4/6                    | 10              | C                   | M/PL        | Si                        | ilty Clay Loam                   |   |
| 15 - 18                 | 10YR 7/8                   | 67               | 10YR 5/1                    | 30              | D                   | M           |                           | Silty Clay                       |   |
| 15 - 18                 | 10YR 7/8                   | <br>67           | 10YR 5/8                    | 3               |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
| ·                       |                            |                  |                             |                 |                     |             |                           |                                  | _   |
|                         |                            |                  |                             |                 | - ——                |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            | epletion,        | RM = Reduced Matrix         | , MS =          | Masked S            | Sand Gra    | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M =        |   |
| *                       | il Indicators:             |                  |                             |                 |                     |             |                           | Indicators for Problen           | natic Hydric Soils³:                        |
| _ Histosol              |                            |                  | _ Dark S                    |                 |                     | (00) (0.0)  | D. 447 440                | 2 cm Muck (A10) (                | MLRA 147)                                   |
| — HISTIC EP<br>Black Hi | oipedon (A2)               |                  |                             |                 | ace (S9) <b>(</b> I |             | RA 147, 148)              | Coast Prairie Redo               | ox (A16) (MLRA 147, 148)                    |
| _                       | en Sulfide (A4)            |                  |                             |                 | Matrix (F           |             | , 140)                    | Piedmont Floodpl                 | ain Soils (F19) (ML <b>RA 1</b> 3 <b>6,</b> |
|                         | d Layers (A5)              |                  | Loanly<br>_ <b>∠</b> Deplet | •               | •                   |             |                           | <u></u>                          |   |
|                         | uck (A10) (LRR N)          |                  |                             |                 | ırface (F6)         | I.          |                           | Very Shallow Dark                | (Surface (TF12)                             |
| _ Deplete               | d Below Dark Surface (A    | .11)             | _ Deplet                    | ed Dark         | Surface (           | F7)         |                           | Other (Explain in F              | Remarks)                                    |
|                         | ark Surface (A12)          |                  | Redox                       | Depres          | sions (F8)          |             |                           |                                  |   |
| _                       | lucky Mineral (S1) (LRR    | N, MLRA          | 147, 148) Iron-M            | angane          | se Masses           | 5 (F12) (LF | RR N, MLRA 13             | <b>6)</b> ₃Indicators of hydropl | hytic vegetation and                        |
|                         | ileyed Matrix (S4)         |                  |                             |                 | C ( ) (             |             | ,                         | wetland hydrology mi             | ust be present, unless                      |
| _                       | edox (S5)<br>I Matríx (S6) |                  |                             |                 | aterial (F2         |             | MLRA 148)                 | disturbed or problem             | •   |
|                         |                            |                  | \( \( \)                    | I CITC IVIE     | accital (1 Z        | I) (INICIOA | 121, 141)                 | ·                                |   |
|                         | e Layer (if observed):     |                  | Name                        |                 |                     | l           |                           |                                  |   |
|                         | Type:                      |                  | None                        |                 |                     | Hydric      | Soil Present?             |                                  | Yes ☑ No □                                  |
|                         | Depth (inches):            |                  |                             |                 |                     |             |                           |                                  |   |
| Remarks:                |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
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|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
|                         |                            |                  |                             |                 |                     |             |                           |                                  |   |
| I                       |                            |                  |                             |                 |                     |             |                           |                                  |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                    | City/County:_ Danville, Pit                    | tsylvania C Sam <b>p</b> lin <b>g</b> | Date: 2018-July-18  |                              |
|--|--|---------------------------------------|---|------------------------------|
| Applicant/Owner: NextEra                       |  | State: Virgir                         | nia Sampling Point: W-  | F18-54_UPL-1                 |
| nvestigator(s): Alexi Weber, SE                | S, JSF   | Section, Township,                    | Range:  |                              |
| Landform (hillslope, terrace, etc.):           | Depression                                     | Local relief (concave, conv           | ex, none): Concave  | Slop <b>e (%</b> ):_ 1 to 10 |
| Su <b>bre</b> gion (LRR or MLRA): <u>M</u>     | ILRA 136 of LRR P                              | Lat: 36.6006044                       | Long: -79.563197  | Datum: WGS84                 |
| Soil <b>Map</b> Unit Name:9B                   |  |                                       | NWI classificat   | i <b>on</b> :None            |
| Are climatic/hydrologic conditions             | s on the site typical for this time of ye      |                                       | (If no, explain in Remarks  | ;.)                          |
| Are Vegetation, Soil,                          | or Hydrology significantly dis                 |                                       | al Circumstances" present?  | Yes 🔽 No                     |
| Are Vegetation, Soil,                          | or Hydrology naturally probl                   | ematic? (If needed,                   | explain any answers in Remarl   | cs.)                         |
| SUMMARY OF FINDINGS – A                        | ttach site map showing samplir                 | ng point locations, tran              | nsects, important features  | i, etc.                      |
| Hydrophytic Vegetation Present?                | · · · · · · · · · · · · · · · · · · ·          | Ţ                                     |   |                              |
| Hydric Soil Present?                           | Yes No _ <b>_</b>                              |                                       |   |                              |
| Wetland Hydrology Present?                     | <u>Yes                                    </u> | Is the Sampled Area with              | in a Wetland?   | /es <b>No</b>                |
| Covertype is UPL. Area is upland,              | , not all three wetland parameters are         | e present.                            |   |                              |
| HYDROLOGY Wotland Hydrology Indicators:        |  |                                       |   |                              |
| Wetland Hydrology Indicators:                  | one is required; shack all that apply          |                                       | Secondary Indicators (minimu  | um of two required)          |
| Frimary indicators (minimum or )               | one is required; check all that apply)         |                                       | <ul><li><u>Secondary Indicators (minimu</u></li><li> Surface Soil Cracks (B6)</li></ul> | m or two required)           |
| Surface Water (A1)                             | True Aquatic Plar                              | nts (B14)                             | Sparsely Vegetated Concar   | ve Surface (B8)              |
| High Water Table (A2)                          | Hydrogen Sulfide                               | : Odor (C1)                           | Drainage Patterns (B10)   |                              |
| Saturation (A3)                                | ·  | heres on Living Roots (C3)            | Moss Trim Lines (B16)   |                              |
| Water Marks (B1)                               | Presence of Redu                               |                                       | Dry-Season Water Table (C   | .(2)                         |
| Sediment Deposits (B2)                         |  | iction in Tilled Soils (C6)           | Crayfish Burrows (C8)   |                              |
| Drift Deposits (B3)<br>Algal Mat or Crust (B4) | Thìn Muck Surfac<br>Other (Explain in          |                                       | Saturation Visible on Aeria   | l Imagery (C9)               |
| Iron Deposits (B5)                             | Strict (2Kplain                                | Trains (                              | Stunted or Stressed Plants  | (D1)                         |
| Inundation Visible on Aerial                   | Imagery (B7)                                   |                                       | Geomorphic Position (D2)  | ( /                          |
| Water-Stained Leaves (B9)                      |  |                                       | Shallow Aquitard (D3)   |                              |
| Aquatic Fauna (B13)                            |  |                                       | Microtopographic Relief (D  | <b>34</b> )                  |
|  |  |                                       | FAC-Neutral Test (D5)   |                              |
| Field Observations:                            |  |                                       |   |                              |
| Surface Water Present?                         | Yes No 🟒 Depth                                 | (inches):                             |   |                              |
| Water Table Present?                           | Yes No 🟒 Depth                                 | (inches):                             | Wetland Hydrology Present?  | Yes _ <b>∠</b> _ No          |
| Saturation Present?                            | Yes No ✓ Depth                                 | (inches):                             |   |                              |
| (includes capillary fringe)                    | ·  |                                       |   |                              |
|  | gauge, monitoring well, aerial photos          | nrevious inspections) if a            | vailable <sup>,</sup>   |                              |
| Describe Necol ded Data (50 carri              | gauge, monitoring well, aemai priotos          | s, previous inspections), ir a        | wallasie.   |                              |
| Remarks:                                       |  |                                       |   |                              |
|  |  |                                       |   |                              |
|  |  |                                       |   |                              |
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| · · ·  | •            |              |             | 1   |                |                  |
|--|--------------|--------------|-------------|---|----------------|------------------|
| Tree Stratum (Plot size: _ 20x10)                    | Absolute     | Dominant     | Indicator   | Dominance Test worksheet:   |                |                  |
| Thee Schadum (Flot SizeZOX10)                        | % Cover      | Species?     | Status      | Number of Dominant Species That                                     | 1              | (A)              |
| 1.   |              |              |             | Are OBL, FACW, or FAC:  |                | (A)              |
| 2.   |              |              |             | Total Number of Dominant Species Across All Strata:                 | 1              | (B)              |
| 3  |              |              |             | Percent of Dominant Species That                                    |                | _                |
| 4  |              |              |             | - Are OBL, FACW, or FAC:  | 100            | (A/B)            |
| 5  |              |              |             | Prevalence Index worksheet:   |                |                  |
| 6  |              |              |             | - Total % Cover of:   | Multiply B     | ber              |
| 7.   |              |              |             | OBL species 0   | ×1=            | . <b>y.</b><br>O |
| •  | 0            | = Total Cove | er .        |   | _              |                  |
| 50% of total cover: <u>0</u>                         | 20% of to    | tal cover:   | 0           | FACW species 80   | x 2 =          | 160              |
| Sapling/Shrub Stratum (Plot size:10x5)               |              |              |             | FAC species 4   | x3= _          | 12               |
| , <del>,</del>                                       |              |              |             | FACU species 3  | × 4 =          | 12               |
| 1.<br>2.   |              |              |             | UPL species0  | x 5 =          | 0                |
|  |              |              |             | Column Totals 87  | (A)            | 184 (B)          |
| 3  |              |              |             | Prevalence Index = B/A =  | 2.1            | _                |
| 4  |              |              |             | Hydrophytic Vegetation Indicators:                                  |                |                  |
| 5  |              |              |             | 1- Rapid Test for Hydrophytic                                       | Jegetation.    |                  |
| 6  |              |              |             | ✓ 2 - Dominance Test is >50%  | vegetation     |                  |
| 7  |              |              |             |   |                |                  |
| 8.   |              |              |             | 3 - Prevalence Index is ≤ 3.0¹                                      | 1 /D           |                  |
| 9.   |              |              |             | 4 - Morphological Adaptations                                       |                | upporting        |
|  |              | = Total Cove | er          | data in Remarks or on a separate sh                                 |                | 1-2-3            |
| 50% of total cover: 0                                |              | -            | 0           | Problematic Hydrophytic Vege  |                |                  |
| Herb Stratum (Plot size: 3x2 )                       | _ 20 % 01 00 | rui covei.   |             | ¹Indicators of hydric soil and wetlan                               | -              | y must be        |
|  | 80           | Voc          | E A C \ A I | present, unless disturbed or proble                                 |                |                  |
| 1. Bidens aristosa                                   |              | Yes _        | FACW        | Definitions of Four Vegetation Strat                                | a:             |                  |
| 2. Sorghum halepense                                 | 3            | No           | FACU        |   |                |                  |
| 3. Arthraxon hispidus                                | 2            | No           | FAC         | Tr <b>ee</b> – Woody plants, excluding vine                         |                |                  |
| 4. Digitaria serotina                                | 2            | No           | FAC         | in diameter at breast height (DBH),                                 | regardless     | of height.       |
| 5  |              |              |             |   |                |                  |
| 6  |              |              |             | Sapling/shrub – Woody plants, exclu                                 | uding vines,   | less than 3      |
| 7  |              |              |             | in. DBH and greater than or equal to                                | o 3.28 ft (1   | m) tall.         |
| 8.   |              |              |             |   |                |                  |
| 9.   |              |              |             | Herb – All herbaceous (non-woody)                                   | plants, reg    | ardless of       |
| 10.  |              |              |             | size, and woody plants less than 3.2                                | 8 ft tall.     |                  |
|  |              |              |             | •   |                |                  |
| 11   |              |              |             | - <b> </b><br>  <b>Wo</b> od <b>y vine</b> s – All woody vines grea | tarthan 2 3    | 9 ft in          |
| 500 5  | 87           | = Total Cove |             | height.   | ter triair 3.2 | 20 11 111        |
| 50% of total cover: <u>43.5</u>                      | _ 20% of to  | otal cover:  | 17.4        | neight.   |                |                  |
| Woody Vine Stratum (Plot size: 20X10 )               |              |              |             |   |                |                  |
| 1  |              |              |             |   |                |                  |
| 2  |              |              |             | .   |                |                  |
| 3.   |              |              |             | Hydrophytic Vegetation Present?                                     | Yes ☑ No 🗆     |                  |
| 4.   |              |              |             |   |                |                  |
| 5.   |              |              |             |   |                |                  |
|  | 0            | = Total Cove | er          |   |                |                  |
| 50% of total cover: 0                                | 20% of to    | tal cover:   | 0           |   |                |                  |
|  |              |              |             |   |                |                  |
| Remarks: (Include photo numbers here or on a separat | e sheet.)    |              |             |   |                |                  |
|  |              |              |             |   |                |                  |
|  |              |              |             |   |                |                  |
|  |              |              |             |   |                |                  |
|  |              |              |             |   |                |                  |
|  |              |              |             |   |                |                  |
|  |              |              |             |   |                |                  |
|  |              |              |             |   |                |                  |

|                |  | e to the de | pth needed to documen       |           |                   | r confir    | m the absend              | ce of indicators.)      |                                      |
|----------------|--|-------------|-----------------------------|-----------|-------------------|-------------|---------------------------|-------------------------|--------------------------------------|
| D <b>ep</b> th | Matrix   |             | Redox Fe                    |           |                   |             |                           |                         |                                      |
| (inches)       | Color (moist)  | %           | Color (moist)               |           | Type <sup>1</sup> | <u>Loc²</u> |                           | Texture                 | Remarks                              |
| 0 - 6          | 10YR 4/3   | 97          | 7.5YR 5/8                   | 3         | C                 | M           |                           | Loam                    | Compacted                            |
| 6 - 12         | 10YR 5/3   | 97          | 10YR 5/8                    | 3         | C                 | M/PL        |                           | Loam                    | Compacted                            |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
| ¹⊤ype: C       | = Concentration, D   | = Depletior | n, RM = Reduced Matrix,     | MS = M    | fasked S          | and Grai    | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, P | M = Matrix.                          |
| Hydric Se      | oil Indicators:  |             |                             |           |                   |             |                           | Indicators for Proble   | ematic Hydric Soils³:                |
| _ Histos       |  |             | _ Dark Sur                  | face (\$7 | 7)                |             |                           | 2 cm Muck (A10)         | (MLRA 147)                           |
| _              | pipedon (A2)   |             |                             |           |                   |             | RA 147, 148)              |                         | dox (A16) (ML <b>RA 147, 148</b> )   |
|                | listic (A3)  |             | _ Thin Dar                  |           |                   |             | , 148)                    |                         | olain Soils (F19) <b>(MLR</b> A 136, |
|                | gen Sulfide (A4)   |             | _ Loamy G                   | -         |                   | )           |                           | 1 <b>4</b> 7)           | DIAIT SOIIS (FTS) (INCICA TSC,       |
|                | ed Layers (A5)   |             | _ Depleted                  |           |                   |             |                           | •                       | rk Surface (TE12)                    |
|                | luck (A10) <b>(</b> LR <b>R N)</b><br>ed Below Dark Surfac | re (Δ11)    | Redox D<br>Depleted         |           |                   | 7)          |                           | Very Shallow Da         |                                      |
|                | Dark Surface (A12)   | c (ATT)     | Redox D                     | enressi   | ons (F8)          | •           |                           | Other (Explain in       |                                      |
|                | Mucky Mineral (S1) (I                                      | LRR N, MLRA | <b>A 147, 148)</b> Iron-Mar | nganese   | e Masses          | (F12) (LR   | R N, MLRA 13              | 6)                      | phytic vegetation and                |
| Sandy          | Gleyed Matrix (S4)   |             | Umbric S                    | Surface   | (F13) (MI         | RA 136,     | 122)                      | -indicators of rigoro   | priytic vegetation and               |
| Sandy          | Redox (S5)   |             | Piedmor                     |           |                   |             |                           |                         | must be present, unless              |
| _ Strippe      | ed Matrix (S6)   |             | Red Pare                    | ent Mat   | erial (F21        | ) (MLRA     | 127, <b>1</b> 47)         | disturbed or proble     | matic.                               |
| Restrictiv     | e Layer (if observed                                       | d):         |                             |           |                   |             |                           |                         |                                      |
|                | T  | Cor         | npacted soil due to         |           |                   | l           |                           |                         |                                      |
|                | Туре:  | agri        | cultural use of field       |           |                   | Hydric :    | Soil Present?             |                         | Yes □ No ☑                           |
|                | Depth (inches):  |             | 12                          | _         |                   |             |                           |                         |                                      |
| Remarks        | ,  |             |                             | •         |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |
|                |  |             |                             |           |                   |             |                           |                         |                                      |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate  | City/Coun                | ty:_Westover, Pi                    | ittsylvania                       | Sampling                 | Date: 201          | 18-July-18                             |                            |
|--|--------------------------|-------------------------------------|-----------------------------------|--------------------------|--------------------|--|----------------------------|
| Applicant/Owner: NextEra   |                          |                                     |                                   | State: Virgin            | nia                | Sampling Point:_                       | W-E18-55_PEM-1             |
| nvestigator(s): Troy Savage, M   | S JB                     |                                     | Sectio                            | n, Township,             | Range:             |  |                            |
| _andform (hillslope, terrace, etc.)  | : Flood Plain            |                                     | <b>Local re</b> lie <b>f (</b> co | oncave, conv             | ex, none):         | Convex                                 | Slop <b>e (%</b> ): 2 to 5 |
| Subregion (LRR or MLRA):   |                          |                                     | Lat:                              | 36.6032329               | Long               | : -79.5702858                          | Datum: WGS84               |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> :5b3   |                          |                                     |                                   |                          |                    | NWI classifi                           | cation: None               |
| Are climatic/hydrologic condition  |                          | •                                   |                                   | Yes 🚣 No                 | (If no             | o, explain in Rema                     | arks.)                     |
| Are Vegetation, Soil,  | or Hydrology             |                                     |                                   |                          |                    | tances" present?                       | Yes 🟒 No                   |
| Are Vegetation, Soil,  | or Hydrology             | naturally proble                    | ematic?                           | (If needed,              | explain ar         | ny answers in Rem                      | narks.)                    |
| SU <b>M</b> M <b>ARY O</b> F FI <b>NDI</b> NGS – A   | attach site man sh       | wing samplin                        | ng naint lac                      | ations tran              | nserts in          | onortant featur                        | res etr                    |
| Hydrophytic Vegetation Present   |                          |                                     |                                   | acions, crai             | 130003, 111        | inportante reacta                      | es, etc.                   |
| Hydric Soil Present?   | Yes _ 🗸                  |                                     |                                   |                          |                    |  |                            |
| Wetland Hydrology Present?   |                          |                                     | is the Sample                     | ed Area within           | n <b>a Wetla</b> n | nd?                                    | Yes No                     |
| Remarks:   |                          |                                     | '                                 |                          |                    |  |                            |
| Covertype is PEM. Area is wetlar   | nd, all three wetland pa | arameters are pi                    | resent.                           |                          |                    |  |                            |
| HYDROLOGY Wetland Hydrology Indicators:  |                          |                                     |                                   |                          |                    |  |                            |
| Primary Indicators (minimum of   | one is required; check   | all that apply)                     |                                   |                          | Secondar           | v Indicators (mini                     | mum of two required)       |
| - The grant of the state of the | one is required, a rec   | <u> </u>                            |                                   |                          |                    | ce Soil Cracks (B6)                    | •                          |
| Surface Water (A1)   |                          | rue Aquatic Plan                    |                                   |                          |                    | ely Vegetated Con                      |                            |
| ✓ High Water Table (A2)  |                          | ydrogen Sulfide                     |                                   | D (52)                   | Draina             | age Patterns (B10)                     | 1                          |
| Saturation (A3)<br>Water Marks (B1)  |                          | xidized Rhizospl<br>resence of Redu |                                   | ig Roots (C3)            |                    | Trim Lines (B16)                       |                            |
| Sediment Deposits (B2)   |                          | ecent Iron Redu                     |                                   | Soils (C6)               | •                  | eason Water Table                      | ? (C2)                     |
| Drift Deposits (B3)  |                          | hin Muck Surfac                     |                                   |                          | -                  | sh Burrows (C8)<br>ation Visible on Ae | rial Imagen/ (C9)          |
| Algal Mat or Crust (B4)  | C                        | ther (Explain in                    | Remarks)                          |                          | Sucure             | acion visible on re                    | indi imagery (e5)          |
| Iron Deposits (B5)   |                          |                                     |                                   |                          | Stunte             | ed or Stressed Pla                     | nts (D1)                   |
| Inundation Visible on Aerial   | Imagery (B7)             |                                     |                                   |                          |                    | orphic Position (D                     | 2)                         |
| Water-Stained Leaves (B9)  |                          |                                     |                                   |                          |                    | w Aquitard (D3)                        | E (D.4)                    |
| Aquatic Fauna (B13)  |                          |                                     |                                   |                          |                    | topographic Relie<br>leutral Test (D5) | r (D4)                     |
| Field Observations:  |                          |                                     |                                   |                          | <u>▼ FAC-N</u>     | eutrai rest (D3)                       |                            |
| Surface Water Present?   | Yes No 🗸                 | Denth                               | (inches):                         |                          |                    |  |                            |
| Water Table Present?   |                          |                                     | (inches):                         | <b>1</b> 2               | Wotland I          | H <b>yd</b> rol <b>ogy Presen</b>      | t? Yes A No                |
|  | Yes No                   |                                     |                                   |                          | Wedanu             | nyurology Fresen                       | t? Yes No                  |
| Saturation Present?  | Yes 🔽 No                 | Depth                               | (inches):                         | 10                       |                    |  |                            |
| (includes capillary fringe)  |                          |                                     |                                   |                          | L                  |  | ·                          |
| Describe Recorded Data (stream   | ı gauge, monitoring we   | ell, aerial photos                  | , previous ins                    | p <b>ec</b> tions), if a | available:         |  |                            |
| Remarks:   |                          |                                     |                                   |                          |                    |  |                            |
|  |                          |                                     |                                   |                          |                    |  |                            |
|  |                          |                                     |                                   |                          |                    |  |                            |
|  |                          |                                     |                                   |                          |                    |  |                            |
|  |                          |                                     |                                   |                          |                    |  |                            |
|  |                          |                                     |                                   |                          |                    |  |                            |
|  |                          |                                     |                                   |                          |                    |  |                            |

| · · · · · · · · · · · · · · · · · · ·                      | •                |              |             |   |                     |           |
|--|------------------|--------------|-------------|---|---------------------|-----------|
| Tree Stratum (Plot size:5x25)                              | <b>A</b> bsolute | Dominant     | Indicator   | Dominance Test worksheet:                               |                     |           |
| Tree Stratum (Flot SizeSXZS)                               | % Cover          | Species?     | Status      | Number of Dominant Species That                         | 2                   | (A)       |
| 1. Cicuta maculata   |                  | No           | OBL         | Are OBL, FACW, or FAC:                                  |                     |           |
| 2.   |                  |              |             | Total Number of Dominant Species Across All Strata:     | 2                   | (B)       |
| 3  |                  |              |             | Percent of Dominant Species That                        |                     | _         |
| 4  |                  |              |             | - Are OBL, FACW, or FAC:                                | <b>1</b> 0 <b>0</b> | (A/B)     |
| 5  |                  |              |             | Prevalence Index worksheet:                             |                     |           |
| 6  |                  |              |             | Total % Cover of:                                       | Multiply By         | :         |
| 7  |                  |              |             | - OBL species   | x 1 =               | -         |
|  | 0                | = Total Cov  | er          | FACW species 40   | x 2 =               | 80        |
| 50% of total cover: <u>0</u>                               | _ 20% of to      | otal cover:  | 0           | FAC species 15  | x 3 =               | 45        |
| Sapling/Shrub Stratum (Plot size:15)                       |                  |              |             | FACU species 0  | x 4 =               | 0         |
| 1  |                  |              |             | - UPL species 0   | x 5 =               | 0         |
| 2.   |                  |              |             | - Column Totals   | (A)                 | (B)       |
| 3.   |                  |              |             |   | (A)                 | (0)       |
| 4.   |                  |              |             | Prevalence Index = B/A =                                |                     |           |
| 5.   |                  |              |             | Hydrophytic Vegetation Indicators:                      |                     |           |
| 6.   |                  |              |             | - Lapid Test for Hydrophytic \                          | √egetation          |           |
| 7.   |                  |              |             | 2 - Dominance Test is >50%                              |                     |           |
| _  |                  |              |             | 3 - Prevalence Index is ≤ 3.01                          |                     |           |
| 8.<br>9.   |                  |              |             | -  4 - Morphological Adaptations                        | -                   | pporting  |
| J  |                  |              |             | - data in Remarks or on a separate sh                   |                     |           |
| 500V - 5 0   | 0                | = Total Cov  |             | Problematic Hydrophytic Vege                            |                     | -         |
| 50% of total cover: <u>0</u>                               | _ 20% or to      | otal cover:  | 0           | Indicators of hydric soil and wetlan                    | , 0,                | must be   |
| Herb Stratum (Plot size: 6x8 )                             |                  | .,           | E. E        | present, unless disturbed or proble                     | matic               |           |
| 1. Eragrostis elliottii                                    |                  | Yes .        | FACW        | Definitions of Four Vegetation Strate                   | a:                  |           |
| 2. Microstegium vimineum                                   | 15               | Yes          | FAC         | -   |                     |           |
| 3. Juncus effusus  | 10               | No           | FACW        | Tr <b>ee</b> – Woody plants, excluding vine             |                     |           |
| 4. Rhexia lutea  | 5                | No           | FACW        | in diameter at breast height (DBH),                     | regardless of       | f height. |
| 5. Carex annectens   | 5                | No           | FACW        | _   |                     |           |
| 6  |                  |              |             | Sapling/shrub – Woody plants, exclu                     | _                   |           |
| 7  |                  |              |             | in. DBH and greater than or equal to                    | o 3.28 ft (1 m      | n) tall.  |
| 8.   |                  |              |             |   |                     |           |
| 9.   |                  |              |             | Herb – All herbaceous (non-woody)                       |                     | dless of  |
| 10.  |                  |              |             | size, and woody plants less than 3.2                    | :8 ft tall.         |           |
| 11.  |                  |              |             | -   |                     |           |
|  | 55               | = Total Cov  | er          | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.28       | tft in    |
| 50% of total cover: <u>27.5</u>                            |                  | tal cover:   | 11          | height.   |                     |           |
| Woody Vine Stratum (Plot size:10)                          | _ 20 /0 01 00    | rui covei.   |             |   |                     |           |
| •  |                  |              |             |   |                     |           |
|  |                  |              |             | -   |                     |           |
| 2.   |                  |              |             | -   | Vaa 🗆 Na 🗆          |           |
| 3  |                  |              |             | Hydrophytic Vegetation Present?                         | res ☑ No □          |           |
| 4  |                  |              |             | -   |                     |           |
| 5  |                  |              |             | -   |                     |           |
|  | 0                | = Total Cov  | er          |   |                     |           |
| 50% of total cover: <u>0</u>                               | _ 20% of to      | otal cover:  | 0           |   |                     |           |
| Remarks: (Include photo numbers here or on a separat       | e sheet.)        |              |             |   |                     |           |
| \(\text{\cont}\)   | ,                |              |             |   |                     |           |
|  |                  |              |             |   |                     |           |
| All tree species present within the vicinity of the wetlar | id boundar       | rv were root | ed in uplan | d areas experiencing different soil and                 | d/or hydrolor       | gic       |
| conditions.  |                  | ,            | p.u.ii      | ,   | ., 0.08             |           |
|  |                  |              |             |   |                     |           |
|  |                  |              |             |   |                     |           |
|  |                  |              |             |   |                     |           |

|                 |   | to the dept   | th needed to docum      |                    |                            | or confir   | m the absenc       | e of indicators.)                     |                                  |
|-----------------|---|---------------|-------------------------|--------------------|----------------------------|-------------|--------------------|---------------------------------------|----------------------------------|
| Depth _         | Matrix                                    |               |                         | x Feature          |                            |             |                    | <b>-</b> .                            |                                  |
| <u>(inches)</u> | Color (moist)                             |               | Color (moist)           |                    | Туре¹                      | _Loc²       |                    | Texture                               | Remarks                          |
| 0-3             | 7.5YR 4/4                                 |               |                         |                    |                            |             |                    | Sand                                  |                                  |
| 3 - 10          | 10YR 5/1                                  | 80            | 10YR 4/2                | 20                 | D                          | M/PL        |                    | Sand                                  |                                  |
| 10 - 18         | 5G 3/1                                    | 85            | 7.5YR 4/6               | 15                 | C                          | PL_         |                    | Sandy Clay                            |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
| 1Type: C =      | Concentration D = 1                       | <br>Depletion | RM = Reduced Matr       | ix MS =            | Masked 9                   | Sand Gra    | ins 2Locatio       | n: PL = Pore Lining, M =              | Matrix                           |
|                 | I Indicators:                             | Depreción,    | THE TREATER THAT        | 17, 1115           | maskea.                    | Jana Gra    | ms. Locatio        | Indicators for Problem                |                                  |
| Histosol        |   |               | Dark                    | Surface (          | \$71                       |             |                    | indicators for Problem                | auc Hydric 30lis*.               |
| _               | pipedon (A2)                              |               |                         |                    |                            | e (S8) (ML  | RA 147, 148)       | 2 cm Muck (A10) (N                    |                                  |
| Black His       |   |               |                         |                    | ace (S9) (                 |             |                    |                                       | x (A16) (MLRA 147, 148)          |
|                 | en Sulfide (A4)                           |               | Loam                    | ıy Gleyed          | Matrix (F                  | 2)          |                    |                                       | in Soils (F19) <b>(MLRA 136,</b> |
| _               | d Layers (A5)                             |               |                         | eted Matr          |                            |             |                    | 147)                                  |                                  |
|                 | ick (A10) (LRR N)                         | (411)         |                         |                    | irface (F6)<br>: Surface ( |             |                    | Very Shallow Dark                     |                                  |
|                 | d Below Dark Surface<br>ark Surface (A12) | (A11)         |                         |                    | sions (F8)                 | F7)         |                    | Other (Explain in R                   | emarks)                          |
| _               | lucky Mineral (S1) <b>(</b> LR            | R N, MLRA     | 147, 148) Iron-         | Viangane           | se Masse:                  | s (F12) (LF | RR N, MLRA 13      | 6) <sub>3</sub> Indicators of hydroph |                                  |
| _               | leyed Matrix (S4)                         |               | Umb                     | ric Surfac         | e (F13) (N                 | ILRA 136,   | 122)               | andicators of nydroph                 | ytic vegetation and              |
| _               | edox (S5)                                 |               | _                       |                    |                            |             | MLRA 148)          | wetland hydrology mu                  |                                  |
| Stripped        | l Matrix (S6)                             |               | Red F                   | arent Ma           | iterial (F2                | 1) (MLRA    | 1 <b>27, 1</b> 47) | disturbed or problema                 | alic.                            |
| Restrictive     | : Layer (if observed):                    |               |                         |                    |                            |             |                    |                                       |                                  |
| -               | Туре:                                     |               | None                    | _                  |                            | Hydric :    | Soil Present?      |                                       | Yes ☑ No □                       |
|                 | Depth (inches):                           |               |                         | _                  |                            |             |                    |                                       |                                  |
| Remarks:        |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
|                 |   |               |                         |                    |                            |             |                    |                                       |                                  |
| Sails nata      | ntially disturbed fro                     | n agricultu   | ural activities, but no | ıt consid          | ared to b                  | a a cignif  | icant disturba     | ance.                                 |                                  |
| Soils pote      | ntially disturbed fro                     | n agricultu   | ıral activities, but no | it consid          | ered to b                  | e a signif  | icant disturba     | ance.                                 |                                  |
| Soils potel     | ntially disturbed from                    | m agricultu   | ıral activities, but no | t conside          | ered to b                  | e a signif  | ícant disturba     | ance.                                 |                                  |
| Soils pote      | ntially disturbed from                    | n agricultu   | ıral activities, but no | rt conside         | ered to b                  | e a signif  | ícant disturba     | ance.                                 |                                  |
| Soils potei     | ntially disturbed fro                     | m agricultu   | ıral activities, but no | rt conside         | ered to b                  | e a signif  | icant disturba     | ance.                                 |                                  |
| Soils potei     | ntially disturbed from                    | n agricultu   | ıral activities, but no | rt conside         | ered to b                  | e a signif  | icant disturba     | ance.                                 |                                  |
| Soils poter     | ntially disturbed from                    | n agricultu   | ıral activities, but no | rt conside         | ered to b                  | e a signif  | icant disturba     | ance.                                 |                                  |
| Soils potei     | ntially disturbed from                    | n agricultu   | ıral activities, but no | rt conside         | ered to b                  | e a signif  | icant disturba     | ance.                                 |                                  |
| Soils poter     | ntially disturbed fro                     | n agricultu   | ıral activities, but no | it consid <b>e</b> | ered to b                  | e a signif  | icant disturba     | ance.                                 |                                  |
| Soils pote      | ntially disturbed from                    | n agricultu   | ıral activities, but no | it consid <b>e</b> | ered to b                  | e a signif  | icant disturba     | ance.                                 |                                  |
| Soils pote      | ntially disturbed from                    | m agricultu   | ıral activities, but no | t conside          | ered to b                  | e a signif  | icant disturba     | ance.                                 |                                  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate  | City/County: Westover, Pit            | ttsylvania Sam <b>p</b> lin <b>g I</b> | Date: 2018-July-18  |                            |
|--|---------------------------------------|--|---|----------------------------|
| Applicant/Owner: NextEra   |                                       | State: Virgin                          |   | 18-55_UPL-1                |
| Investigator(s): Troy Savage, MS JB                                  |                                       | Section, Township, I                   | Range:  |                            |
| Landform (hillslope, terrace, etc.): Hills                           | ope I                                 | Local relief (concave, conve           | ex, none): Undulating   | Slop <b>e (%</b> ): 2 to 5 |
| Subregion (LRR or MLRA):   |                                       | Lat: 36.6032649                        | Long: -79.5702719   | Datum:WGS84                |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : <u>5C3</u>              |                                       |  | NWI classification  | on: None                   |
| Are climatic/hydrologic conditions on the sit                        | e <b>typical for</b> this time of yea | r? Yes 🚣 No                            | (If no, explain in Remarks.   | )                          |
|  | rology significantly dist             |  | al Circumstances" present?  | Yes No                     |
| Are Vegetation, Soil, or Hyd   | rology naturally proble               | matic? (If needed, e                   | explain any answers in Remarks  | 5.)                        |
|  |                                       |  |   |                            |
| SUMMARY OF FINDINGS – Attach site                                    | e map showing samplin                 | g point locations, tran                | sects, important features,  | etc.                       |
| Hydrophytic Vegetation Present?                                      | Yes No <b>_</b> ✓                     |  |   |                            |
| Hydric Soil Present?   | Yes No 🟒                              | į                                      |   |                            |
| ·<br>  |                                       | İ                                      |   | Yes                        |
| Wetland Hydrology Present?   | Yes No <b>_</b> ✓                     | Is the Sampled A                       | rea within a <b>W</b> etland?   |                            |
|  | 1C3 NO _ <b>y</b> _                   | is the sumpled A                       | irea wieriiri a weeland:  | No                         |
|  |                                       |  |   |                            |
| Remarks:   |                                       |  |   |                            |
|  |                                       |  |   |                            |
| Covertype is UPL. Area is upland, not all thr                        | ee wetland parameters are             | present. Circumstances ar              | re not normal due to agricultura  | al activities.             |
| The unmanaged condition of vegetation co                             | •                                     | •                                      | •   |                            |
| hydric soils and wetland hydrology provide                           | d the basis for the wetland           | determination at this same             | ole point.  |                            |
|  |                                       |  |   |                            |
|  |                                       |  |   |                            |
|  |                                       |  |   |                            |
| HYDROLOGY  |                                       |  |   |                            |
| Wetland Hydrology Indicators:  |                                       |  |   |                            |
| Primary Indicators (minimum of one is requ                           | uired; check all that apply)          |  | Secondary Indicators (minimun   | n of two required)         |
| Surface Water (A1)   | True Aquatic Plant                    | rs (B14)                               | Surface Soil Cracks (B6)  |                            |
| High Water Table (A2)  | Hydrogen Sulfide                      |  | Sparsely Vegetated Concave  | e Surface (B8)             |
| Saturation (A3)  | Oxidized Rhizosph                     | neres on Living Roots (C3)             | Drainage Patterns (B10)   |                            |
| Water Marks (B1)   | Presence of Reduc                     | ced Iron (C4)                          | Moss Trim Lines (B16)   |                            |
|  |                                       |  | Dry-Season Water Table (C2  | 2)                         |
| Sediment Deposits (B2)   |                                       | ction in Tilled Soils (C6)             | Crayfish Burrows (C8)   |                            |
| Drift Deposits (B3)  | Thin Muck Surface                     |  | Saturation Visible on Aerial  |                            |
| Algal Mat or Crust (B4)  | Other (Explain in F                   | Remarks)                               | Stunted or Stressed Plants (  | (וטן)                      |
| Iron Deposits (B5)   | <b>97</b> )                           |  | Geomorphic Position (D2)  |                            |
| Inundation Visible on Aerial Imagery (E<br>Water-Stained Leaves (B9) | 17)                                   |  | <ul><li>Shallow Aquitard (D3)</li><li>Microtopographic Relief (D4</li></ul> | 1)                         |
| Aquatic Fauna (B13)  |                                       |  | FAC-Neutral Test (D5)   | <del>*</del> )             |
| Field Observations:  |                                       |  |   |                            |
|  | No Depth (i                           | nches):                                |   |                            |
|  | No <u></u>                            |  | <br>  Wetland Hydrology Present?  | Yes No <b>_</b> _          |
|  | No Depth (i                           |  | <b></b>   |                            |
| (includes capillary fringe)  |                                       |  |   |                            |
| Describe Recorded Data (stream gauge, mo                             | nitoring well, aerial photos          | previous inspections) if a             | vailable <sup>,</sup>   |                            |
| 2 2 2 2 1 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2                              | , mes m <b>g men, de</b> ma prioces,  | pratious inspactors, it a              |   |                            |
|  |                                       |  |   |                            |
| Remarks:   |                                       |  |   |                            |
| Kernarks.  |                                       |  |   |                            |
|  |                                       |  |   |                            |
|  |                                       |  |   |                            |
|  |                                       |  |   |                            |
|  |                                       |  |   |                            |
|  |                                       |  |   |                            |

|  | * la l        | D:                     |   | Dominance Test worksheet:  |                    |             |
|--|---------------|------------------------|---|--|--------------------|-------------|
| Tree Stratum (Plot size:30)                |               | Dominant<br>Species?   | Indicator Status                        | Number of Dominant Species Tha   | +                  |             |
| 1. <i>Liriodendron tulipifera</i>          | 15            | Yes                    | FACU                                    | Are OBL, FACW, or FAC:   | 2                  | (A)         |
| 2. Acer rubrum                             | 8             | Yes                    | FACU                                    | Total Number of Dominant Specie  | ·s                 |             |
| 3.   |               | 103                    | 171C                                    | Across All Strata:   | 4                  | (B)         |
| 4.   |               |                        |   | Percent of Dominant Species That                                       | 50                 | (A/B)       |
| 5.   |               |                        |   | Are OBL, FACW, or FAC:   |                    | (/ (/ D)    |
| 6.   |               |                        |   | Prevalence Index worksheet:  |                    |             |
| 7.   |               |                        |   | Total % Cover of:  | <u>Multiply</u>    | <u>By:</u>  |
| ·  | 23            | = Total Cover          |   | OBL species 0  | _ ×1= _            | 0           |
| 50% of total cover:11.5                    |               | •                      |   | FACW species 3   | _ x2= _            | 6           |
| Sapling/Shrub Stratum (Plot size:15        |               |                        | 4.8000000000000000000000000000000000000 | FAC species 33   | _ x3= _            | 99          |
| 4  |               |                        |   | FACU species 48  | _ × 4 = _          | 192         |
| 2.   |               |                        |   | UPL species 0  | _ x5= _            | 0           |
| 3.   |               |                        |   | Column Totals <u>84</u>  | _ <sup>(A)</sup> _ | 297 (B)     |
| 4.   |               |                        |   | Prevalence Index = B/A   | = 3.5              |             |
| 5.   |               |                        |   | Hydrophytic Vegetation Indicators                                      | :                  |             |
| 6.   |               |                        |   | -   1- Rapid Test for Hydrophytic                                      | : Vegetation       | 1           |
| 7  |               |                        |   | 2 - Dominance Test is > 50%  |                    |             |
| 8.   |               |                        |   | 3 - Prevalence Index is ≤ 3.0  | ı                  |             |
| 9.   |               |                        |   | 4 - Morphological Adaptation   | ns¹ (Provide       | supporting  |
| j  |               | - Total Cause          |   | data in Remarks or on a separate                                       |                    |             |
| FOOK of total govern                       |               | = Total Cover          |   | Problematic Hydrophytic Ve   | -                  |             |
| 50% of total cover: 0                      | 20% 01 to     | car cover:             | 0                                       | Indicators of hydric soil and wetla                                    | •                  | gy must be  |
| Herb Stratum (Plot size: 5x5)              | ar.           | Vaa                    | E A C                                   | present, unless disturbed or prob                                      |                    |             |
| 1. Microstegium vimineum                   | 25            | Yes                    | FAC                                     | Definitions of Four Vegetation Stra                                    | ita:               |             |
| 2. Dactylis glomerata                      | 15            | Yes                    | FACU                                    | -  |                    |             |
| 3. Hieracium greenii                       |               | No _                   | FACU                                    | Tree – Woody plants, excluding vir                                     |                    |             |
| 4. Phytolacca americana                    | $\frac{7}{2}$ | No                     | FACU                                    | in diameter at breast height (DBH                                      | i, regardiess      | of height.  |
| 5. Bidens aristosa                         |               | No _                   | FACW                                    | -  | -112               | - I N 3     |
| 6. Lonicera japonica                       | 3             | No                     | FACU                                    | Sapling/shrub – Woody plants, exc<br>in. DBH and greater than or equal | _                  |             |
| 7  |               |                        |   | -  | to 3.20 ft (1      | m) tan.     |
| 8  |               |                        |   | Herb – All herbaceous (non-wood  | v) nlants re       | tardless of |
| 9  |               |                        |   | size, and woody plants less than 3                                     |                    | 54141633 01 |
| 10   |               |                        |   | -  |                    |             |
| 11   |               |                        |   | -  |                    |             |
|  | 61            | = Total Cover          |   | <b>Wo</b> ody vines – All woody vines gre                              | ater than 3.       | .28 ft in   |
| 50% of total cover: <u>30.5</u>            | 20% of to     | tal cover:             | 12.2                                    | height.  |                    |             |
| Woody Vine Stratum (Plot size: 10 )        |               |                        |   |  |                    |             |
| 1  |               |                        |   |  |                    |             |
| 2  |               |                        |   | .  |                    |             |
| 3  |               |                        |   | Hydrophytic Vegetation Present?  | Yes □ No [         | <b></b> ✓   |
| 4  |               |                        |   |  |                    |             |
| 5  |               |                        |   |  |                    |             |
|  | 0             | = Total Cover          |   |  |                    |             |
| 50% of total cover: <u>0</u>               | 20% of to     | tal cover:             | 0                                       |  |                    |             |
| Remarks: (Include photo numbers here       | or on a se    | p <b>arate</b> sheet.] | 1                                       |  |                    |             |
| , ,  |               | ,                      |   |  |                    |             |
|  |               |                        |   |  |                    |             |
|  |               |                        |   |  |                    |             |
| Recent logging activity. No positive indic | ation of hy   | /drophytic ve          | getation was observed (≥                | 50% of dominant species indexed a                                      | s FAC- or dr       | ier).       |
|  | _             | -                      |   | •  |                    |             |
|  |               |                        |   |  |                    |             |
|  |               |                        |   |  |                    |             |

|              | cription: (Describe to | o t <b>he d</b> e <b>pt</b> l |                   |              |                   | or confir       | m the absence             | ce of indicators.)               |  |
|--------------|------------------------|-------------------------------|-------------------|--------------|-------------------|-----------------|---------------------------|----------------------------------|--|
| Depth _      | Matrix                 |                               |                   | edox Featu   |                   | 17              |                           | T                                | D  |
| (inches)     | Color (moist)          |                               | Color (moist      | <u> </u>     | Type¹             | _Loc²           |                           | Texture                          | Remarks  |
| 0 - 10       | 7.5YR 4/4              | _100_                         |                   |              |                   |                 |                           | Sandy Clay                       |  |
| 10 - 18      | 2.5Y 4/3               | 100                           |                   |              |                   |                 |                           | Sandy Clay                       |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  | · <del></del>  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
| ¹Type: C = 0 | Concentration, D = D   | epletion, F                   | RM = Reduced i    | Matrix, MS = | Masked S          | and Gra         | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M =        | : Matrix.  |
|              | Indicators:            | ,                             |                   |              |                   |                 |                           | Indicators for Problem           |  |
| Histosol     |                        |                               | Г                 | ark Surface  | (\$7)             |                 |                           |                                  | •  |
| _            | pedon (A2)             |                               |                   |              |                   | (S8) (ML        | RA 147, 148)              | 2 cm Muck (A10) <b>(P</b>        |  |
| Black His    |                        |                               |                   | hin Dark Sur |                   |                 |                           | Coast Prairie Redo               | x (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b> |
|              | n Sulfide (A4)         |                               |                   | oamy Gleyed  |                   |                 | •,                        | Piedmont Floodpla                | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b>              |
|              | Layers (A5)            |                               |                   | epleted Mat  |                   |                 |                           | 147)                             |  |
| _ 2 cm Mu    | k (A10) (LRR N)        |                               | _ F               | ledox Dark S | urface (F6)       |                 |                           | Very Shallow Dark                | Surface (TF12)   |
|              | Below Dark Surface (   | A11)                          | _                 | epleted Dar  | •                 | <del>-</del> 7) |                           | Other (Explain in R              | emarks)  |
|              | k Surface (A12)        |                               | _ F               | ledox Depres | ssions (F8)       |                 |                           |                                  |  |
|              | ucky Mineral (S1) (LRF | R N, MLRA 1                   | <b>47, 148)</b> _ | on-Mangane   | ese Masses        | (F12) (LF       | RR N, MLRA 13             | <b>6)</b> ₃Indicators of hydroph | ytic vegetation and                                      |
|              | eyed Matrix (S4)       |                               | _ `               | misme suma   | cc (, , c), (, o, |                 | ,                         | wetland hydrology mu             | ist be present, unless                                   |
| Sandy Re     |                        |                               |                   | iedmont Flo  |                   |                 |                           | disturbed or problema            |  |
|              | Matrix (S6)            |                               | <u>_</u>          | led Parent M | ateriai (FZ i     | ) (MLKA         | 127, 147)                 |                                  |  |
|              | Layer (if observed):   |                               |                   |              |                   |                 |                           |                                  |  |
| T            | уре:                   |                               | None              |              |                   | Hydric :        | Soil <b>Present?</b>      |                                  | Yes □ No ☑   |
| [            | Pepth (inches):        |                               |                   |              |                   |                 |                           |                                  |  |
| Remarks:     |                        |                               |                   |              |                   | •               |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |
|              |                        |                               |                   |              |                   |                 |                           |                                  |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate  | City/County: Danville, P                  | ittsylvania C Sam <b>p</b> lin <b>g</b> | Date: 2018-June-27   |                               |
|--|---|---|--|-------------------------------|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra                              |   | State: Virgir                           | nia Sampling Point: W-   | D18-35_PFO-1                  |
| Investigator(s): _ Jacob Fleckens  | tein, Eileen Nakahata, Beth Clements      | Section, Township,                      | Range:   |                               |
| Landform (hillslope, terrace, etc.)  | ):Flood Plain                             | Local relief (concave, conv             | ex, none): Concave   | Slop <b>e (%</b> ):_ 10 to 15 |
| Subregion (LRR or MLRA):   | MLRA 136 of LRR P                         | Lat: 36.5984652                         | Long: -79.5742533  | Datum:WGS84                   |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> : <u>5C3:Ceci</u>                      | T Sandy Loam                              |   | NWI classificati   | i <b>on</b> : None            |
| Are climatic/hydrologic condition  | ns on the site typical for this time of y | re <b>ar?</b> Yes 🟒 No                  | (If no, explain in Remarks   | 5.)                           |
| Are Vegetation, Soil,  | or Hydrology significantly d              | listurbed? Are "Norma                   | al Circumstances" present?   | Yes 🟒 No                      |
| Are Vegetation, Soil,  | or Hydrology naturally prob               | olematic? (If needed,                   | explain any answers in Remark  | (S.)                          |
|  |   |   |  |                               |
| SUMMARY OF FINDINGS - A  | Attach site map showing sampl             | ing point locations, trar               | nsects, important features   | , etc.                        |
| Hydrophytic Vegetation Present   | ? Yes 🗸 No                                |   |  |                               |
| Hydric Soil Present?   | Yes _ <b>.✓</b> _ No                      |   |  |                               |
| Wetland Hydrology Present?   | Yes No                                    | Is the Sampled Area withi               | n <b>a Wetlan</b> d? Ye  | s No                          |
| Remarks:   |   |   |  |                               |
|  |   |   |  |                               |
|  |   |   |  |                               |
| Covertune is REO. Area is wetten   | ad all three wetland parameters are       | orosopt                                 |  |                               |
| Covertype is PFO. Area is wetlan   | nd, all three wetland parameters are p    | oresent.                                |  |                               |
|  |   |   |  |                               |
|  |   |   |  |                               |
|  |   |   |  |                               |
| HYDROLOGY  |   |   |  |                               |
| Wetland Hydrology Indicators:  |   |   |  |                               |
|  | f one is required; check all that apply)  | •                                       | Secondary Indicators (minimu   | m of two required)            |
| rinnary indicators (iniminium or   | one is required, check all chacappiy)     | <u>l</u>                                | Surface Soil Cracks (B6)   | in or two required)           |
| Surface Water (A1)   | True Aquatic Pla                          | ants (B14)                              | ✓ Sparsely Vegetated Concav  | e Surface (B8)                |
| High Water Table (A2)  | Hydrogen Sulfic                           | de Odor (C1)                            | Drainage Patterns (B10)  | 2 2 3 1 1 3 2 2 (2 3 )        |
| Saturation (A3)  | <u> ✓</u> Oxidized Rhizos                 | pheres on Living Roots (C3)             | Moss Trim Lines (B16)  |                               |
| Water Marks (B1)   | Presence of Rec                           |   | Dry-Season Water Table (C  | 2)                            |
| Sediment Deposits (B2)   |   | luction in Tilled Soils (C6)            | Crayfish Burrows (C8)  |                               |
| Drift Deposits (B3)  | Thin Muck Surfa                           |   | Saturation Visible on Aeria  | l Imagery (C9)                |
| Algal Mat or Crust (B4)  | Other (Explain i                          | n Remarks)                              | Churcho die a Churcha ad Alla oba  | /D1)                          |
| Iron Deposits (B5)   | Line a grain ( / D 7 )                    |   | Stunted or Stressed Plants   | (טו)                          |
| <ul><li>Inundation Visible on Aerial</li><li>Water-Stained Leaves (B9)</li></ul> | imagery (B7)                              |   | <ul><li>Geomorphic Position (D2)</li><li>Shallow Aquitard (D3)</li></ul> |                               |
| Aquatic Fauna (B13)  |   |   | Microtopographic Relief (D   | 14)                           |
|  |   |   | ✓ FAC-Neutral Test (D5)  | · <del>···</del> )            |
| Field Observations:  |   |   |  |                               |
| Surface Water Present?   | Yes No <u></u> Depth                      | n (inches):                             |  |                               |
| Water Table Present?   | Yes No <u></u> ✓ Depth                    | inches):                                | -<br>  Wetland Hydrology Present?  | Yes _ <b>∠</b> _ No           |
| Saturation Present?  |   | i (inches):                             | -  | <b>-</b>                      |
| (includes capillary fringe)  | 165 <u>v</u> 166 <u>v</u>                 |   |  |                               |
|  |   |   |  |                               |
| Describe Recorded Data (stream   | n gauge, monitoring well, aerial photo    | os, previous inspections), if a         | available:   |                               |
|  |   |   |  |                               |
|  |   |   |  |                               |
| Remarks:   |   |   |  |                               |
|  |   |   |  |                               |
|  |   |   |  |                               |
|  |   |   |  |                               |
|  |   |   |  |                               |
|  |   |   |  |                               |
|  |   |   |  |                               |
|  |   |   |  |                               |

| · · · · · · · · · · · · · · · · · · ·                | •                |             |           | 1   |                     |              |
|--|------------------|-------------|-----------|---|---------------------|--------------|
| Tree Stratum (Plot size:30)                          | <b>A</b> bsolute | Dominant    | Indicator | Dominance Test worksheet:   |                     |              |
| Tree Structure (Froc Size                            | % Cover          | Species?    | Status    | Number of Dominant Species That   | 3                   | (A)          |
| 1. Carpinus caroliniana                              | 50               | Yes         | FAC       | Are OBL, FACW, or FAC:  |                     |              |
| 2. Acer rubrum                                       | 25               | Yes         | FAC       | Total Number of Dominant Species  | 3                   | (B)          |
| 3.   |                  |             |           | Across All Strata: Percent of Dominant Species That   | -                   |              |
| 4  |                  |             |           | - Are OBL, FACW, or FAC:  | <b>1</b> 0 <b>0</b> | (A/B)        |
| 5  |                  |             |           | Prevalence Index worksheet:   |                     |              |
| 6.   |                  |             |           | - Total % Cover of:   | Multiply B          | v.           |
| 7  |                  |             |           | - OBL species 0   | x 1 =               | 0            |
|  | 75               | = Total Cov | er        | FACW species 2  | x 2 =               | 4            |
| 50% of total cover: <u>37.5</u>                      | _ 20% of to      | tal cover:  | 15        | FAC species 106   | x3=                 | 318          |
| Sapling/Shrub Stratum (Plot size:15)                 |                  |             |           | FACU species 0  | ×4=                 | 0            |
| 1. <i>Lindera benzoin</i>                            | 30               | Yes         | FAC       | - UPL species 0   | x5=                 | 0            |
| 2  |                  |             |           | Column Totals 108   | _                   | 322 (B)      |
| 3.   |                  |             |           |   |                     | 322 (b)      |
| 4.   |                  |             |           | Prevalence Index = B/A =  |                     |              |
| 5.   |                  |             |           | Hydrophytic Vegetation Indicators:  |                     |              |
| 6.   |                  |             |           | 1- Rapid Test for Hydrophytic \   | /egetation          |              |
| 7.   |                  |             |           | ✓ 2 - Dominance Test is >50%  |                     |              |
| 8.   |                  |             |           | 3 - Prevalence Index is ≤ 3.01  |                     |              |
| 9.   |                  |             |           | 4 - Morphological Adaptations   |                     | upporting    |
|  | 30               | = Total Cov | er        | data in Remarks or on a separate sh   |                     | 1-2-3        |
| 50% of total cover: 15                               |                  | -           | 6         | Problematic Hydrophytic Vege  |                     |              |
| Herb Stratum (Plot size: 5 )                         |                  |             |           | Indicators of hydric soil and wetlan present, unless disturbed or proble                        | , ,,,               | y must be    |
| 1. Onoclea sensibilis                                | 2                | No          | FACW      | <del>'                                   </del>   |                     |              |
| Persicaria virginiana                                | 1                | No No       | FAC       | Definitions of Four Vegetation Strate   | ai.                 |              |
| 3. Poaceae   | 1                | No No       | NI        | Tree Meady plants eveluding vine  | c 2 in 17 6         | -m) ar mara  |
| 4.   | <u> </u>         |             |           | <ul> <li>Tree - Woody plants, excluding vine<br/>in diameter at breast height (DBH),</li> </ul> |                     |              |
| 5.   |                  |             |           | - I'll didiffecer de bredse fielgrie (bbri),  | regulatess (        | or ricigite. |
| -  |                  |             |           | -  <br>  <b>Saplin</b> g/ <b>shrub</b> – Woody plants, exclu                                    | ıding vines         | less than 3  |
| 7.   |                  |             |           | in. DBH and greater than or equal to  | _                   |              |
|  |                  |             |           | •   | ,                   | ,            |
|  |                  |             |           | - Herb – All herbaceous (non-woody)   | plants, rega        | ardless of   |
| 10.  |                  |             |           | size, and woody plants less than 3.2  |                     |              |
|  |                  |             |           | -   |                     |              |
| 11   |                  |             |           | - <b> </b><br>  <b>Wo</b> od <b>y vine</b> s – All woody vines grea                             | touthon 3 7         | o A in       |
| 500 5 1 1  | 4                | = Total Cov |           | height.   | ter triari 5.2      | O IL III     |
| 50% of total cover: 2                                | _ 20% or to      | ital cover: | 8.0       | Tieight.  |                     |              |
| Woody Vine Stratum (Plot size: 30 )                  | 1                | Nim         | NII       |   |                     |              |
| 1. UNKNOWN   | 1                | No          | NI        | -   |                     |              |
| 2.   |                  |             |           |   |                     |              |
| 3.   |                  |             |           | Hydrophytic Vegetation Present?   | res ☑ No ⊔          |              |
| 4  |                  |             |           |   |                     |              |
| 5  |                  |             |           | .   |                     |              |
|  | 1                | = Total Cov |           |   |                     |              |
| 50% of total cover: <u>0.5</u>                       | _ 20% of to      | tal cover:  | 0.2       |   |                     |              |
| Remarks: (Include photo numbers here or on a separat | e sheet.)        |             |           |   |                     |              |
|  |                  |             |           |   |                     |              |
|  |                  |             |           |   |                     |              |
|  |                  |             |           |   |                     |              |
|  |                  |             |           |   |                     |              |
|  |                  |             |           |   |                     |              |
|  |                  |             |           |   |                     |              |
|  |                  |             |           |   |                     |              |

| Depth Matrix      |   |           | lepth needed to document the indicator or confirm<br>Redox Features |                     |            |                     |                 |                           |                                     |                              |  |
|-------------------|---|-----------|---|---------------------|------------|---------------------|-----------------|---------------------------|-------------------------------------|------------------------------|--|
| (in <b>ch</b> es) | Color (moist)                                   | %         | Color (moist  |                     | %          | Type¹               | Locz            |                           | Texture                             | Remarks                      |  |
| 0 - 18            | 2.5Y 5/2  | 70        | 2.5Y 5/3  |                     | 23         |                     |                 |                           | Clay Loam                           |                              |  |
| 0 - 18            |   |           | 7.5YR 5/6   |                     | 7          |                     | M/PL            |                           | ,                                   |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
| ¹Type: C = 6      | Concentration, D = D                            | epletion, | , RM = Reduced I  | Matrix,             | MS = 1     | Masked S            | Sand Gra        | ins. <sup>z</sup> Locatio | on: PL = Pore Lining, M             | I = Matrix.                  |  |
| Hydric Soil       | Indicators:                                     |           |   |                     |            |                     |                 |                           | Indicators for Proble               | ematic Hydric Soils³:        |  |
| _ Histosol        | (A1)  |           | _ [   | Dark Sur            | face (     | 57)                 |                 |                           | 2 cm Muck (A10)                     | (MLDA 147)                   |  |
|                   | ipedon (A2)                                     |           |   |                     |            |                     |                 | RA 147, 148)              |                                     | dox (A16) (MLRA 147, 148)    |  |
| _ Black His       |   |           |   |                     |            | ace (S9) <b>(</b> I |                 | <b>7,</b> 148)            |                                     | plain Soils (F19) (MLRA 136, |  |
|                   | n Sulfide (A4)                                  |           | _   | _                   |            | Matrix (F2          | 2)              |                           | 147)                                | Juli 13013 (113) (MENA 130,  |  |
|                   | Layers (A5)<br>ck (A10) <b>(</b> LR <b>R N)</b> |           |   | Depleted<br>Redox D |            | rface (F6)          |                 |                           | Very Shallow Dai                    | rk Surface (TE12)            |  |
|                   | Below Dark Surface (                            | A11)      |   |                     |            | Surface (           |                 |                           | Other (Explain in                   |                              |  |
|                   | rk Surface (A12)                                | ,         | F   | Redox D             | enres      | sions (F8)          |                 |                           |                                     |                              |  |
| _                 | ucky Mineral (S1) <b>(</b> LRF                  | R N, MLRA | 147, 148)   | ron-Mar             | nganes     | se Masses           | s (F12) (LF     | RR N, MLRA 13             | <sup>36)</sup> ₃Indicators of hydro | nhytic vegetation and        |  |
|                   | eyed Matrix (S4)                                |           | _ `   | D                   | J. G C. C. | _ (,) (             |                 | ,                         | wetland hydrology r                 | must be present, unless      |  |
| Sandy Re          |   |           |   |                     |            |                     |                 | MLRA 148)                 | disturbed or proble                 |                              |  |
|                   | Matrix (S6)                                     |           |   | ked Pare            | ent Ma     | iteriai (FZ         | I) (MLRA        | 127, 147)                 |                                     |                              |  |
|                   | Layer (if observed):                            |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   | ype:  |           | None  |                     |            |                     | <b>Hyd</b> ric: | Soil Present?             |                                     | Yes ☑ No □                   |  |
|                   | Depth (inches):                                 |           |   |                     |            |                     |                 |                           |                                     |                              |  |
| Remarks:          |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |
|                   |   |           |   |                     |            |                     |                 |                           |                                     |                              |  |

Photo of Sample Plot North



Photo of Sample Plot East



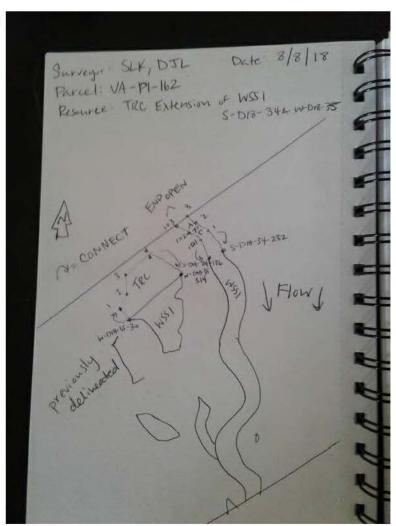
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                                   | City/County:                             |                                 | Sampling Date: 2018-June         | 2-27                        |
|---|--|---------------------------------|----------------------------------|-----------------------------|
| Applicant/Owner: NextEra                                      |  | State:                          | Sampling Point: W                | -D18-35_UPL-1               |
| Investigator(s): _ Jacob Fleckenst                            | ein, Eileen Nakahata, Beth Clement       | s Section, Township,            | Range:                           |                             |
| Landform (hillslope, terrace, etc.):                          | :Flood Plain                             | Local relief (concave, conve    | ex, none): Concave               | Slop <b>e (%</b> ):10 to 15 |
| Subregion (LRR or MLRA): M                                    | ILRA 136 of LRR P                        | Lat: 36.5987201                 | Long: -79.574246                 | D <b>atu</b> m: WGS84       |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : <u>5C3: Ceci</u> | l Sandy loam                             |                                 | NWI classifica                   | ti <b>on</b> : None         |
| Are climatic/hydrologic condition:                            | s on the site typical for this time of y | /ear? Yes <u>✓</u> No           | (If no, explain in Remark        | s.)                         |
| Are Vegetation, Soil,   | or Hydrology significantly o             | disturbed? Are "Norma           | al Circumstances" present?       | Yes 🟒 No                    |
| Are Vegetation, Soil,   | or Hydrology naturally pro               | blematic? (If needed,           | explain any answers in Remar     | ks.)                        |
|   |  |                                 |                                  |                             |
| SUMMARY OF FINDINGS – A                                       | ttach site map showing samp              | ling point locations, tran      | sects, important feature         | s, etc.                     |
| Hydrophytic Vegetation Present?                               | Yes <u></u> ✓ No                         |                                 |                                  |                             |
| Hydric Soil Present?  | Yes No _ <b>_</b> _                      |                                 |                                  |                             |
| Wetland Hydrology Present?                                    | Yes No 🟒                                 | Is the Sampled Area withi       | in a <b>W</b> etl <b>and</b> ?   | Yes <b>No/</b>              |
| Remarks:  |  |                                 |                                  |                             |
| I   |  |                                 |                                  |                             |
| I   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
| Covertype is UPL. Area is upland,                             | , not all three wetland parameters a     | re present.                     |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
| HYDROLOGY   |  |                                 |                                  |                             |
| Wetland Hydrology Indicators:                                 |  |                                 |                                  |                             |
| , 0,  | one is required; check all that apply    | 1                               | Secondary Indicators (minimu     | um of two required)         |
| -   | •  | -                               | Surface Soil Cracks (B6)         |                             |
| Surface Water (A1)  | True Aquatic Pla                         |                                 | Sparsely Vegetated Conca         | ive Surface (B8)            |
| High Water Table (A2)   | Hydrogen Sulfic                          |                                 | Drainage Patterns (B10)          |                             |
| Saturation (A3)   |  | spheres on Living Roots (C3)    | Moss Trim Lines (B16)            |                             |
| Water Marks (B1)  | Presence of Rec                          |                                 | Dry-Season Water Table (0        | E2)                         |
| Sediment Deposits (B2)  |  | duction in Tilled Soils (C6)    | Crayfish Burrows (C8)            |                             |
| Drift Deposits (B3)<br>Algal Mat or Crust (B4)                | Thìn Muck Surf<br>Other (Explain i       |                                 | Saturation Visible on Aeria      | al Imagery (C9)             |
| Iron Deposits (B5)  | Other (Explain)                          | iii Keiliai KS)                 | Stunted or Stressed Plants       | c (D1)                      |
| Inundation Visible on Aerial                                  | Imageny (B7)                             |                                 | Geomorphic Position (D2)         |                             |
| Water-Stained Leaves (B9)                                     | magery (b7)                              |                                 | Shallow Aquitard (D3)            |                             |
| Aquatic Fauna (B13)   |  |                                 | Microtopographic Relief (I       | D4)                         |
|   |  |                                 | FAC-Neutral Test (D5)            | ,                           |
| Field Observations:   |  |                                 |                                  |                             |
| Surface Water Present?  | Yes No <u></u> Depth                     | n (inches):                     |                                  |                             |
| Water Table Present?  | Yes No 🟒 Depth                           | n (inches):                     | <br>  Wetland Hydrology Present? | Yes No                      |
| Saturation Present?   | Yes No _ <b>✓</b> Depth                  | n (inches):                     |                                  |                             |
| (includes capillary fringe)                                   |  |                                 |                                  |                             |
|   | garage manitoring well pariel place      | as province inspections) if s   | L                                |                             |
| Describe Recorded Data (stream                                | gauge, monitoring well, aerial phot      | os, previous inspections), ii a | vallable:                        |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
| Remarks:  |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |

| r <u>ee Stratum</u> (Plot size: <u>30)</u> | Absolute<br>% Cover | Dominant<br>Speci <b>e</b> s? | Indicator Status    | Dominance Test worksheet: Number of Dominant Species That              | 3           | (A)        |
|--|---------------------|-------------------------------|---------------------|--|-------------|------------|
| . Acer rubrum                              | 60                  | Yes                           | FAC                 | Are OBL, FACW, or FAC:   |             | (A)        |
| Carpinus caroliniana                       | 10                  | No                            | FAC                 | Total Number of Dominant Species                                       | 4           | (B)        |
| Liriodendron tulipifera                    | 5                   | No No                         | FACU                | Across All Strata:   |             |            |
| Ailanthus altissima                        | 5                   | No                            | FACU                | Percent of Dominant Species That Are OBL, FACW, or FAC:                | 75          | (A/B)      |
|  |                     |                               |                     | Prevalence Index worksheet:  |             |            |
|  |                     |                               |                     | Total % Cover of:  | Multiply    | Ву:        |
|  |                     |                               |                     | OBL species 0  | x 1 =       | 0          |
|  |                     | = Total Cover                 |                     | FACW species 16  | x 2 =       | 32         |
| 50% of total cover: <u>40</u>              |                     | tal cover:                    | <u>16</u>           | FAC species 147  | x 3 =       | 441        |
| pling/Shrub Stratum (Plot size             |                     |                               |                     | FACU species 30  | × 4 =       | 120        |
| Lindera benzoin                            | 50                  | Yes                           | FAC                 | - UPL species 0  | x 5 =       | 0          |
| Fraxinus pennsylvanica                     | 1                   | No No                         | FACW                | Column Totals 193  | (A)         | 593 (B)    |
|  |                     |                               |                     | Prevalence Index = B/A =   | 3.1         |            |
|  |                     |                               |                     | Hydrophytic Vegetation Indicators:                                     |             |            |
|  |                     |                               |                     | - Land Test for Hydrophytic \  | egetation/  |            |
|  |                     |                               |                     | 2 - Dominance Test is >50%   |             |            |
|  |                     |                               |                     | 3 - Prevalence Index is ≤ 3.01   |             |            |
|  |                     |                               |                     | -  4 - Morphological Adaptations                                       | ¹ (Provide  | supporting |
|  |                     |                               |                     | – data in Remarks or on a separate sh                                  | neet)       |            |
| 500V - 5 t- t- 1 35 5                      |                     | = Total Cover                 | 40.3000000000000    | Problematic Hydrophytic Vege   | tation¹ (Ex | (plain)    |
| 50% of total cover: 25.5                   | 20% of to           | tai cover:                    | 10.2000000000000003 | landicators of hydric soil and wetlan                                  | -           | gy must be |
| erb Stratum (Plot size: 5 )                | 25                  | Von                           | EAC.                | present, unless disturbed or proble                                    | matic       |            |
| Microstegium vimineum                      |                     | Yes .                         | FAC                 | <ul> <li>Definitions of Four Vegetation Strate</li> </ul>              | a:          |            |
| UNKNOWN                                    | 1                   | Yes                           | NI                  | -  |             |            |
|  |                     | Percent cover<br>cannot be    |                     | Tree – Woody plants, excluding vine                                    |             |            |
| Circaea canadensis                         | 15                  | greater than a                | FACU                | in diameter at breast height (DBH),                                    | regardiess  | of height. |
| Circaca cariaderisis                       | 15                  | previous                      | 17.00               |  |             |            |
|  |                     | species                       |                     | Sapling/shrub – Woody plants, exclusion DBU and greater than an agreed | -           |            |
| Arisaema triphyllum                        | 10                  | No                            | FACW                | lin. DBH and greater than or equal to                                  | 3.28 π (1   | m) tan.    |
| Fraxinus pennsylvanica                     | 5                   | No                            | FACW                | _ Herb – All herbaceous (non-woody)                                    | plants, res | ardless of |
| Polygonatum biflorum                       | 5                   | No                            | FACU                | size, and woody plants less than 3.2                                   |             | ,          |
| Persicaria virginiana                      | 2                   | No No                         | FAC                 | -  |             |            |
|  |                     |                               |                     | <b>Wo</b> od <b>y vine</b> s – All woody vines grea                    | ter than 3  | .28 ft in  |
|  |                     |                               |                     | height.  |             |            |
| ).   |                     |                               |                     |  |             |            |
| l  |                     |                               |                     | _  |             |            |
|  | 63                  | = Total Cover                 |                     |  |             |            |
| 50% of total cover: <u>31.5</u>            | 20% of to           | tal cover:                    | 12.6000000000000001 | Hydrophytic Vegetation Present?  | ∕es 🛭 No 🏻  |            |
| <u>/oody Vine Stratum</u> (Plot size: _    | )                   |                               |                     |  |             |            |
|  |                     |                               |                     | _  |             |            |
|  |                     |                               |                     | _  |             |            |
|  |                     |                               |                     |  |             |            |
|  |                     |                               |                     |  |             |            |
|  |                     |                               |                     | -  |             |            |
|  |                     | = Total Cover                 |                     | -  |             |            |
|  |                     |                               |                     |  |             |            |

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

| Profile De     | scription: (Describe to                            | o t <b>he d</b> e <b>pt</b> l | h needed to                     | documer                | nt the ir | ndicator o                | or confir        | m the absenc              | ce of indicators.)              |  |
|----------------|--|-------------------------------|---------------------------------|------------------------|-----------|---------------------------|------------------|---------------------------|---------------------------------|--|
| D <b>ep</b> th | <b>Ma</b> trix                                     |                               | R <b>edo</b> x Featu <b>res</b> |                        |           |                           |                  |                           |                                 |  |
| (inches)       | Color (moist)                                      | %                             | Color (mo                       | oist)                  | _%        | Type¹                     | Loc²             |                           | Te <b>x</b> tur <b>e</b>        | Remarks                                      |
| 0 - 3          | 10YR 3/4   | 100                           |                                 |                        |           |                           |                  |                           | Loam                            |  |
| 3 - 11         | 10YR 4/4   |                               |                                 |                        |           |                           |                  |                           | Loam                            |  |
| 11 - 18        | 10YR 4/6   | 99                            | 10YR 5/                         | <b>6</b>               | 1         |                           |                  |                           | Loam                            |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  | -                         |                                 | _  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
| ¹Tvpe: C =     | Concentration, D = D                               | epletion. I                   | RM = Reduce                     | d Matrix               |           | Masked S                  | and Gra          | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M         | = Matrix.                                    |
|                | il Indicators:                                     |                               |                                 |                        |           |                           |                  |                           | Indicators for Proble           |  |
| _ Histoso      |  |                               |                                 | _ Dark Su              | ırface (S | 57)                       |                  |                           |                                 | •  |
| _              | oipedon (A2)                                       |                               | _                               | _                      |           |                           | (S8) <b>(M</b> L | RA 147, 148)              | 2 cm Muck (A10)                 |  |
| _ Black Hi     | istic (A3)   |                               |                                 |                        |           | ace (S9) <b>(</b> N       |                  | , 148)                    |                                 | ox (A16) (MLRA 147, 148)                     |
|                | en Sulfide (A4)                                    |                               | -                               |                        | -         | Matrix (F2                | .)               |                           | Pleamont Floodp                 | lain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
|                | d Layers (A5)<br>uck (A10) <b>(</b> LR <b>R N)</b> |                               | -                               | _ Deplete<br>  Redox I |           | ıx (⊦3)<br>rface (F6)     |                  |                           | Very Shallow Dar                | k Surface (TF12)                             |
|                | d Below Dark Surface (                             | A11)                          | -                               |                        |           | Surface (F                | 7)               |                           | Other (Explain in               |  |
|                | ark Surface (A12)                                  | ,                             | _                               | Redox [                | Depress   | ions (F8)                 |                  |                           |                                 |  |
|                | /lucky Mineral (S1) <b>(</b> LRF                   | RN, MLRA 1                    | 147, 148)                       | _ Iron-Ma              | anganes   | se Masses                 | (F12) (LF        | RR N, MLRA 13             | <b>6)</b> ₃Indicators of hydroբ | hytic vegetation and                         |
|                | ileyed Matrix (S4)                                 |                               | -                               |                        | 50        | ,                         |                  | ,                         | wetland hydrology n             | nust be present, unless                      |
| _              | ledox (S5)<br>d Matrix (S6)                        |                               | -                               |                        |           | apıaın Soi<br>terial (F21 |                  | MLRA 148)<br>127 147)     | disturbed or probler            |  |
|                | e Layer (if observed):                             |                               | <del>-</del>                    | _ ((CG ) G)            | Circivia  | terial (121               |                  | 121, 1-11                 |                                 |  |
|                | Type:  |                               | None                            |                        |           |                           | L bredsies       | Cail Dragant2             |                                 | Yes □ No ☑                                   |
|                | Depth (inches):                                    |                               | None                            |                        |           |                           | myunc.           | Soil <b>Present?</b>      |                                 | res 🗆 NO 🗹                                   |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
| Remarks:       |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                         | City/County: Danville, Pi  | ttsylvania C Sam <b>p</b> lin <b>g</b> | Date: 2018-June-27              |                             |
|---|--|--|---------------------------------|-----------------------------|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra |  | State: Virgir                          | nia Sampling Point: W-D1        | 18-35_PFO-1                 |
| Investigator(s):Jacob Fleckenste                    | ein, Eileen Nakahata, Beth Clements  | Section, Township,                     | Range:                          |                             |
| Landform (hillslope, terrace, etc.):                | Flood Plain  | Local relief (concave, conv            | ex, none): Concave              | Slop <b>e (%</b> ):10 to 15 |
| Subregion (LRR or MLRA): MI                         | LRA 136 of LRR P   | Lat: 36.5984652                        | Long: -79.5742533               | Datum: WGS84                |
| Soil <b>Map</b> U <b>ni</b> t Name:5C3:Cecil :      | Sandy Loam   |  | NWI classification              | n: None                     |
| Are climatic/hydrologic conditions                  | on the site typical for this time of ye  | ear? Yes <u>√</u> No                   | (If no, explain in Remarks.)    |                             |
| Are Vegetation, Soil,                               | or Hydrology significantly di  | sturbed? Are "Norma                    | al Circumstances" present?      | Yes 🟒 No                    |
| Are Vegetation, Soil,                               | or Hydrology naturally prob  | lematic? (If needed,                   | explain any answers in Remarks. | .)                          |
|   |  |  |                                 |                             |
| SUMMARY OF FINDINGS – At                            | ttach site map showing sampli  | ng point locations, tran               | nsects, important features, o   | etc.                        |
| Hydrophytic Vegetation Present?                     | Yes 🗸 No   |  |                                 |                             |
| Hydric Soil Present?                                | Yes No   |  |                                 |                             |
| Wetland Hydrology Present?                          | Yes No   | Is the Sampled Area within             | n <b>a Wetlan</b> d? Yes        | No                          |
| Remarks:  |  |  |                                 |                             |
|   |  |  |                                 |                             |
|   |  |  |                                 |                             |
| Covertune is REO. Area is wetland                   | Lall three wetland parameters are n  | rocont                                 |                                 |                             |
| Covertype is PPO. Area is wetland                   | l, all three wetland parameters are p  | resent.                                |                                 |                             |
|   |  |  |                                 |                             |
|   |  |  |                                 |                             |
|   |  |  |                                 |                             |
| HYDROLOGY   |  |  |                                 |                             |
| Wetland Hydrology Indicators:                       |  |  |                                 |                             |
|   | one is required; check all that apply)   |  | Secondary Indicators (minimum   | of two required)            |
| - mailed Street Street                              | , and the character of the control o |  | Surface Soil Cracks (B6)        | or coro raquir au           |
| Surface Water (A1)                                  | True Aquatic Pla   |  | ✓ Sparsely Vegetated Concave    | Surface (B8)                |
| High Water Table (A2)                               | Hydrogen Sulfide   |  | Drainage Patterns (B10)         |                             |
| Saturation (A3)                                     | · ·  | oheres on Living Roots (C3)            | Moss Trim Lines (B16)           |                             |
| Water Marks (B1)                                    | Presence of Red  |  | Dry-Season Water Table (C2)     |                             |
| Sediment Deposits (B2)                              |  | uction in Tilled Soils (C6)            | Crayfish Burrows (C8)           |                             |
| Drift Deposits (B3) Algal Mat or Crust (B4)         | Thin Muck Surfa<br>Other (Explain ir   |  | Saturation Visible on Aerial I  | magery (C9)                 |
| Iron Deposits (B5)                                  | Other (Explain ii  | ritemarks)                             | Stunted or Stressed Plants (I   | )1)                         |
| Inundation Visible on Aerial I                      | mageny (B7)  |  | Geomorphic Position (D2)        | /1)                         |
| ✓ Water-Stained Leaves (B9)                         | magery (D7)  |  | Shallow Aquitard (D3)           |                             |
| Aquatic Fauna (B13)                                 |  |  | Microtopographic Relief (D4)    | ı                           |
| ·   |  |  | ✓ FAC-Neutral Test (D5)         |                             |
| Field Observations:                                 |  |  |                                 |                             |
| Surface Water Present?                              | Yes No 🟒 Depth   | (inches):                              |                                 |                             |
| Water Table Present?                                | Yes No 🟒 Depth   | (inches):                              | Wetland Hydrology Present?      | Yes _ <b>∠</b> _ No         |
| Saturation Present?                                 | Yes No ✓ Depth   | (inches):                              |                                 |                             |
| (includes capillary fringe)                         |  |  | 1                               |                             |
|   | gauge, monitoring well, aerial photo   | s provious inspections) if a           | wailable.                       |                             |
| bescribe Recorded Data (Scream)                     | gauge, monitoring well, denai photo  | s, previous irispections, ir a         | available.                      |                             |
|   |  |  |                                 |                             |
| Down a where  |  |  |                                 |                             |
| Remarks:  |  |  |                                 |                             |
|   |  |  |                                 |                             |
|   |  |  |                                 |                             |
|   |  |  |                                 |                             |
|   |  |  |                                 |                             |
|   |  |  |                                 |                             |
|   |  |  |                                 |                             |

| · · · · · · · · · · · · · · · · · · ·                | •           |             |           | T   |                     |             |
|--|-------------|-------------|-----------|---|---------------------|-------------|
| Tree Stratum (Plot size:30)                          | Absolute    | Dominant    | Indicator | Dominance Test worksheet:   |                     |             |
| Tree Structure (Flore Size                           | % Cover     | Species?    | Status    | Number of Dominant Species That   | 3                   | (A)         |
| 1. Carpinus caroliniana                              | 50          | Yes         | FAC       | Are OBL, FACW, or FAC:  |                     |             |
| 2. Acer rubrum                                       | 25          | Yes         | FAC       | Total Number of Dominant Species  | 3                   | (B)         |
| 3.   |             |             |           | Across All Strata: Percent of Dominant Species That   |                     |             |
| 4  |             |             |           | · Are OBL, FACW, or FAC:  | <b>1</b> 0 <b>0</b> | (A/B)       |
| 5  |             |             |           | Prevalence Index worksheet:   |                     |             |
| 6  |             |             |           | Total % Cover of:   | Multiply By         | v           |
| 7  |             |             |           | OBL species 0   | x 1 =               | 0           |
|  | 75          | = Total Cov | er        | FACW species 2  | x 2 =               | 4           |
| 50% of total cover: <u>37.5</u>                      | _20% of to  | tal cover:  | 15        | FAC species 106   | x3=                 | 318         |
| Sapling/Shrub Stratum (Plot size:15)                 |             |             |           | FACU species 0  | ×4=                 | 0           |
| 1. Lindera benzoin                                   | 30          | Yes         | FAC       | UPL species 0   | x5=                 | 0           |
| 2  |             |             |           | Column Totals 108   | _                   | 322 (B)     |
| 3.   |             |             |           |   | · · · —             | 322 (D)     |
| 4.   |             |             |           | Prevalence Index = B/A =  |                     |             |
| 5.   |             |             |           | Hydrophytic Vegetation Indicators:  |                     |             |
| 6.   |             |             |           | 1- Rapid Test for Hydrophytic \   | egetation/          |             |
| 7.   |             |             |           | ✓ 2 - Dominance Test is >50%  |                     |             |
| 8.   |             |             |           | 3 - Prevalence Index is ≤ 3.01  |                     |             |
| 9.   |             |             |           | 4 - Morphological Adaptations   |                     | upporting   |
|  | 30          | = Total Cov | er        | data in Remarks or on a separate sh   |                     | 1-2-3       |
| 50% of total cover: 15                               |             | -           | 6         | Problematic Hydrophytic Vege  |                     |             |
| Herb Stratum (Plot size: 5 )                         |             |             |           | <sup>1</sup> Indicators of hydric soil and wetlan<br>present, unless disturbed or proble        | , 0,                | / must be   |
| 1. Onoclea sensibilis                                | 2           | No          | FACW      | <del></del>   |                     |             |
| Persicaria virginiana                                | 1           | No No       | FAC       | . Definitions of Four Vegetation Strate   | 3:                  |             |
| 3. Poaceae   | 1           | No No       | NI        | Tree Manager along a control of the control   | a 3 in 77.6         |             |
| 4.   |             |             | INI       | <ul> <li>Tree – Woody plants, excluding vine<br/>in diameter at breast height (DBH),</li> </ul> |                     |             |
| 5.   |             |             |           | In diameter at breast height (DBH),   | egal uless t        | of Height.  |
| -  |             |             |           | .  <br>  <b>Saplin</b> g/ <b>shrub</b> – Woody plants, exclu                                    | ıding vinas         | lace than 3 |
| 7.   |             |             |           | in. DBH and greater than or equal to  | _                   |             |
| 8.   |             |             |           | .   |                     | ,           |
| -  |             |             |           | - Herb – All herbaceous (non-woody)   | plants, rega        | ardless of  |
| 9.   |             |             |           | size, and woody plants less than 3.2  |                     |             |
| 10   |             |             |           |   |                     |             |
| 11   |             |             |           | .   |                     | 0.6.1       |
|  | 4           | = Total Cov |           | <b>Wo</b> ody vines – All woody vines great   | er than 3.2         | δπın        |
| 50% of total cover: <u>2</u>                         | _ 20% of to | ital cover: | 8.0       | height.   |                     |             |
| Woody Vine Stratum (Plot size: 30 )                  |             |             |           |   |                     |             |
| 1. <u>UNKNOWN</u>                                    | 1           | No          | NI        |   |                     |             |
| 2  |             |             |           | .   |                     |             |
| 3  |             |             |           | Hydrophytic Vegetation Present?   | ⁄es ☑ No □          |             |
| 4  |             |             |           |   |                     |             |
| 5  |             |             |           |   |                     |             |
|  | 1           | = Total Cov | er        |   |                     |             |
| 50% of total cover: <u>0.5</u>                       | _ 20% of to | tal cover:  | 0.2       |   |                     |             |
| Remarks: (Include photo numbers here or on a separat | e sheet.)   |             |           | •   |                     |             |
| ,  | ,           |             |           |   |                     |             |
|  |             |             |           |   |                     |             |
|  |             |             |           |   |                     |             |
|  |             |             |           |   |                     |             |
|  |             |             |           |   |                     |             |
|  |             |             |           |   |                     |             |
|  |             |             |           |   |                     |             |

| Depth             | <b>Ma</b> trix                                    |           | pth needed to document the indicator or confirm the a<br>Redox Features |                       |             |          |             |               |                         |                                      |
|-------------------|---|-----------|---|-----------------------|-------------|----------|-------------|---------------|-------------------------|--------------------------------------|
| (in <b>ch</b> es) | Color (moist)                                     | %         | Color (moist)   |                       |             | Type¹    | Locz        |               | Texture                 | Remarks                              |
| 0 - 18            | 2.5Y 5/2  | 70        | 2.5Y 5/3  |                       | <br>23      | C        |             |               | Clay Loam               |                                      |
| 0 - 18            |   |           | 7.5YR 5/6   |                       | <del></del> | C        | M/PL        |               |                         |                                      |
|                   |   |           | 715111570   |                       | <u> </u>    |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         | _                                    |
|                   |   |           |   |                       |             |          |             |               |                         | <b>_</b> ,                           |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
| ¹Type: C =        | Concentration, D = D                              | epletion  | , RM = Reduced M  | latrix, M             | is = Ma     | asked S  | Sand Gra    | ins. ²Locatio | on: PL = Pore Lining, M | = Matrix.                            |
| Hydric Soil       | Indicators:                                       |           |   |                       |             |          |             |               | Indicators for Proble   | matic Hydric Soils3:                 |
| _ Histosol        | (A1)  |           | _ Da  | ark Surfa             | ace (\$7)   | )        |             |               |                         | -                                    |
| _ Histic Ep       | ipedon (A2)                                       |           |   |                       |             |          |             | RA 147, 148)  | 2 cm Muck (A10)         | lox (A16) (MLRA 147, 148)            |
| _ Black His       |   |           |   |                       |             |          | VILRA 147   | <b>,</b> 148) |                         | plain Soils (F19) (ML <b>RA 136,</b> |
|                   | n Sulfide (A4)                                    |           |   | oamy Gle              | -           |          | 2)          |               | Fledifiont Floods       | 13011 30113 (F13) (WILKA 130,        |
|                   | l Layers (A5)<br>ck (A10) <b>(</b> LR <b>R N)</b> |           |   | epleted M<br>edox Dar |             |          |             |               | Very Shallow Dar        | rk Surface (TE12)                    |
|                   | l Below Dark Surface (                            | A11)      |   | epleted [             |             |          |             |               | Other (Explain in       |                                      |
|                   | rk Surface (A12)                                  | ,         | Re  | edox Der              | pressio     | ns (F8)  |             |               |                         |                                      |
| _                 | ucky Mineral (S1) <b>(</b> LRF                    | R N, MLRA | . <b>147, 148)</b> lrd  | on-Mang               | ganese      | Masses   | s (F12) (LF | RR N, MLRA 13 | 6)₃Indicators of hydro  | nhytic vegetation and                |
|                   | eyed Matrix (S4)                                  |           |   |                       |             |          |             | ,             | wetland hydrology n     | nust be present, unless              |
| Sandy Re          |   |           |   |                       |             |          |             | MLRA 148)     | disturbed or problem    |                                      |
|                   | Matrix (S6)                                       |           | KE  | ed Paren              | it Mate     | riai (FZ | I) (MLRA    | 127, 147)     |                         |                                      |
|                   | Layer (if observed):                              |           |   |                       |             |          |             |               |                         |                                      |
|                   | Гуре:   |           | None  |                       |             |          | Hydric :    | Soil Present? |                         | Yes ☑ No □                           |
| [                 | Depth (inches):                                   |           |   |                       |             |          |             |               |                         |                                      |
| Remarks:          |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |
|                   |   |           |   |                       |             |          |             |               |                         |                                      |

Photo of Sample Plot North



Photo of Sample Plot East



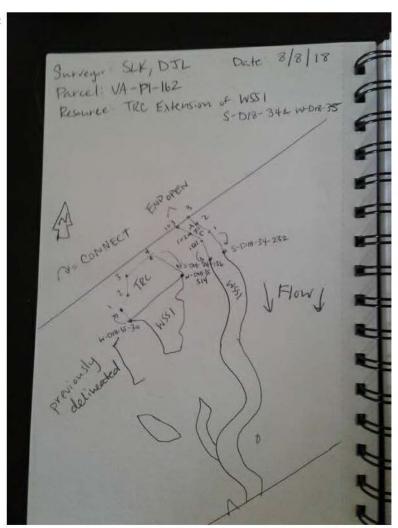
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                                   | City/County:                             |                                 | Sampling Date: 2018-June         | 2-27                        |
|---|--|---------------------------------|----------------------------------|-----------------------------|
| Applicant/Owner: NextEra                                      |  | State:                          | Sampling Point: W                | -D18-35_UPL-1               |
| Investigator(s): _ Jacob Fleckenst                            | ein, Eileen Nakahata, Beth Clement       | s Section, Township,            | Range:                           |                             |
| Landform (hillslope, terrace, etc.):                          | : _ Flood Plain                          | Local relief (concave, conve    | ex, none): Concave               | Slop <b>e (%</b> ):10 to 15 |
| Subregion (LRR or MLRA): M                                    | ILRA 136 of LRR P                        | Lat: 36.5987201                 | Long: -79.574246                 | D <b>atu</b> m: WGS84       |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : <u>5C3: Ceci</u> | l Sandy loam                             |                                 | NWI classifica                   | ti <b>on</b> : None         |
| Are climatic/hydrologic condition:                            | s on the site typical for this time of y | /ear? Yes <u>✓</u> No           | (If no, explain in Remark        | s.)                         |
| Are Vegetation, Soil,   | or Hydrology significantly o             | disturbed? Are "Norma           | al Circumstances" present?       | Yes 🟒 No                    |
| Are Vegetation, Soil,   | or Hydrology naturally pro               | blematic? (If needed,           | explain any answers in Remar     | ks.)                        |
|   |  |                                 |                                  |                             |
| SUMMARY OF FINDINGS – A                                       | ttach site map showing samp              | ling point locations, tran      | sects, important feature         | s, etc.                     |
| Hydrophytic Vegetation Present?                               | Yes <u></u> ✓ No                         |                                 |                                  |                             |
| Hydric Soil Present?  | Yes No <b>_</b> _                        |                                 |                                  |                             |
| Wetland Hydrology Present?                                    | Yes No 🟒                                 | Is the Sampled Area withi       | in a <b>W</b> etl <b>and</b> ?   | Yes <b>No/</b>              |
| Remarks:  |  |                                 |                                  |                             |
| I   |  |                                 |                                  |                             |
| I   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
| Covertype is UPL. Area is upland,                             | , not all three wetland parameters a     | re present.                     |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
| HYDROLOGY   |  |                                 |                                  |                             |
| Wetland Hydrology Indicators:                                 |  |                                 |                                  |                             |
| , 0,  | one is required; check all that apply    | 1                               | Secondary Indicators (minimu     | um of two required)         |
| -   | •  | -                               | Surface Soil Cracks (B6)         |                             |
| Surface Water (A1)  | True Aquatic Pla                         |                                 | Sparsely Vegetated Conca         | ive Surface (B8)            |
| High Water Table (A2)   | Hydrogen Sulfic                          |                                 | Drainage Patterns (B10)          |                             |
| Saturation (A3)   |  | spheres on Living Roots (C3)    | Moss Trim Lines (B16)            |                             |
| Water Marks (B1)  | Presence of Rec                          |                                 | Dry-Season Water Table (0        | E2)                         |
| Sediment Deposits (B2)  |  | duction in Tilled Soils (C6)    | Crayfish Burrows (C8)            |                             |
| Drift Deposits (B3)<br>Algal Mat or Crust (B4)                | Thìn Muck Surf<br>Other (Explain i       |                                 | Saturation Visible on Aeria      | al Imagery (C9)             |
| Iron Deposits (B5)  | Other (Explain)                          | iii Keiliai KS)                 | Stunted or Stressed Plants       | c (D1)                      |
| Inundation Visible on Aerial                                  | Imageny (B7)                             |                                 | Geomorphic Position (D2)         |                             |
| Water-Stained Leaves (B9)                                     | magery (b7)                              |                                 | Shallow Aquitard (D3)            |                             |
| Aquatic Fauna (B13)   |  |                                 | Microtopographic Relief (I       | D4)                         |
|   |  |                                 | FAC-Neutral Test (D5)            | ,                           |
| Field Observations:   |  |                                 |                                  |                             |
| Surface Water Present?  | Yes No <u></u> Depth                     | n (inches):                     |                                  |                             |
| Water Table Present?  | Yes No 🟒 Depth                           | n (inches):                     | <br>  Wetland Hydrology Present? | Yes No                      |
| Saturation Present?   | Yes No _ <b>✓</b> Depth                  | n (inches):                     |                                  |                             |
| (includes capillary fringe)                                   |  |                                 |                                  |                             |
|   | garage manitoring well pariel place      | as province inspections) if s   | L                                |                             |
| Describe Recorded Data (stream                                | gauge, monitoring well, aerial phot      | os, previous inspections), ii a | vallable:                        |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
| Remarks:  |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |
|   |  |                                 |                                  |                             |

| r <u>ee Stratum</u> (Plot size: <u>30)</u> | Absolute<br>% Cover | Dominant<br>Speci <b>e</b> s? | Indicator Status    | Dominance Test worksheet: Number of Dominant Species That              | 3           | (A)        |
|--|---------------------|-------------------------------|---------------------|--|-------------|------------|
| . Acer rubrum                              | 60                  | Yes                           | FAC                 | Are OBL, FACW, or FAC:   |             | (A)        |
| Carpinus caroliniana                       | 10                  | No                            | FAC                 | Total Number of Dominant Species                                       | 4           | (B)        |
| Liriodendron tulipifera                    | 5                   | No No                         | FACU                | Across All Strata:   |             |            |
| Ailanthus altissima                        | 5                   | No                            | FACU                | Percent of Dominant Species That Are OBL, FACW, or FAC:                | 75          | (A/B)      |
|  |                     |                               |                     | Prevalence Index worksheet:  |             |            |
|  |                     |                               |                     | Total % Cover of:  | Multiply    | Ву:        |
|  |                     |                               |                     | OBL species 0  | x 1 =       | 0          |
|  |                     | = Total Cover                 |                     | FACW species 16  | x 2 =       | 32         |
| 50% of total cover: <u>40</u>              |                     | tal cover:                    | <u>16</u>           | FAC species 147  | x 3 =       | 441        |
| pling/Shrub Stratum (Plot size             |                     |                               |                     | FACU species 30  | × 4 =       | 120        |
| Lindera benzoin                            | 50                  | Yes                           | FAC                 | - UPL species 0  | x 5 =       | 0          |
| Fraxinus pennsylvanica                     | 1                   | No                            | FACW                | Column Totals 193  | (A)         | 593 (B)    |
|  |                     |                               |                     | Prevalence Index = B/A =   | 3.1         |            |
|  |                     |                               |                     | Hydrophytic Vegetation Indicators:                                     |             |            |
|  |                     |                               |                     | - Land Test for Hydrophytic \  | egetation/  |            |
|  |                     |                               |                     | 2 - Dominance Test is >50%   |             |            |
|  |                     |                               |                     | 3 - Prevalence Index is ≤ 3.01   |             |            |
|  |                     |                               |                     | -  4 - Morphological Adaptations                                       | ¹ (Provide  | supporting |
|  |                     |                               |                     | – data in Remarks or on a separate sh                                  | neet)       |            |
| 500V - 5 t- t- 1 35 5                      |                     | = Total Cover                 | 40.3000000000000    | Problematic Hydrophytic Vege   | tation¹ (Ex | (plain)    |
| 50% of total cover: 25.5                   | 20% of to           | tai cover:                    | 10.2000000000000003 | landicators of hydric soil and wetlan                                  | -           | gy must be |
| erb Stratum (Plot size: 5 )                | 25                  | Von                           | EAC.                | present, unless disturbed or proble                                    | matic       |            |
| Microstegium vimineum                      |                     | Yes .                         | FAC                 | <ul> <li>Definitions of Four Vegetation Strate</li> </ul>              | a:          |            |
| UNKNOWN                                    | 1                   | Yes                           | NI                  | -  |             |            |
|  |                     | Percent cover<br>cannot be    |                     | Tree – Woody plants, excluding vine                                    |             |            |
| Circaea canadensis                         | 15                  | greater than a                | FACU                | in diameter at breast height (DBH),                                    | regardiess  | of height. |
| Circaca cariaderisis                       | 15                  | previous                      | 17.00               |  |             |            |
|  |                     | species                       |                     | Sapling/shrub – Woody plants, exclusion DBU and greater than an agreed | -           |            |
| Arisaema triphyllum                        | 10                  | No                            | FACW                | lin. DBH and greater than or equal to                                  | 3.28 π (1   | m) tan.    |
| Fraxinus pennsylvanica                     | 5                   | No                            | FACW                | _ Herb – All herbaceous (non-woody)                                    | plants, res | ardless of |
| Polygonatum biflorum                       | 5                   | No                            | FACU                | size, and woody plants less than 3.2                                   |             | ,          |
| Persicaria virginiana                      | 2                   | No No                         | FAC                 | -  |             |            |
|  |                     |                               |                     | <b>Wo</b> od <b>y vine</b> s – All woody vines grea                    | ter than 3  | .28 ft in  |
|  |                     |                               |                     | height.  |             |            |
| ).   |                     |                               |                     |  |             |            |
| l  |                     |                               |                     | _  |             |            |
|  | 63                  | = Total Cover                 |                     |  |             |            |
| 50% of total cover: <u>31.5</u>            | 20% of to           | tal cover:                    | 12.6000000000000001 | Hydrophytic Vegetation Present?  | ∕es 🛭 No 🏻  |            |
| <u>/oody Vine Stratum</u> (Plot size: _    | )                   |                               |                     |  |             |            |
|  |                     |                               |                     | _  |             |            |
|  |                     |                               |                     | _  |             |            |
|  |                     |                               |                     |  |             |            |
|  |                     |                               |                     |  |             |            |
|  |                     |                               |                     | -  |             |            |
|  |                     | = Total Cover                 |                     | -  |             |            |
|  |                     |                               |                     |  |             |            |

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

| Profile De     | scription: (Describe to                            | o t <b>he d</b> e <b>pt</b> l | h needed to                     | documer                | nt the ir | ndicator o                | or confir        | m the absenc              | ce of indicators.)              |  |
|----------------|--|-------------------------------|---------------------------------|------------------------|-----------|---------------------------|------------------|---------------------------|---------------------------------|--|
| D <b>ep</b> th | <b>Ma</b> trix                                     |                               | R <b>edo</b> x Featu <b>res</b> |                        |           |                           |                  |                           |                                 |  |
| (inches)       | Color (moist)                                      | %                             | Color (mo                       | oist)                  | _%        | Type¹                     | Loc²             |                           | Te <b>x</b> tur <b>e</b>        | Remarks                                      |
| 0 - 3          | 10YR 3/4   | 100                           |                                 |                        |           |                           |                  |                           | Loam                            |  |
| 3 - 11         | 10YR 4/4   |                               |                                 |                        |           |                           |                  |                           | Loam                            |  |
| 11 - 18        | 10YR 4/6   | 99                            | 10YR 5/                         | <b>6</b>               | 1         |                           |                  |                           | Loam                            |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  | -                         |                                 | _  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
| ¹Tvpe: C =     | Concentration, D = D                               | epletion. I                   | RM = Reduce                     | d Matrix               |           | Masked S                  | and Gra          | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M         | = Matrix.                                    |
|                | il Indicators:                                     |                               |                                 |                        |           |                           |                  |                           | Indicators for Proble           |  |
| _ Histoso      |  |                               |                                 | _ Dark Su              | ırface (S | 57)                       |                  |                           |                                 | •  |
| _              | oipedon (A2)                                       |                               | _                               | _                      |           |                           | (S8) <b>(M</b> L | RA 147, 148)              | 2 cm Muck (A10)                 |  |
| _ Black Hi     | istic (A3)   |                               |                                 |                        |           | ace (S9) <b>(</b> N       |                  | , 148)                    |                                 | ox (A16) (MLRA 147, 148)                     |
|                | en Sulfide (A4)                                    |                               | -                               |                        | -         | Matrix (F2                | .)               |                           | Pleamont Floodp                 | lain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
|                | d Layers (A5)<br>uck (A10) <b>(</b> LR <b>R N)</b> |                               | -                               | _ Deplete<br>  Redox I |           | ıx (⊦3)<br>rface (F6)     |                  |                           | Very Shallow Dar                | k Surface (TF12)                             |
|                | d Below Dark Surface (                             | A11)                          | -                               |                        |           | Surface (F                | 7)               |                           | Other (Explain in               |  |
|                | ark Surface (A12)                                  | ,                             | _                               | Redox [                | Depress   | ions (F8)                 |                  |                           |                                 |  |
|                | /lucky Mineral (S1) <b>(</b> LRF                   | RN, MLRA 1                    | 147, 148)                       | _ Iron-Ma              | anganes   | se Masses                 | (F12) (LF        | RR N, MLRA 13             | <b>6)</b> ₃Indicators of hydroբ | hytic vegetation and                         |
|                | ileyed Matrix (S4)                                 |                               | -                               |                        | 50        | ,                         |                  | ,                         | wetland hydrology n             | nust be present, unless                      |
| _              | ledox (S5)<br>d Matrix (S6)                        |                               | -                               |                        |           | apıaın Soi<br>terial (F21 |                  | MLRA 148)<br>127 147)     | disturbed or probler            |  |
|                | e Layer (if observed):                             |                               | <del>-</del>                    | _ ((CG ) G)            | Circivia  | terial (121               |                  | 121, 1-11                 |                                 |  |
|                | Type:  |                               | None                            |                        |           |                           | L bredsies       | Cail Dragant2             |                                 | Yes □ No ☑                                   |
|                | Depth (inches):                                    |                               | None                            |                        |           |                           | myunc.           | Soil <b>Present?</b>      |                                 | res 🗆 NO 🗹                                   |
| B              |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
| Remarks:       |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |
|                |  |                               |                                 |                        |           |                           |                  |                           |                                 |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate City/County: Westover, Pittsylvania.                         | Sampling Date: 2018-July-19  |
|--|--|
| Applicant/Owner: NextEra   | State: Virginia Sampling Point: W-D18-41_PFO-1   |
| nvestigator(s): Alexi Weber, SES, JSF, JDF Sec   | ction, Township, Range:  |
| Local relie Local relie  | f (concave, convex, none): Concave Slope (%): 1 to 3   |
| Subregion (LRR or MLRA): MLRA 136 of LRR P La  | at: 36.59533 Long: -79.5762491 Datum: WGS84  |
| Soil <b>Map</b> Unit Name: 23C   | 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 I                           | ocations, transects, important features, etc.  |
| Hydrophytic Vegetation Present? Yes _ No   |  |
| Hydric Soil Present? Yes _ / No  | and an analysis and a second an |
| Wetland Hydrology Present? Yes _✓ No Is the San Remarks:                                 | npled Area within a Wetland? Yes/_ No  |
| Covertype is PFO. Area is wetland, all three wetland parameters are present.             |  |
| LIVOROL OCV  |  |
| HYDROLOGY  |  |
| Wetland Hydrology Indicators:  |  |
| Primary Indicators (minimum of one is required; check all that apply)                    | Secondary Indicators (minimum of two required)   |
| Surface Water (A1) True Aquatic Plants (B14)   | Surface Soil Cracks (B6)   |
| Surface Water (v1) High Water Table (A2) Hydrogen Sulfide Odor (C1)                      | Sparsely Vegetated Concave Surface (B8)  |
|  | Drainage raccerns (BTO)  |
| Water Marks (B1) Presence of Reduced Iron (0   | (MO33 11111 EITICS (BTO)   |
| Sediment Deposits (B2) Recent Iron Reduction in Til                                      |  |
| Drift Deposits (B3) Thin Muck Surface (C7)   | Saturation Visible on Aerial Imagery (C9)  |
| Algal Mat or Crust (B4) Other (Explain in Remarks)                                       |  |
| Iron Deposits (B5)   | Stunted or Stressed Plants (D1)  |
| Inundation Visible on Aerial Imagery (B7)  | Geomorphic Position (D2)   |
| Water-Stained Leaves (B9)  | Shallow Aquitard (D3)  |
| Aquatic Fauna (B13)  | Microtopographic Relief (D4)   |
| Field Observations:  | FAC-Neutral Test (D5)  |
| Surface Water Present? Yes No _ ✓ Depth (inches):  |  |
| <del>_</del> _ · · · · ·   | Material Hudgeless Discount Vos. 4 No.   |
| Water Table Present? Yes No Depth (inches):  | Wetland Hydrology Present? Yes ∠_ No   |
| Saturation Present? Yes No _ <b>✓</b> Depth (inches):                                    |  |
| (includes capillary fringe)  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous  Remarks: | inspections), if available:  |
|  |  |

| ree Stratum (Plot size: 30')       |           | Dominant<br>Species? | Indicator Status    | Dominance Test worksheet:  Number of Dominant Species That                   | 5  | (A)        |
|------------------------------------|-----------|----------------------|---------------------|--|--|------------|
| . Acer rubrum                      | 60        | Yes                  | FAC                 | _ Are OBL, FACW, or FAC: _   |  |            |
| Liquidambar styraciflua            | 40        | Yes                  | FAC                 | Total Number of Dominant Species   | 5  | (B)        |
| Fraxinus pennsylvanica             | 10        | No                   | FACW                | Across All Strata:   |  |            |
| Prunus serotina                    | 1         | No                   | FACU                | Percent of Dominant Species That   | 100                                      | (A/B)      |
| . <u> </u>                         |           |                      |                     | <ul><li>Are OBL, FACW, or FAC:</li><li>Prevalence Index worksheet:</li></ul> |  |            |
|                                    |           |                      |                     |  | Multiply I                               | Dr. p      |
|                                    |           |                      |                     | - OBL species 0  | $\frac{\mathbf{Multiply I}}{\times 1} =$ | 0          |
|                                    | 111       | = Total Cove         | -                   |  | _  |            |
| 50% of total cover: <u>55.5</u>    | 20% of to | al cover: _          | 22.2000000000000003 |  | x2= _                                    | 72         |
| apling/Shrub Stratum (Plot size:15 | <u>'</u>  |                      |                     | <u> </u>   | x3= _                                    | 756        |
| Lindera benzoin                    | 25        | Yes                  | FAC                 | FACU species 8   | ×4= _                                    | 32         |
| Liquidambar styraciflua            | 5         | No No                | FAC                 | UPL species 0  | ×5= -                                    | 0          |
|                                    |           |                      |                     | Column Totals 296  | (A) _                                    | 860 (B)    |
|                                    |           |                      |                     | Prevalence Index = B/A =   | 2.9                                      |            |
|                                    |           |                      |                     | Hydrophytic Vegetation Indicators:   |  |            |
| -                                  |           |                      |                     | 1- Rapid Test for Hydrophytic V  | egetation                                |            |
|                                    |           |                      |                     | 2 - Dominance Test is >50%   |  |            |
|                                    |           |                      |                     | $\boxed{ \checkmark }$ 3 - Prevalence Index is $\le 3.0^{\circ}$             |  |            |
| -                                  |           |                      |                     | -  4 - Morphological Adaptations¹  | (Provide s                               | supporting |
|                                    | 30        | = Total Cove         |                     | <ul> <li>data in Remarks or on a separate she</li> </ul>                     | eet)                                     |            |
| 500/ of total occurs 15            |           |                      |                     | Problematic Hydrophytic Veget  |  |            |
| 50% of total cover: 15             | 20% 0110  | tai cover:           | 6                   | Indicators of hydric soil and wetland  | -  | gy must be |
| erb Stratum (Plot size: 5 )        | 00        | Vaa                  | EA.C                | present, unless disturbed or problen   |  |            |
| Microstegium vimineum              | 90        | Yes                  | FAC                 | <ul> <li>Definitions of Four Vegetation Strata</li> </ul>                    | :  |            |
| Impatiens capensis                 | _ 15      | No _                 | FACW                | _  |  |            |
| Cinna arundinacea                  |           | No _                 | FACW                | _ Tr <b>ee</b> – Woody plants, excluding vines                               |  |            |
| Carpinus caroliniana               | _ 1       | <u>No</u> _          | FAC                 | _ in diameter at breast height (DBH), n                                      | egardless                                | of height. |
| Lonicera japonica                  |           | No _                 | FACU                | _  |  |            |
| Persicaria longiseta               | 1         | No                   | FAC                 | _   Sapling/shrub – Woody plants, exclud                                     | -  |            |
| Boehmeria cylindrica               | _ 1       | No _                 | FACW                | in. DBH and greater than or equal to   | 3.28 ft (1                               | m) tall.   |
| ·                                  |           |                      |                     |  |  |            |
|                                    |           |                      |                     | Herb – All herbaceous (non-woody) p  |  | ardless of |
| 0                                  |           |                      |                     | size, and woody plants less than 3.28<br> -                                  | з тт тан.                                |            |
| 1.                                 |           |                      |                     |  |  |            |
|                                    | 119       | = Total Cove         | ,                   | <b>Wo</b> od <b>y vine</b> s – All woody vines greate                        | er than 3.                               | 28 ft in   |
| 50% of total cover: <u>59.5</u>    | 20% of to | tal cover:           | 23.8                | height.  |  |            |
| oody Vine Stratum (Plot size: 30'  |           |                      |                     |  |  |            |
| Smilax rotundifolia                | 30        | Yes                  | FAC                 |  |  |            |
| . Vitis labrusca                   |           | No -                 | FACU                | -  |  |            |
| . Parthenocissus quinquefolia      | 1         | No -                 | FACU                | Hydrophytic Vegetation Present? You  | es ☑ No □                                |            |
|                                    |           |                      |                     | -  |  |            |
|                                    |           |                      |                     | -  |  |            |
|                                    |           |                      |                     | -  |  |            |
|                                    | 36        | = Lotal ( over       |                     |  |  |            |
|                                    |           | = Total Cover        | 7.2                 |  |  |            |

| Profile De     | scription: (Describe to                        | the dep   | th n <b>eed</b> ed to docur | nent the i              | ndicator                | or confir                       | m the absend              | ce of indicators.)               |   |
|----------------|--|-----------|-----------------------------|-------------------------|-------------------------|---------------------------------|---------------------------|----------------------------------|---|
| D <b>ep</b> th | epth Matrix Redox Features                     |           |                             |                         | es                      |                                 |                           |                                  |   |
| (inches)       | Color (moist)                                  | - %       | Color (moist)               | %                       | % Type¹ Loc²            |                                 |                           | T <b>ex</b> ture                 | Remarks                                     |
| 0 - 6          | 2.5Y 4/2                                       | 90        | 7.5YR 3/4                   | 7                       | C                       | M/PL                            |                           | Clay Loam                        |   |
| 0 - 6          | 2.5Y 4/2                                       | 90        | 7.5YR 5/6                   | 3                       | C                       | M                               |                           |                                  |   |
| 6 - 18         | 2.5Y 5/2                                       | 93        | 10YR 5/8                    | 7                       | С                       | M                               |                           | Loam                             |   |
| 6 - 18         |  |           |                             |                         |                         |                                 |                           |                                  |   |
|                | -  |           |                             |                         |                         |                                 |                           |                                  | -   |
|                |  |           |                             |                         |                         |                                 |                           |                                  | -   |
|                |  |           |                             |                         |                         |                                 |                           |                                  |   |
|                |  |           |                             |                         | - ——                    |                                 |                           |                                  |   |
|                |  |           |                             |                         |                         |                                 |                           |                                  |   |
|                |  |           |                             |                         |                         |                                 |                           |                                  |   |
|                |  |           |                             |                         |                         |                                 |                           |                                  |   |
|                |  | epletion, | RM = Reduced Mat            | rix, MS =               | Masked S                | Sand Gra                        | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M =        |   |
|                | il Indicators:                                 |           |                             |                         |                         |                                 |                           | Indicators for Problen           | natic Hydric Soils³:                        |
| _ Histoso      |  |           |                             | Surface (               |                         | (CO) (B.E.                      | DA 447 440V               | 2 cm Muck (A10) (                | MLRA 147)                                   |
|                | pipedon (A2)<br>istic (A3)                     |           |                             | value Beid<br>Dark Surf |                         |                                 | RA 147, 148)              | Coast Prairie Redo               | ox (A16) (MLRA 147, 148)                    |
|                | en Sulfide (A4)                                |           |                             | ny Gleyed               |                         |                                 | , 140)                    | Piedmont Floodpl                 | ain Soils (F19) (ML <b>RA 1</b> 3 <b>6,</b> |
|                | d Layers (A5)                                  |           | _                           | eted Matr               |                         | -,                              |                           | 147)                             |   |
| _ 2 cm M       | uck (A10) (LRR N)                              |           | _ <b>∠</b> Rede             | ox Dark Su              | ırface (F6)             |                                 |                           | Very Shallow Dark                | Surface (TF12)                              |
|                | d Below Dark Surface (A                        | A11)      |                             | eted Dark               |                         | F7)                             |                           | Other (Explain in F              | Remarks)                                    |
|                | ark Surface (A12)                              | N. M. DA  | Red                         | ox Depres               | sions (F8)              | - (513) (15                     | D N. MILDA 40             | <b>C</b> )                       |   |
| _              | /lucky Mineral (S1) (LRR<br>Eleyed Matrix (S4) | IN, MILKA | 147, 148) Iron              | -Mangane<br>oric Surfac | se Masse:<br>e (E13) (M | 5 (FIZ) (LN<br>U R <b>a 136</b> | (K N, MILKA 13<br>122)    | <b>6)</b> ₃Indicators of hydropl | hytic vegetation and                        |
|                | Redox (S5)                                     |           |                             | , i.e bai iae           | C ( ) (                 |                                 | MLRA 148)                 | wetland hydrology mi             | ust be present, unless                      |
| _              | d Matrix (S6)                                  |           |                             | Parent Ma               |                         |                                 |                           | disturbed or problem             | atic.                                       |
| Restrictive    | e Layer (if observed):                         |           |                             |                         |                         |                                 |                           |                                  |   |
|                | Туре:  |           | None                        |                         |                         | Hydric S                        | Soil Present?             |                                  | Yes ☑ No □                                  |
|                | Depth (inches):                                |           |                             |                         |                         | 1                               |                           |                                  |   |
| Remarks:       |  | -         |                             | _                       |                         | 1                               |                           |                                  |   |
| 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



41-ext West



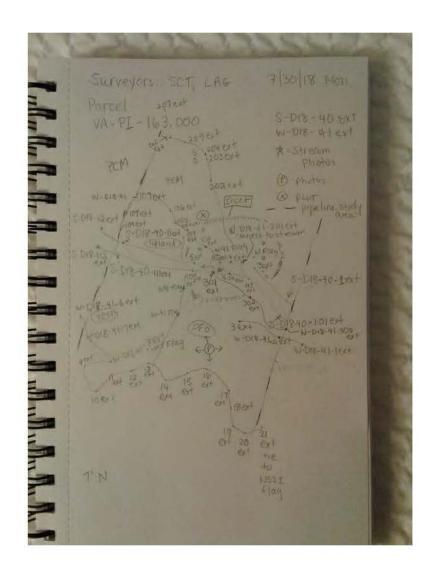
41-ext North



41-ext East



41-ext South





| Project/Site: MVP Southgate                               | City/County:  |  | Sampling Date: 2018-July  | <i>r</i> -19               |
|---|---|--|---|----------------------------|
| Applicant/Owner: NextEra                                  |   | State:   | Sampling Point: V   | /-D18-41_UPL-1             |
| nvestigator(s): Alexi Weber, SE                           | S, JSF, JDF   | Section, Township,                               | Range:  |                            |
| Landform (hillslope, terrace, etc.)                       | : Flood Plain   | Local relief (concave, conv                      | ex, none):None  | Slop <b>e (%</b> ): 0 to 1 |
| Subregion (LRR or MLRA): <u>N</u>                         | ILRA 136 of LRR P   | Lat: 36.5958064                                  | Long: -79.5767207   | Datum: WGS84               |
| Soil <b>Map</b> Unit Name:23C                             |   |  | NWI classifica  | ntion: None                |
| Are climatic/hydrologic condition                         | s on the site typical for this time of                            | -  | (If no, explain in Remar  | ks.)                       |
| Are Vegetation, Soil,                                     | or Hydrology significantly  | disturbed? Are "Norma                            | al Circumstances" present?  | Yes 🟒 No                   |
| Are Vegetation, Soil,                                     | or Hydrology naturally pro  | oblematic? (If needed,                           | explain any answers in Rema   | rks.)                      |
|   |   |  |   |                            |
| SUMMARY OF FINDINGS – A                                   | ttach site map showing samp                                       | oling point locations, tran                      | sects, important feature  | es, etc.                   |
| Hydrophytic Vegetation Present                            | ? Yes _ <b>√</b> _ No   |  |   |                            |
| Hydric Soil Present?                                      | Yes No <u> </u>   | i  |   |                            |
| Wetland Hydrology Present?                                | Yes No  | Is the Sampled Area with                         | in a Wetland?   | Yes <b>No/</b>             |
|   | 163 140   | is the sumpled Wet With                          | iii a Wedana:   | 1C3NO                      |
| Remarks:  |   |  |   |                            |
|   |   |  |   |                            |
| I   |   |  |   |                            |
| Covertype is UPL. Area is upland                          | , not all three wetland parameters                                | are present.                                     |   |                            |
|   | ·   | ·  |   |                            |
|   |   |  |   |                            |
|   |   |  |   |                            |
|   |   |  |   |                            |
| HYDROLOGY   |   |  |   |                            |
| Wetland Hydrology Indicators:                             |   |  |   |                            |
| , 0,  | one is required; check all that appli                             | v)   | Secondary Indicators (minim   | um of two required)        |
| Timary maleacors (minimani or                             | one is required, eneck an endeappr                                | $\mu$  | Surface Soil Cracks (B6)  | ani oi avo requirea)       |
| Surface Water (A1)  | True Aquatic P  | Plants (B14)                                     | Sparsely Vegetated Conc.  | ave Surface (B8)           |
| High Water Table (A2)                                     | Hydrogen Sulf   | ide Odor (C1)                                    | Drainage Patterns (B10)   | are surrace (so,           |
| Saturation (A3)   | Oxidized Rhizo  | ospheres on Living Roots (C3)                    | Moss Trim Lines (B16)   |                            |
| Water Marks (B1)  |   | educed Iron (C4)                                 | Dry-Season Water Table (  | C2)                        |
| Sediment Deposits (B2)                                    |   | eduction in Tilled Soils (C6)                    | Crayfish Burrows (C8)   |                            |
| ✓ Drift Deposits (B3)                                     | Thin Muck Sur   |  | Saturation Visible on Aer   | al Imagery (C9)            |
| Algal Mat or Crust (B4)                                   | Other (Explain  | in Remarks)                                      | Charles de a Charles de Die au  | (D4)                       |
| Iron Deposits (B5)  | lympogram (/DZ)   |  | Stunted or Stressed Plan  |                            |
| Inundation Visible on Aerial<br>Water-Stained Leaves (B9) | Imagery (B7)  |  | <ul><li>Geomorphic Position (D2</li><li>Shallow Aquitard (D3)</li></ul> | )                          |
| Aquatic Fauna (B13)                                       |   |  | Microtopographic Relief (   | D4)                        |
|   |   |  | FAC-Neutral Test (D5)   | <i></i>                    |
| Field Observations:                                       |   |  |   |                            |
| Surface Water Present?                                    | Yes No _ <b>∠</b> Dep   | th (inches):                                     |   |                            |
| Water Table Present?                                      |   | · · · · · · · · · · · · · · · · · · ·            | <br>  Wetland Hydrology Present?  | Vos / No                   |
|   | · ·   | th (inches):                                     | Wedand Hydrology Fresence   | Yes _ <b>∠</b> _ No        |
| Saturation Present?                                       | Yes No/ Depr  | th (inches):                                     |   |                            |
| (includes capillary fringe)                               |   |  |   |                            |
| Describe Recorded Data (stream                            | i <mark>gauge, mon</mark> itori <mark>ng well, ae</mark> rial pho | otos, pre <mark>vious inspections</mark> ), if a | vailable:   |                            |
|   |   |  |   |                            |
|   |   |  |   |                            |
| Remarks:  |   |  |   |                            |
|   |   |  |   |                            |
|   |   |  |   |                            |
|   |   |  |   |                            |
|   |   |  |   |                            |
|   |   |  |   |                            |
|   |   |  |   |                            |
| I   |   |  |   |                            |

| ` '   |             |             |        |   |                   |             |
|---|-------------|-------------|--------|---|-------------------|-------------|
| Tree Stratum (Plot size:15')                        |             | Dominant    |        | Dominance Test worksheet:                                 |                   |             |
|   |             | Species?    | Status | Number of Dominant Species That<br>Are OBL, FACW, or FAC: | 6                 | (A)         |
| 1. Liquidambar styraciflua                          | 30          | Yes .       | FAC    | Total Number of Dominant Species                          |                   |             |
| 2. Carya glabra                                     | 15          | Yes Yes     | FACU   | Across All Strata:  | 9                 | (B)         |
| 3. Quercus rubra<br>4.                              |             | Yes         | FACU   | Percent of Dominant Species That                          | 66.7              | (A /D)      |
| 5.  |             |             |        | Are OBL, FACW, or FAC:                                    |                   | (A/B)       |
| 6.  |             |             |        | Prevalence Index worksheet:                               |                   |             |
| 7.  |             |             |        | Total % Cover of:   | <u>Multiply B</u> | <u>by:</u>  |
|   | 60          | = Total Cov | or     | OBL species 0   | x 1 =             | 0           |
| 50% of total cover: <u>30</u>                       |             | -           |        | FACW species 5  | x 2 =             | 10          |
| Sapling/Shrub Stratum (Plot size:15')               | _ 20% 01 (0 | itai cover. | 12     | FAC species 182   | x 3 =             | 546         |
| 1. Lindera benzoin                                  | 30          | Yes         | FAC    | FACU species 45   | × 4 =             | 180         |
| 2. Nyssa sylvatica                                  | 10          | Yes         | FAC    | UPL species0  | x 5 =             | 0           |
| 3. Liquidambar styraciflua                          | 5           | No          | FAC    | Column Totals 232   | (A)               | 736 (B)     |
| 4.  |             |             | TAC    | Prevalence Index = B/A =                                  | 3.2               |             |
| 5.  |             |             |        | Hydrophytic Vegetation Indicators:                        |                   |             |
| 6.  |             |             |        | 1- Rapid Test for Hydrophytic                             | Vegetation        |             |
| 7.  |             |             |        | 2 - Dominance Test is >50%                                |                   |             |
|   |             |             |        | 3 - Prevalence Index is ≤ 3.01                            |                   |             |
| 8   |             |             |        | -  4 - Morphological Adaptations                          | ¹ (Provide s      | upporting   |
| 9   |             |             |        | - data in Remarks or on a separate sl                     | neet)             |             |
| FOW of total covers 33 F                            | 45          | = Total Cov |        | Problematic Hydrophytic Vege                              |                   |             |
| 50% of total cover: 22.5                            | _ 20% 01 (0 | otal cover: | 9      | ¹Indicators of hydric soil and wetlar                     | , ,               | y must be   |
| Herb Stratum (Plot size: 5 )                        | 80          | Yes         | FAC    | present, unless disturbed or proble                       |                   |             |
| Microstegium vimineum     Boehmeria cylindrica      | 5           | No No       | FACW   | Definitions of Four Vegetation Strat                      | a:                |             |
| 3. Sanicula odorata                                 |             |             |        | -   | a                 |             |
|   |             | No .        | FACU   | Tree – Woody plants, excluding vine                       |                   |             |
| 4. Lonicera japonica                                |             | No No       | FACU   | in diameter at breast height (DBH),                       | regardiess        | or neight.  |
| 5. Parthenocissus quinquefolia                      |             | No No       | FACU   | -  <br>  <b>Sapling/shrub</b> – Woody plants, exclu       | iding vinor       | loce than 2 |
| 6. Carpinus caroliniana                             |             | No .        | FAC    | in. DBH and greater than or equal t                       | -                 |             |
| 7. Oxalis stricta                                   |             | No No       | FACU   | - Int. DBT and greater than or equal to                   | 0 5.20 10(1       | m, can.     |
| 8. Fagus grandifolia                                |             | No No       | FACU   | -<br>  Herb - All herbaceous (non-woody)                  | nlants reg        | ardless of  |
| 9. <u>Toxicodendron radicans</u>                    | 1           | No          | FAC    | size, and woody plants less than 3.2                      |                   | araress or  |
| 10  |             |             |        | -   |                   |             |
| 11  |             |             |        | - Note - shoots All shoots                                |                   | 30 ft 1-    |
|   | 92          | = Total Cov |        | <b>Wo</b> ody vines – All woody vines grea                | ter than 3.2      | 28 π In     |
| 50% of total cover: <u>46</u>                       | _ 20% of to | otal cover: | 18.4   | height.   |                   |             |
| Woody Vine Stratum (Plot size: 15 )                 | 4.5         | .,          | 51.5   |   |                   |             |
| 1. Smilax rotundifolia                              | 15          | Yes .       | FAC    | -   |                   |             |
| 2. Toxicodendron radicans                           |             | Yes .       | FAC    |   |                   | ,           |
| 3. <u>Vitis labrusca</u>                            | 10          | Yes         | FACU   | Hydrophytic Vegetation Present?                           | yes ☑ No ∟        |             |
| 4   |             |             |        |   |                   |             |
| 5   |             |             |        |   |                   |             |
|   | 35          | = Total Cov |        |   |                   |             |
| 50% of total cover: <u>17.5</u>                     | _ 20% of to | otal cover: |        |   |                   |             |
| Remarks: (Include photo numbers here or on a separa | te sheet.)  |             |        |   |                   |             |
|   |             |             |        |   |                   |             |

| <b>Profile</b> Des   | scription: (Describe to<br>Matrix          | o th <b>e d</b> ept | h n <b>eed</b> ed to |                        |           |                     | or confir                              | m the absenc              | e of indicators.)               |  |
|----------------------|--|---------------------|----------------------|------------------------|-----------|---------------------|--|---------------------------|---------------------------------|--|
| . –                  |  | 0/                  | Redox Features       |                        |           |                     |  |                           | Tardura                         | Down a wise                                  |
| (inches)             | Color (moist)                              |                     | Color (me            | DIST)                  | %         | Type¹               | _Loc²                                  |                           | Texture                         | Remarks                                      |
| 0 - 12               | 7.5YR 3/4                                  | 100                 |                      |                        |           |                     |  |                           | Loam                            |  |
| 12 - 18              | 7.5YR 3/4                                  | 95                  | 7.5YR 4              | /6                     | 5         | C                   | M                                      |                           | Loam                            |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  | ·                   |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
| <u>¹</u> Type: C = € | Concentration, D = D                       | epletion,           | RM = Reduce          | ed Matrix,             | , MS = i  | Masked S            | and Grai                               | ins. <sup>z</sup> Locatio | on: PL = Pore Lining, M         | = Matrix.                                    |
| Hydric Soil          | Indicators:                                |                     |                      |                        |           |                     |  |                           | Indicators for Problem          | matic Hydric Soils <sup>3</sup> :            |
| _ Histosol           | (A1)                                       |                     |                      | Dark Su                | ırface (9 | 57)                 |  |                           | 3 Navel (A10)                   | (MIDA 4.47)                                  |
| _ Histic Epi         | ipedon (A2)                                |                     |                      | <br>Polyvalı           | ue Belo   | w Surface           | (S8) <b>(M</b> L                       | RA 147, 148)              | 2 cm Muck (A10) (               |  |
| _ Black His          | tic (A3)                                   |                     |                      | _ Thin Da              | rk Surf   | ace (S9) <b>(</b> N | /ILRA <b>14</b> 7                      | , 148)                    |                                 | ox (A16) (MLRA 147, 148)                     |
|                      | n Sulfide (A4)                             |                     |                      | _                      | _         | Matrix (F2          | )                                      |                           |                                 | lain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
|                      | Layers (A5)                                |                     |                      | _ Deplete              |           |                     |  |                           | 147)                            |  |
|                      | ck (A10) (LRR N)                           |                     |                      | _ Redox [              |           |                     |  |                           | Very Shallow Dark               |  |
|                      | l Below Dark Surface (<br>rk Surface (A12) | (ATT)               | -                    | _ Deplete<br>_ Redox [ |           | Surface (F          | ·7)                                    |                           | Other (Explain in               | Remarks)                                     |
|                      | ucky Mineral (S1) <b>(</b> LRF             | ON MIDA             | 1.47 1.48)           | _ Redux t              | onganes   | e Maccec            | (E12) (LR                              | PN MIRA 13                | 6)                              |  |
|                      | eyed Matrix (S4)                           | CIU, IVILIUA        | 147, 140,            | _ Umbric               | Surface   | e (F13) ( <b>M</b>  | ( 127 (EN<br>LR <b>A 136</b>           | 1 <b>2</b> 2)             | <b>6)</b> ₃Indicators of hydrop | hytic vegetation and                         |
| Sandy Re             |  |                     | =                    |                        | 50.100    | z ( ) (             |  | VILRA 148)                | wetland hydrology m             | iust be present, unless                      |
| _                    | Matrix (S6)                                |                     | •                    |                        |           | terial (F21         |  |                           | disturbed or problem            | natic.                                       |
| Restrictive          | Layer (if observed):                       |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      | Гуре:                                      |                     | None                 |                        |           |                     | Hvdric S                               | Soil Present?             |                                 | Yes □ No ☑                                   |
|                      | Depth (inches):                            |                     |                      |                        |           |                     | '', '', '', '', '', '', '', '', '', '' | Jon Frabania              |                                 | 143 = 110 =                                  |
|                      | zepar (mares).                             |                     |                      |                        |           |                     |  |                           |                                 |  |
| Remarks:             |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |
|                      |  |                     |                      |                        |           |                     |  |                           |                                 |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                | City/County: Westover, I                  | Pittsylvania Sam <b>p</b> lin <b>g</b>     | Date: 2018-July-19                               |                             |
|--|---|--|--|-----------------------------|
| Applicant/Owner: NextEra                   |   | State: Virgir                              | nia Sampling Point: \                            | N-D18-41_PFO-1              |
| nvestigator(s): Alexi Weber, SE            | S, JSF, JDF                               | Section, Township,                         | Range:   |                             |
| _andform (hillslope, terrace, etc.)        | : Hillslope                               | Local relief (concave, conv                | ex, none): Concave                               | Slop <b>e (%</b> ):_ 1 to 3 |
| Su <b>bregio</b> n (LRR or MLRA): <u>M</u> | ILRA 136 of LRR P                         | Lat: 36.59533                              | Long: -79.5762491                                | Datum: WGS84                |
| Soil <b>Map</b> Unit Name: 23C             |   |  | NWI classific                                    | ation: None                 |
| Are climatic/hydrologic condition:         | s on the site typical for this time of ye |  | (If no, explain in Remar                         | ·ks.)                       |
| Are Vegetation, Soil,                      | or Hydrology significantly di             |  | al Circumstances" present?                       | Yes 🟒 No                    |
| Are Vegetation, Soil,                      | or Hydrology naturally prob               | lematic? (If needed,                       | explain any answers in Rema                      | arks.)                      |
| SUMMARY OF FINIDINGS A                     | ttach cito man chowing campli             | ing point locations, tran                  | seets important featur                           | os etc                      |
| Hydrophytic Vegetation Present             | Attach site map showing sampli  Yes No    | ling point locations, trai                 | isects, important leature                        | <i>25</i> , etc.            |
| Hydric Soil Present?                       | Yes _ 10                                  |  |  |                             |
| Wetland Hydrology Present?                 | Yes _ <b>✓</b> No                         | Is the Sampled Area withi                  | o a Watland?                                     | Voc. / No.                  |
| Remarks:                                   | res <u>v</u> No                           | is the Sampled Area with                   | Ta Wedand:                                       | Yes <b>/_ No</b>            |
| Covertype is PFO. Area is wetland          | d, all three wetland parameters are p     | resent.                                    |  |                             |
| HYDROLOGY Wetland Hydrology Indicators:    |   |  |  |                             |
| Primary Indicators (minimum of             | one is required; check all that apply)    |  | Secondary Indicators (minin                      | num of two required)        |
|  |   |  | Surface Soil Cracks (B6)                         |                             |
| Surface Water (A1)                         | True Aquatic Pla                          |  | Sparsely Vegetated Cond                          | :ave Surface (B8)           |
| High Water Table (A2)<br>Saturation (A3)   | Hydrogen Sulfid                           | e Odor (CT)<br>oheres on Living Roots (C3) | Drainage Patterns (B10)                          |                             |
| Water Marks (B1)                           | Presence of Red                           | •  | Moss Trim Lines (B16)                            | (C2)                        |
| Sediment Deposits (B2)                     |   | uction in Tilled Soils (C6)                | Dry-Season Water Table<br>Crayfish Burrows (C8)  | (C2)                        |
| Drift Deposits (B3)                        | Thin Muck Surfa                           | ce (C7)                                    | Saturation Visible on Aer                        | ial Imagery (C9)            |
| Algal Mat or Crust (B4)                    | Other (Explain in                         | n Remarks)                                 |  | iai iiiagai y (es /         |
| Iron Deposits (B5)                         |   |  | Stunted or Stressed Plan                         |                             |
| Inundation Visible on Aerial               | Imagery (B7)                              |  | Geomorphic Position (D2                          | 2)                          |
| Water-Stained Leaves (B9)                  |   |  | Shallow Aquitard (D3)                            | (D.4)                       |
| Aquatic Fauna (B13)                        |   |  | Microtopographic Relief<br>FAC-Neutral Test (D5) | (D4)                        |
| Field Observations:                        |   |  | FAC-Neutral lest (D3)                            |                             |
| Surface Water Present?                     | Yes No <u></u> ✓ Depth                    | (inches):                                  |  |                             |
|  |   | · -  |  | 7 V N-                      |
| Water Table Present?                       | ·   | (inches):                                  | Wetland Hydrology Present                        | ? Yes No                    |
| Saturation Present?                        | Yes No Depth                              | (inches):                                  |  |                             |
| (includes capillary fringe)                |   |  |  |                             |
| Describe Recorded Data (stream             | gauge, monitoring well, aerial photo      | os, pre <b>vious inspections</b> ), if a   | available:                                       |                             |
| Remarks:                                   |   |  |  |                             |
|  |   |  |  |                             |
|  |   |  |  |                             |
|  |   |  |  |                             |
|  |   |  |  |                             |
|  |   |  |  |                             |
|  |   |  |  |                             |
|  |   |  |  |                             |

| ree Stratum (Plot size: 30')       |           | Dominant<br>Species? | Indicator Status    | Dominance Test worksheet:  Number of Dominant Species That                   | 5  | (A)        |
|------------------------------------|-----------|----------------------|---------------------|--|--|------------|
| . Acer rubrum                      | 60        | Yes                  | FAC                 | _ Are OBL, FACW, or FAC: _   |  |            |
| Liquidambar styraciflua            | 40        | Yes                  | FAC                 | Total Number of Dominant Species   | 5  | (B)        |
| Fraxinus pennsylvanica             | 10        | No                   | FACW                | Across All Strata:   |  |            |
| Prunus serotina                    | 1         | No                   | FACU                | Percent of Dominant Species That   | 100                                      | (A/B)      |
| . <u> </u>                         |           |                      |                     | <ul><li>Are OBL, FACW, or FAC:</li><li>Prevalence Index worksheet:</li></ul> |  |            |
|                                    |           |                      |                     |  | Multiply I                               | Dr. p      |
|                                    |           |                      |                     | - OBL species 0  | $\frac{\mathbf{Multiply I}}{\times 1} =$ | 0          |
|                                    | 111       | = Total Cove         | -                   |  | _  |            |
| 50% of total cover: <u>55.5</u>    | 20% of to | al cover: _          | 22.2000000000000003 |  | x2= _                                    | 72         |
| apling/Shrub Stratum (Plot size:15 | <u>'</u>  |                      |                     | <u> </u>   | x3= _                                    | 756        |
| Lindera benzoin                    | 25        | Yes                  | FAC                 | FACU species 8   | ×4= _                                    | 32         |
| Liquidambar styraciflua            | 5         | No No                | FAC                 | UPL species 0  | ×5= -                                    | 0          |
|                                    |           |                      |                     | Column Totals 296  | (A) _                                    | 860 (B)    |
|                                    |           |                      |                     | Prevalence Index = B/A =   | 2.9                                      |            |
|                                    |           |                      |                     | Hydrophytic Vegetation Indicators:   |  |            |
| -                                  |           |                      |                     | 1- Rapid Test for Hydrophytic V  | egetation                                |            |
|                                    |           |                      |                     | 2 - Dominance Test is >50%   |  |            |
|                                    |           |                      |                     | $\boxed{ \checkmark }$ 3 - Prevalence Index is $\le 3.0^{\circ}$             |  |            |
| -                                  |           |                      |                     | -  4 - Morphological Adaptations¹  | (Provide s                               | supporting |
|                                    | 30        | = Total Cove         |                     | <ul> <li>data in Remarks or on a separate she</li> </ul>                     | eet)                                     |            |
| 500/ of total occurs 15            |           |                      |                     | Problematic Hydrophytic Veget  |  |            |
| 50% of total cover: 15             | 20% 0110  | tai cover:           | 6                   | Indicators of hydric soil and wetland  | -  | gy must be |
| erb Stratum (Plot size: 5 )        | 00        | Vaa                  | EA.C                | present, unless disturbed or problen   |  |            |
| Microstegium vimineum              | 90        | Yes                  | FAC                 | <ul><li>Definitions of Four Vegetation Strata</li></ul>                      | :  |            |
| Impatiens capensis                 | _ 15      | No _                 | FACW                | _  |  |            |
| Cinna arundinacea                  |           | No _                 | FACW                | _ Tr <b>ee</b> – Woody plants, excluding vines                               |  |            |
| Carpinus caroliniana               | _ 1       | <u>No</u> _          | FAC                 | _ in diameter at breast height (DBH), n                                      | egardless                                | of height. |
| Lonicera japonica                  |           | No _                 | FACU                | _  |  |            |
| Persicaria longiseta               | 1         | No                   | FAC                 | _   Sapling/shrub – Woody plants, exclud                                     | -  |            |
| Boehmeria cylindrica               | _ 1       | No _                 | FACW                | in. DBH and greater than or equal to   | 3.28 ft (1                               | m) tall.   |
| ·                                  |           |                      |                     |  |  |            |
|                                    |           |                      |                     | Herb – All herbaceous (non-woody) p  |  | ardless of |
| 0                                  |           |                      |                     | size, and woody plants less than 3.28<br> -                                  | з тт тан.                                |            |
| 1.                                 |           |                      |                     |  |  |            |
|                                    | 119       | = Total Cove         | ,                   | <b>Wo</b> od <b>y vine</b> s – All woody vines greate                        | er than 3.                               | 28 ft in   |
| 50% of total cover: <u>59.5</u>    | 20% of to | tal cover:           | 23.8                | height.  |  |            |
| oody Vine Stratum (Plot size: 30'  |           |                      |                     |  |  |            |
| Smilax rotundifolia                | 30        | Yes                  | FAC                 |  |  |            |
| . Vitis labrusca                   |           | No -                 | FACU                | -  |  |            |
| . Parthenocissus quinquefolia      | 1         | No -                 | FACU                | Hydrophytic Vegetation Present? You  | es ☑ No □                                |            |
|                                    |           |                      |                     | -  |  |            |
|                                    |           |                      |                     | -  |  |            |
|                                    |           |                      |                     | -  |  |            |
|                                    | 36        | = Lotal ( over       |                     |  |  |            |
|                                    |           | = Total Cover        | 7.2                 |  |  |            |

| Profile De     | scription: (Describe to                        | the dep   | th n <b>eed</b> ed to docur | nent the i              | ndicator                | or confir                       | m the absend              | ce of indicators.)               |   |
|----------------|--|-----------|-----------------------------|-------------------------|-------------------------|---------------------------------|---------------------------|----------------------------------|---|
| D <b>ep</b> th | epth Matrix Redox Features                     |           |                             |                         | es                      |                                 |                           |                                  |   |
| (inches)       | Color (moist)                                  | - %       | Color (moist)               | %                       | % Type¹ Loc²            |                                 |                           | T <b>ex</b> ture                 | Remarks                                     |
| 0 - 6          | 2.5Y 4/2                                       | 90        | 7.5YR 3/4                   | 7                       | C                       | M/PL                            |                           | Clay Loam                        |   |
| 0 - 6          | 2.5Y 4/2                                       | 90        | 7.5YR 5/6                   | 3                       | C                       | M                               |                           |                                  |   |
| 6 - 18         | 2.5Y 5/2                                       | 93        | 10YR 5/8                    | 7                       | С                       | M                               |                           | Loam                             |   |
| 6 - 18         |  |           |                             |                         |                         |                                 |                           |                                  |   |
|                | -  |           |                             |                         |                         |                                 |                           |                                  | -   |
|                |  |           |                             |                         |                         |                                 |                           |                                  | -   |
|                |  |           |                             |                         |                         |                                 |                           |                                  |   |
|                |  |           |                             |                         | - ——                    |                                 |                           |                                  |   |
|                |  |           |                             |                         |                         |                                 |                           |                                  |   |
|                |  |           |                             |                         |                         |                                 |                           |                                  |   |
|                |  |           |                             |                         |                         |                                 |                           |                                  |   |
|                |  | epletion, | RM = Reduced Mat            | rix, MS =               | Masked S                | Sand Gra                        | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M =        |   |
|                | il Indicators:                                 |           |                             |                         |                         |                                 |                           | Indicators for Problen           | natic Hydric Soils³:                        |
| _ Histoso      |  |           |                             | Surface (               |                         | (CO) (B.E.                      | DA 447 440V               | 2 cm Muck (A10) (                | MLRA 147)                                   |
|                | pipedon (A2)<br>istic (A3)                     |           |                             | value Beid<br>Dark Surf |                         |                                 | RA 147, 148)              | Coast Prairie Redo               | ox (A16) (MLRA 147, 148)                    |
|                | en Sulfide (A4)                                |           |                             | ny Gleyed               |                         |                                 | , 140)                    | Piedmont Floodpl                 | ain Soils (F19) (ML <b>RA 1</b> 3 <b>6,</b> |
|                | d Layers (A5)                                  |           | _                           | eted Matr               |                         | -,                              |                           | 147)                             |   |
| _ 2 cm M       | uck (A10) (LRR N)                              |           | _ <b>∠</b> Rede             | ox Dark Su              | ırface (F6)             |                                 |                           | Very Shallow Dark                | Surface (TF12)                              |
|                | d Below Dark Surface (A                        | A11)      |                             | eted Dark               |                         | F7)                             |                           | Other (Explain in F              | Remarks)                                    |
|                | ark Surface (A12)                              | N. M. DA  | Red                         | ox Depres               | sions (F8)              | - (513) (15                     | D N. MILDA 40             | <b>C</b> )                       |   |
| _              | /lucky Mineral (S1) (LRR<br>Eleyed Matrix (S4) | IN, MILKA | 147, 148) Iron              | -Mangane<br>oric Surfac | se Masse:<br>e (E13) (M | 5 (FIZ) (LN<br>U R <b>a 136</b> | (K N, MILKA 13<br>122)    | <b>6)</b> ₃Indicators of hydropl | hytic vegetation and                        |
|                | Redox (S5)                                     |           |                             | , i.e bai iae           | C ( ) (                 |                                 | MLRA 148)                 | wetland hydrology mi             | ust be present, unless                      |
| _              | d Matrix (S6)                                  |           |                             | Parent Ma               |                         |                                 |                           | disturbed or problem             | atic.                                       |
| Restrictive    | e Layer (if observed):                         |           |                             |                         |                         |                                 |                           |                                  |   |
|                | Туре:  |           | None                        |                         |                         | Hydric S                        | Soil Present?             |                                  | Yes ☑ No □                                  |
|                | Depth (inches):                                |           |                             |                         |                         | 1                               |                           |                                  |   |
| Remarks:       |  | -         |                             | _                       |                         | 1                               |                           |                                  |   |
| 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



41-ext West



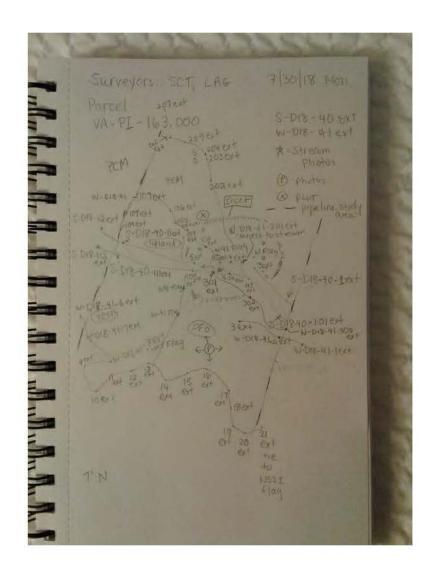
41-ext North



41-ext East



41-ext South





| Project/Site: MVP Southgate                         | City/County:                           |                                  | Sampling Date: 2018-July                       | /-19                        |
|---|--|----------------------------------|--|-----------------------------|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra |  | State:                           | Sampling Point: V                              | V-D18-41_UPL-1              |
| nvestigator(s): Alexi Weber, SI                     | ES, JSF, JDF                           | Section, Township,               | Range:   |                             |
| Landform (hillslope, terrace, etc.)                 | : Flood Plain                          | Local relief (concave, conv      | ex, none):None                                 | Slop <b>e (%</b> ):_ 0 to 1 |
| Subregion (LRR or MLRA): N                          | ILRA 136 of LRR P                      | Lat: 36.5958064                  | Long: -79.5767207                              | Datum: WGS84                |
| Soil <b>Map</b> Unit Name: 23C                      |  |                                  | NWI classifica                                 | ation: None                 |
| Are climatic/hydrologic condition                   | s on the site typical for this time of | -                                | (If no, explain in Remar                       | ks.)                        |
| Are Vegetation, Soil,                               | or Hydrology significantly             |                                  | al Circumstances" present?                     | Yes 🟒 No                    |
| Are Vegetation, Soil,                               | or Hydrology naturally pro             | oblematic? (If needed,           | explain any answers in Rema                    | irks.)                      |
|   |  |                                  |  |                             |
| SU <mark>MMARY OF FINDI</mark> NGS – A              | Attach site map showing samp           | oling point locations, tran      | isects, important feature                      | es, etc.                    |
| Hydrophytic Vegetation Present                      | ? Yes 🗸 No                             |                                  |  |                             |
| Hydric Soil Present?                                | Yes No <u></u> ✓                       | j                                |  |                             |
| Wetland Hydrology Present?                          | Yes No                                 | is the Sampled Area withi        | in a Wetland?                                  | Yes <b>No _</b> ✓           |
| Remarks:  |  | <u>'</u>                         |  |                             |
|   |  |                                  |  |                             |
|   |  |                                  |  |                             |
|   |  |                                  |  |                             |
| Covertype is UPL. Area is upland                    | l, not all three wetland parameters    | are present.                     |  |                             |
|   |  |                                  |  |                             |
|   |  |                                  |  |                             |
|   |  |                                  |  |                             |
|   |  |                                  |  |                             |
| HYDROLOGY   |  |                                  |  |                             |
| Wetland Hydrology Indicators:                       |  |                                  |  |                             |
| Primary Indicators (minimum of                      | one is required; check all that apply  | <u>y)</u>                        | Secondary Indicators (minim                    | um of two required)         |
| Curfo to Mator (A1)                                 | Teus Agustis F                         | lante (B14)                      | Surface Soil Cracks (B6)                       |                             |
| Surface Water (A1) High Water Table (A2)            | True Aquatic P<br>Hydrogen Sulf        |                                  | Sparsely Vegetated Conc                        | ave Surface (B8)            |
| Saturation (A3)                                     |  | spheres on Living Roots (C3)     | Drainage Patterns (B10)                        |                             |
| Water Marks (B1)                                    |  | educed Iron (C4)                 | Moss Trim Lines (B16) Dry-Season Water Table ( | (C2)                        |
| Sediment Deposits (B2)                              |  | duction in Tilled Soils (C6)     | Crayfish Burrows (C8)                          | .(2)                        |
| _✓ Drift Deposits (B3)                              | Thìn Muck Sur                          | face (C7)                        | Saturation Visible on Aer                      | ial Imagery (C9)            |
| Algal Mat or Crust (B4)                             | Other (Explain                         | in Remarks)                      | _  | 0 , , ,                     |
| Iron Deposits (B5)                                  |  |                                  | Stunted or Stressed Plan                       |                             |
| Inundation Visible on Aerial                        | Imagery (B7)                           |                                  | Geomorphic Position (D2                        | ()                          |
| Water-Stained Leaves (B9)                           |  |                                  | Shallow Aquitard (D3)                          | (D.4)                       |
| Aquatic Fauna (B13)                                 |  |                                  | Microtopographic Relief (                      | ,D4)                        |
| Field Observations:                                 |  |                                  | FAC-Neutral Test (D5)                          |                             |
| Surface Water Present?                              | Yes No <u></u> ✓ Dept                  | th (inches):                     |  |                             |
|   |  |                                  | Marian di Budania - Duran es                   |                             |
| Water Table Present?                                | ·                                      | th (inches):                     | Wetland Hydrology Present?                     | Yes _∠_ No                  |
| Saturation Present?                                 | Yes No <u></u> Dept                    | th (inches):                     |  |                             |
| (includes capillary fringe)                         |  |                                  |  |                             |
| Describe Recorded Data (stream                      | n gauge, monitoring well, aerial pho   | tos, previous inspections), if a | vailable:                                      |                             |
|   |  |                                  |  |                             |
|   |  |                                  |  |                             |
| Remarks:  |  |                                  |  |                             |
|   |  |                                  |  |                             |
|   |  |                                  |  |                             |
|   |  |                                  |  |                             |
|   |  |                                  |  |                             |
|   |  |                                  |  |                             |
|   |  |                                  |  |                             |
| 1   |  |                                  |  |                             |

| ` '   |             |             |        |   |                   |             |
|---|-------------|-------------|--------|---|-------------------|-------------|
| Tree Stratum (Plot size:15')                        |             | Dominant    |        | Dominance Test worksheet:                                 |                   |             |
|   |             | Species?    | Status | Number of Dominant Species That<br>Are OBL, FACW, or FAC: | 6                 | (A)         |
| 1. Liquidambar styraciflua                          | 30          | Yes .       | FAC    | Total Number of Dominant Species                          |                   |             |
| 2. Carya glabra                                     | 15          | Yes Yes     | FACU   | Across All Strata:  | 9                 | (B)         |
| 3. Quercus rubra<br>4.                              |             | Yes         | FACU   | Percent of Dominant Species That                          | 66.7              | (A /D)      |
| 5.  |             |             |        | Are OBL, FACW, or FAC:                                    |                   | (A/B)       |
| 6.  |             |             |        | Prevalence Index worksheet:                               |                   |             |
| 7.  |             |             |        | Total % Cover of:   | <u>Multiply B</u> | <u>by:</u>  |
| <sup>/</sup> ·                                      | 60          | = Total Cov | or     | OBL species 0   | x 1 =             | 0           |
| 50% of total cover: <u>30</u>                       |             | -           |        | FACW species 5  | x 2 =             | 10          |
| Sapling/Shrub Stratum (Plot size:15')               | _ 20% 01 (0 | itai cover. | 12     | FAC species 182   | x 3 =             | 546         |
| 1. Lindera benzoin                                  | 30          | Yes         | FAC    | FACU species 45   | × 4 =             | 180         |
| 2. Nyssa sylvatica                                  | 10          | Yes         | FAC    | UPL species0  | x 5 =             | 0           |
| 3. Liquidambar styraciflua                          | 5           | No No       | FAC    | Column Totals 232   | (A)               | 736 (B)     |
| 4.  |             |             | TAC    | Prevalence Index = B/A =                                  | 3.2               |             |
| 5.  |             |             |        | Hydrophytic Vegetation Indicators:                        |                   |             |
| 6.  |             |             |        | 1- Rapid Test for Hydrophytic                             | Vegetation        |             |
| 7.  |             |             |        | 2 - Dominance Test is >50%                                |                   |             |
|   |             |             |        | 3 - Prevalence Index is ≤ 3.01                            |                   |             |
| 8   |             |             |        | -  4 - Morphological Adaptations                          | ¹ (Provide s      | upporting   |
| 9   |             |             |        | - data in Remarks or on a separate sl                     | neet)             |             |
| FOW of total covers 33 F                            | 45          | = Total Cov |        | Problematic Hydrophytic Vege                              |                   |             |
| 50% of total cover: 22.5                            | _ 20% 01 (0 | otal cover: | 9      | ¹Indicators of hydric soil and wetlar                     | , ,               | y must be   |
| Herb Stratum (Plot size: 5 )                        | 80          | Yes         | FAC    | present, unless disturbed or proble                       |                   |             |
| Microstegium vimineum     Boehmeria cylindrica      | 5           | No No       | FACW   | Definitions of Four Vegetation Strat                      | a:                |             |
| 3. Sanicula odorata                                 |             |             |        | -   | a                 |             |
|   |             | No .        | FACU   | Tree – Woody plants, excluding vine                       |                   |             |
| 4. Lonicera japonica                                |             | No No       | FACU   | in diameter at breast height (DBH),                       | regardiess        | or neight.  |
| 5. Parthenocissus quinquefolia                      |             | No No       | FACU   | -  <br>  <b>Sapling/shrub</b> – Woody plants, exclu       | iding vinor       | loce than 2 |
| 6. Carpinus caroliniana                             |             | No .        | FAC    | in. DBH and greater than or equal t                       | -                 |             |
| 7. Oxalis stricta                                   |             | No No       | FACU   | - Int. DBT and greater than or equal t                    | 0 5.20 10(1       | m, can.     |
| 8. Fagus grandifolia                                |             | No No       | FACU   | -<br>Herb - All herbaceous (non-woody)                    | nlants reg        | ardless of  |
| 9. <u>Toxicodendron radicans</u>                    | 1           | No          | FAC    | size, and woody plants less than 3.2                      |                   | araress or  |
| 10  |             |             |        | -   |                   |             |
| 11  |             |             |        | - Note - short All short-                                 |                   | 30 ft 1-    |
|   | 92          | = Total Cov |        | <b>Wo</b> ody vines – All woody vines grea                | ter than 3.2      | 28 π In     |
| 50% of total cover: <u>46</u>                       | _ 20% of to | otal cover: | 18.4   | height.   |                   |             |
| Woody Vine Stratum (Plot size: 15 )                 | 4.5         | .,          | 51.5   |   |                   |             |
| 1. Smilax rotundifolia                              | 15          | Yes .       | FAC    | -   |                   |             |
| 2. Toxicodendron radicans                           |             | Yes .       | FAC    |   |                   | ,           |
| 3. <u>Vitis labrusca</u>                            | 10          | Yes         | FACU   | Hydrophytic Vegetation Present?                           | yes ☑ No ∟        |             |
| 4   |             |             |        |   |                   |             |
| 5   |             |             |        |   |                   |             |
|   | 35          | = Total Cov |        |   |                   |             |
| 50% of total cover: <u>17.5</u>                     | _ 20% of to | otal cover: |        |   |                   |             |
| Remarks: (Include photo numbers here or on a separa | te sheet.)  |             |        |   |                   |             |
|   |             |             |        |   |                   |             |

| Profile Des | cription: (Describe to<br>Matrix                   | o t <b>he d</b> e <b>pt</b> | th n <b>eeded to</b> o | locument<br>Redox Fe       |         |           | or confir                     | m the absence                 | e of indicators.)               |   |
|-------------|--|-----------------------------|------------------------|----------------------------|---------|-----------|-------------------------------|-------------------------------|---------------------------------|---|
| . –         |  | 0/                          | Calantona              |                            |         |           | 1 7                           |                               | Tardura                         | Domenica                                    |
| (inches)    | Color (moist)                                      | · <u> </u>                  | Color (mo              | <u>IST)</u>                | 96      | Type¹     | _Loc²                         |                               | Texture                         | Remarks                                     |
| 0 - 12      | 7.5YR 3/4  | <u> 100</u> .               |                        |                            |         |           |                               |                               | Loam                            |   |
| 12 - 18     | 7.5YR 3/4  | 95                          | 7.5YR 4/               | 6                          | 5       | C         | M_                            |                               | Loam                            |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 | _   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
| ¹Type: C =  | Concentration, D = D                               | Depletion,                  | RM = Reduced           | d Matrix, N                | VIS = N | vlasked S | and Gra                       | ins. <sup>2</sup> Locatio     | on: PL = Pore Lining, M         | = Matrix.                                   |
| Hydric Soil | Indicators:  |                             |                        |                            |         |           |                               |                               | Indicators for Probler          | natic Hydric Soils³:                        |
| _ Histosol  |  |                             |                        | _ Dark Surf                | face (S | 57)       |                               |                               |                                 | •   |
| _           | ipedon (A2)  |                             |                        |                            |         |           | (S8) (ML                      | RA 147, 148)                  | 2 cm Muck (A10) (               |   |
| Black His   | tic (A3)   |                             |                        | Thin Dark                  |         |           |                               |                               | <del></del>                     | ox (A16) (MLRA 147, 148)                    |
|             | n Sulfide (A4)                                     |                             | _                      | _Loamy Gl                  |         |           | )                             |                               |                                 | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
|             | Layers (A5)  |                             |                        | _ Depleted                 |         |           |                               |                               | 147)                            |   |
|             | ck (A10) (LRR N)                                   |                             |                        | Redox Da                   |         |           |                               |                               | Very Shallow Dark               |   |
|             | Below Dark Surface (                               | (A11)                       | _                      | Depleted                   |         |           | 7)                            |                               | Other (Explain in I             | Remarks)                                    |
|             | rk Surface (A12)<br>ucky Mineral (S1) <b>(</b> LRF | ON MUDA                     | 147 149)               | _ Redox De                 | press   | ions (F8) | (E12) (LE                     | OD NE BALDA 10                | <b>6</b> )                      |   |
|             | ucky Minerai (ST) (LRF<br>eyed Matrix (S4)         | KIN, MILKA                  | 147, 148)              | _ iron-ivian<br>_ Umbric S | urface  | e Masses  | (FIZ) (LI<br>I D <b>A 136</b> | KK IN, MILKA 139<br>1921      | <b>6)</b> ₃Indicators of hydrop | hytic vegetation and                        |
| Sandy Gi    | •  |                             | _                      |                            | G       | . ( ) (   |                               | MLRA 148)                     | wetland hydrology m             | ust be present, unless                      |
| _           | Matrix (S6)  |                             | _                      |                            |         |           |                               | 127, <b>1</b> 47)             | disturbed or problem            | natic.                                      |
|             | Layer (if observed):                               |                             | <del>_</del>           | =                          |         | •         |                               |                               |                                 |   |
|             | <b>y</b> (,<br>-ype:                               |                             | None                   |                            |         |           | Hydric                        | Soil <b>Pres</b> e <b>nt?</b> |                                 | Yes □ No ☑                                  |
|             | Depth (inches):                                    | -                           | 110.16                 |                            |         |           | linkanc                       | John Tresente                 |                                 | IES LI NO EL                                |
|             | zepur (iriures).                                   |                             |                        |                            |         |           |                               |                               |                                 |   |
| Remarks:    |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |
|             |  |                             |                        |                            |         |           |                               |                               |                                 |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                          | City/County:_ Westover,                   | , Pittsylvania                    | Sampling [                    | Date: 201  | 18-Aug-08   |                              |
|--|---|-----------------------------------|-------------------------------|------------|---|------------------------------|
| Applicant/Owner: NextEra                             |   |                                   | State: Virgini                | ia         | Sampling Point: W-C                                 | .18-95_PEM-2                 |
| Investigator(s): Don Lockwood                        | l, Simon King, Don Lockwood               | Section                           | n, Tow <mark>nship</mark> , F | Range:     |   |                              |
| Landform (hillslope, terrace, etc.)                  | ): Depression                             | Local relief (co                  | oncave, conve                 | x, none):  | Concave   | Slop <b>e (%</b> ): 10 to 15 |
| Subregion (LRR or MLRA):                             | MLRA 136 of LRR P                         | Lat:_3                            | 36.5903708                    | Long       | : -79.58333   | Datum: WGS84                 |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> : Pinkston | -Mayodan complex                          |                                   |                               |            | NWI classification                                  | on:                          |
| Are climatic/hydrologic condition                    | ns on the site typical for this time of y | ye <b>ar?</b> `                   | Yes 🚣 No                      | (If no     | o, explain in Remarks.                              | )                            |
| Are Vegetation, Soil,                                | or Hydrology significantly o              | disturbed?                        | Are "Norma                    | l Circums  | tances" present?                                    | Yes 🔽 No                     |
| Are Vegetation, Soil,                                | or Hydrology naturally pro                | oblematic?                        | (If needed, e                 | explain ar | ny answers in Remark                                | 5.)                          |
|  |   |                                   |                               |            |   |                              |
| SUMMARY OF FINDINGS – A                              | Attach site map showing samp              | oling point loca                  | ations, tran                  | sects, in  | nportant features,                                  | etc.                         |
| Hydrophytic Vegetation Present                       | ? Yes <u></u> ✓ No                        |                                   |                               |            |   |                              |
| Hydric Soil Present?                                 | Yes <u></u> No                            | i                                 |                               |            |   |                              |
| Wetland Hydrology Present?                           | Yes _ <b>✓</b> No                         | Is the Sample                     | d Area within                 | a Watlan   | nd? Vas   | · / No                       |
|  | 162 <u>7</u> NO                           | is the sample                     | u Area with                   | a wedan    | iu: res   | : No                         |
| Remarks:   |   |                                   |                               |            |   |                              |
|  |   |                                   |                               |            |   |                              |
|  |   |                                   |                               |            |   |                              |
| Covertype is PEM. Area is wetlar                     | nd, all three wetland parameters are      | e present.                        |                               |            |   |                              |
|  | · ·                                       | ,                                 |                               |            |   |                              |
|  |   |                                   |                               |            |   |                              |
|  |   |                                   |                               |            |   |                              |
|  |   |                                   |                               |            |   |                              |
| HYDROLOGY  |   |                                   |                               |            |   |                              |
| Watland Hydrology Indicators:                        |   |                                   |                               |            |   |                              |
| Wetland Hydrology Indicators:                        | one is required; check all that apply     | .A                                |                               | Focondan   | u Indicators (minimum                               | a of two required)           |
| Primary indicators (minimum of                       | one is required; check all that apply     | λī                                | <u> </u>                      |            | <u>y Indicators (minimur</u><br>so Spil Crasks (B6) | n or two requirea)           |
| Surface Water (A1)                                   | True Aquatic Pl                           | lants (B14)                       |                               |            | te Soil Cracks (B6)<br>ely Vegetated Concave        | Surface (R8)                 |
| ✓ High Water Table (A2)                              | Hydrogen Sulfic                           | ide Odor (C1)                     |                               |            | age Patterns (B10)                                  | . Sarrace (Bo)               |
| Saturation (A3)                                      | Oxidized Rhizo:                           | spheres on Livin;                 | g Roots (C3)                  |            | Trim Lines (B16)                                    |                              |
| Water Marks (B1)                                     | Presence of Re                            | educed Iron (C4)                  |                               |            | eason Water Table (C2                               | )                            |
| Sediment Deposits (B2)                               |   | duction in Tilled                 | Soils (C6)                    | -          | sh Burrows (C8)                                     |                              |
| Drift Deposits (B3)                                  | Thin Muck Surf                            |                                   |                               | Satura     | ation Visible on Aerial                             | lmagery (C9)                 |
| Algal Mat or Crust (B4)                              | Other (Explain                            | in Remarks)                       |                               | _          |   |                              |
| Iron Deposits (B5)                                   | (2-2)                                     |                                   |                               |            | ed or Stressed Plants (                             | D1)                          |
| Inundation Visible on Aerial                         | Imagery (B7)                              |                                   |                               |            | orphic Position (D2)                                |                              |
| Water-Stained Leaves (B9) Aquatic Fauna (B13)        |   |                                   | -                             |            | w Aquitard (D3)<br>topographic Relief (D4           | 1)                           |
| Aquatic Faulia (BTS)                                 |   |                                   | -                             |            | eutral Test (D5)                                    | ',                           |
| Field Observations:                                  |   |                                   |                               | 171011     | ederal rese (DS)                                    |                              |
| Surface Water Present?                               | Yes <u></u> ✓ No Dept                     | th (inches):                      | 1                             |            |   |                              |
|  | ·   |                                   |                               |            | hadaala — Daaraa 2                                  | V N-                         |
| Water Table Present?                                 | · ·                                       | th (inches):                      |                               | weuana i   | H <b>yd</b> rol <b>ogy Pre</b> s <b>en</b> t?       | Yes No                       |
| Saturation Present?                                  | Yes <u></u> No Dept                       | th (inches):                      | 0                             |            |   |                              |
| (includes capillary fringe)                          |   |                                   |                               |            |   |                              |
| Describe Recorded Data (stream                       | n gauge, monitoring well, aerial phot     | tos, pre <mark>vious ins</mark> p | o <b>ections</b> ), if a      | vailable:  |   |                              |
|  |   |                                   |                               |            |   |                              |
|  |   |                                   |                               |            |   |                              |
| Remarks:   |   |                                   |                               |            |   |                              |
|  |   |                                   |                               |            |   |                              |
|  |   |                                   |                               |            |   |                              |
|  |   |                                   |                               |            |   |                              |
| A positive indication of wetland                     | hydrology was observed (primary ar        | nd secondary inc                  | dicators were                 | present).  |   |                              |
|  |   | -                                 |                               |            |   |                              |
|  |   |                                   |                               |            |   |                              |
|  |   |                                   |                               |            |   |                              |

| · · · · · · · · · · · · · · · · · · ·               |                  |                     |           |   |                |                |
|---|------------------|---------------------|-----------|---|----------------|----------------|
| Tree Stratum (Plot size:30)                         | <b>A</b> bsolute | : D <b>ominan</b> t | Indicator | Dominance Test worksheet:                               |                |                |
| <u>rree stratum</u> (Plot size: <u>50)</u>          | % Cover          | Species?            | Status    | Number of Dominant Species That                         | 5              | (A)            |
| 1   |                  |                     |           | Are OBL, FACW, or FAC:                                  |                | (^)            |
| 2.  |                  |                     |           | Total Number of Dominant Species Across All Strata:     | 5              | (B)            |
| 3   |                  |                     |           | Percent of Dominant Species That                        |                |                |
| 4   |                  |                     |           | - Are OBL, FACW, or FAC:                                | 100            | (A/B)          |
| 5   |                  |                     |           | Prevalence Index worksheet:                             |                |                |
| 6   |                  |                     |           | Total % Cover of:                                       | Multiply B     | sv:            |
| 7   |                  |                     |           | - OBL species 60  | x 1 =          | <b>-</b><br>60 |
|   | 0                | = Total Cov         | rer       | FACW species 50   | x 2 =          | 100            |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:         | 0         | FAC species 20  | x3=            | 60             |
| Sapling/Shrub Stratum (Plot size:15)                |                  |                     |           | FACU species 0  | ×4=            | 0              |
| 1   |                  |                     |           | - UPL species 0   | x5=            | 0              |
| 2.  |                  |                     |           |   | _              |                |
| 3.  |                  |                     |           | Column Totals 130                                       | (A) —          | 220 (B)        |
| 4.  |                  |                     |           | Prevalence Index = B/A =                                |                |                |
| 5.  | -                |                     |           | Hydrophytic Vegetation Indicators:                      |                |                |
| 6.  |                  |                     |           | 1- Rapid Test for Hydrophytic                           | Vegetation     |                |
|   | . ——             |                     |           | 2 - Dominance Test is >50%                              |                |                |
| _   |                  |                     |           | $\checkmark$ 3 - Prevalence Index is $\le$ 3.01         |                |                |
| 8.<br>9.  |                  |                     |           | -  4 - Morphological Adaptations                        | ¹ (Provide s   | upporting      |
| 9.  |                  |                     |           | - data in Remarks or on a separate sh                   | neet)          |                |
|   | 0                | _= Total Cov        |           | Problematic Hydrophytic Vege                            | etation¹ (Exp  | olain)         |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:         | 0         | Indicators of hydric soil and wetlan                    | , 0            | y must be      |
| Herb Stratum (Plot size: 5 )                        |                  |                     |           | present, unless disturbed or proble                     | matic          |                |
| 1. <u>Bidens frondosa</u>                           |                  | Yes                 | FACW      | Definitions of Four Vegetation Strat                    | a:             |                |
| 2. Carex stricta                                    | 20               | Yes                 | OBL       | _   |                |                |
| 3. <i>Persicaria sagittata</i>                      | 20               | Yes                 | OBL       | Tr <b>ee</b> – Woody plants, excluding vine             | es, 3 in. (7.6 | cm) or more    |
| 4. Juncus effusus                                   | 20               | Yes                 | FACW      | in diameter at breast height (DBH),                     | regardless     | of height.     |
| 5. <i>Carex lurida</i>                              | 20               | Yes                 | OBL       | _   |                |                |
| 6. Dichanthelium clandestinum                       | 10               | No                  | FAC       | Sapling/shrub – Woody plants, exclu                     | uding vines,   | less than 3    |
| 7. Poa palustris                                    | 10               | No                  | FACW      | in. DBH and greater than or equal to                    | o 3.28 ft (1   | m) tall.       |
| 8. Microstegium vimineum                            | 10               | No                  | FAC       |   |                |                |
| 9.  |                  |                     |           | Herb – All herbaceous (non-woody)                       | plants, reg    | ardless of     |
| 10.   |                  |                     |           | size, and woody plants less than 3.2                    | 28 ft tall.    |                |
| 11.   |                  |                     |           | -   |                |                |
|   | 130              | = Total Cov         |           | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.2   | 28 ft in       |
| 50% of total cover: <u>65</u>                       |                  | tal cover:          | 26        | height.   |                |                |
| Woody Vine Stratum (Plot size:30)                   | _ 20% 01 (0      | ital cover.         |           |   |                |                |
| <u> </u>  |                  |                     |           |   |                |                |
| 1.  |                  |                     |           | -   |                |                |
| 2.  |                  |                     |           | -   |                | ,              |
| 3.  |                  |                     |           | Hydrophytic Vegetation Present? `                       | yes ☑ No ∟     |                |
| 4   |                  |                     |           | -   |                |                |
| 5   |                  |                     |           | _   |                |                |
|   | 0                | = Total Cov         | rer       |   |                |                |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:         | 0         |   |                |                |
| Remarks: (Include photo numbers here or on a separa | te sheet )       |                     |           | •   |                |                |
|   | ·                |                     |           |   |                |                |
|   |                  |                     |           |   |                |                |
|   |                  |                     |           |   |                |                |
|   |                  |                     |           |   |                |                |
|   |                  |                     |           |   |                |                |
|   |                  |                     |           |   |                |                |
|   |                  |                     |           |   |                |                |

|                   | scription: (Describe to  | the depth need          | le <b>d to</b> d <b>ocu</b> me | ent the i      | n <b>dicator</b> d | or confirm the                    | absence o               | f indicators.)        |  |
|-------------------|--------------------------|-------------------------|--------------------------------|----------------|--------------------|-----------------------------------|-------------------------|-----------------------|--|
| Depth _           | Matrix                   |                         | Redo                           | <b>Feat</b> ur | es                 |                                   |                         |                       |  |
| (in <b>ch</b> es) | Color (moist)            |                         | or (moist)                     | %              | Type¹              | Loc²                              | T                       | exture                | Remarks  |
| -                 |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       | -  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
| 1Type: C =        | Concentration, D = De    | nletion PM = F          | educed Matri                   |                | Mackad S           | and Grains                        | ZI ocation:             | PL = Pore Lining M    | = Matrix   |
|                   |                          | spredon, Kivi – I       | educed Mach                    | X, WID -       | WIGSKEG 5          | and drains.                       |                         |                       |  |
|                   | I Indicators:            |                         |                                | ·              | ÷-7\               |                                   | ir                      | ndicators for Probler | nauc Hyaric 50IIS <sup>2</sup> :                   |
| _ Histosol        | (AT)<br>ipedon (A2)      |                         |                                | Surface (      |                    | (S8) (MLRA 14)                    | 7 1401 -                | _ 2 cm Muck (A10) (   | MLRA 147)  |
| HISCIC EP         |                          |                         |                                |                |                    | (58) (MILKA 14<br>/ILRA 147, 148) |                         | Coast Prairie Rede    | ox (A16) <b>(MLR</b> A 1 <b>47</b> , 1 <b>4</b> 8) |
| _                 | n Sulfide (A4)           |                         |                                |                | Matrix (F2         |                                   |                         | Piedmont Floodpl      | ain Soils (F19) (MLRA 136,                         |
|                   | d Layers (A5)            |                         |                                | ted Matr       |                    | ,                                 | 1.                      | 47)                   |  |
|                   | ick (A10) (LRR N)        |                         |                                |                | rface (F6)         |                                   | _                       | Very Shallow Dark     | ( Surface (TF12)                                   |
| _ Depleted        | d Below Dark Surface (A  | 11)                     | _ Deple                        | ted Dark       | Surface (F         | 7)                                |                         | Other (Explain in     | Remarks)   |
| Thick Da          | rk Surface (A12)         |                         | Redox                          | Depres         | sions (F8)         |                                   |                         |                       |  |
| _                 | ucky Mineral (S1) (LRR I | N, MLRA 147, <b>1</b> 4 | B) Iron-N                      | /langane:      | se Masses          | (F12) (LRR N, N                   | MLRA 136) <sub>3 </sub> | ndicators of hydrop   | hytic vegetation and                               |
|                   | leyed Matrix (S4)        |                         |                                |                | _ (                | ,                                 | 14                      | etland hydrology m    | ust be present, unless                             |
| _                 | edox (S5)                |                         | _                              |                |                    | ls (F19) (MLRA                    | 140)                    | isturbed or problem   | · ·  |
|                   | Matrix (S6)              |                         | Red P                          | arent Ma       | iteriai (FZT       | ) (MLRA 127, 1                    | 47)                     |                       |  |
|                   | Layer (if observed):     |                         |                                |                |                    |                                   |                         |                       |  |
|                   | Type:                    | No                      | ne                             |                |                    | Hydric Soil P                     | resent?                 |                       | Yes ☑ No □   |
|                   | Depth (inches):          |                         |                                | _              |                    |                                   |                         |                       |  |
| Remarks:          |                          |                         |                                |                |                    | •                                 |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |
|                   |                          |                         |                                |                |                    |                                   |                         |                       |  |

Hydrology Photos





Vegetation Photos



Soil Photos



Photo of Sample Plot North



Photo of Sample Plot East



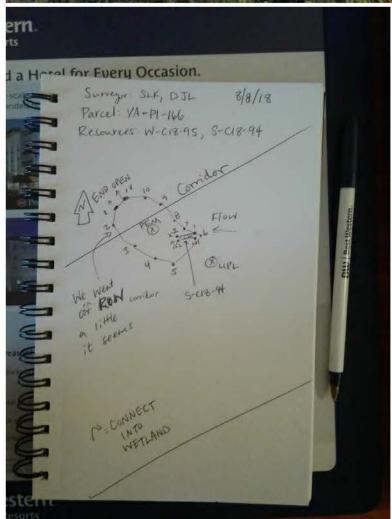
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                         | City/County:_ Westover,                  | Pittsylvania Sam <b>p</b> lin <b>g</b>            | Date: 2018-Aug-08  |                              |
|---|--|---|--|------------------------------|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra |  | State: Virgir                                     | nia Sampling Point: \  | V-C18-95_UPL-1               |
| Investigator(s): Don Lockwood,                      | Simon King, Don Lockwood                 | Section, Township,                                | Range:   |                              |
| Landform (hillslope, terrace, etc.):                | : <u>Hillslope</u>                       | Local relief (concave, conv                       | ex, none): Convex  | Slop <b>e (%</b> ): 15 to 20 |
| Subregion (LRR or MLRA): M                          | ILRA 136 of LRR P                        | Lat: 36.5902922                                   | Long: -79.5830078  | Datum: WGS84                 |
| Soil <b>Map</b> Unit Name: Pinkston-                | Mayodan complex very stony               |   | NWI classific  | ation:                       |
| Are climatic/hydrologic conditions                  | s on the site typical for this time of y |   | (If no, explain in Remar   | ·ks.)                        |
| Are Vegetation, Soil,                               | or Hydrology significantly o             | listurbed? Are "Norma                             | al Circumstances" present?   | Yes 🟒 No                     |
| Are Vegetation, Soil,                               | or Hydrology naturally prob              | blematic? (If needed,                             | explain any answers in Rema  | arks.)                       |
|   |  |   |  |                              |
| SUMMARY OF FINDINGS – A                             | ttach site map showing sampl             | ling point locations, tran                        | nsects, important feature  | es, etc.                     |
| Hydrophytic Vegetation Present?                     | Yes No 🟒                                 |   |  |                              |
| Hydric Soil Present?                                | Yes No 🟒                                 |   |  |                              |
| Wetland Hydrology Present?                          | Yes No 🟒                                 | Is the Sampled Area withi                         | n <b>a Wetlan</b> d?   | <b>Yes</b> No _ <b>_</b> ∠   |
| Remarks:  |  |   |  |                              |
|   |  |   |  |                              |
|   |  |   |  |                              |
| Causarina is LIDL. Avan is unload                   |  | un nun gant                                       |  |                              |
| Covertype is OPL. Area is upland,                   | , not all three wetland parameters a     | re present.                                       |  |                              |
|   |  |   |  |                              |
|   |  |   |  |                              |
|   |  |   |  |                              |
| HYDROLOGY   |  |   |  |                              |
|   |  |   |  |                              |
| Wetland Hydrology Indicators:                       | one is required, elect all that applic   |   | Cocondan Indicators (minim   | um of two required)          |
| Primary indicators (minimum or                      | one is required; check all that apply    | 1   | Secondary Indicators (minin  | ium or two requirea)         |
| Surface Water (A1)                                  | True Aquatic Pla                         | ants (B14)  | <ul><li>Surface Soil Cracks (B6)</li><li>Sparsely Vegetated Cond</li></ul> | avo Surfaco (B8)             |
| High Water Table (A2)                               | Hydrogen Sulfic                          | de Odor (C1)                                      | Drainage Patterns (B10)  | ave sarrace (Bo)             |
| Saturation (A3)                                     | Oxidized Rhizos                          | spheres on Living Roots (C3)                      | Moss Trim Lines (B16)  |                              |
| Water Marks (B1)                                    | Presence of Rec                          | duced Iron (C4)                                   | Dry-Season Water Table   | (C2)                         |
| Sediment Deposits (B2)                              | Recent Iron Rec                          | duction in Tilled Soils (C6)                      | Crayfish Burrows (C8)  |                              |
| Drift Deposits (B3)                                 | Thin Muck Surfa                          |   | Saturation Visible on Aer  | ial Imagery (C9)             |
| Algal Mat or Crust (B4)                             | Other (Explain i                         | n Remarks)  |  |                              |
| Iron Deposits (B5)                                  |  |   | Stunted or Stressed Plan   |                              |
| Inundation Visible on Aerial I                      | imagery (B7)                             |   | Geomorphic Position (D2  | 2)                           |
| Water-Stained Leaves (B9)                           |  |   | Shallow Aquitard (D3)  | (D.4)                        |
| Aquatic Fauna (B13)                                 |  |   | Microtopographic Relief<br>FAC-Neutral Test (D5)                           | (D4)                         |
| Field Observations:                                 |  |   | FAC-Neutral lest (D3)  |                              |
| Surface Water Present?                              | Yes No _ <b>∠</b> Depth                  | n (inches):                                       |  |                              |
| Water Table Present?                                |  | n (inches):                                       | <b>W</b> etland Hydrology Present  | ? Yes No                     |
| Saturation Present?                                 |  | -   | ·  | . 10510                      |
|   | res No <u></u> <b></b> Depti             | n (inches):                                       |  |                              |
| (includes capillary fringe)                         |  |   |  |                              |
| Describe Recorded Data (stream                      | gauge, monitoring well, aerial photo     | os <b>, p</b> re <b>vious inspections</b> ), if a | available:   |                              |
|   |  |   |  |                              |
|   |  |   |  |                              |
| Remarks:  |  |   |  |                              |
|   |  |   |  |                              |
|   |  |   |  |                              |
|   |  |   |  |                              |
| No positive indication of wetland                   | hydrology was observed.                  |   |  |                              |
|   |  |   |  |                              |
|   |  |   |  |                              |
|   |  |   |  |                              |

| ·   | •           |             |             | 1   |               |             |
|---|-------------|-------------|-------------|---|---------------|-------------|
| Tree Stratum (Plot size:30)   |             | Dominant    |             | Dominance Test worksheet:   |               |             |
|   | -           | Species?    | Status      | Number of Dominant Species That Are OBL, FACW, or FAC:                  | 1             | (A)         |
| Carya cordiformis     Acer rubrum                                       | 40          | Yes Yes     | FACU<br>FAC | Total Number of Dominant Species  |               |             |
| 3. Quercus rubra  | 20          | Yes         | FACU        | Across All Strata:  | 4             | (B)         |
| 4.  |             |             | 17.00       | Percent of Dominant Species That  | 25            | (A/B)       |
| 5.  |             |             |             | Are OBL, FACW, or FAC:  |               |             |
| 6.  |             |             |             | Prevalence Index worksheet:   |               | 5           |
| 7.  |             |             |             | Total % Cover of:   | Multiply I    | -           |
|   | 90          | = Total Cov | er          | OBL species 0 FACW species 0  | x1= _         | 0           |
| 50% of total cover: <u>45</u>   | 20% of to   | tal cover:  | 18          | FAC species 30  | x2= _<br>x3=  | 90          |
| Sapling/Shrub Stratum (Plot size:15)                                    |             |             |             | FACU species 65   | × 4 =         | 260         |
| 1. Carya cordiformis  | 5           | Yes         | FACU        | UPL species 0   | x5=           | 0           |
| 2.  |             |             |             | Column Totals 95  | (A)           | 350 (B)     |
| 3.  |             |             |             | Prevalence Index = B/A =  | -             | 330 (D)     |
| 4   |             |             |             |   |               |             |
| 5.  |             |             |             | Hydrophytic Vegetation Indicators:                                      | /ogotation    |             |
| 6   |             |             |             | 1- Rapid Test for Hydrophytic V<br>2 - Dominance Test is > 50%          | regetation    |             |
| 7   |             |             |             | 3 - Prevalence Index is ≤ 3.0¹  |               |             |
| 8.  |             |             |             | 4 - Morphological Adaptations   | ¹ (Provide :  | supporting  |
| 9.  |             |             |             | data in Remarks or on a separate sh                                     |               | supporting. |
|   | 5           | = Total Cov | er          | Problematic Hydrophytic Vege  | tation¹ (Ex   | plain)      |
| 50% of total cover: <u>2.5</u>  | _ 20% of to | tal cover:  | 1           | Indicators of hydric soil and wetlan                                    | d hydrolog    | gy must be  |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )                              |             |             |             | present, unless disturbed or proble                                     | matic         |             |
| 1   |             |             |             | Definitions of Four Vegetation Strate                                   | a:            |             |
| 2   |             |             |             |   |               |             |
| 3   |             |             |             | Tr <b>ee</b> – Woody plants, excluding vine                             |               |             |
| 4.  |             |             |             | in diameter at breast height (DBH),                                     | regardless    | of height.  |
| 5.  |             |             |             |   | 12            |             |
| 6.  |             |             |             | Sapling/shrub – Woody plants, excluin. DBH and greater than or equal to | _             |             |
| 7.  |             |             |             |   | J J.20 IC (1  | III) tall.  |
| 8.  |             |             |             | Herb - All herbaceous (non-woody)                                       | nlants res    | ardless of  |
| 9.  |             |             |             | size, and woody plants less than 3.2                                    |               | ,           |
| 10.   |             |             |             |   |               |             |
| 11  |             |             |             | . <b> <br/>  Wo</b> od <b>y vine</b> s – All woody vines grea           | torthan 3     | 29 ft in    |
| FOW aftern and a  |             | = Total Cov |             | height.   | ter triair 5. | 20 10 111   |
| 50% of total cover: <u>0</u> Woody Vine Stratum (Plot size: <u>30</u> ) | _ 20% 01 to | ital cover: |             | Tielg. It.  |               |             |
|   |             |             |             |   |               |             |
|   |             |             |             |   |               |             |
| 2   |             |             |             | .  <br>  Hydrophytic Vegetation Present?   `                            | ves □ No E    | 7           |
|   |             |             |             | . Tydrophydd Tagatator Tagata   |               |             |
| 5.  |             |             |             | •   |               |             |
|   | 0           | = Total Cov | er          | •   |               |             |
| 50% of total cover: 0   | 20% of to   | •           | 0           |   |               |             |
| Remarks: (Include photo numbers here or on a separa:                    | o choot )   |             |             | L   |               |             |
| Remarks. (include photo numbers here or on a separa                     | e sneet.)   |             |             |   |               |             |
|   |             |             |             |   |               |             |
|   |             |             |             |   |               |             |
|   |             |             |             |   |               |             |
|   |             |             |             |   |               |             |
|   |             |             |             |   |               |             |
|   |             |             |             |   |               |             |

|                  | crip <b>tion: (De</b> scri <b>be</b> to        | the depth    | needed to   |                       |                 |                                   | or confirm | n the absenc  | e of indicators.)                    |                            |
|------------------|--|--------------|-------------|-----------------------|-----------------|-----------------------------------|------------|---------------|--------------------------------------|----------------------------|
| Depth            | Matrix   |              |             | Redox                 | <b>Feat</b> ure | es                                |            |               |                                      |                            |
| (in <b>ches)</b> | Color (moist)                                  | 96           | Color (mo   | oist)                 | %               | Type¹                             | Locz       |               | Texture                              | Remarks                    |
| -                | <u> </u>                                       |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      | ·                          |
|                  |  |              |             |                       |                 |                                   |            |               |                                      | · <del></del>              |
|                  |  |              |             |                       |                 | - ——                              |            |               |                                      | · <del></del>              |
|                  |  |              |             |                       |                 | . ——                              |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
| 1Tupo: C = C     | oncontration D = D                             | onlotion P   | Mi - Doduco | d Mastriy             |                 | Mackad S                          | and Crai   | ns Zlosatio   | un: DL = Doro Lining M =             | - Matrix                   |
|                  |  | epietion, R  | iw = Reduce | a Matrix              | , IVIS = 1      | маѕкеа ѕ                          | and Grai   | ns. ²Locatio  | n: PL = Pore Lining, M =             |                            |
| Hydric Soil      |  |              |             |                       | _               |                                   |            |               | Indicators for Problen               | natic Hydric Soils³:       |
| _ Histosol (     |  |              | -           | _ Dark Si             |                 |                                   | (00) (00)  |               | 2 cm Muck (A10) (                    | ML <b>RA 147)</b>          |
|                  | pedon (A2)                                     |              | -           |                       |                 |                                   |            | RA 147, 148)  | Coast Prairie Redo                   | ox (A16) (MLRA 147, 148)   |
| _ Black Hist     | i Sulfide (A4)                                 |              | -           |                       |                 | ace (S9) <b>(</b> N<br>Matrix (F2 |            | . 148)        | Piedmont Floodpl                     | ain Soils (F19) (MLRA 136, |
|                  | Layers (A5)                                    |              | -           | _ Loaniy<br>_ Depleto |                 |                                   | -,         |               | 147)                                 |                            |
|                  | k (A10) (LRR N)                                |              |             |                       |                 | ırface (F6)                       |            |               | Very Shallow Dark                    | : Surface (TF12)           |
|                  | Below Dark Surface (A                          | <b>\11</b> ) | _           |                       |                 | Surface (F                        | -7)        |               | Other (Explain in F                  |                            |
| Thick Dar        | k Surface (A12)                                | ,            |             | Redox                 | Depress         | sions (F8)                        |            |               |                                      |                            |
| Sandy Mu         | icky Mineral (S1) <b>(</b> LR <b>R</b>         | N, MLRA 14   | 47, 148)    | _ Iron-M              | anganes         | se Masses                         | (F12) (LR  | R N, MLRA 136 | <sup>5)</sup> ³Indicators of hydropl | hytic vegetation and       |
|                  | eyed Matrix (S4)                               |              | _           |                       |                 | C ( ) (                           |            | ,             | wetland hydrology m                  | ust be present, unless     |
| _ Sandy Red      |  |              | =           |                       |                 | dplain Soi                        |            |               | disturbed or problem                 |                            |
| _ Stripped I     | Vlatrix (S6)                                   |              | -           | _ Red Pa              | rent Ma         | iterial (F21                      | ) (MLRA 1  | 127, 147)     | disturbed or problem                 | auc.                       |
|                  | L <b>ayer</b> (if ob <b>se</b> rve <b>d)</b> : |              |             |                       |                 |                                   |            |               |                                      |                            |
| Т                | ype:   |              | None        |                       |                 |                                   | Hydric S   | oil Present?  |                                      | Yes □ No ☑                 |
|                  | epth (inches):                                 |              |             |                       |                 |                                   |            |               |                                      |                            |
| Remarks:         |  |              |             |                       |                 |                                   | •          |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
| No positive      | indication of hydric                           | soils was o  | observed.   |                       |                 |                                   |            |               |                                      |                            |
| '                | •  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |
|                  |  |              |             |                       |                 |                                   |            |               |                                      |                            |

Hydrology Photos



Vegetation Photos





Photo of Sample Plot North



Photo of Sample Plot East



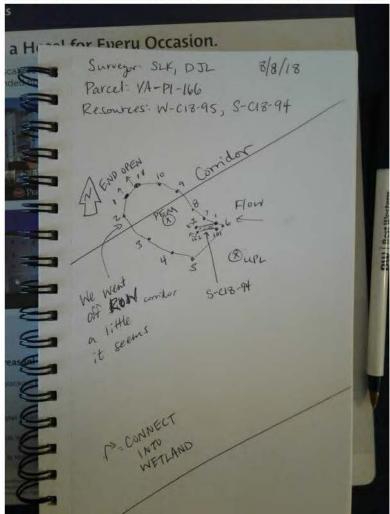
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                    | City/County:                           | Sampling Date: 2018-July-18            |                              |                             |  |  |  |
|--|--|--|------------------------------|-----------------------------|--|--|--|
| Applicant/Owner: NextEra                       |  | State:                                 | Sampling Point: W            | '-D18-39_PFO-1              |  |  |  |
| Investigator(s): Jen Feese, ESN                | , SWB                                  | Section, Township,                     | Range:                       |                             |  |  |  |
| andform (hillslope, terrace, etc.              | ): Swale                               | Local relief (concave, conv            | ex, none): Concave           | Slop <b>e (%</b> ):10 to 15 |  |  |  |
| Subregion (LRR or MLRA):                       |  | <b>L</b> at: 36.5883175                | Long: -79.5845287            | Datum: WGS84                |  |  |  |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> :23C |  |  | NWI classifica               | tion: None                  |  |  |  |
| Are climatic/hydrologic condition              | ns on the site typical for this time o | of year? Yes 🟒 No                      | (If no, explain in Remark    | s.)                         |  |  |  |
| Are Vegetation, Soil,                          | or Hydrology significantl              |  | al Circumstances" present?   | Yes 🟒 No                    |  |  |  |
| Are Vegetation, Soil,                          | or Hydrology naturally p               | roblematic? (If needed,                | explain any answers in Remai | ks.)                        |  |  |  |
|  |  |  |                              |                             |  |  |  |
| SUMMARY OF FINDINGS - A                        | Attach site map showing sam            | ipling point locations, trai           | nsects, important feature    | s, etc.                     |  |  |  |
| Hydrophytic Vegetation Present                 | :? Yes _ <b>√</b> _ No                 |  |                              |                             |  |  |  |
| Hydric Soil Present?                           | Yes _ No                               |  |                              |                             |  |  |  |
| Wetland Hydrology Present?                     | Yes _ <b>_</b> No                      | Is the Sampled Area withi              | n <b>a Wetlan</b> d?         | es <b>/ No</b>              |  |  |  |
| Remarks:                                       | 143 110                                | is the sampled / il da / il da / il da |                              | <u> </u>                    |  |  |  |
| Kemarks.                                       |  |  |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |
| Covertype is PFO. Area is wetlar               | nd, all three wetland parameters a     | re present.                            |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |
| HYDROLOGY                                      |  |  |                              |                             |  |  |  |
| Wetland Hydrology Indicators:                  |  |  |                              |                             |  |  |  |
| - <del></del>                                  | f one is required; check all that app  | ol <b>y</b> )                          | Secondary Indicators (minim  | um of two required)         |  |  |  |
| •  |  | <del>-</del> -                         | Surface Soil Cracks (B6)     | •                           |  |  |  |
| Surface Water (A1)                             | True Aquatic                           |  | Sparsely Vegetated Conca     | ve Surface (B8)             |  |  |  |
| High Water Table (A2)                          | _✓_ Hydrogen Su                        |  | ✓ Drainage Patterns (B10)    |                             |  |  |  |
| Saturation (A3)                                | Oxidized Rhi:                          | zospheres on Living Roots (C3)         | Moss Trim Lines (B16)        |                             |  |  |  |
| Water Marks (B1)                               | Presence of I                          | Reduced Iron (C4)                      | Dry-Season Water Table (     | <b>[2</b> )                 |  |  |  |
| Sediment Deposits (B2)                         | Recent Iron F                          | Reduction in Tilled Soils (C6)         | Crayfish Burrows (C8)        |                             |  |  |  |
| Drift Deposits (B3)                            | Thin Muck Su                           | urface (C7)                            | Saturation Visible on Aeria  | al Imagery (C9)             |  |  |  |
| Algal Mat or Crust (B4)                        | Other (Explai                          | in in Remarks)                         | _                            |                             |  |  |  |
| Iron Deposits (B5)                             |  |  | Stunted or Stressed Plant    | s (D1)                      |  |  |  |
| Inundation Visible on Aeria                    | Imagery (B7)                           |  | Geomorphic Position (D2)     |                             |  |  |  |
| ✓ Water-Stained Leaves (B9)                    |  |  | Shallow Aquitard (D3)        |                             |  |  |  |
| Aquatic Fauna (B13)                            |  |  | Microtopographic Relief (I   | 04)                         |  |  |  |
|  |  |  | FAC-Neutral Test (D5)        |                             |  |  |  |
| Field Observations:                            |  |  |                              |                             |  |  |  |
| Surface Water Present?                         | Yes <u></u> ✓ No De                    | epth (inches):                         |                              |                             |  |  |  |
| Water Table Present?                           | Yes <u></u> ✓ No De                    | epth (inches): 0                       | Wetland Hydrology Present?   | Yes No                      |  |  |  |
| Saturation Present?                            |  | epth (inches): 0                       | 1                            |                             |  |  |  |
| (includes capillary fringe)                    | <del></del>                            |  |                              |                             |  |  |  |
|  | n garren manitaringarrall aprial ph    | satas municipal inspections) if        | l                            | ·                           |  |  |  |
|  | n gauge, monitoring well, aerial ph    | iotos, previous inspections), if a     | avallable:                   |                             |  |  |  |
| Surface water in approx 25% of                 | plot                                   |  |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |
| Remarks:                                       |  |  |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |
| The criterion for wetland hydrol               | ogy is met.                            |  |                              |                             |  |  |  |
| ·  |  |  |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |
|  |  |  |                              |                             |  |  |  |

| ,   | •                  |              |           |  |                     |            |
|---|--------------------|--------------|-----------|--|---------------------|------------|
| Tree Stratum (Plot size:30)                         | <b>A</b> bsolute   | Dominant     | Indicator | Dominance Test worksheet:  |                     |            |
| Tree Structure (Froc Size                           | % Cover            | Species?     | Status    | Number of Dominant Species That                                      | 5                   | (A)        |
| Liquidambar styraciflua                             | 20                 | Yes          | FAC       | Are OBL, FACW, or FAC:   |                     |            |
| 2. Acer rubrum                                      |                    | No           | FAC       | Total Number of Dominant Species Across All Strata:                  | 5                   | (B)        |
| 3. Liriodendron tulipifera                          |                    |              |           | Percent of Dominant Species That                                     |                     | _          |
| 4   |                    |              |           | - Are OBL, FACW, or FAC:   | <b>1</b> 0 <b>0</b> | (A/B)      |
| 5   |                    |              |           | Prevalence Index worksheet:  |                     |            |
| 6   |                    |              |           | Total % Cover of:  | Multiply By         | r.         |
| 7   |                    |              |           | OBL species 15   | x 1 =               | 15         |
|   | 20                 | _= Total Cov | er        | FACW species 0   | x 2 =               | 0          |
| 50% of total cover: <u>10</u>                       | _ 20% of to        | otal cover:  | 4         | FAC species  | x 3 =               |            |
| Sapling/Shrub Stratum (Plot size:15)                |                    |              |           | FACU species 9   | x 4 =               | 36         |
| 1. <u>Liquidambar styraciflua</u>                   | 15                 | Yes          | FAC       | - UPL species 0  | x 5 =               | 0          |
| 2. Acer rubrum                                      | 15                 | Yes          | FAC       | - Column Totals  | (A)                 | (B)        |
| 3. Liriodendron tulipifera                          | 5                  | No           | FACU      | Prevalence Index = B/A =   |                     | ν-γ        |
| 4   |                    |              |           | Hydrophytic Vegetation Indicators:                                   |                     |            |
| 5.  |                    |              |           | Trydrophydic Vegetador Indicators.  1 - Rapid Test for Hydrophytic V | /egetation          |            |
| 6   |                    |              |           | 2 - Dominance Test is >50%   | regetation          |            |
| 7   |                    |              |           | 3 - Prevalence Index is ≤ 3.01                                       |                     |            |
| 8.  |                    |              |           | 4 - Morphological Adaptations  | 1 (Provida su       | innorting  |
| 9   |                    |              |           | data in Remarks or on a separate sh                                  | -                   | pporting   |
|   | 35                 | = Total Cov  | er        | Problematic Hydrophytic Vege   |                     | ain)       |
| 50% of total cover: <u>17.5</u>                     |                    | tal cover:   | 7         | Indicators of hydric soil and wetlan                                 |                     | -          |
| Herb Stratum (Plot size: 5 )                        |                    |              |           | present, unless disturbed or proble                                  | , 0,                | mase be    |
| 1. Microstegium vimineum                            | 30                 | Yes          | FAC       | Definitions of Four Vegetation Strate                                |                     |            |
| 2. Leersia oryzoides                                | 10                 | No           | OBL       |  |                     |            |
| 3. Dichanthelium clandestinum                       | 5                  | No           | FAC       | -<br>  Tr <b>ee</b> – Woody plants, excluding vine                   | s. 3 in. (7.6 c     | m) or more |
| 4. Carex lurida                                     | 5                  | No No        | OBL       | in diameter at breast height (DBH),                                  |                     |            |
| 5. Pteridium aquilinum                              | 4                  | No No        | FACU      |  | •                   |            |
| 6.  |                    |              |           |  | uding vines, I      | ess than 3 |
| 7.  |                    |              |           | in. DBH and greater than or equal to                                 | o 3.28 ft (1 m      | n) tall.   |
| 8.  |                    |              |           |  |                     |            |
| 9.  |                    |              |           | Herb – All herbaceous (non-woody)                                    | plants, rega        | rdless of  |
| 10.   |                    |              |           | size, and woody plants less than 3.2                                 | 8 ft tall.          |            |
| 11.   |                    |              |           | -  |                     |            |
|   | 54                 | = Total Cov  | er        | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea              | ter than 3.28       | 3 ft in    |
| 50% of total cover: <u>27</u>                       |                    | tal cover:   | 10.8      | height.  |                     |            |
| Woody Vine Stratum (Plot size:30)                   | _ 20 /0 01 00      | rai covei.   |           |  |                     |            |
| Smilax rotundifolia                                 | 15                 | Yes          | FAC       |  |                     |            |
| 2.  |                    |              | 1710      | -  |                     |            |
|   |                    |              |           | -  <br>  Hydrophytic Vegetation Present?   `                         | Voc 🗆 No 🗆          |            |
| 4.  |                    |              |           | - Hydrophydd vegetadoiri resend                                      | 163 E 110 L         |            |
|   |                    |              |           | -  |                     |            |
| 5   |                    |              |           | -  |                     |            |
| 500/ of trade   7.5                                 | 15                 | = Total Cov  |           |  |                     |            |
| 50% of total cover: 7.5                             | _ 20% or to        | otal cover:  | 3         |  |                     |            |
| Remarks: (Include photo numbers here or on a separa | æ s <b>ne</b> et.) |              |           |  |                     |            |
|   |                    |              |           |  |                     |            |

| Profile De     | scription: (Describe to                      | the depth  | n <b>eed</b> ed to docum   | ent the i  | in <b>dic</b> ator o       | or confir        | m the absenc               | e of indicators.)                     |   |
|----------------|--|------------|----------------------------|------------|----------------------------|------------------|----------------------------|---------------------------------------|---|
| D <b>ep</b> th | <b>Ma</b> trix                               |            | R <b>edo</b>               | x Featur   | es                         |                  |                            |                                       |   |
| (inches)       | Color (moist)                                | %          | Color (moist)              | %          | Type¹                      | Loc²             |                            | T <b>e</b> xture                      | Remarks   |
| 0 - 1          | 10YR 3/2                                     | 100        |                            |            |                            |                  |                            | Loam                                  | many fine roots   |
| 1 - 2          | 10YR 3/2                                     | 100        |                            |            |                            |                  |                            | Sandy Loam                            |   |
| 2 - 4          | 10YR 4/2                                     | 100        |                            |            |                            |                  |                            | Sandy Loam                            | _   |
| 4 - 6          | 10YR 5/1                                     | 100        |                            |            |                            |                  | Sai                        | ndy Clay Loam                         |   |
| 6 - 18         | 10YR 5/1                                     | 100        |                            |            |                            |                  |                            | Loamy Sand                            |   |
|                |  |            |                            |            |                            |                  |                            | •                                     |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
| 1Type: C =     | Concentration D = De                         | nlotion P  | Mi - Roducod Mate          | iv Mac -   | Macked S                   | and Gra          | ins Zlocatio               | on: PL = Pore Lining, M =             | - Matrix  |
|                | il Indicators:                               | predon, K  | M - Reduced Mati           | 1, 1013 –  | Maskeu 3                   | anu Gra          | irisLocatio                | Indicators for Problen                |   |
| Histoso        |  |            | Dark                       | Surface (  | ¢7\                        |                  |                            |                                       | •   |
| _              | oipedon (A2)                                 |            | _                          |            |                            | (S8) <b>(M</b> L | RA 147, 148)               | 2 cm Muck (A10) (                     |   |
|                | istic (A3)                                   |            | _                          |            | face (S9) <b>(</b> N       |                  |                            | · · · · · · · · · · · · · · · · · · · | ox (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b> |
| Hydroge        | en Sulfide (A4)                              |            |                            |            | l Matrix (F2               |                  |                            | · ·                                   | ain Soils (F19) (ML <b>RA 1</b> 3 <b>6,</b>               |
|                | d Layers (A5)                                |            |                            | eted Matr  |                            |                  |                            | 147)                                  |   |
|                | uck (A10) (LRR N)                            |            |                            |            | urface (F6)                |                  |                            | Very Shallow Dark                     |   |
|                | d Below Dark Surface (A<br>ark Surface (A12) | 11)        |                            |            | k Surface (F<br>sions (F8) | -7)              |                            | Other (Explain in F                   | Remarks)  |
| _              | /Jucky Mineral (S1) <b>(</b> LRR I           | N. MLRA 14 | Kedo.<br>17, 148)   Iron-f | Mangane    | se Masses                  | (F12) (LF        | R N, MLRA 130              | <sup>6)</sup> ₃Indicators of hydropl  |   |
|                | leyed Matrix (S4)                            | •          | Umbi                       | ric Surfac | e (F13) ( <b>M</b>         | LRA 136,         | 122)                       | 'alndicators of hydropi               | hytic vegetation and                                      |
| Sandy R        | Redox (S5)                                   |            |                            |            |                            |                  | MLRA 148)                  |                                       | ust be present, unless                                    |
| _ Stripped     | d Matrix (S6)                                |            | _ Red P                    | arent Ma   | aterial (F21               | ) (MLRA          | 1 <b>2</b> 7, <b>1</b> 47) | disturbed or problem                  | auc.  |
| Restrictive    | e Layer (if observed):                       |            |                            |            |                            |                  |                            |                                       |   |
|                | ⊤ype:  |            | None                       | _          |                            | Hydric:          | Soil <b>Present?</b>       |                                       | Yes ☑ No □  |
|                | Depth (inches):                              |            |                            | _          |                            |                  |                            |                                       |   |
| Remarks:       |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |
|                |  |            |                            |            |                            |                  |                            |                                       |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                     | City/County:                           |                                  | Sampling Date: 2018-July  | <i>r</i> -18                |  |
|---|--|----------------------------------|---|-----------------------------|--|
| Appl <b>ica</b> nt <b>/O</b> wner: NextEra      | State:                                 | Sampling Point: V                | √-D18-39_UPL-1  |                             |  |
| Investigator(s): _ Jen Feese, ESN,              | SWB                                    | Section, Township,               | Range:  |                             |  |
| Landform (hillslope, terrace, etc.)             | : Hillslope                            | Local relief (concave, conv      | ex, none):None  | Slop <b>e (%</b> ): 5 to 10 |  |
| Subregion (LRR or MLRA):                        |  | Lat: 36.5883863                  | Long: -79.5844384   | Datum: WGS84                |  |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> : 23C |  |                                  | NWI classifica  | ation: None                 |  |
| Are climatic/hydrologic condition               | s on the site typical for this time of | ye <b>ar?</b> Yes <u></u> ✓ No   | (If no, explain in Remar  | ks.)                        |  |
| Are Vegetation, Soil,                           | or Hydrology significantly             | disturbed? Are "Norma            | al Circumstances" present?  | Yes 🟒 No                    |  |
| Are Vegetation, Soil,                           | or Hydrology naturally pro             | oblematic? (If needed,           | explain any answers in Rema   | rks.)                       |  |
|   |  |                                  |   |                             |  |
| SUMMARY OF FINDINGS – A                         | kttach site map showing samp           | oling point locations, tran      | sects, important feature  | s, etc.                     |  |
| Hydrophytic Vegetation Present                  |  | ļ                                |   |                             |  |
| Hydric Soil Present?                            | Yes No _ <b>_/</b> _                   | ļ                                |   |                             |  |
| Wetland Hydrology Present?                      | No _ <b>_</b>                          | Is the Sampled Area with         | in a Wetland?   | Yes No/                     |  |
| Remarks:  |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
| Causatina is UDL. Avan is unlawd                |  | 040 040 00 0 t                   |   |                             |  |
| Covertype is UPL. Area is upland                | l, not all three wetland parameters    | are present.                     |   |                             |  |
|   |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
| HYDROLOGY                                       |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
| Wetland Hydrology Indicators:                   |  |                                  |   |                             |  |
| Primary Indicators (minimum of                  | one is required; check all that apply  | <u>X)</u>                        | Secondary Indicators (minim   | um of two required)         |  |
| Surface Water (A1)                              | True Aquatic P                         | lants (B14)                      | Surface Soil Cracks (B6)  | au a Cuufa a a (DO)         |  |
| High Water Table (A2)                           | Hydrogen Sulfi                         |                                  | Sparsely Vegetated Concave Surface (B8)<br>Drainage Patterns (B10)        |                             |  |
| Saturation (A3)                                 |  | spheres on Living Roots (C3)     | Moss Trim Lines (B16)   |                             |  |
| Water Marks (B1)                                | Presence of Re                         | educed Iron (C4)                 | Dry-Season Water Table (C2)   |                             |  |
| Sediment Deposits (B2)                          | Recent Iron Re                         | duction in Tilled Soils (C6)     | Crayfish Burrows (C8)   |                             |  |
| Drift Deposits (B3)                             | Thin Muck Sur                          |                                  | Saturation Visible on Aer   | ial Imagery (C9)            |  |
| Algal Mat or Crust (B4)                         | Other (Explain                         | in Remarks)                      |   |                             |  |
| Iron Deposits (B5)                              |  |                                  | Stunted or Stressed Plan  |                             |  |
| Inundation Visible on Aerial                    | Imagery (B7)                           |                                  | Geomorphic Position (D2   | )                           |  |
| Water-Stained Leaves (B9) Aquatic Fauna (B13)   |  |                                  | <ul><li>Shallow Aquitard (D3)</li><li>Microtopographic Relief (</li></ul> | (D4)                        |  |
| Aquatic Fauria (B13)                            |  |                                  | FAC-Neutral Test (D5)   | D4)                         |  |
| Field Observations:                             |  |                                  |   |                             |  |
| Surface Water Present?                          | Yes No <u></u> ✓ Dept                  | th (inches):                     |   |                             |  |
| Water Table Present?                            | Yes No _ <b>∠</b> Dept                 | th (inches):                     | <br> Wetland Hydrology Present?   | Yes No <b>_</b> ∡           |  |
| Saturation Present?                             | ·                                      | th (inches):                     | 1 3   | - <del></del> -             |  |
| (includes capillary fringe)                     | 165 <u> </u>                           |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
| Describe Recorded Data (stream                  | n gauge, monitoring well, aerial pho   | tos, previous inspections), if a | available:  |                             |  |
|   |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
| Remarks:  |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |
|   |  |                                  |   |                             |  |

|   | <u>-</u>         |                  |           | T  |                                       |               |
|---|------------------|------------------|-----------|--|---------------------------------------|---------------|
| Tree Stratum (Plot size: _ 30)                      | <b>A</b> bsolute | Dominant         | Indicator | Dominance Test worksheet:  |                                       |               |
| Tree Stratum (Flot Size                             | % Cover          | Species?         | Status    | Number of Dominant Species That  | 3                                     | (A)           |
| 1. <u>Liriodendron tulipifera</u>                   | 30               | Yes              | FACU      | Are OBL, FACW, or FAC:   |                                       |               |
| 2. <u>Liquidambar styraciflua</u>                   | 20               | Yes              | FAC       | Total Number of Dominant Species Across All Strata:  | 5                                     | (B)           |
| 3. <i>Quercus palustris</i>                         | 10               | No               | FACW      | Percent of Dominant Species That   |                                       |               |
| 4. Carpinus caroliniana                             | 10               | No               | FAC       | Are OBL, FACW, or FAC:   | 60                                    | (A/B)         |
| 5. Acer rubrum                                      | 10               | No               | FAC       | Prevalence Index worksheet:  |                                       |               |
| 6. <i>Ulmus americana</i>                           | 10               | No               | FACW      | Total % Cover of:  | <u>Multiply</u> l                     | Bv:           |
| 7   |                  |                  |           | OBL species 0  | x 1 =                                 | 0             |
|   | 90               | = Total Cov      | er        | FACW species 20  | x 2 =                                 | 40            |
| 50% of total cover: <u>45</u>                       | 20% of to        | otal cover:      | 18        | FAC species 106  | x 3 =                                 | 318           |
| Sapling/Shrub Stratum (Plot size:15)                |                  |                  |           | FACU species 95  | × 4 =                                 | 380           |
| 1. Liriodendron tulipifera                          | 50               | Yes              | FACU      | UPL species 25   | x 5 =                                 | 125           |
| 2. <u>Liquidambar styraciflua</u>                   | 20               | Yes              | FAC       | Column Totals 246  | (A)                                   | 863 (B)       |
| 3. Prunus serotina                                  | 10               | No               | FACU      | Prevalence Index = B/A =   | 3.5                                   | CCS (E)       |
| 4. Carya tomentosa                                  | 10               | No               | UPL       |  |                                       |               |
| 5. Not Listed Plant                                 | 10               | No               | UPL       | Hydrophytic Vegetation Indicators:   | · · · · · · · · · · · · · · · · · · · |               |
| 6. Carpinus caroliniana                             | 5                | No               | FAC       | 1- Rapid Test for Hydrophytic  | √egetation                            |               |
| 7. Quercus montana                                  | 5                | No               | UPL       | ✓ 2 - Dominance Test is >50%   |                                       |               |
| 8. Nyssa sylvatica                                  | 5                | No               | FAC       | 3 - Prevalence Index is ≤ 3.0¹   | 170 11                                |               |
| 9. Quercus alba                                     | 5                | No               | FACU      | 4 - Morphological Adaptations  |                                       | supporting    |
|   | 120              | = Total Cov      | er        | data in Remarks or on a separate sh<br>Problematic Hydrophytic Vege  |                                       | (ninin)       |
| 50% of total cover: 60                              | 20% of to        | -<br>otal cover: | 24        | Indicators of hydric soil and wetlan   |                                       |               |
| Herb Stratum (Plot size: 5 )                        | _                |                  |           | present, unless disturbed or proble  | , ,                                   | gy must be    |
| 1. Euonymus americanus                              | 1                | No               | FAC       | Definitions of Four Vegetation Strat   |                                       |               |
| 2. Poaceae  | 1                | No               | NI        | Definitions of Four Vegetation Strate  | a.                                    |               |
| 3.  |                  |                  |           | ·  <br>_ Tr <b>ee</b> – Woody plants, excluding vine   | s 2 in 17 f                           | s cm) or more |
| 4.  |                  |                  |           | in diameter at breast height (DBH),  |                                       |               |
| 5.  |                  |                  |           | In addition at the gree (BBH),   | regulatess                            | or neight.    |
| 6.  |                  |                  |           | .  <br>  <b>Sapling/shrub</b> – Woody plants, exclu  | ıding vine                            | s less than 3 |
| 7.  |                  |                  |           | in. DBH and greater than or equal to   | •                                     |               |
|   |                  |                  |           | ·   · · - · · · · · · · · · · · ·  |                                       | ,             |
|   |                  |                  |           | <b>Herb</b> – All herbaceous (non-woody)   | plants, res                           | ardless of    |
| 10.   |                  |                  |           | size, and woody plants less than 3.2   |                                       | ,             |
|   |                  |                  |           |  |                                       |               |
| 11  |                  |                  |           | . Net and a simple of the simp |                                       | 20 ft in      |
|   | 2                | = Total Cov      |           | <b>Wo</b> od <b>y vine</b> s – All woody vines grea  | ter triari 5.                         | 20 IL III     |
| 50% of total cover: <u>1</u>                        | _ 20% of to      | otal cover:      | 0.4       | height.  |                                       |               |
| Woody Vine Stratum (Plot size: 30 )                 |                  |                  |           |  |                                       |               |
| 1. Smilax rotundifolia                              | 35               | Yes              | FAC       |  |                                       |               |
| 2   |                  |                  |           | .  |                                       | _             |
| 3.  |                  |                  |           | Hydrophytic Vegetation Present?  | fes ☑ No □                            |               |
| 4   |                  |                  |           |  |                                       |               |
| 5   |                  |                  |           |  |                                       |               |
|   | 35               | = Total Cov      | er        |  |                                       |               |
| 50% of total cover: <u>17.5</u>                     | 20% of to        | otal cover:      | 7         |  |                                       |               |
| Remarks: (Include photo numbers here or on a separa | ite sheet.)      |                  |           | •  |                                       |               |
|   | <b>,</b>         |                  |           |  |                                       |               |
|   |                  |                  |           |  |                                       |               |
|   |                  |                  |           |  |                                       |               |
|   |                  |                  |           |  |                                       |               |
|   |                  |                  |           |  |                                       |               |
|   |                  |                  |           |  |                                       |               |
|   |                  |                  |           |  |                                       |               |

| Profile De     | scription: (Describe t                                | o the dept     | h n <b>eed</b> ed to docւ | ıment the i                  | in <b>dic</b> ator ( | or confir         | m the absence             | ce of indicators.)                          |   |
|----------------|---|----------------|---------------------------|------------------------------|----------------------|-------------------|---------------------------|---|---|
| D <b>ep</b> th | <b>Ma</b> trìx  |                |                           | dox Featur                   | es                   |                   |                           |   |   |
| (inches)       | Color (moist)   | <u>%</u>       | Color (moist)             |                              | Type¹                | Locz              |                           | Te <b>xture</b>                             | Remarks                                     |
| 0 - 2          | 7.5YR 2.5/2   | 100            |                           |                              |                      |                   |                           | Loam  |   |
| 2 - 6          | 7.5YR 4/4   | 100            |                           |                              |                      |                   |                           | Loam  |   |
| 6 - 18         | 10YR 4/4  | 95             | 2.5YR 4/6                 | 5                            | С                    |                   |                           | Loamy Sand                                  |   |
|                |   |                |                           |                              |                      |                   |                           | •   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   | -   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   | _   |
|                |   |                |                           |                              |                      |                   |                           |   | -   |
|                |   |                |                           |                              | - —                  |                   |                           |   | -   |
| 1Tr            | Consententian D - F                                   |                | DNA - Dadwaad NA          |                              | Nandaad C            |                   |                           | na Di - Dava Linina Ma                      | - B A marrier                               |
|                |   | Jepletion, I   | км = кеаисеа м            | atrix, MS =                  | маѕкеа 5             | and Gra           | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M =                   |   |
|                | il Indicators:  |                |                           |                              | <b></b>              |                   |                           | Indicators for Problem                      | natic Hydric Soils <sup>3</sup> :           |
| _ Histoso      | i (A1)<br>pipedon (A2)                                |                |                           | irk Surface ()               |                      | (CO) (MI          | .RA 147, 148)             | 2 cm Muck (A10) (I                          | MLRA 147)                                   |
|                | istic (A3)  |                |                           | iyvalue beld<br>in Dark Surf |                      |                   | -                         | Coast Prairie Redo                          | x (A16) (MLRA 147, 148)                     |
|                | en Sulfide (A4)                                       |                |                           | amy Gleyed                   |                      |                   | , , , ,                   | Piedmont Floodpla                           | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
|                | d Layers (A5)   |                | De                        | pleted Matr                  | rix (F3)             |                   |                           | 147)  |   |
|                | uck (A10) <b>(</b> LR <b>R N)</b>                     |                |                           | dox Dark Su                  |                      |                   |                           | Very Shallow Dark                           | Surface (TF12)                              |
|                | d Below Dark Surface (                                | (A11)          | _                         | pleted Dark                  | •                    | =7)               |                           | Other (Explain in R                         | temarks)                                    |
|                | ark Surface (A12)<br>⁄lucky Mineral (S1) <b>(</b> LRI | DN MIDA 1      | Ke<br>ke                  | dox Depres                   | SIONS (F8)           | /E12\ /LI         | DD NI MIIDA 17            | 6)  |   |
| _              | ileyed Matrix (S4)                                    | IX IV, IVILIAA | _ ⊪c<br>Un                | nbric Surfac                 | e (F13) ( <b>M</b>   | LR <b>A 136</b> . | . 122)                    | <b>6)<sub>3</sub>Indicators of hydrop</b> l | nytic vegetation and                        |
|                | ledox (S5)  |                |                           | edmont Floc                  |                      |                   |                           | wetland hydrology mu                        | •   |
| _ Stripped     | d Matríx (S6)   |                | Re                        | d Parent Ma                  | aterial (F21         | ) (MLRA           | 1 <b>27, 1</b> 47)        | disturbed or problem                        | atic.                                       |
| Restrictive    | e Layer (if observed):                                |                |                           |                              |                      |                   |                           |   |   |
|                | Туре:   |                | None                      |                              |                      | Hydric            | Soil Present?             |   | Yes □ No ☑                                  |
|                | Depth (inches):                                       |                |                           |                              |                      |                   |                           |   |   |
| Remarks:       |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |
|                |   |                |                           |                              |                      |                   |                           |   |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                                 | City/County: Danville, Pit                                     | ttsylvania C Sam <b>p</b> ling                                   | g Date: 2018-July-31   |                             |  |
|---|--|--|--|-----------------------------|--|
| Applicant/Owner: NextEra                                    |  | State: Virg  | inia Sampling  | Point: W-A18-204_PEM-1      |  |
| Investigator(s): Laura Giese, Sus                           | san Thebert, Don Lockwood                                      | Section, Township  | o, Range:  |                             |  |
| Landform (hillslope, terrace, etc.):                        | Toe  | Local relief (concave, con                                       | vex, none): Concave  | Slop <b>e (%</b> ): 0 to 1  |  |
| Subregion (LRR or MLRA): M                                  | LRA 136 of LRR P   | Lat: 36.5870384  | Long: -79.58711  | 179 Datum: WGS84            |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : <u>Mayodan</u> | fine sandy loam  |  | NWI  | classification:             |  |
| Are climatic/hydrologic conditions                          | <b>on the s</b> ite <b>typical for</b> this tim <b>e</b> of ye | ear? Yes 🚣 N   | o (If no, explain i  | n Remarks.)                 |  |
| Are Vegetation, Soil,                                       | or Hydrology significantly di                                  |  | nal Circumstances" pre   | esent? Yes 🟒 No             |  |
| Are Vegetation, Soil,                                       | or Hydrology naturally prob                                    | lematic? (If needed  | l, explain any answers   | in Remarks.)                |  |
|   |  |  |  |                             |  |
| SUMMARY OF FINDINGS - At                                    | ttach site map showing sampli                                  | ng point locations, tra  | insects, important   | features, etc.              |  |
| Hydrophytic Vegetation Present?                             | Yes _✓_ No   |  |  |                             |  |
| Hydric Soil Present?  | Yes No   | İ  |  |                             |  |
| Wetland Hydrology Present?                                  | Yes _ <b>✓</b> _ No  | is the Sampled Area w  | vithin a Wetland?  | Yes No                      |  |
| Remarks:  |  |  |  |                             |  |
| remains.  |  |  |  |                             |  |
|   |  |  |  |                             |  |
|   |  |  |  |                             |  |
| Covertype is PEM. Area is wetland                           | d, all three wetland parameters are p                          | present. Previously disturb                                      | ed for utility ROW.  |                             |  |
|   |  |  |  |                             |  |
|   |  |  |  |                             |  |
|   |  |  |  |                             |  |
| HYDROLOGY   |  |  |  |                             |  |
|   |  |  |  |                             |  |
| Wetland Hydrology Indicators:                               |  |  |  |                             |  |
| Primary Indicators (minimum of c                            | one is required; check all that apply)                         |  | •  | s (minimum of two required) |  |
| Surface Water (A1)  | True Aquatic Plar  | nts (B14)  | Surface Soil Crac  |                             |  |
| High Water Table (A2)                                       | Hydrogen Sulfide   |  | Sparsely Vegetated Concave Surface (B8)<br>Drainage Patterns (B10) |                             |  |
| Saturation (A3)   | • •  | heres on Living Roots (C3  | Moss Trim Lines (B16)  |                             |  |
| Water Marks (B1)  | Presence of Redu   | uced Iron (C4)   | Dry-Season Water Table (C2)  |                             |  |
| Sediment Deposits (B2)                                      | Recent Iron Redu   | uction in Tilled Soils (C6)                                      | Crayfish Burrows (C8)  |                             |  |
| Drift Deposits (B3)   | Thin Muck Surfac   |  | Saturation Visible   | e on Aerial Imagery (C9)    |  |
| Algal Mat or Crust (B4)                                     | Other (Explain in  | Remarks)   |  |                             |  |
| Iron Deposits (B5)  | (0.7)  |  | Stunted or Stress  |                             |  |
| Inundation Visible on Aerial I                              | magery (B/)  |  | Geomorphic Pos   |                             |  |
| Water-Stained Leaves (B9)                                   |  |  | Shallow Aquitare   |                             |  |
| Aquatic Fauna (B13)   |  |  | Microtopograph _ FAC-Neutral Test                                  |                             |  |
| Field Observations:   |  |  |  | (03)                        |  |
| Surface Water Present?                                      | Yes No <u></u> ✓ Depth   | (inches):  |  |                             |  |
| Water Table Present?  |  | (inches):  | <br>  Wetland Hydrology  | Drocont2 Vos ( No           |  |
|   | ·  |  | - wedand nydrology   | Present? Yes _∠_ No         |  |
| Saturation Present?   | Yes No <u></u> ✓ Depth   | (inches):  | _  |                             |  |
| (includes capillary fringe)                                 |  |  |  |                             |  |
| Describe Recorded Data (stream                              | gauge, monitoring well, aerial photo                           | s <b>, p</b> re <b>vious ins</b> p <b>ec</b> ti <b>ons</b> ), if | available:   |                             |  |
|   |  |  |  |                             |  |
|   |  |  |  |                             |  |
| Remarks:  |  |  |  |                             |  |
|   |  |  |  |                             |  |
|   |  |  |  |                             |  |
|   |  |  |  |                             |  |
| The criterion for wetland hydrolo                           | gy is met.   |  |  |                             |  |
|   |  |  |  |                             |  |
|   |  |  |  |                             |  |
|   |  |  |  |                             |  |

|   |                  |               |             | 1   |                |            |
|---|------------------|---------------|-------------|---|----------------|------------|
| Troo Stratum (Blot sizer 20)                            | <b>A</b> bsolute | Dominant      | Indicator   | Dominance Test worksheet:                           |                |            |
| <u>Tree Stratum</u> (Plot size: <u>30</u> )             | % Cover          | Species?      | Status      | Number of Dominant Species That                     | 3              | (A)        |
| 1.  |                  |               |             | Are OBL, FACW, or FAC:                              |                |            |
| 2.  |                  |               |             | Total Number of Dominant Species Across All Strata: | 3              | (B)        |
| 3   |                  |               |             | Percent of Dominant Species That                    |                |            |
| 4   |                  |               |             | Are OBL, FACW, or FAC:                              | 100            | (A/B)      |
| 5   |                  |               |             | Prevalence Index worksheet:                         |                |            |
| 6   |                  |               |             | Total % Cover of:                                   | Multiply B     | y:         |
| 7   |                  |               |             | - OBL species 0                                     | x 1 =          | 0          |
|   | 0                | _= Total Cove | er          | FACW species 40                                     | x 2 =          | 80         |
| 50% of total cover: <u>0</u>                            | _ 20% of to      | otal cover:   | 0           | FAC species 55                                      | x 3 =          | 165        |
| Sapling/Shrub Stratum (Plot size:15)                    |                  |               |             | FACU species 0                                      | × 4 =          | 0          |
| 1   |                  |               |             | - UPL species 0                                     | x 5 =          | 0          |
| 2.  |                  |               |             | Column Totals 95                                    | _              | 245 (B)    |
| 3.  |                  |               |             |   |                | 243 (D)    |
| 4.  |                  |               |             | Prevalence Index = B/A =                            |                |            |
| 5.  |                  |               |             | Hydrophytic Vegetation Indicators:                  |                |            |
| 6.  |                  |               |             | 1- Rapid Test for Hydrophytic \                     | egetation/     |            |
| 7.  |                  |               |             | 2 - Dominance Test is >50%                          |                |            |
|   |                  |               |             |   |                |            |
| 8.<br>9.  |                  |               |             | -  4 - Morphological Adaptations                    |                | upporting  |
| J   |                  |               |             | - data in Remarks or on a separate sh               | neet)          |            |
| 50% - 5   | 0                | _= Total Cove |             | Problematic Hydrophytic Vege                        |                |            |
| 50% of total cover: 0                                   | _ 20% отто       | otal cover:   | 0           | Indicators of hydric soil and wetlan                | , 0,           | / must be  |
| Herb Stratum (Plot size: 5 )                            |                  |               | E. E        | present, unless disturbed or proble                 | <u>matic</u>   |            |
| 1. Dichanthelium clandestinum                           | 30               | Yes           | FAC         | Definitions of Four Vegetation Strate               | a:             |            |
| 2. Bidens frondosa                                      | 30               | Yes           | FACW        |   |                |            |
| 3. Amphicarpaea bracteata                               | 25               | Yes           | FAC         | Tr <b>ee</b> – Woody plants, excluding vine         |                |            |
| 4. Juncus effusus                                       | 10               | No            | FACW        | in diameter at breast height (DBH),                 | regardless c   | of height. |
| 5   |                  |               |             |   |                |            |
| 6   |                  |               |             | Sapling/shrub – Woody plants, exclu                 | _              |            |
| 7   |                  |               |             | in. DBH and greater than or equal to                | o 3.28 ft (1 r | n) tall.   |
| 8.  |                  |               |             |   |                |            |
| 9.  |                  |               |             | Herb – All herbaceous (non-woody)                   |                | ardless of |
| 10.   |                  |               |             | size, and woody plants less than 3.2                | 8 ft tall.     |            |
| 11.   |                  |               |             | -   |                |            |
|   | 95               | = Total Cove  | or .        | <b>Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.2   | 8 ft in    |
| 50% of total cover: 47.5                                |                  | tal cover:    | 19          | height.   |                |            |
| Woody Vine Stratum (Plot size:30)                       | _ 20 /0 01 ((    | otal cover.   |             |   |                |            |
|   |                  |               |             |   |                |            |
| 1   |                  |               |             | -   |                |            |
| 2.  |                  |               |             | ·   |                |            |
| 3.  |                  |               |             | - Hydrophytic Vegetation Present? `                 | res ⊭ No ⊔     |            |
| 4   |                  |               |             |   |                |            |
| 5   |                  |               |             |   |                |            |
|   | 0                | _= Total Cove | er          |   |                |            |
| 50% of total cover: <u>0</u>                            | _ 20% of to      | otal cover:   | 0           |   |                |            |
| Remarks: (Include photo numbers here or on a separat    | e sheet.)        |               |             |   |                |            |
| A positive indication of hydrophytic vegetation was obs | served (>50      | 0% of domin   | ant species | indexed as OBL, FACW, or FAC).                      |                |            |
|   |                  |               |             |   |                |            |

| (inches)     | Color (moist)                          | 96         | Color (moist)  | %                            | Тур <b>е¹</b> | Loc²                    |                 | Texture                                 | Remarks                          |
|--------------|--|------------|----------------|------------------------------|---------------|-------------------------|-----------------|---|----------------------------------|
| 0-4          | 10YR 5/4                               | 95         | 10YR 5/8       |                              |               |                         | S               | andy Loam                               |                                  |
| 4 - 11       | 2.5Y 5/2                               | 90         | 7.5YR 4/6      | 10                           |               | M/PL                    |                 | andy Loam                               |                                  |
| 11 - 17      | 2.5Y 6/4                               | 80         | 7.5YR 4/6      | 20                           |               | M/PL                    |                 | Silty Clay                              |                                  |
| 17 - 20      | 2.5Y 5/2                               | 90         | 10YR 5/8       |                              |               |                         | S               | andy Loam                               |                                  |
| 17 - 20      |  |            | 2.5Y 5/1       |                              |               |                         |                 |   |                                  |
|              |  |            |                |                              |               |                         |                 |   |                                  |
|              |  |            |                |                              |               |                         |                 |   |                                  |
|              |  |            |                |                              |               |                         |                 |   |                                  |
|              |  |            |                |                              |               |                         |                 |   |                                  |
|              |  |            |                |                              |               |                         |                 |   |                                  |
| 1Typa: C = 1 | Concontration D = [                    | Onlotion   | PM - Poducod M |                              | Mackad 9      |                         | ZI ocatio       | n: PL = Pore Lining, M =                | A atriv                          |
|              |  | repletion, | RM - Reduced M | iatrix, 1915 – 1             | viaskeu :     | driu Grains.            | -LUCATIO        |   |                                  |
| Histosol     | Indicators:                            |            | D.             | ark Surface (S               | :71           |                         |                 | Indicators for Problema                 | auc nyunc sons-:                 |
| _            | pedon (A2)                             |            |                |                              |               | (S8) (MLRA 14           | <b>47, 148)</b> | 2 cm Muck (A10) (M                      |                                  |
| Black His    |  |            |                |                              |               | VILRA 147, 148          |                 | <del></del>                             | (A16) (MLRA 147, 148)            |
|              | n Sulfide (A4)                         |            |                | amy Gleyed                   |               | 2)                      |                 |   | n Soils (F19) <b>(MLRA 13</b> 6, |
|              | Layers (A5)                            |            |                | epleted Matri                |               |                         |                 | 147)                                    | f /TF13\                         |
|              | ck (A10) (LRR N)<br>Below Dark Surface | Δ11)       |                | edox Dark Su<br>epleted Dark |               |                         |                 | Very Shallow Dark S                     |                                  |
|              | k Surface (A12)                        | (411)      | Re             | edox Depress                 | ions (F8)     |                         |                 | Other (Explain in Re                    |                                  |
|              | ucky Mineral (S1) <b>(</b> LRI         | R N, MLRA  | 147, 148) ird  | on-Manganes                  | se Masses     | (F12) (LRR N,           | MLRA 136        | ្សិ <sub>ន</sub> Indicators of hydrophy | tic vogotation and               |
|              | eyed Matrix (S4)                       |            | _ 0            | mbne Banace                  | - (i i b) (i  | 12.01.130, 122,         |                 | wetland hydrology mus                   | st he present juniess            |
| _ Sandy Re   |  |            |                |                              |               | ils (F19) (MLRA         |                 | disturbed or problema                   |                                  |
|              | Matrix (S6)                            |            | Re             | ed Parent Ma                 | terial (F2    | 1) <b>(M</b> LRA 127, 1 | 147)            | distance of problema                    | cic.                             |
|              | Layer (if observed):                   |            |                |                              |               |                         |                 |   |                                  |
| Т            | ype:                                   |            | None           |                              |               | Hydric Soil P           | resent?         |   | Yes ☑ No □                       |
|              | Depth (inches):                        |            |                |                              |               |                         |                 |   |                                  |
| Remarks:     |  |            |                |                              |               |                         |                 |   |                                  |
| recinia na.  |  |            |                |                              |               |                         |                 |   |                                  |
| AGIIIGI NO.  |  |            |                |                              |               |                         |                 |   |                                  |
| remains.     |  |            |                |                              |               |                         |                 |   |                                  |
| remui Na.    |  |            |                |                              |               |                         |                 |   |                                  |
| remains.     |  |            |                |                              |               |                         |                 |   |                                  |
| remains.     |  |            |                |                              |               |                         |                 |   |                                  |
| remains.     |  |            |                |                              |               |                         |                 |   |                                  |
| NOTINE NO.   |  |            |                |                              |               |                         |                 |   |                                  |
| NOTINE NO.   |  |            |                |                              |               |                         |                 |   |                                  |
| NOTICE NO.   |  |            |                |                              |               |                         |                 |   |                                  |
| NOTINE NO.   |  |            |                |                              |               |                         |                 |   |                                  |
|              | ndication of hydric                    | soìl was o | bserved.       |                              |               |                         |                 |   |                                  |
|              | ndication of hydric :                  | soil was o | bserved.       |                              |               |                         |                 |   |                                  |
|              | ndication of hydric                    | soìl was o | bserved.       |                              |               |                         |                 |   |                                  |
|              | ndication of hydric :                  | soil was o | bserved.       |                              |               |                         |                 |   |                                  |
|              | ndication of hydric                    | soil was o | bserved.       |                              |               |                         |                 |   |                                  |
|              | ndication of hydric :                  | soil was o | bserved.       |                              |               |                         |                 |   |                                  |
|              | ndication of hydric :                  | soil was o | bserved.       |                              |               |                         |                 |   |                                  |
|              | ndication of hydric :                  | soil was o | bserved.       |                              |               |                         |                 |   |                                  |
|              | ndication of hydric :                  | soil was o | bserved.       |                              |               |                         |                 |   |                                  |
|              | ndication of hydric :                  | soil was o | bserved.       |                              |               |                         |                 |   |                                  |

Photo of Sample Plot North



Photo of Sample Plot East



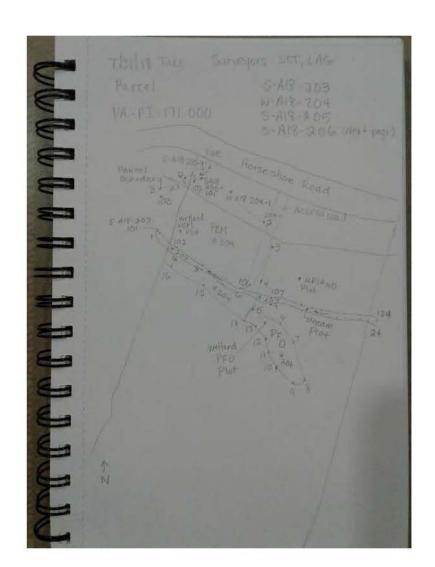
Photo of Sample Plot South

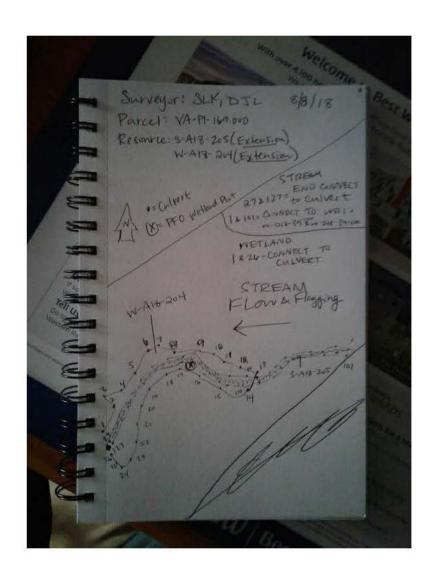


Photo of Sample Plot West



Photo of Sample Plot Sketch





| Project/Site: MVP Southgate                      | City/County:_ Danville, P                | Pittsylvania C Sam <b>p</b> lin <b>g</b> | Date: 2018-July-31  |                            |
|--|--|--|---|----------------------------|
| Applicant/Owner: NextEra                         |  | State: Virgi                             | nia Sampling Point:   | W-A18-204_PFO-1            |
| Investigator(s): Laura Giese, Su                 | ısan Thebert, Don Lockwood               | Section, Township,                       | Range:  |                            |
| Landform (hillslope, terrace, etc.)              | : Foot slope                             | Local relief (concave, conv              | ex, none): Concave  | Slop <b>e (%</b> ): 1 to 3 |
| Subregion (LRR or MLRA): N                       | ILRA 136 of LRR P                        | Lat: 36.586792                           | Long: -79.5869368   | Datum:_WGS84               |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :     |  |  | NWI classi  | fication:                  |
| Are climatic/hydrologic condition                | s on the site typical for this time of y | re <b>ar?</b> Yes <u></u> ✓ No           | (If no, explain in Rem  | arks.)                     |
| Are Vegetation, Soil,                            | or Hydrology significantly d             |  | al Circumstances" present   | Yes 🔽 No                   |
| Are Vegetation, Soil,                            | or Hydrology naturally prob              | blematic? (If needed,                    | explain any answers in Re   | marks.)                    |
|  |  |  |   |                            |
| SUMMARY OF FINDINGS – A                          | Attach site map showing sampl            | ling point locations, trai               | nsects, important featu   | ıres, etc.                 |
| Hydrophytic Vegetation Present                   | ? Yes _ <b>√</b> _ No                    |  |   |                            |
| Hydric Soil Present?                             | Yes No                                   |  |   |                            |
| Wetland Hydrology Present?                       | Yes _ <b>✓</b> _ No                      | Is the Sampled Area withi                | n <b>a Wetlan</b> d?  | Yes <b>∕_ No</b>           |
| Remarks:   |  |  |   |                            |
| nemarks.   |  |  |   |                            |
|  |  |  |   |                            |
|  |  |  |   |                            |
| Covertype is PFO. Area is wetlan                 | d, all three wetland parameters are p    | present.                                 |   |                            |
|  |  |  |   |                            |
|  |  |  |   |                            |
|  |  |  |   |                            |
| HYDROLOGY  |  |  |   |                            |
|  |  |  |   |                            |
| Wetland Hydrology Indicators:                    |  |  |   |                            |
| <u>Primary Indicators (minimum of </u>           | one is required; check all that apply    | 1  | Secondary Indicators (min   | •                          |
| Surface Water (A1)                               | True Aquatic Pla                         | ants (B14)                               | Surface Soil Cracks (B6   |                            |
| High Water Table (A2)                            | Hydrogen Sulfic                          |  | <ul><li>Sparsely Vegetated Co</li><li>Drainage Patterns (B10)</li></ul> |                            |
| ✓ Saturation (A3)                                | •  | spheres on Living Roots (C3)             | Moss Trim Lines (B16)   | J)                         |
| Water Marks (B1)                                 | Presence of Rec                          | duced Iron (C4)                          | Dry-Season Water Tab  | le (C2)                    |
| Sediment Deposits (B2)                           | Recent Iron Rec                          | duction in Tilled Soils (C6)             | Crayfish Burrows (C8)   |                            |
| Drift Deposits (B3)                              | Thin Muck Surfa                          |  | Saturation Visible on A   | erial Imagery (C9)         |
| Algal Mat or Crust (B4)                          | Other (Explain i                         | n Remarks)                               |   |                            |
| Iron Deposits (B5)                               |  |  | Stunted or Stressed Pl  |                            |
| Inundation Visible on Aerial                     | Imagery (B7)                             |  | ✓ Geomorphic Position (   | D2)                        |
| Water-Stained Leaves (B9)<br>Aquatic Fauna (B13) |  |  | <ul><li>Shallow Aquitard (D3)</li><li>Microtopographic Reli</li></ul>   | of (D4)                    |
| Aquatic Faulia (BTS)                             |  |  | ✓ FAC-Neutral Test (D5)   | EI (D+)                    |
| Field Observations:                              |  |  |   |                            |
| Surface Water Present?                           | Yes No <u></u> ✓ Depti                   | h (inches):                              |   |                            |
| Water Table Present?                             |  | h (inches): 7                            | · <br> Wetland Hydrology Prese  | nt? Yes No                 |
| Saturation Present?                              |  | h (inches): 0                            |   |                            |
|  | res <u>v</u> No Depu                     | 11 (ITICITES). 0                         |   |                            |
| (includes capillary fringe)                      |  |  |   |                            |
| Describe Recorded Data (stream                   | n gauge, monitoring well, aerial photo   | os, previous inspections), if a          | avallable:  |                            |
|  |  |  |   |                            |
|  |  |  |   |                            |
| Remarks:   |  |  |   |                            |
|  |  |  |   |                            |
|  |  |  |   |                            |
| The criterion for wetland hydrole                | ogvis met                                |  |   |                            |
| The chienon for wedarid riyarol                  | эду із піес.                             |  |   |                            |
|  |  |  |   |                            |
|  |  |  |   |                            |

| · · · · · · · · · · · · · · · · · · ·                   |             |                  |             |   |               |             |
|---|-------------|------------------|-------------|---|---------------|-------------|
| Tree Stratum (Plot size:30)                             |             | Dominant         |             | Dominance Test worksheet:                                 |               |             |
|   | -           | Species?         | Status      | Number of Dominant Species That Are OBL, FACW, or FAC:    | 5             | (A)         |
| 1. Acer rubrum 2.                                       | 10          | Yes              | FAC         | Total Number of Dominant Species                          |               |             |
| 3.  |             |                  |             | Across All Strata:  | 5             | (B)         |
| 4.  |             |                  |             | Percent of Dominant Species That                          | 100           | (A/B)       |
| 5.  |             |                  |             | Are OBL, FACW, or FAC:                                    |               |             |
| 6.  |             |                  |             | Prevalence Index worksheet:                               |               |             |
| 7.  |             |                  |             | Total % Cover of:   | Multiply B    | -           |
|   | 10          | = Total Cov      | er          | - OBL species 30<br>FACW species 25                       | x1=           | 30          |
| 50% of total cover: <u>5</u>                            |             | -<br>otal cover: | 2           |   | x2= _         | 90          |
| Sapling/Shrub Stratum (Plot size:15)                    |             |                  |             | FAC species 30 FACU species 0                             | x3= _<br>x4=  | 0           |
| 1. <u>Carpinus caroliniana</u>                          | 10          | Yes              | FAC         | - UPL species 0   | _             | 0           |
| 2.  |             |                  |             | Column Totals 85  | x 5 =         | 170 (B)     |
| 3.  |             |                  |             | Prevalence Index = B/A =                                  | 2 –           | 170 (B)     |
| 4.  |             |                  |             | ·   |               |             |
| 5   |             |                  |             | Hydrophytic Vegetation Indicators:                        | <b>.</b>      |             |
| 6   |             |                  |             | 1- Rapid Test for Hydrophytic V                           | /egetation    |             |
| 7   |             |                  |             | 2 - Dominance Test is >50% 3 - Prevalence Index is ≤ 3.0¹ |               |             |
| 8.  |             |                  |             | 4 - Morphological Adaptations                             | 1 (Dravida c  | upporting   |
| 9   |             |                  |             | data in Remarks or on a separate sh                       |               | upporting   |
|   | 10          | = Total Cov      | er          | Problematic Hydrophytic Vegetation¹ (Explain)             |               |             |
| 50% of total cover: <u>5</u>                            | _20% of to  | otal cover:      | 2           | ¹Indicators of hydric soil and wetlan                     |               |             |
| Herb Stratum (Plot size: 5 )                            |             |                  |             | present, unless disturbed or proble                       |               | ,           |
| 1. Woodwardia areolata                                  | 25          | Yes              | FACW        | Definitions of Four Vegetation Strate                     | <br>a:        |             |
| 2. <i>Glyceria striata</i>                              | 20          | Yes              | OBL         | _   |               |             |
| 3. <i>Leersia oryzoides</i>                             | 10          | No               | OBL         | Tr <b>ee</b> – Woody plants, excluding vine               | s, 3 in. (7.6 | cm) or more |
| 4. Smilax rotundifolia                                  | 5           | No               | FAC         | in diameter at breast height (DBH),                       | regardless    | of height.  |
| 5   |             |                  |             | _   |               |             |
| 6   |             |                  |             | Sapling/shrub – Woody plants, exclu                       | -             |             |
| 7   |             |                  |             | in. DBH and greater than or equal to                      | o 3.28 ft (1  | m) tall.    |
| 8   |             |                  |             | _   |               |             |
| 9   |             |                  |             | Herb – All herbaceous (non-woody)                         |               | ardless of  |
| 10  |             |                  |             | size, and woody plants less than 3.2                      | .8 rt tall.   |             |
| 11  |             |                  |             | _   |               |             |
|   | 60          | = Total Cov      | er          | Woody vines – All woody vines grea                        | ter than 3.2  | 28 ft in    |
| 50% of total cover: <u>30</u>                           | _ 20% of to | otal cover:      | 12          | height.   |               |             |
| Woody Vine Stratum (Plot size: 30 )                     |             |                  |             |   |               |             |
| 1. Smilax rotundifolia                                  | 5           | Yes              | FAC         | _   |               |             |
| 2   |             |                  |             | .   |               |             |
| 3.  |             |                  |             | Hydrophytic Vegetation Present?                           | ∕es 🛭 No 🗆    |             |
| 4   |             |                  |             | _   |               |             |
| 5   |             |                  |             | .   |               |             |
|   | 5           | = Total Cov      | er          |   |               |             |
| 50% of total cover: <u>2.5</u>                          | _ 20% of to | otal cover:      | 1           |   |               |             |
| Remarks: (Include photo numbers here or on a separa     | e sheet.)   |                  |             | •   |               |             |
| , ,   | •           |                  |             |   |               |             |
|   |             |                  |             |   |               |             |
|   |             |                  |             |   |               |             |
| A positive indication of hydrophytic vegetation was obs | erved (>50  | 0% of domin      | ant species | indexed as OBL, FACW, or FAC).                            |               |             |
|   |             |                  |             |   |               |             |
|   |             |                  |             |   |               |             |
|   |             |                  |             |   |               |             |

|                        | scription: (Describe to   | the dept   |                           |            |                             | or confir  | m the absence of i               | indicators.)         |  |
|------------------------|---------------------------|------------|---------------------------|------------|-----------------------------|------------|----------------------------------|----------------------|--|
| Depth _                | Matrix                    |            |                           | x Feature  |                             |            | _                                |                      |  |
| (inches)               | Color (moist)             |            | Color (moist)             | %          | Type¹                       | _Loc²      | Tex                              | kture                | Remarks                                    |
| 0 - 2                  | 10YR 3/2                  | _100_      |                           |            |                             |            | Silt                             | Loam                 |  |
| 2 - 13                 | 10YR 4/2                  | 98         | 10YR 5/8                  | 2          | C                           | M          | Sand                             | y Loam               |  |
| 13 - 17                | 2.5Y 5/1                  | 98         | 10YR 5/8                  | 2          | C                           | M          | Loam                             | ny Sand              |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            | 1                                |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
| <u> </u>               |                           |            |                           |            |                             |            | -                                |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
| 1Tupo: C =             | <br>Concentration, D = De |            | DM - Doducod Matr         | V MC =     | Mackad S                    | and Cra    | ing Zi ocation, Di               | - Pero Lining M -    |  |
|                        |                           | epietion,  | RM = Reduced Matr         | x, IVIS =  | Maskeu s                    | and Gra    |                                  |                      |  |
| 1 -                    | I Indicators:             |            | 5 1                       | - r        | m=1                         |            | ina                              | icators for Problema | atic Hydric Solls <sup>3</sup> :           |
| _ Histosol             | (A1)<br>ipedon (A2)       |            |                           | Surface (S |                             | (CO) (MI   | RA 147, 148)                     | 2 cm Muck (A10) (M   | ILRA 1 <b>47</b> )                         |
| Histic Ep<br>Black His |                           |            |                           |            | ace (S9) <b>(</b> N         |            |                                  | Coast Prairie Redox  | (A16) <b>(MLRA 147, 148)</b>               |
|                        | n Sulfide (A4)            |            |                           |            | Matrix (F2                  |            |                                  | Piedmont Floodpla    | in Soils (F19) (ML <b>RA 1</b> 3 <b>6,</b> |
|                        | d Layers (A5)             |            |                           | ted Matr   |                             | -,         | 147                              | ")                   |  |
| _                      | ick (A10) (LRR N)         |            |                           |            | ırface (F6)                 |            | _                                | Very Shallow Dark S  | Surface (TF12)                             |
| _ Depleted             | d Below Dark Surface (A   | (11)       | _ Deple                   | ted Dark   | Surface (F                  | =7)        |                                  | Other (Explain in Re | emarks)                                    |
|                        | rk Surface (A12)          |            | Redo:                     | Depres:    | sions (F8)                  |            |                                  |                      |  |
|                        | ucky Mineral (S1) (LRR    | N, MLRA 1  | 1 <b>47, 1</b> 48) Iron-N | /langane   | se Masses                   | (F12) (LF  | RR N, MLRA 136) <sub>3 Inc</sub> | dicators of hydroph  | ytic vegetation and                        |
|                        | leyed Matrix (S4)         |            |                           |            | C ( ) (                     |            | Mot                              | tland hydrology mu   | st be present, unless                      |
| _                      | edox (S5)<br>Matrix (S6)  |            |                           |            | iapiain Soi<br>iterial (F21 |            | MILKA 148)                       | turbed or problema   | •  |
|                        |                           |            | Keu F                     | arent Ma   | iteriai (FZI                | ) (IVILICA | 127, 147)                        | <u>'</u>             |  |
|                        | Layer (if observed):      |            | Dl-                       |            |                             | l          |                                  |                      |  |
|                        | Type:                     |            | Rock                      | -          |                             | Hydric     | Soil <b>Pres</b> ent?            |                      | Yes ☑ No □                                 |
|                        | Depth (inches):           |            | 17                        |            |                             |            |                                  |                      |  |
| Remarks:               |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
| A positive             | indication of hydric so   | oil was ob | served.                   |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |
|                        |                           |            |                           |            |                             |            |                                  |                      |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                                  | City/County:_Danville, I                    | Pittsylvania C Sam <b>p</b> lin <b>g</b> | Date: 2018-Aug-08  |                              |
|--|---|--|--|------------------------------|
| Applicant/Owner: NextEra                                     |   | State: Virgi                             | nia Sampling Poin  | t: W-A18-204_PFO-2           |
| Investigator(s): Don Lockwood                                | l, Simon King, Don Lockwood                 | Section, Township,                       | Range:   |                              |
| Landform (hillslope, terrace, etc.)                          | ): Hillslope                                | Local relief (concave, conv              | /ex, none): Concave  | Slop <b>e (%</b> ): 10 to 15 |
| Su <b>bre</b> gi <b>o</b> n (LRR or MLRA): N                 | /ILRA 136 of LRR P                          | Lat: 36.5875158                          | Long: -79.586036   | Datum: WGS84                 |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : <u>Mayoda</u> r | n fine sandy loam                           |  | NWI dass   | sification:                  |
| Are climatic/hydrologic condition                            | ns on the site typical for this time of y   | ye <b>ar?</b> Yes 🟒 No                   | (If no, explain in Re  | marks.)                      |
| Are Vegetation, Soil,  | or Hydrology significantly                  |  | al Circumstances" presen   | t? Yes 🟒 No                  |
| Are Vegetation, Soil,  | or Hydrology naturally pro                  | oblematic? (If needed,                   | explain any answers in Re  | emarks.)                     |
|  |   |  |  |                              |
| SU <b>M</b> M <mark>ARY OF FINDI</mark> NGS - A              | Attach site ma <mark>p sho</mark> wing samp | ling point locations, tra                | nsects, important feat   | tures, etc.                  |
| Hydrophytic Vegetation Present                               | ? Yes _ 🗸 No                                |  |  |                              |
| Hydric Soil Present?   | Yes ✓ No                                    |  |  |                              |
| Wetland Hydrology Present?                                   | No  | Is the Sampled Area with                 | in <b>a Wetlan</b> d?  | Yes No                       |
| Remarks:   |   |  |  |                              |
| l l  |   |  |  |                              |
|  |   |  |  |                              |
|  |   |  |  |                              |
| Covertype is PFO. Area is wetlan                             | d, all three wetland parameters are         | present.                                 |  |                              |
|  |   |  |  |                              |
|  |   |  |  |                              |
|  |   |  |  |                              |
| HYDROLOGY  |   |  |  |                              |
|  |   |  |  |                              |
| Wetland Hydrology Indicators:                                |   |  |  |                              |
| Primary Indicators (minimum of                               | one is required; check all that apply       | Δ  | Secondary Indicators (mi   | •                            |
| Surface Water (A1)   | True Aquatic Pl                             | lants (B14)                              | Surface Soil Cracks (B   |                              |
| High Water Table (A2)  | Hydrogen Sulfi                              |  | <ul><li>Sparsely Vegetated C</li><li>Drainage Patterns (B'</li></ul> |                              |
| ✓ Saturation (A3)  | Oxidized Rhizo                              | spheres on Living Roots (C3)             | Moss Trim Lines (B16   |                              |
| Water Marks (B1)   | Presence of Re                              | duced Iron (C4)                          | Dry-Season Water Tal   |                              |
| Sediment Deposits (B2)                                       |   | duction in Tilled Soils (C6)             | Crayfish Burrows (C8)  |                              |
| Drift Deposits (B3)  | Thin Muck Surf                              |  | Saturation Visible on  | Aerial Imagery (C9)          |
| Algal Mat or Crust (B4)                                      | Other (Explain                              | in Remarks)                              | Co   | N (D4)                       |
| Iron Deposits (B5)   | Line a gray to (D.7)                        |  | Stunted or Stressed F  |                              |
| Inundation Visible on Aerial<br>Water-Stained Leaves (B9)    | imagery (B7)                                |  | ✓ Geomorphic Position  — Shallow Aquitard (D3)                       |                              |
| Aquatic Fauna (B13)  |   |  | Microtopographic Re  |                              |
|  |   |  | FAC-Neutral Test (D5)  |                              |
| Field Observations:  |   |  |  |                              |
| Surface Water Present?                                       | Yes No <u></u> Dept                         | th (inches):                             |  |                              |
| Water Table Present?   |   | th (inches): 10                          | - <br>  <b>We</b> tla <b>nd Hyd</b> rology Prese                     | ent? Yes No                  |
| Saturation Present?  |   | th (inches): 0                           | -  | _ <b></b> -                  |
| (includes capillary fringe)                                  |   |  | -  |                              |
|  | n gauge, monitoring well, aerial phot       | toc provious inspections) if             |  |                              |
| Describe Recorded Data (stream                               | i gauge, monitoring well, aeriai priol      | tos, previous inspections), ii           | avanable:  |                              |
|  |   |  |  |                              |
| Dome alleri  |   |  |  |                              |
| Remarks:   |   |  |  |                              |
|  |   |  |  |                              |
|  |   |  |  |                              |
| A positive indication of wetland                             | hydrology was observed (primary ar          | nd secondary indicators wer              | e nresent)   |                              |
| positive indication of wedarid                               | J. J. J. J. J. J. J. J. J. J. J. J.         | Secondary marcators Wer                  |  |                              |
|  |   |  |  |                              |
|  |   |  |  |                              |

| · ·   | •            |             |        |   |                   |                |
|---|--------------|-------------|--------|---|-------------------|----------------|
| Tree Stratum (Plot size:30)   |              | Dominant    |        | Dominance Test worksheet:                               |                   |                |
|   |              | Species?    | Status | Number of Dominant Species That                         | 3                 | (A)            |
| 1. Quercus alba   | 30           | Yes .       | FACU   | Are OBL, FACW, or FAC: Total Number of Dominant Species |                   |                |
| 2. Liquidambar styraciflua  |              | Yes .       | FAC    | Across All Strata:                                      | 4                 | (B)            |
| 3. Fraxinus pennsylvanica   |              | Yes         | FACW   | Percent of Dominant Species That                        |                   |                |
| 4. Carpinus caroliniana   |              | No          | FAC    | Are OBL, FACW, or FAC:                                  | 75<br>            | (A/B)          |
| 5.  |              |             |        | Prevalence Index worksheet:                             |                   |                |
| 6.  |              |             |        | <u>Total % Cover of:</u>                                | <u>Multiply I</u> | <u>Ву:</u>     |
| 7   | 70           | = Total Cov |        | OBL species 0   | x 1 =             | 0              |
| FOW of total covers 25  |              | -           |        | FACW species 15   | x 2 = _           | 30             |
| 50% of total cover: <u>35</u> Sapling/Shrub Stratum (Plot size: _15_) | _ 20% 01 (0  | itai cover. | 14     | FAC species 115   | x 3 = _           | 345            |
| · · ·   |              |             |        | FACU species 30   | × 4 =             | 120            |
| 1.<br>2.  |              |             |        | UPL species 0   | x 5 = _           | 0              |
| 3.  |              |             |        | Column Totals 160                                       | (A) _             | 495 (B)        |
| 4.  |              |             |        | Prevalence Index = B/A =                                | <u>3.1</u>        |                |
| 5.  |              |             |        | Hydrophytic Vegetation Indicators:                      |                   |                |
| 6.  |              |             |        | 1- Rapid Test for Hydrophytic \                         | √egetation        |                |
| 7   |              |             |        | 2 - Dominance Test is >50%                              |                   |                |
| 8.  |              |             |        | 3 - Prevalence Index is ≤ 3.01                          |                   |                |
| 9.  |              |             |        | -  4 - Morphological Adaptations                        | •                 | supporting     |
| J   |              | = Total Cov | ar.    | - data in Remarks or on a separate sh                   |                   |                |
| 50% of total cover: 0   |              | -           | 0      | Problematic Hydrophytic Vege                            |                   |                |
| Herb Stratum (Plot size: 5 )  | _ 20 % 01 (0 | ital cover. |        | ¹Indicators of hydric soil and wetlan                   | , (               | gy must be     |
| 1. Microstegium vimineum  | 70           | Yes         | FAC    | present, unless disturbed or proble                     |                   |                |
| Dichanthelium clandestinum  | 10           | No No       | FAC    | Definitions of Four Vegetation Strate                   | a:                |                |
| 3. Liquidambar styraciflua  | 10           | No No       | FAC    | -   | r 2 in 17 6       | cm) or more    |
| 4.  |              |             | 1710   | in diameter at breast height (DBH),                     |                   |                |
| <u> </u>  |              |             |        | In diameter at or east field it (BBH),                  | regaraness        | or neight.     |
| -   |              |             |        | -  <br>  <mark>Sapling/shrub</mark>                     | uding vines       | s. less than 3 |
| 7.  |              |             |        | in. DBH and greater than or equal to                    | _                 |                |
|   |              |             |        | •   |                   |                |
|   |              |             |        | Herb – All herbaceous (non-woody)                       | plants, reန       | gardless of    |
| 10.   |              |             |        | size, and woody plants less than 3.2                    | 8 ft tall.        |                |
| 11.   |              |             |        | -   |                   |                |
| ···   | 90           | = Total Cov | er     | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.       | 28 ft in       |
| 50% of total cover: 45  |              | tal cover:  | 18     | height.   |                   |                |
| Woody Vine Stratum (Plot size: 30 )                                   |              |             |        |   |                   |                |
| 1   |              |             |        |   |                   |                |
| 2.  |              |             |        | -   |                   |                |
| 3.  |              |             |        | -  <br>  Hydrophytic Vegetation Present?   `            | Yes ☑ No [        | _              |
| 4.  |              |             |        | .  , , , ,  |                   |                |
| 5.  |              |             |        | -   |                   |                |
|   | 0            | = Total Cov | er     |   |                   |                |
| 50% of total cover: 0   |              | -           | 0      |   |                   |                |
|   |              |             |        |   |                   |                |
| Remarks: (Include photo numbers here or on a separa                   | e sneet.)    |             |        |   |                   |                |
|   |              |             |        |   |                   |                |
|   |              |             |        |   |                   |                |
|   |              |             |        |   |                   |                |
|   |              |             |        |   |                   |                |
|   |              |             |        |   |                   |                |
|   |              |             |        |   |                   |                |
|   |              |             |        |   |                   |                |

|                  | scription: (Describe to                                     | th <b>e</b> depth |                         |               |                      | or confirm the abse           | ence of indicators.)                 |  |
|------------------|---|-------------------|-------------------------|---------------|----------------------|-------------------------------|--------------------------------------|--|
| D <b>ep</b> th _ | Matrix  |                   |                         | dox Featur    | es                   |                               |                                      |  |
| (inches)         | Color (moist)   |                   | Color (moist)           | %             | Type <sup>1</sup>    | Loc <sup>2</sup>              | T <b>extur</b> e                     | Remarks  |
| 0 - 12           | 10YR 4/2  | 08                | 10YR 4/6                | 20            | C                    | M                             | Silt Loam                            |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               | - ——                 |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
| <u> </u>         |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
| l                |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  | _   |                   |                         |               |                      |                               |                                      |  |
| ¹Type: C =       | Concentration, D = De                                       | epletion, F       | RM = Reduced M          | latrix, MS =  | Masked S             | and Grains. <sup>2</sup> Loca | ition: PL = Pore Lining, M           | f = Matrix.  |
|                  | I Indicators:   |                   |                         |               |                      |                               | Indicators for Proble                |  |
| _ Histosol       |   |                   | Da                      | ark Surface ( | (S7)                 |                               |                                      | •  |
| _                | ipedon (A2)   |                   |                         |               |                      | (S8) <b>(MLRA 147, 1</b> 48   | 2 cm Muck (A10)                      |  |
| Black Hi:        | stic (A3)   |                   | Th                      | in Dark Sur   | face (S9) <b>(</b> 1 | MLRA 147, 148)                |                                      | dox (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b> |
| _ Hydroge        | n Sulfide (A4)  |                   | _ Lo                    | amy Gleyed    | l Matrix (F2         | 2)                            | · ·                                  | olain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b>              |
|                  | d Layers (A5)   |                   |                         | epleted Mat   |                      |                               | 147)                                 |  |
| _                | ick (A10) (LRR N)   |                   |                         | edox Dark Si  |                      |                               | Very Shallow Dai                     |  |
|                  | d Below Dark Surface (A                                     | A11)              |                         | epleted Dark  |                      | =7)                           | Other (Explain in                    | n Remarks)   |
|                  | rk Surface (A12)<br>lucky Mineral (S1) <b>(</b> LR <b>R</b> | N MIDA 1          | K6<br><b>47 149)</b> k6 | edox Depres   | SIONS (F8)           | · (E12) (LDD N. MIDA          | 136)                                 |  |
| I — -            | leyed Matrix (S4)   | IN, INICION I     | 47, 14 <b>8)</b> _ III  | mbric Surfac  | re (F13) ( <b>M</b>  | ILR <b>A 136, 122)</b>        | <sup>136)</sup> ₃Indicators of hydro | phytic vegetation and                                      |
|                  | edox (S5)   |                   |                         |               | (, (                 | ils (F19) (MLRA 148)          | wetland hydrology r                  | nust be present, unless                                    |
| _                | Matrix (S6)   |                   | _                       |               |                      | ) (MLRA 127, 147)             | disturbed or proble                  | matic.   |
| Restrictive      | Layer (if observed):  |                   |                         |               |                      |                               |                                      |  |
|                  | Type:   |                   | None                    |               |                      | Hydric Soil Presen            | t?                                   | Yes ☑ No □   |
|                  | Depth (inches):   |                   |                         |               |                      | I yan a ban i raban           |                                      | 145 = 116 =  |
| Remarks:         | <i>a</i> ap a. r (a. ras).                                  |                   |                         |               |                      | 1                             |                                      |  |
| Remarks.         |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |
|                  |   |                   |                         |               |                      |                               |                                      |  |

Hydrology Photos



Vegetation Photos



Soil Photos



Photo of Sample Plot North



Photo of Sample Plot East



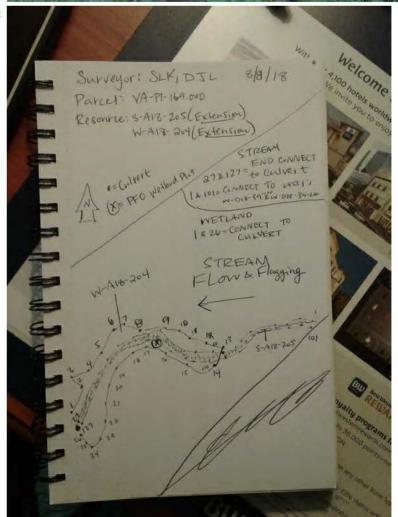
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                  | City/County:_ Danville, Pi                              | ittsylvania C Sam <b>p</b> lin <b>g</b> I | Date: 2018-July-31                                  |                             |
|--|---|---|---|-----------------------------|
| Applicant/Owner: NextEra                     |   | State: Virgin                             | ia Sampling Point: W                                | -A18-204_UPL-1              |
| Investigator(s): Laura Giese, Susan          | Thebert, Don Lockwood                                   | Section, Township,                        | Range:  |                             |
| Landform (hillslope, terrace, etc.):         | Foot slope  | Local relief (concave, conve              | ex, none): Convex                                   | Slop <b>e (%</b> ): 2 to 5  |
| Subregion (LRR or MLRA): MLRA                | 136 of LRR P  | Lat: 36.5868679                           | Long: -79.5868363                                   | Datum: WGS84                |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : |   |   | NWI classificat                                     | tion:                       |
| Are climatic/hydrologic conditions on        | the site typical for this time of ye                    | ear? Yes <u>✓</u> No                      | (If no, explain in Remark                           | s.)                         |
| Are Vegetation, Soil, o                      | r Hydrology significantly d                             | isturbed? Are "Norma                      | l Circumstances" present?                           | Yes 🟒 No                    |
| Are Vegetation, Soil, o                      | r Hydrology naturally prob                              | olematic? (If needed,                     | explain any answers in Remar                        | ks.)                        |
|  |   |   |   |                             |
| SUMMARY OF FINDINGS – Attac                  | h site ma <mark>p sho</mark> wi <mark>ng sam</mark> pli | ing point locations, tran                 | sects, important features                           | s, etc.                     |
| Hydrophytic Vegetation Present?              | Yes No <b>_</b> ✓                                       |   |   |                             |
| Hydric Soil Present?                         | Yes No  | İ   |   |                             |
| Wetland Hydrology Present?                   | Yes No <b>_</b> ✓                                       | Is the Sampled Area within                | n a Wetland?  | <b>fes</b> No _ <b>_</b> ∕_ |
| Remarks:                                     |   | <u>'</u>                                  | -   |                             |
|  |   |   |   |                             |
|  |   |   |   |                             |
|  |   |   |   |                             |
| Covertype is UPL. Area is upland, not        | all three wetland parameters ar                         | re present.                               |   |                             |
|  |   |   |   |                             |
|  |   |   |   |                             |
|  |   |   |   |                             |
| HYDROLOGY                                    |   |   |   |                             |
| TIDROLOGI                                    |   |   |   |                             |
| Wetland Hydrology Indicators:                |   |   |   |                             |
| <u>Primary Indicators (minimum of one</u>    | <u>is required; check all that apply)</u>               | <u>.</u>                                  | Secondary Indicators (minimu                        | ım of two required)         |
| Surface Water (A1)                           | True Aquatic Pla  | ints (R14)                                | Surface Soil Cracks (B6)                            | 5 f (DO)                    |
| High Water Table (A2)                        | Hydrogen Sulfid   |   | Sparsely Vegetated Conca                            | ve Surface (B8)             |
| Saturation (A3)                              |   | pheres on Living Roots (C3)               | Drainage Patterns (B10)<br>Moss Trim Lines (B16)    |                             |
| Water Marks (B1)                             | Presence of Red   |   | Dry-Season Water Table (0                           |                             |
| Sediment Deposits (B2)                       | Recent Iron Red   | uction in Tilled Soils (C6)               | Crayfish Burrows (C8)                               | ,                           |
| Drift Deposits (B3)                          | Thin Muck Surfa   | ace (C7)                                  | Saturation Visible on Aeria                         | al Imagery (C9)             |
| Algal Mat or Crust (B4)                      | Other (Explain ir                                       | n Remarks)                                |   |                             |
| Iron Deposits (B5)                           |   |   | Stunted or Stressed Plants                          |                             |
| Inundation Visible on Aerial Imag            | gery (B7)   |   | Geomorphic Position (D2)                            |                             |
| Water-Stained Leaves (B9)                    |   |   | Shallow Aquitard (D3)                               | 24)                         |
| Aquatic Fauna (B13)                          |   |   | Microtopographic Relief (I<br>FAC-Neutral Test (D5) | J <del>4</del> )            |
| Field Observations:                          |   |   | TAC-Neutral rest (D3)                               |                             |
|  | Yes No <u></u>  | (inches):                                 |   |                             |
|  |   | · · · —                                   | <br>  Wetland Hydrology Present?                    | Yes No <b></b> _            |
|  | •   | (inches):                                 | Treatand Try arology Treatan                        |                             |
|  | res No <u>-</u> ∤ Deptil                                |   |   |                             |
| (includes capillary fringe)                  |   |   |   |                             |
| Describe Recorded Data (stream gauge         | ge, monitoring well, aeriai photo                       | os, previous inspections), if a           | vallable:   |                             |
|  |   |   |   |                             |
|  |   |   |   |                             |
| Remarks:                                     |   |   |   |                             |
|  |   |   |   |                             |
|  |   |   |   |                             |
| The make of a few control of the death.      |   |   |   |                             |
| The criterion for wetland hydrology is       | , not met.  |   |   |                             |
|  |   |   |   |                             |
|  |   |   |   |                             |

|  | •                |                     |               | 1   |               |             |
|--|------------------|---------------------|---------------|---|---------------|-------------|
| Tree Stratum (Plot size:30)                            | <b>A</b> bsolute | Dominant            | Indicator     | Dominance Test worksheet:                           |               |             |
| <del></del>  | % Cover          | Species?            | Status        | Number of Dominant Species That                     | 0             | (A)         |
| Liriodendron tulipifera                                | 30               | Yes                 | FACU          | Are OBL, FACW, or FAC:                              |               |             |
| 2. Quercus rubra                                       | 10               | No                  | FACU          | Total Number of Dominant Species Across All Strata: | 6             | (B)         |
| 3. Pinus virginiana                                    | 10               | No                  | UPL           | Percent of Dominant Species That                    | -             |             |
| 4. Oxydendrum arboreum                                 | 5                | No                  | UPL           | Are OBL, FACW, or FAC:                              | 0             | (A/B)       |
| 5  |                  |                     |               | Prevalence Index worksheet:                         | -             |             |
| 6.   |                  |                     |               | Total % Cover of:                                   | Multiply I    | Ву:         |
| 7  |                  |                     |               | OBL species 0                                       | x 1 =         | 0           |
|  | 55               | = Total Cov         |               | FACW species 0                                      | x 2 =         | 0           |
| 50% of total cover: <u>27.5</u>                        | _ 20% of to      | otal cover:         | 11            | FAC species 0                                       | x 3 =         | 0           |
| Sapling/Shrub Stratum (Plot size:15)                   | 10               | Ves                 | FACIL         | FACU species 70                                     | x 4 =         | 280         |
| 1. Cornus florida                                      |                  | Yes .               | FACU          | UPL species 15                                      | x 5 =         | 75          |
| 2. Carya glabra  |                  | Yes .               | FACU          | Column Totals 85                                    | (A)           | 355 (B)     |
| 3. Juniperus virginiana                                | 5                | Yes                 | FACU          | Prevalence Index = B/A =                            | 4.2           |             |
| 4.   |                  |                     |               | Hydrophytic Vegetation Indicators:                  |               |             |
| 5.   |                  |                     |               | 1- Rapid Test for Hydrophytic V                     | /egetation    |             |
| 6  |                  |                     |               | 2 - Dominance Test is > 50%                         | Ü             |             |
| 7  |                  |                     |               | 3 - Prevalence Index is ≤ 3.01                      |               |             |
| 8.   |                  |                     |               | ·4 - Morphological Adaptations                      | ¹ (Provide :  | supporting  |
| 9  |                  |                     |               | data in Remarks or on a separate sh                 | neet)         |             |
|  | 20               | _= Total Cov        |               | Problematic Hydrophytic Vege                        | tation¹ (Ex   | plain)      |
| 50% of total cover:10_                                 | 20% of to        | otal cover:         | 4             | ¹Indicators of hydric soil and wetlan               | id hydrolog   | gy must be  |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )             |                  |                     |               | present, unless disturbed or proble                 | matic         |             |
| 1. Vitis aestivalis                                    | 5                | <u>Yes</u>          | FACU          | Definitions of Four Vegetation Strate               | a:            |             |
| 2. Tipularia discolor                                  | 5                | Yes                 | FACU          |   |               |             |
| 3  |                  |                     |               | Tr <b>ee</b> – Woody plants, excluding vine         | s, 3 in. (7.6 | cm) or more |
| 4  |                  |                     |               | in diameter at breast height (DBH),                 | regardless    | of height.  |
| 5  |                  |                     |               |   |               |             |
| 6  |                  |                     |               | Sapling/shrub – Woody plants, exclu                 | _             |             |
| 7  |                  |                     |               | in. DBH and greater than or equal to                | 5 3.28 ft (1  | m) tall.    |
| 8  |                  |                     |               |   |               |             |
| 9  |                  |                     |               | Herb – All herbaceous (non-woody)                   |               | ardless of  |
| 10   |                  |                     |               | size, and woody plants less than 3.2                | .o It tall.   |             |
| 11   |                  |                     |               |   |               |             |
|  | 10               | = Total Cov         | er            | Woody vines – All woody vines grea                  | ter than 3.   | 28 ft in    |
| 50% of total cover:5_                                  | _ 20% of to      | tal cover:          | 2             | height.   |               |             |
| Woody Vine Stratum (Plot size: 30 )                    |                  |                     |               |   |               |             |
| 1  |                  |                     |               |   |               |             |
| 2  |                  |                     |               |   |               |             |
| 3  |                  |                     |               | Hydrophytic Vegetation Present?                     | ∕es 🗆 No 🛭    | ]           |
| 4  |                  |                     |               |   |               |             |
| 5  |                  |                     |               |   |               |             |
|  | 0                | = Total Cov         | er            |   |               |             |
| 50% of total cover: 0                                  | 20% of to        | tal cover:          | 0             |   |               |             |
| Remarks: (Include photo numbers here or on a separa    | ite sheet )      |                     |               | •   |               |             |
| No positive indication of hydrophytic vegetation was o | bserved (≥       | .50% <b>of do</b> m | ilnant specio | es indexed as FAC– or drier).                       |               |             |
|  |                  |                     |               |   |               |             |

| Profile De:<br>Depth | scription: (Describe t<br>Matrix | o t <b>he dept</b> |                         | ent the i<br>Featur |  | or confir       | m the absence of indicators.                    | .)                                      |
|----------------------|----------------------------------|--------------------|-------------------------|---------------------|--|-----------------|---|---|
| (inches)             | Color (moist)                    |                    | Color (moist)           | 96                  | Type¹                                    | Loc²            | Texture   | R <b>emark</b> s                        |
| 0 - 1                | 10YR 3/2                         | 100                | GOIO! (IIIOIDI)         |                     | . <u>.,,,,,,</u>                         |                 | Loam  | , and the                               |
| 1 - 18               | 10YR 4/3                         | 100                |                         |                     |  |                 | Loam  |   |
| 18 - 22              | 10YR 5/2                         | 95                 | 7.5YR 5/6               |                     | С С                                      |                 | Sandy Loam                                      |   |
| 10-22                | 1018 3/2                         |                    | 7.5716.70               |                     |  |                 | Sandy Loani                                     | <del></del>                             |
|                      |                                  |                    |                         |                     | - ——                                     |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
| <u>¹</u> ⊤ype: C =   | Concentration, $D = D$           | epletion,          | RM = Reduced Matri      | x, MS =             | Masked S                                 | and Gra         | ins. <sup>2</sup> Location: PL = Pore Li        |   |
| Hydric Soi           | l Indicators:                    |                    |                         |                     |  |                 | Indicators for                                  | Problematic Hydric Soils <sup>3</sup> : |
| _ Histosol           |                                  |                    |                         | urface (            |  |                 | 2 cm Muc  | k (A10) <b>(MLR</b> A 1 <b>47</b> )     |
|                      | ipedon (A2)                      |                    |                         |                     |  |                 | RA 147, 148)                                    | irie Redox (A16) (MLRA 147, 148)        |
| _ Black His          | stic (A3)<br>en Sulfide (A4)     |                    |                         |                     | ace (S9) <b>(</b> N<br>Matrix (F2        |                 | , 146)  | : Floodplain Soils (F19) (MLRA 136,     |
|                      | d Layers (A5)                    |                    | Loamy<br>Deple          | _                   |  | 2)              | 147)  | (1.13) (1.13) (1.13)                    |
|                      | ick (A10) (LRR N)                |                    |                         |                     | ırface (F6)                              |                 | Verv Shall                                      | low Dark Surface (TF12)                 |
|                      | d Below Dark Surface (           | A11)               |                         |                     | Surface (F                               | <del>-</del> 7) |   | plain in Remarks)                       |
|                      | ırk Surface (A12)                |                    | Redox                   | Depres              | sions (F8)                               |                 |   |   |
|                      | lucky Mineral (S1) (LRF          | R N, MLRA          | <b>147, 148)</b> Iron-N | langane             | se Masses                                | (F12) (LF       | RR N <b>, M</b> LR <b>A 136)</b> 3Indicators of | hydrophytic vegetation and              |
|                      | leyed Matrix (S4)<br>edox (S5)   |                    |                         |                     | ~ (· · · · · · · · · · · · · · · · · · · |                 | 122)<br>MLRA 148) wetland hydr                  | ology must be present, unless           |
| _                    | l Matrix (S6)                    |                    |                         |                     | aterial (F21                             |                 | ما ما معامد العام المام                         | problematic.                            |
|                      | Layer (if observed):             |                    |                         |                     |  | Ī               | · ,   |   |
|                      | Type:                            |                    | None                    |                     |  | Hydric          | Soil <b>Present?</b>                            | Yes □ No ☑                              |
|                      | Depth (inches):                  |                    |                         |                     |  | '', ''          | Son Francis                                     | rus E rro E                             |
| Remarks:             | <i>3</i>                         |                    |                         |                     |  | 1               |   |   |
| Kemarks.             |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
| No positiv           | e indication of hydric           | soils was          | observed.               |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
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|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |
|                      |                                  |                    |                         |                     |  |                 |   |   |

Photo of Sample Plot North



Photo of Sample Plot South



| Project/Site: MVP Southgate                         | City/County:                            |                                     | Sampling Date: 2018-Jur     | ne-27                        |
|---|---|-------------------------------------|-----------------------------|------------------------------|
| Applicant/Owner: NextEra                            |   | State:                              | Sampling Point: \           | W-E18-37_PFO-1               |
| nvestigator(s):Jenn Favela, TS                      | 5,SB                                    | Section, Township,                  | Range:                      |                              |
| andform (hillslope, terrace, etc.                   | ): Depression                           | Local relief (concave, conv         | ex, none): Concave          | Slop <b>e (%</b> ): 15 to 20 |
| Subregion (LRR or MLRA):i                           | MLRA 136 of LRR P                       | <b>L</b> at: 36.5850841             | Long: -79.5986639           | Datum:WGS84                  |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> : 21D Mac | dison fine sandy loam 15-25% slop       |                                     | NWI classific               | ation: None                  |
| Are climatic/hydrologic condition                   | ns on the site typical for this time of | ye <b>ar?</b> Yes 🟒 No              | (If no, explain in Remar    | rks.)                        |
| Are Vegetation, Soil,                               | or Hydrology significantly              | disturbed? Are "Norma               | al Circumstances" present?  | Yes 🟒 No                     |
| Are Vegetation, Soil,                               | or Hydrology naturally pr               | oblematic? (If needed,              | explain any answers in Rema | arks.)                       |
|   |   |                                     |                             |                              |
| SUMMARY OF FINDINGS - A                             | Attach site map showing samp            | pling point locations, trar         | nsects, important feature   | es, etc.                     |
| Hydrophytic Vegetation Present                      | t? Yes 🗸 No                             |                                     |                             |                              |
| Hydric Soil Present?                                | Yes No                                  |                                     |                             |                              |
| Wetland Hydrology Present?                          | Yes _ <b>✓</b> _ No                     | Is the Sampled Area withi           | n a Wetland?                | Yes <b>_√_ No</b>            |
| Remarks:  | 143 110                                 | is the sumpled / iled / iled / iled | Ta Tradaira.                |                              |
| Remarks.  |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
| Covertype is PEO. Area is wetlar                    | nd, all three wetland parameters are    | e present.                          |                             |                              |
| covereype is 11 o. 7 ii da is videlar               | ra, an em de victaria parameters are    | preserie.                           |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
| HYDROLOGY   |   |                                     |                             |                              |
| Wetland Hydrology Indicators:                       |   |                                     |                             |                              |
| , ,,  | f one is required; check all that appl  | ly)                                 | Secondary Indicators (minin | num of two required)         |
| •   |   | -                                   | Surface Soil Cracks (B6)    | <del>.</del>                 |
| Surface Water (A1)                                  | True Aquatic F                          | Plants (B14)                        | Sparsely Vegetated Cond     | cave Surface (B8)            |
| High Water Table (A2)                               | Hydrogen Sulf                           |                                     | ✓ Drainage Patterns (B10)   |                              |
| Saturation (A3)                                     |   | ospheres on Living Roots (C3)       | Moss Trim Lines (B16)       |                              |
| Water Marks (B1)                                    |   | educed Iron (C4)                    | Dry-Season Water Table      | (C2)                         |
| Sediment Deposits (B2)                              |   | eduction in Tilled Soils (C6)       | Crayfish Burrows (C8)       |                              |
| Drift Deposits (B3)                                 | Thin Muck Sur                           |                                     | Saturation Visible on Aer   | rial Imagery (C9)            |
| Algal Mat or Crust (B4)                             | Other (Explain                          | i in Remarks)                       | e e                         | (04)                         |
| Iron Deposits (B5)                                  | Line (DZ)                               |                                     | Stunted or Stressed Plan    |                              |
| Inundation Visible on Aeria                         | Timagery (B7)                           |                                     | ✓ Geomorphic Position (D2)  | 2)                           |
| Water-Stained Leaves (B9)                           |   |                                     | Shallow Aquitard (D3)       | (D4)                         |
| Aquatic Fauna (B13)                                 |   |                                     | Microtopographic Relief     | (04)                         |
| Field Observations:                                 |   |                                     | FAC-Neutral Test (D5)       |                              |
| Surface Water Present?                              | Vor. No. / Dor                          | ath (inchas)                        |                             |                              |
|   |   | oth (inches):                       | ·[                          |                              |
| Water Table Present?                                | Yes No Dep                              | oth (inches): 16                    | Wetland Hydrology Present   | ? Yes _ <b>∠</b> _ No        |
| Saturation Present?                                 | Yes 🔽 No Dep                            | oth (inches): 4                     |                             |                              |
| (includes capillary fringe)                         |   |                                     |                             |                              |
| Describe Recorded Data (stream                      | n gauge, monitoring well, aerial pho    | ntos previous inspections) if a     | available.                  |                              |
|   | , , , , , , , , , , , , , , , , , , ,   | , p. 23.22, map 22.32, m            |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
| Remarks:  |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |
|   |   |                                     |                             |                              |

| Tree Stratum (Plot size:30)                         |             | Dominant    | Indicator | Dominance Test works                       | heet:           |                   |             |
|---|-------------|-------------|-----------|--|-----------------|-------------------|-------------|
| Tree Stratam (Flot Size                             | % Cover     | Species?    | Status    | Number of Dominant                         |                 | 7                 | (A)         |
| 1. Acer rubrum                                      | 30          | Yes         | FAC       | Are OBL, FACW, or FAC                      |                 |                   |             |
| 2. Platanus occidentalis 3.                         | 30          | Yes         | FACW      | Total Number of Domi<br>Across All Strata: | nant Species    | 7                 | (B)         |
|   |             |             |           | Percent of Dominant S                      | pecies That     | 100               |             |
| 4.  |             |             |           | Are OBL, FACW, or FAC                      | :               | 100               | (A/B)       |
| 5.  |             |             |           | Prevalence Index work                      | sheet:          |                   |             |
| 6.  |             |             |           | Total % Cover                              | <u>of:</u>      | <u>Multiply</u> l | <u>By:</u>  |
| 7   |             |             |           | OBL species                                | 69              | x 1 =             | 69          |
|   | 60          | = Total Cov |           | FACW species                               | 55              | x 2 =             | 110         |
| 50% of total cover: <u>30</u>                       | _ 20% of to | otal cover: | 12        | FAC species                                | 68              | x 3 =             | 204         |
| Sapling/Shrub Stratum (Plot size:15)                |             |             |           | FACU species                               | 0               | × 4 =             | 0           |
| Liquidambar styraciflua                             |             | Yes         | FAC       | UPL species                                | 0               | x 5 =             | 0           |
| 2. Acer rubrum                                      | 18          | Yes         | FAC       | Column Totals                              | 192             | (A)               | 383 (B)     |
| 3. <i>Platanus occidentalis</i>                     | 12          | Yes         | FACW      | l -  | ndex = B/A =    |                   | 202 (2)     |
| 4   |             |             |           |  |                 |                   |             |
| 5   |             |             |           | Hydrophytic Vegetatio                      |                 |                   |             |
| 6.  |             |             |           | 1- Rapid Test for                          |                 | /egetation        |             |
| 7.  |             |             |           | ✓ 2 - Dominance Te                         |                 |                   |             |
| 8.  |             |             |           | ✓ 3 - Prevalence Inc                       |                 |                   |             |
| 9.  |             |             |           | 4 - Morphologica                           |                 |                   | supporting  |
|   | 50          | = Total Cov | er        | data in Remarks or on                      |                 |                   |             |
| 50% of total cover: 25                              |             | -           | 10        | Problematic Hyd                            |                 |                   |             |
| Herb Stratum (Plot size: 5_)                        | _ 20% 01 00 | real cover. |           | ¹Indicators of hydric so                   |                 | •                 | gy must be  |
| 1. Dulichium arundinaceum                           | <b>4</b> 5  | Yes         | OBL       | present, unless disturb                    | '               |                   |             |
| Carex lupulina                                      | 20          | Yes         | OBL       | Definitions of Four Veg                    | getation Strata | a:                |             |
|   | - ——        |             |           |  |                 |                   |             |
| 3. <u>Impatiens capensis</u>                        | 8           | No          | FACW      | Tr <b>ee</b> – Woody plants, e             | _               |                   |             |
| 4. Leersia virginica                                | 5           | No          | FACW      | in diameter at breast h                    | neight (DBH),   | regardiess        | of height.  |
| 5. Lycopus virginicus                               | 4           | No          | OBL       |  |                 |                   |             |
| 6   |             |             |           | Sapling/shrub - Wood                       |                 |                   |             |
| 7   |             |             |           | in. DBH and greater th                     | an or equal to  | o 3.28 π (1       | m) tall.    |
| 8   |             |             |           |  | , ,             |                   |             |
| 9.  |             |             |           | Herb – All herbaceous                      |                 |                   | gardless of |
| 10  |             |             |           | size, and woody plants                     | s less than 3.2 | вт тап.           |             |
| 11.   |             |             |           |  |                 |                   |             |
|   | 82          | = Total Cov | er        | Woody vines - All woo                      | dy vines grea   | ter than 3.       | .28 ft in   |
| 50% of total cover: <u>41</u>                       | 20% of to   | tal cover:  | 16.4      | height.                                    |                 |                   |             |
| Woody Vine Stratum (Plot size:)                     |             |             |           |  |                 |                   |             |
| 1.  |             |             |           |  |                 |                   |             |
| 2.  |             |             |           |  |                 |                   |             |
| 3.  |             |             |           | <br>  Hydrophytic Vegetation               | n Present?      | /es 🛭 No 🏻        | 7           |
| 4.  |             |             |           | I iyaropiiyaa vagaaaa                      | mire Serie.     | 10 E              |             |
|   |             |             |           |  |                 |                   |             |
| 5   |             |             |           |  |                 |                   |             |
|   | 0           | = Total Cov |           |  |                 |                   |             |
| 50% of total cover: 0                               | _ 20% of to | ital cover: | 0         |  |                 |                   |             |
| Remarks: (Include photo numbers here or on a separa | te sheet.)  |             |           |  |                 |                   |             |
|   |             |             |           |  |                 |                   |             |
|   |             |             |           |  |                 |                   |             |

| Profile De  | scription: (Describe t                                 | o th <b>e d</b> ept | th n <b>eeded to</b> doo | ument the i                    | in <b>dicator</b> o             | or confir       | m the absend               | ce of indicators.)              |                            |
|-------------|--|---------------------|--------------------------|--------------------------------|---------------------------------|-----------------|----------------------------|---------------------------------|----------------------------|
| Depth       | Matrix   |                     | Redox Features           |                                |                                 |                 |                            |                                 |                            |
| (inches)    | Color (moist)  | %                   | Color (moist)            | %                              | Type¹                           | Loc²            |                            | Te <b>xtu</b> r <b>e</b>        | R <b>emark</b> s           |
| 0 - 4       | 10YR 4/2   | 70                  | 7.5YR 4/4                | 30                             | C                               | PL              |                            | Loamy Sand                      |                            |
| 4 - 12      | 2.5Y 5/1   | 90                  | 7.5YR 5/4                | 10                             | С                               | M               |                            | Sand                            |                            |
| 12 - 18     | 10Y 5/1  | 100                 |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 | _                          |
|             |  |                     |                          |                                | - ——                            |                 |                            |                                 | <del>-</del>               |
|             |  |                     |                          |                                | - —                             |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  | Depletion,          | RM = Reduced N           | latrix, MS =                   | Masked S                        | and Gra         | ins. <sup>2</sup> Locatio  | on: PL = Pore Lining, M         |                            |
| 1 -         | il Indicators:   |                     |                          |                                |                                 |                 |                            | Indicators for Probler          | natic Hydric Soils³:       |
| _ Histoso   |  |                     | _                        | ark Surface (                  |                                 | (CO) (B.E.      | DA 447 440V                | 2 cm Muck (A10) (               | MLRA 147)                  |
|             | oipedon (A2)<br>istic (A3)                             |                     |                          | olyvalue Belo<br>nin Dark Surf |                                 |                 |                            | Coast Prairie Redo              | ox (A16) (MLRA 147, 148)   |
|             | en Sulfide (A4)  |                     |                          | pamy Gleyed                    |                                 |                 | , 140)                     | Piedmont Floodpl                | ain Soils (F19) (MLRA 136, |
|             | d Layers (A5)  |                     |                          | epleted Matr                   |                                 | -,              |                            | 147)                            |                            |
| _ 2 cm M    | uck (A10) (LRR N)                                      |                     |                          | edox Dark Su                   |                                 |                 |                            | Very Shallow Dark               | (Surface (TF12)            |
|             | d Below Dark Surface (                                 | A11)                |                          | epleted Dark                   |                                 | =7)             |                            | Other (Explain in I             | Remarks)                   |
|             | ark Surface (A12)                                      | O NI MALIDA         | Ri                       | edox Depres                    | sions (F8)                      | · (E12) (LE     | D N MIDA 10                | <i>C</i> 1                      |                            |
| _           | /lucky Mineral (S1) <b>(</b> LRF<br>ileyed Matrix (S4) | KIN, IVILIKA        | 147, 146) _ II           | on-iviangane<br>mbric Surfac   | se Masses<br>e (F13) ( <b>M</b> | IR <b>A 136</b> | (K N, WILKA 13<br>122)     | <b>6)</b> ₃Indicators of hydrop | hytic vegetation and       |
| 1 -         | ledox (S5)   |                     |                          | edmont Floo                    |                                 |                 |                            |                                 | ust be present, unless     |
| _ Stripped  | d Matrix (S6)  |                     | R                        | ed Parent Ma                   | aterial (F21                    | ) (MLRA         | 1 <b>27</b> , <b>1</b> 47) | disturbed or problem            | natic.                     |
| Restrictive | e Layer (if observed):                                 |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             | Туре:  |                     | None                     |                                |                                 | Hydric          | Soil <b>Present?</b>       |                                 | Yes ☑ No □                 |
|             | Depth (inches):  |                     |                          | <u></u>                        |                                 | -               |                            |                                 |                            |
| Remarks:    |  |                     |                          |                                |                                 | 1               |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |
|             |  |                     |                          |                                |                                 |                 |                            |                                 |                            |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate       | City/County:                            |  | Sampling Date: 2018-Jun                   | ie-27                      |  |
|-----------------------------------|---|--|---|----------------------------|--|
| Applicant/Owner: NextEra          |   | State: VA  | Sampling Point: V                         | V-E18-37_UPL-1             |  |
| nvestigator(s): Jenn Favela, Tr   | roy Savage, TS,SB,MS                    | Section, Township,                               | Range: N/A                                |                            |  |
| andform (hillslope, terrace, etc  | .): Foot slope                          | Local relief (concave, conve                     | ex, none): None                           | Slop <b>e (%</b> ): 1 to 3 |  |
| Subregion (LRR or MLRA):          | MLRA 136 of LRR P                       | <b>L</b> at: 36.5847207                          | Long: -79.5990478                         | Datum: WGS84               |  |
| Soil <b>Map</b> Unit Name: 21D    |   |  | NWI classifica                            | ation: None                |  |
| Are climatic/hydrologic condition | ns on the site typical for this time of | year? Yes <u>✓</u> No                            | (If no, explain in Remar                  | ks.)                       |  |
| Are Vegetation, Soil,             | or Hydrology significantly              | disturbed? Are "Norma                            | l Circumstances" present?                 | Yes 🟒 No                   |  |
| Are Vegetation, Soil,             | or Hydrology naturally pr               | oblematic? (If needed,                           | explain any answers in Rema               | irks.)                     |  |
|                                   |   |  |   |                            |  |
| SUMMARY OF FINDINGS -             | Attach site map showing sam             | pling point locations, tran                      | sects, important feature                  | es, etc.                   |  |
| Hydrophytic Vegetation Presen     | t? Yes No 🗸                             |  |   |                            |  |
| Hydric Soil Present?              | Yes No                                  |  |   |                            |  |
| Wetland Hydrology Present?        | Yes No _ <b>✓</b> _                     | Is the Sampled Area within                       | a Matland2                                | <b>Yes</b> No _ <b>_</b> _ |  |
|                                   |   | is the Samplet Area within                       | i a wedand:                               | <u>res N∪ _</u> ✓          |  |
| Remarks:                          |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
| Covertyne is HPL Area is unlan    | d, not all three wetland parameters     | are precent                                      |   |                            |  |
| Covertype is of E. Arca is aprain | u, not an timee wedana parameters       | are present.                                     |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
| HYDROLOGY                         |   |  |   |                            |  |
| Wetland Hydrology Indicators:     |   |  |   |                            |  |
| , ,,,                             | of one is required; check all that app  | lv)  | Secondary Indicators (minim               | num of two required)       |  |
|                                   |   | <del></del>                                      | Surface Soil Cracks (B6)                  | <u> </u>                   |  |
| Surface Water (A1)                | True Aquatic I                          | Plants (B14)                                     | Sparsely Vegetated Conc                   | ave Surface (B8)           |  |
| High Water Table (A2)             | Hydrogen Sul                            |  | Drainage Patterns (B10)                   |                            |  |
| Saturation (A3)                   |   | ospheres on Living Roots (C3)                    | Moss Trim Lines (B16)                     |                            |  |
| Water Marks (B1)                  |   | educed Iron (C4)                                 | Dry-Season Water Table (C2)               |                            |  |
| Sediment Deposits (B2)            |   | eduction in Tilled Soils (C6)                    | Crayfish Burrows (C8)                     |                            |  |
| Drift Deposits (B3)               | Thin Muck Su                            |  | Saturation Visible on Aerial Imagery (C9) |                            |  |
| Algal Mat or Crust (B4)           | Other (Explair                          | n in Remarks)                                    |   |                            |  |
| Iron Deposits (B5)                |   |  | Stunted or Stressed Plan                  | ts (D1)                    |  |
| Inundation Visible on Aeria       | ıl Imagery (B7)                         |  | Geomorphic Position (D2                   | ?)                         |  |
| Water-Stained Leaves (B9)         |   |  | Shallow Aquitard (D3)                     |                            |  |
| Aquatic Fauna (B13)               |   |  | Microtopographic Relief                   | (D4)                       |  |
|                                   |   |  | FAC-Neutral Test (D5)                     |                            |  |
| Field Observations:               |   |  |   |                            |  |
| Surface Water Present?            | Yes No 🟒 Dep                            | th (inches):                                     |   |                            |  |
| Water Table Present?              | Yes No _ <b>_</b> Dep                   | th (inches):                                     | <br> Wetland Hydrology Present            | ? Yes No                   |  |
| Saturation Present?               |   | oth (inches):                                    | ,   |                            |  |
|                                   | 163 NO <u>\$</u> Dep                    |  |   |                            |  |
| (includes capillary fringe)       |   |  |   |                            |  |
| Describe Recorded Data (stream    | m gauge, monitoring well, aerial pho    | otos, pre <mark>vious inspections</mark> ), if a | vailable:                                 |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
| Remarks:                          |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |
|                                   |   |  |   |                            |  |

| ,   | •                |             |           |  |                 |               |
|---|------------------|-------------|-----------|--|-----------------|---------------|
| Tree Stratum (Plot size:30)                         | <b>A</b> bsolute | Dominant    | Indicator | Dominance Test worksheet:  |                 |               |
|   |                  | Species?    | Status    | Number of Dominant Species That  | 2               | (A)           |
| Fagus grandifolia                                   | 30               | Yes .       | FACU      | Are OBL, FACW, or FAC: Total Number of Dominant Species                |                 |               |
| 2. Oxydendrum arboreum                              |                  | Yes .       | UPL       | Across All Strata:   | 8               | (B)           |
| 3. <u>Liriodendron tulipifera</u>                   | 10               | No          | FACU      | Percent of Dominant Species That                                       |                 |               |
| 4   |                  |             |           | - Are OBL, FACW, or FAC:   | 25              | (A/B)         |
| 5   |                  |             |           | Prevalence Index worksheet:  |                 |               |
| 6   | ·                |             |           | <u>Total % Cover of:</u>   | <u>Multiply</u> | Ву:           |
| 7   |                  |             |           | OBL species 0  | x 1 =           | 0             |
| 500 5 1   | 65               | = Total Cov |           | FACW species 5   | x 2 = _         | 10            |
| 50% of total cover: 32.5                            | _ 20% of to      | ital cover: | 13        | FAC species 25   | x 3 =           | 75            |
| Sapling/Shrub Stratum (Plot size:15)                | 40               | Voc         | EACH      | FACU species 95  | × 4 =           | 380           |
| Liriodendron tulipifera     Liquidambar at macilius |                  | Yes .       | FACU      | UPL species65  | x 5 = _         | 325           |
| Liquidambar styraciflua     Platanus occidentalis   | . <u>15</u><br>5 | Yes .       | FACIN     | Column Totals 190  | (A)             | 790 (B)       |
|   |                  | No          | FACW      | Prevalence Index = B/A =   | 4.2             |               |
| 4   |                  |             |           | Hydrophytic Vegetation Indicators:                                     |                 |               |
| 5.  |                  |             |           | 1- Rapid Test for Hydrophytic  | √egetation      | ı             |
| 6   |                  |             |           | 2 - Dominance Test is > 50%  | -               |               |
| 7.  |                  |             |           | 3 - Prevalence Index is ≤ 3.01   |                 |               |
| 8.  |                  |             |           | -  4 - Morphological Adaptations                                       | ¹ (Provide      | supporting    |
| 9   |                  |             |           | data in Remarks or on a separate sl                                    | neet)           |               |
| 500 6 1   | 60               | = Total Cov |           | Problematic Hydrophytic Vege   | tation¹ (Ex     | plain)        |
| 50% of total cover: 30                              | _ 20% of to      | ital cover: | 12        | Indicators of hydric soil and wetlar                                   | •               | gy must be    |
| Herb Stratum (Plot size: 5 )                        | 7                | V           | EACH      | present, unless disturbed or proble                                    |                 |               |
| Polystichum acrostichoides                          | · <del>7</del> 5 | Yes .       | FACU      | Definitions of Four Vegetation Strat                                   | a:              |               |
| 2. Microstegium vimineum                            |                  | Yes .       | FAC       | -  |                 |               |
| 3. Lonicera japonica                                |                  | Yes .       | FACU      | Tree – Woody plants, excluding vine                                    |                 |               |
| 4. Fagus grandifolia                                | 3                | No          | FACU      | in diameter at breast height (DBH),                                    | regardiess      | or neight.    |
| 5   |                  |             |           | - Combine (about 1984) a sha a la mas a sail                           | adia a sala a   | a laga than 2 |
| 6.  |                  |             |           | Sapling/shrub – Woody plants, excluin. DBH and greater than or equal t | _               |               |
| 7.  |                  |             |           | - In Don' and greater than or equal t                                  | 0 3.20 10 (1    | m, tan.       |
| 8.  |                  |             |           | - Herb – All herbaceous (non-woody)                                    | nlants rec      | ardless of    |
| 9.  |                  |             |           | size, and woody plants less than 3.2                                   |                 | 54141633 01   |
| 10  |                  |             |           | -  |                 |               |
| 11  |                  |             |           | -  |                 |               |
|   | 20               | = Total Cov |           | <b>Wo</b> od <b>y vine</b> s – All woody vines grea                    | ter than 3.     | .28 π In      |
| 50% of total cover: <u>10</u>                       | _ 20% of to      | otal cover: | 4         | height.  |                 |               |
| Woody Vine Stratum (Plot size: 30 )                 |                  |             |           |  |                 |               |
| 1. Pueraria montana                                 | 40               | Yes         | UPL       |  |                 |               |
| 2. <u>Toxicodendron radicans</u>                    | 5                | No          | FAC       | .  |                 | _             |
| 3   |                  |             |           | Hydrophytic Vegetation Present?  | Yes ⊔ No Ŀ      | 4             |
| 4   |                  |             |           |  |                 |               |
| 5   |                  |             |           |  |                 |               |
|   | 45               | = Total Cov |           |  |                 |               |
| 50% of total cover: <u>22.5</u>                     | _ 20% of to      | otal cover: | 9         |  |                 |               |
| Remarks: (Include photo numbers here or on a separa | te sheet.)       |             |           |  |                 |               |
|   |                  |             |           |  |                 |               |

| Profile Des<br>Depth | scription: (Describe t<br>Matrix                           | o th <b>e d</b> ep | th n <b>eed</b> e <b>d to</b> o | documen<br>Redox F      |          |                   | or confir        | m the absence       | ce of indicators.)              |                            |
|----------------------|--|--------------------|---------------------------------|-------------------------|----------|-------------------|------------------|---------------------|---------------------------------|----------------------------|
| · -                  |  | 0/                 | Calar (mai                      |                         |          |                   | 1 = =7           |                     | Taretura                        | Down a wise                |
| (inches)             | Color (moist)  | <u></u>            | Color (moi                      | <u> </u>                | <u>%</u> | Type <sup>1</sup> | _Loc²            |                     | Texture                         | Remarks                    |
| 0 - 10               | 10YR 5/4   | 100                |                                 |                         |          |                   |                  |                     | Loam                            |                            |
| 10 - 18              | 10YR 5/4   | 90                 | 10YR 5/2                        | 2                       | 10       | D                 | M                |                     | Loam                            | - · ·                      |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  | ·                  |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  | ·                  |                                 |                         |          |                   |                  |                     |                                 | _ ·                        |
|                      |  | ·                  |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
| <u>¹</u> Type: C =   | Concentration, D = [                                       | Depletion,         | RM = Reduced                    | d Matrix,               | MS = N   | Masked S          | Sand Gra         | ins. ²Locatio       | on: PL = Pore Lining, M         | = Matrix.                  |
| Hydric Soil          | Indicators:  |                    |                                 |                         |          |                   |                  |                     | Indicators for Probler          | natic Hydric Soils³:       |
| _ Histosol           | (A1)   |                    | _                               | _ Dark Sur              | rface (S | 57)               |                  |                     | 2 cm Music (A10) (              | MI DA 147)                 |
| _ Histic Ep          | ipedon (A2)  |                    | _                               | _ Polyvalu              | e Belov  | w Surface         | (S8) <b>(M</b> l | RA 147, 148)        | 2 cm Muck (A10) (               |                            |
| _ Black His          |  |                    | _                               | _Thin Dar               |          |                   |                  | <sup>7</sup> , 148) |                                 | ox (A16) (MLRA 147, 148)   |
|                      | n Sulfide (A4)   |                    | _                               | _ Loamy G               | _        |                   | 2)               |                     |                                 | ain Soils (F19) (MLRA 136, |
|                      | Layers (A5)  |                    |                                 | _ Depleted              |          |                   |                  |                     | 147)                            | . Cf /TE13\                |
|                      | ck (A10) <b>(</b> LR <b>R N)</b><br>I Below Dark Surface i | (411)              | _                               | _ Redox D<br>_ Depleted |          |                   |                  |                     | Very Shallow Dark               |                            |
|                      | rk Surface (A12)   | (411)              | _                               | _ Depleted<br>_ Redox D |          |                   | F2)              |                     | Other (Explain in l             | Remarks)                   |
|                      | ucky Mineral (S1) <b>(</b> LRI                             | R N. MIRA          | 147. 148)                       | Iron-Mai                | nganes   | se Masses         | s (F12) (LI      | RR N. MI RA 13      | <b>6)</b> ₃Indicators of hydrop |                            |
|                      | eyed Matrix (S4)   |                    |                                 | Umbric S                | Surface  | e (F13) (M        | ILRA 136         | 122)                | ⁻¹³Indicators of hydrop         | hytic vegetation and       |
| Sandy Re             | •  |                    | _                               |                         |          |                   |                  | MLRA 148)           | , ,,                            | ust be present, unless     |
| Stripped             | Matrix (S6)  |                    | _                               | Red Pare                | ent Ma   | terial (F21       | I) (MLRA         | 1 <b>27, 1</b> 47)  | disturbed or problem            | natic.                     |
| Restrictive          | Layer (if observed):                                       |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
| 7                    | Гуре:  |                    | None                            |                         |          |                   | Hydric           | Soil Present?       |                                 | Yes □ No ☑                 |
| [                    | Depth (inches):  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
| Remarks:             |  |                    |                                 |                         |          |                   | •                |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |
|                      |  |                    |                                 |                         |          |                   |                  |                     |                                 |                            |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                | City/County:                          |                                  | Sampling Date: 2018-July          | 7-30                        |  |
|--|---------------------------------------|----------------------------------|-----------------------------------|-----------------------------|--|
| Applicant/Owner: NextEra                   |                                       | State:                           | Sampling Point: V                 | V-F18-44_PEM-1              |  |
| Investigator(s): Beth Clements,            | SS MS                                 | Section, Township,               | Range:                            |                             |  |
| Landform (hillslope, terrace, etc.):       | Swale                                 | Local relief (concave, conv      | ex, none): Concave                | Slop <b>e (%</b> ): 1 to 10 |  |
| Subregion (LRR or MLRA): M                 | LRA 136 of LRR P                      | <b>L</b> at: 36.5766576          | Long: -79.5973137                 | Datum: WGS84                |  |
| Soil <b>Map</b> Unit Name: <u>34B</u>      |                                       |                                  | NWI classifica                    | ation: None                 |  |
| Are climatic/hydrologic conditions         | on the site typical for this time of  | year? Yes <u>✓</u> No            | (If no, explain in Remar          | ks.)                        |  |
| Are Vegetation, Soil,                      | or Hydrology significantly            | disturbed? Are "Norma            | al Circumstances" present?        | Yes 🟒 No                    |  |
| Are Vegetation, Soil,                      | or Hydrology naturally pro            | oblematic? (If needed,           | explain any answers in Rema       | rks.)                       |  |
|  |                                       |                                  |                                   |                             |  |
| SUMMARY OF FINDINGS – At                   | ttach site map showing samp           | oling point locations, tran      | nsects, important feature         | es, etc.                    |  |
| Hydrophytic Vegetation Present?            | Yes _ ✓ No                            |                                  |                                   |                             |  |
| Hydric Soil Present?                       | Yes _ <b>✓</b> No                     | i                                |                                   |                             |  |
| Wetland Hydrology Present?                 | Yes No                                | Is the Sampled Area withi        | n a Wetland?                      | ∕es <b>∕_ No</b>            |  |
| Remarks:                                   | 103 100                               | is the sampled / ited With       | Ta Tredairo.                      | 105 <u>7</u> 110            |  |
| Remarks.                                   |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
| Covertype is PEM. Area is wetland          | d, all three wetland parameters are   | e present.                       |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
| HYDROLOGY                                  |                                       |                                  |                                   |                             |  |
| Wetland Hydrology Indicators:              |                                       |                                  |                                   |                             |  |
|  | one is required; check all that apple | v)                               | Secondary Indicators (minim       | um of two required)         |  |
| •  |                                       | _                                | Surface Soil Cracks (B6)          | •                           |  |
| Surface Water (A1)                         | True Aquatic P                        |                                  | Sparsely Vegetated Conc           | ave Surface (B8)            |  |
| High Water Table (A2)                      | Hydrogen Sulf                         |                                  | ✓ Drainage Patterns (B10)         |                             |  |
| Saturation (A3)                            |                                       | ospheres on Living Roots (C3)    | Moss Trim Lines (B16)             |                             |  |
| Water Marks (B1)                           |                                       | educed Iron (C4)                 | Dry-Season Water Table (C2)       |                             |  |
| Sediment Deposits (B2) Drift Deposits (B3) | Thin Muck Sur                         | eduction in Tilled Soils (C6)    | Crayfish Burrows (C8)             |                             |  |
| Algal Mat or Crust (B4)                    | Other (Explain                        |                                  | Saturation Visible on Aer         | ial Imagery (C9)            |  |
| Iron Deposits (B5)                         |                                       | ,                                | Stunted or Stressed Plan          | ts (D1)                     |  |
| Inundation Visible on Aerial I             | magery (B7)                           |                                  | Geomorphic Position (D2           |                             |  |
| Water-Stained Leaves (B9)                  |                                       |                                  | Shallow Aquitard (D3)             |                             |  |
| Aquatic Fauna (B13)                        |                                       |                                  | Microtopographic Relief           | D4)                         |  |
|  |                                       |                                  | ✓ FAC-Neutral Test (D5)           |                             |  |
| Field Observations:                        |                                       |                                  |                                   |                             |  |
| Surface Water Present?                     | Yes No <u></u> Dept                   | th (inches):                     |                                   |                             |  |
| Water Table Present?                       | Yes No Dept                           | th (inches):                     | ' <br> Wetland Hydrology Present? | Yes _ <b>∠</b> _ No         |  |
| Saturation Present?                        |                                       | th (inches):                     |                                   | -                           |  |
| (includes capillary fringe)                |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
| Describe Recorded Data (stream             | gauge, monitoring well, aerial pho    | tos, previous inspections), if a | available:                        |                             |  |
|  |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
| Remarks:                                   |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |
|  |                                       |                                  |                                   |                             |  |

| · · · · · · · · · · · · · · · · · · ·                                 | •           |             |           |   |                     |             |
|---|-------------|-------------|-----------|---|---------------------|-------------|
| Trop Stratum (Blot sizer 20v2)  | Absolute    | Dominant    | Indicator | Dominance Test worksheet:                                     |                     |             |
| Tree Stratum (Plot size: 20x3)  | % Cover     | Species?    | Status    | Number of Dominant Species That                               | 4                   | (A)         |
| 1.  |             |             |           | Are OBL, FACW, or FAC:  |                     | (//)        |
| 2.  |             |             |           | Total Number of Dominant Species Across All Strata:           | 4                   | (B)         |
| 3   |             |             |           | Percent of Dominant Species That                              |                     |             |
| 4   |             |             |           | - Are OBL, FACW, or FAC:                                      | <b>1</b> 0 <b>0</b> | (A/B)       |
| 5   |             |             |           | Prevalence Index worksheet:                                   |                     |             |
| 6   |             |             |           | Total % Cover of:   | Multiply By         | r.          |
| 7   |             |             |           | OBL species 0   | x 1 =               | 0           |
|   | 0           | = Total Cov | er        | FACW species  | x 2 =               |             |
| 50% of total cover: <u>0</u>  | _ 20% of to | tal cover:  | 0         | FAC species 50  | x3=                 | 150         |
| Sapling/Shrub Stratum (Plot size:15)                                  |             |             |           | FACU species 15   | × 4 =               | 60          |
| 1. <u>Liquidambar styraciflua</u>                                     | 10          | Yes         | FAC       | - UPL species 0   | x5=                 | 0           |
| 2.  |             |             |           | - Column Totals   | _                   | (B)         |
| 3.  |             |             |           |   | (A)                 | (D)         |
| 4.  |             |             |           | Prevalence Index = B/A =                                      |                     |             |
| 5.  |             |             |           | Hydrophytic Vegetation Indicators:                            |                     |             |
|   |             |             |           | 1- Rapid Test for Hydrophytic                                 | Vegetation          |             |
|   |             |             |           | 2 - Dominance Test is >50%                                    |                     |             |
| 7.<br>8.  |             |             |           | 3 - Prevalence Index is ≤ 3.01                                |                     |             |
| 9.  |             |             |           | -  4 - Morphological Adaptations                              |                     | upporting   |
| 9.  |             |             |           | - data in Remarks or on a separate sl                         | neet)               |             |
| 500 5   | 10          | = Total Cov |           | Problematic Hydrophytic Vege                                  |                     | -           |
| 50% of total cover: <u>5</u>  | _ 20% of to | ital cover: |           | Indicators of hydric soil and wetlar                          | nd hydrology        | must be     |
| Herb Stratum (Plot size: 5 )  |             |             |           | present, unless disturbed or proble                           | matic               |             |
| 1. Arthraxon hispidus   | 25          | <u>Yes</u>  | FAC       | Definitions of Four Vegetation Strat                          | a:                  |             |
| 2. Bidens aristosa  | 20          | Yes         | FACW      | -   |                     |             |
| 3. Juncus effusus   | 20          | Yes         | FACW      | Tr <b>ee</b> – Woody plants, excluding vine                   | es, 3 in. (7.6 d    | m) or more  |
| 4. Microstegium vimineum  | 15          | No          | FAC       | in diameter at breast height (DBH),                           | regardless c        | of height.  |
| 5. Sorghum halepense  | 10          | No          | FACU      | _   |                     |             |
| 6. <u>Cinna arundinacea</u>   |             | No          | FACW      | Sapling/shrub – Woody plants, exclu                           | uding vines,        | less than 3 |
| 7. Lespedeza cuneata  | 5           | No          | FACU      | in. DBH and greater than or equal t                           | o 3.28 ft (1 r      | n) tall.    |
| 8.  |             |             |           |   |                     |             |
| 9.  |             |             |           | Herb – All herbaceous (non-woody)                             | plants, rega        | rdless of   |
| 10  |             |             |           | size, and woody plants less than 3.2                          | 28 ft tall.         |             |
| 11.   |             |             |           | -   |                     |             |
|   | 95          | = Total Cov | or        | - <b> <br/>  Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.2        | 8 ft in     |
| 500% of total savor 47.5  |             | •           |           | height.   | icer charrs.2       | S IC III    |
| 50% of total cover: <u>47.5</u> Woody Vine Stratum (Plot size: 20x3 ) | _ 20% 01 to | otal cover: | 19        | Tio.g.i.e.  |                     |             |
| 4   |             |             |           |   |                     |             |
| 1.  |             |             |           | -   |                     |             |
| 2   |             |             |           | ·   |                     |             |
| 3.  |             |             |           | Hydrophytic Vegetation Present?                               | Yes ☑ No □          |             |
| 4   |             |             |           | _   |                     |             |
| 5   |             |             |           |   |                     |             |
|   | 0           | = Total Cov | er        |   |                     |             |
| 50% of total cover: <u>0</u>  | _ 20% of to | tal cover:  | 0         |   |                     |             |
| Remarks: (Include photo numbers here or on a separa                   | e sheet )   |             |           |   |                     |             |
| Remarks. (include prioto numbers here or on a separar                 | e silect)   |             |           |   |                     |             |
|   |             |             |           |   |                     |             |
|   |             |             |           |   |                     |             |
|   |             |             |           |   |                     |             |
|   |             |             |           |   |                     |             |
|   |             |             |           |   |                     |             |
|   |             |             |           |   |                     |             |
|   |             |             |           |   |                     |             |

|                    | s <b>c</b> rip <b>tion: (De</b> s <b>c</b> ri <b>be</b> to | the dep   | th n <b>eed</b> ed to docume | nt the i        | indicator              | or confir   | m the absenc               | ce of indicators.)              |   |
|--------------------|--|-----------|------------------------------|-----------------|------------------------|-------------|----------------------------|---------------------------------|---|
| Depth _            | <b>Ma</b> trix   |           | Redox                        | <b>Feat</b> ure | es                     |             |                            |                                 |   |
| (inches)           | Color (moist)  | %         | Color (moist)                | %_              | Type <sup>1</sup>      | Locz        |                            | Texture                         | R <b>emark</b> s                                |
| 0 - 6              | 10YR 6/2   | 85        | 10YR 7/1                     | 5               | D                      | M           | S                          | ilty Clay Loam                  |   |
| 0 - 6              |  |           | 10YR 5/8                     | 10              | C                      | M           |                            |                                 |   |
| 6 - 18             | 10YR 5/2   | 75        | 10YR 6/2                     | 5               | D                      | M/PL        | S                          | ilty Clay Loam                  |   |
| 6 - 18             | 10YR 5/8   |           | 10YR 5/8                     | 20              |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 | - ——                   |             |                            |                                 | _   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 | <del>-</del>                                    |
|                    |  |           |                              |                 |                        |             |                            |                                 | _   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
| <u>¹</u> Type: C = | Concentration, D = Do                                      | epletion, | RM = Reduced Matri:          | x, MS =         | Masked S               | Sand Gra    | ins. <sup>2</sup> Locatio  | on: PL = Pore Lining, M :       | = Matrix.                                       |
| Hydric Soi         | il Indicators:   |           |                              |                 |                        |             |                            | Indicators for Problen          | natic Hydric Soils³:                            |
| _ Histosol         |  |           | _ Dark S                     |                 |                        |             |                            | 2 cm Muck (A10) (               | MI RA 147)                                      |
|                    | oipedon (A2)   |           | _                            |                 |                        |             | RA 147, 148)               |                                 | ox (A16) (MLRA 147, 148)                        |
| _ Black Hi         | • ,  |           |                              |                 | ace (S9) <b>(</b> I    |             | <sup>7</sup> , 148)        |                                 | ain Soils (F19) (MLRA 136,                      |
|                    | en Sulfide (A4)  |           |                              | ,               | Matrix (F:             | 2)          |                            | Fled Mont Floodpi               | ani 2013 (1 1 2) (191 <b>2107 1</b> 2 <b>0,</b> |
|                    | d Layers (A5)<br>uck (A10) <b>(</b> LR <b>R N)</b>         |           | _ <b>∠</b> Deplet            |                 | ¹x (⊦3)<br>ırface (F6) | 1           |                            | Very Shallow Dark               | (Surface (TF12)                                 |
|                    | d Below Dark Surface (A                                    | 111       |                              |                 | Surface (F6)           |             |                            | Other (Explain in F             |   |
|                    | ark Surface (A12)  | ,         | Redox                        | Depres          | sions (F8)             |             |                            |                                 |   |
|                    | lucky Mineral (S1) (LRR                                    | N, MLRA   | <br>147, 148)   Iron-M       | Iangane         | se Masses              | s (F12) (LF | RR N, MLRA 13              | <b>6)</b> ₃Indicators of hydrop | butic vocatation and                            |
| Sandy G            | ileyed Matrix (S4)   |           | Umbri                        | c Surfac        | e (F13) ( <b>N</b>     | ILRA 136,   | 122)                       | wotland budralage m             | ust be present, unless                          |
| _                  | edox (S5)  |           |                              |                 |                        |             | MLRA 148)                  | disturbed or problem            |   |
| Stripped           | d Matrix (S6)  |           | Red Pa                       | arent Ma        | aterial (F2            | 1) (MLRA    | 1 <b>27</b> , <b>1</b> 47) | disturbed or problem            | iauc.   |
| Restrictive        | e Layer (if observed):                                     |           |                              |                 |                        |             |                            |                                 |   |
|                    | Туре:  |           | None                         |                 |                        | Hydric:     | Soil Present?              |                                 | Yes ☑ No □                                      |
|                    | Depth (inches):  |           |                              |                 |                        |             |                            |                                 |   |
| Remarks:           |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
| 1                  |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |
|                    |  |           |                              |                 |                        |             |                            |                                 |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate  | City/County:  |                                       | Sampling Date: 2018-Jun         | e-28                      |
|--|---|---------------------------------------|---------------------------------|---------------------------|
| Applicant/Owner: NextEra   |   | State:                                | Sampling Point: W               | /-F18-44_PFO-1            |
| Investigator(s):Janelle Bernosky   | y, SS JF  | Section, Township,                    | Range:                          |                           |
| Landform (hillslope, terrace, etc.):                                     | Depression  | Local relief (concave, conv           | ex, none): Concave              | Slop <b>e (%</b> ):2 to 5 |
| Subregion (LRR or MLRA): M   | LRA 136 of LRR P                                    | Lat: 36.5762302                       | Long: -79.5972575               | Datum:WGS84               |
| Soil <b>Map</b> Unit Name: <u>34C</u>                                    |   |                                       | NWI classifica                  | tion:                     |
| Are climatic/hydrologic conditions                                       | on the site typical for this time of                | ye <b>ar?</b> Yes <u></u> ✓ No        | (If no, explain in Remark       | cs.)                      |
| Are Vegetation, Soil,  | or Hydrology significantly                          |                                       | al Circumstances" present?      | Yes 🔽 No                  |
| Are Vegetation, Soil,  | or Hydrology naturally pr                           | oblematic? (If needed,                | explain any answers in Rema     | rks.)                     |
|  |   |                                       |                                 |                           |
| SU <mark>MMARY OF FINDI</mark> NGS – At                                  | ttach site map showing sam                          | oling point locations, tran           | isects, important feature       | s, etc.                   |
| Hydrophytic Vegetation Present?  | Yes _ <b>.✓</b> _ No                                | ĺ                                     |                                 |                           |
| Hydric Soil Present?   | Yes _ ✓ No  |                                       |                                 |                           |
| Wetland Hydrology Present?   | Yes No  | Is the Sampled Area within            | n a Wetland?                    | es <b>_ ✓ No</b>          |
| Remarks:   | 165105  | is the sampled filed with             | Tarretains.                     | <u> </u>                  |
| Remarks.   |   |                                       |                                 |                           |
|  |   |                                       |                                 |                           |
|  |   |                                       |                                 |                           |
| Covertype is PFO. Area is wetland  | l, all three wetland parameters are                 | e present.                            |                                 |                           |
|  |   |                                       |                                 |                           |
|  |   |                                       |                                 |                           |
|  |   |                                       |                                 |                           |
|  |   |                                       |                                 |                           |
| HYDROLOGY  |   |                                       |                                 |                           |
| Wetland Hydrology Indicators:  |   |                                       |                                 |                           |
| Primary Indicators (minimum of o   | o <mark>ne is required; check all that a</mark> ppl | <b>y</b> )                            | Secondary Indicators (minim     | um of two required)       |
| -  |   | -                                     | Surface Soil Cracks (B6)        | •                         |
| Surface Water (A1)   | True Aquatic F                                      |                                       | Sparsely Vegetated Conc         | ave Surface (B8)          |
| High Water Table (A2)  | Hydrogen Sulf                                       |                                       | Drainage Patterns (B10)         |                           |
| Saturation (A3)  |   | ospheres on Living Roots (C3)         | Moss Trim Lines (B16)           |                           |
| Water Marks (B1)   |   | educed Iron (C4)                      | Dry-Season Water Table (        | C2)                       |
| <ul><li>✓ Sediment Deposits (B2)</li><li>✓ Drift Deposits (B3)</li></ul> | Recent from Re<br>Thin Muck Sur                     | eduction in Tilled Soils (C6)         | Crayfish Burrows (C8)           |                           |
| Algal Mat or Crust (B4)  | Other (Explain                                      |                                       | Saturation Visible on Aeri      | al Imagery (C9)           |
| Iron Deposits (B5)   | 0 c. 12. (2. (2. (2. (2. (2. (2. (2. (2. (2. (      | · · · · · · · · · · · · · · · · · · · | Stunted or Stressed Plant       | rs (D1)                   |
| Inundation Visible on Aerial I   | magery (B7)   |                                       | Geomorphic Position (D2         |                           |
| Water-Stained Leaves (B9)  | <i>5</i> , , ,                                      |                                       | Shallow Aquitard (D3)           | ,                         |
| Aquatic Fauna (B13)  |   |                                       | Microtopographic Relief (       | D4)                       |
|  |   |                                       | ✓ FAC-Neutral Test (D5)         |                           |
| Field Observations:  |   |                                       |                                 |                           |
| Surface Water Present?   | Yes No <u>_</u> Dep                                 | th (inches):                          |                                 |                           |
| Water Table Present?   | Yes No <b>_∠</b> Dep                                | th (inches):                          | <br> Wetland Hydrology Present? | Yes _ <b>∠</b> _ No       |
| Saturation Present?  | ·   | th (inches):                          |                                 | •                         |
| (includes capillary fringe)  | .usus   |                                       |                                 |                           |
|  | gauge, monitoring well, aerial pho                  | stor provious inspections) if s       | y zálablo:                      |                           |
| Describe Recorded Data (stream   | gauge, monitoring well, aeriai pric                 | otos, previous inspections), ii a     | ivaliable.                      |                           |
|  |   |                                       |                                 |                           |
|  |   |                                       |                                 |                           |
| Remarks:   |   |                                       |                                 |                           |
|  |   |                                       |                                 |                           |
|  |   |                                       |                                 |                           |
| The criterion for wetland hydrolo  | avis met  |                                       |                                 |                           |
| The ditenoritor wetland hydrolo  | gy is illet.  |                                       |                                 |                           |
|  |   |                                       |                                 |                           |
|  |   |                                       |                                 |                           |

| ,  | •                |                  |             |   |                   |             |
|--|------------------|------------------|-------------|---|-------------------|-------------|
| Tree Stratum (Plot size:)  | <b>A</b> bsolute | Dominant         | Indicator   | Dominance Test worksheet:                               |                   |             |
|  |                  | Species?         | Status      | Number of Dominant Species That                         | 6                 | (A)         |
| 1. Quercus phellos   | 20               | Yes              | FAC         | Are OBL, FACW, or FAC: Total Number of Dominant Species | -                 |             |
| 2. Acer rubrum   |                  | Yes              | FAC         | Across All Strata:                                      | 6                 | (B)         |
| 3. <u>Carpinus caroliniana</u>   | 15               | Yes .            | FAC         | Percent of Dominant Species That                        |                   |             |
| 4. Cornus amomum   |                  | No No            | FACW        | Are OBL, FACW, or FAC:                                  | 100               | (A/B)       |
| 5. Fraxinus pennsylvanica  | 5                | No               | FACW        | Prevalence Index worksheet:                             |                   |             |
| 6.   | . ——             |                  |             | <u>Total % Cover of:</u>                                | <u>Multiply B</u> | <u>y:</u>   |
| 7  |                  |                  |             | OBL species 0   | x 1 =             | 0           |
|  | 70               | = Total Cov      |             | FACW species 30   | x 2 =             | 60          |
| 50% of total cover: <u>35</u>  | _ 20% of to      | otal cover:      | 14          | FAC species 156   | x 3 =             | 468         |
| Sapling/Shrub Stratum (Plot size:15)   | 45               | V                | FACIAL      | FACU species 5  | x 4 =             | 20          |
| 1. Fraxinus pennsylvanica  |                  | Yes -            | FACW        | UPL species 0   | x 5 =             | 0           |
| 2. Acer rubrum   | 5                | No No            | FAC         | Column Totals 191                                       | (A)               | 548 (B)     |
| 3. <u>Carpinus caroliniana</u>   | 5                | No .             | FAC         | Prevalence Index = B/A =                                | 2.9               |             |
| 4. Liquidambar styraciflua   |                  | No               | FAC         | Hydrophytic Vegetation Indicators:                      |                   |             |
| 5.   |                  |                  |             | 1- Rapid Test for Hydrophytic \                         | √egetation        |             |
| 6.   |                  |                  |             | 2 - Dominance Test is >50%                              | Ü                 |             |
| 7  |                  |                  |             | $3$ - Prevalence Index is $\leq 3.0^{\circ}$            |                   |             |
| 8  | . ——             |                  |             | -   4 - Morphological Adaptations                       | ¹ (Provide s      | upporting   |
| 9  |                  |                  |             | data in Remarks or on a separate sh                     | neet)             |             |
|  | 28               | _= Total Cov     | er          | Problematic Hydrophytic Vege                            | tation¹ (Exp      | olain)      |
| 50% of total cover: <u>14</u>  | _ 20% of to      | otal cover:      | 5.6         | Indicators of hydric soil and wetlan                    | id hydrolog       | y must be   |
| Herb Stratum (Plot size: 5 )   |                  |                  |             | present, unless disturbed or proble                     | matic             |             |
| 1. Microstegium vimineum   | 60               | Yes              | FAC         | Definitions of Four Vegetation Strate                   | a:                |             |
| 2. Amphicarpaea bracteata  | 6                | No               | FAC         |   |                   |             |
| 3. <u>Dichanthelium clandestinum</u>   | 5                | No               | FAC         | Tr <b>ee</b> – Woody plants, excluding vine             | s, 3 in. (7.6     | cm) or more |
| 4. Lonicera japonica   | 3                | No               | FACU        | in diameter at breast height (DBH),                     | regardless (      | of height.  |
| 5. Parthenocissus quinquefolia   | 2                | No               | FACU        |   |                   |             |
| 6. <i>Carpinus caroliniana</i>   | 2                | No               | FAC         | Sapling/shrub – Woody plants, exclu                     | •                 |             |
| 7  |                  |                  |             | in. DBH and greater than or equal to                    | o 3.28 ft (1 i    | m) tall.    |
| 8.   |                  |                  |             |   |                   |             |
| 9  |                  |                  |             | Herb – All herbaceous (non-woody)                       |                   | ardless of  |
| 10.  |                  |                  |             | size, and woody plants less than 3.2                    | .8 ft tall.       |             |
| 11.  |                  |                  |             |   |                   |             |
|  | 78               | = Total Cov      | er          | <b>Wo</b> od <b>y vine</b> s – All woody vines grea     | ter than 3.2      | 28 ft in    |
| 50% of total cover: <u>39</u>  | 20% of to        | -<br>otal cover: | 15.6        | height.   |                   |             |
| Woody Vine Stratum (Plot size:)  |                  |                  |             |   |                   |             |
| 1. Vitis rotundifolia  | 15               | Yes              | FAC         |   |                   |             |
| 2.   |                  |                  |             |   |                   |             |
| 3.   |                  |                  |             | Hydrophytic Vegetation Present?                         | Yes ☑ No □        |             |
| 4.   |                  |                  |             |   |                   |             |
| 5.   |                  |                  |             |   |                   |             |
|  | 15               | = Total Cov      | er          | •   |                   |             |
| 50% of total cover: <u>7.5</u>   | -                | •                | 3           |   |                   |             |
|  |                  |                  |             |   |                   |             |
| Remarks: (Include photo numbers here or on a separal A positive indication of hydrophytic vegetation was obs | ·                | 0% of domin      | ant species | indexed as OBL, FACW, or FAC).                          |                   |             |
|  |                  |                  |             |   |                   |             |

| Profile De  | scription: (Describe to                               | o t <b>he d</b> ep | th n <b>eed</b> ed to do | ocument the                  | indicator                  | or confir             | m the absence             | ce of indicators.)              |                              |
|-------------|---|--------------------|--------------------------|------------------------------|----------------------------|-----------------------|---------------------------|---------------------------------|------------------------------|
| Depth       | Matrix  |                    | F                        | Redox Featu                  | res                        |                       |                           |                                 |                              |
| (inches)    | Color (moist)   | %                  | Color (moist             | t) <b>%</b>                  | Тур <b>е¹</b>              | Loc²                  |                           | T <b>ex</b> ture                | Remarks                      |
| 0 - 9       | 10YR 4/2  | 80                 | 10YR 5/8                 | 15                           | С                          | M/PL                  |                           | Loam                            |                              |
| 0 - 9       | 10YR 4/1  |                    | 10YR 4/1                 |                              |                            | M                     |                           |                                 |                              |
| 9 - 18      | 10YR 4/2  | 10                 | 10YR 5/6                 | 10                           | С С                        |                       |                           | Loam                            |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 | _                            |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 | _                            |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   | epletion,          | RM = Reduced             | Matrix, MS =                 | = Masked :                 | Sand Gra              | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M         |                              |
|             | il Indicators:  |                    |                          |                              |                            |                       |                           | Indicators for Proble           | matic Hydric Soils³:         |
| _ Histoso   |   |                    |                          | Dark Surface                 |                            |                       |                           | 2 cm Muck (A10)                 | (MLRA 147)                   |
|             | oipedon (A2)  |                    |                          | Polyvalue Be<br>Thin Dark Su |                            |                       | RA 147, 148)              | Coast Prairie Rec               | lox (A16) (MLRA 147, 148)    |
| _ Black Hi  | en Sulfide (A4)                                       |                    |                          | Loamy Gleye                  |                            |                       | , 146)                    | Piedmont Floodp                 | olain Soils (F19) (MLRA 136, |
|             | d Layers (A5)   |                    |                          | Depleted Ma                  |                            | ۷,                    |                           | 147)                            |                              |
|             | uck (A10) (LRR N)                                     |                    |                          | Redox Dark S                 |                            | )                     |                           | Very Shallow Dar                | k Surface (TF12)             |
|             | d Below Dark Surface (                                | A11)               |                          | Depleted Dai                 |                            |                       |                           | Other (Explain in               | Remarks)                     |
|             | ark Surface (A12)                                     |                    |                          | Redox Depre                  | essions (F8)               | - (513) (1.5          | OD N. MALDA 17            | C)                              |                              |
|             | łucky Mineral (S1) <b>(</b> LRF<br>ileyed Matrix (S4) | KIN, MILKA         | 147, 148)                | iron-Mangan<br>Umbric Surfa  | iese Masse<br>ice (E13) (N | S(FIZ)(LI<br>AIRA 136 | KK IV, MILKA 13<br>1991   | <b>6)</b> ₃Indicators of hydrop | ohytic vegetation and        |
|             | edox (\$5)  |                    |                          | Piedmont Flo                 | (, (                       |                       | ,                         | wetland hydrology n             | nust be present, unless      |
| _           | l Matrix (S6)   |                    |                          | Red Parent N                 |                            |                       |                           | disturbed or probler            | matic.                       |
| Restrictive | Layer (if observed):                                  |                    |                          |                              |                            |                       |                           |                                 |                              |
|             | Type:   |                    | None                     |                              |                            | Hydric:               | Soil Present?             |                                 | Yes ☑ No □                   |
|             | Depth (inches):                                       |                    |                          |                              |                            | 1                     |                           |                                 |                              |
| Remarks:    |   |                    |                          |                              |                            | -                     |                           |                                 |                              |
| Remarks.    |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |
|             |   |                    |                          |                              |                            |                       |                           |                                 |                              |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                          | City/County: Westover, P                | ittsylvania Sam <b>p</b> lin <b>g I</b> | Date: 2018-June-28   |                            |
|--|---|---|--|----------------------------|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra  |   | State: Virgin                           | ia Sampling Point: W-F   | 18-44_UPL-1                |
| Investigator(s):Janelle Bernosky                     | ı, SS JF                                | Section, Township,                      | Range:   |                            |
| Landform (hillslope, terrace, etc.):                 | Hillslope                               | Local relief (concave, conve            | ex, none): None  | Slop <b>e (%</b> ): 1 to 3 |
| Su <b>bre</b> gi <b>o</b> n (LRR or MLRA): <u>ML</u> | LRA 136 of LRR P                        | Lat: 36.576124                          | Long: -79.5972168  | _Datum:_WGS84              |
| Soil <b>Map Unit</b> Nam <b>e</b> : 34B              |   |   | NWI classificatio  | n: None                    |
|  | on the site typical for this time of ye | ar? Yes <u></u> ✓ No                    | (If no, explain in Remarks.)   | İ                          |
| Are Vegetation, Soil,                                | or Hydrology significantly dis          |   | al Circumstances" present?   | Yes No                     |
| Are Vegetation, Soil,                                | or Hydrology naturally probl            | ematic? (If needed, o                   | explain any answers in Remarks   | i.)                        |
| Summary of Findings – At                             | tach site map showing samplir           | ng point locations, tran                | sects, important features,   | etc.                       |
| Hydrophytic Vegetation Present?                      | Yes No                                  | <u> </u>                                | <u> </u>   |                            |
| Hydric Soil Present?                                 | Yes No                                  | !                                       |  |                            |
| Wetland Hydrology Present?                           | Yes No _ <b>_</b>                       | Is the Sampled Area withi               | n a <b>W</b> etl <b>and</b> ? Ye   | s <b>No</b> _              |
| Remarks:  Covertype is UPL.                          |   |   |  |                            |
| HYDROLOGY Wetland Hydrology Indicators:              |   |   |  |                            |
|  | one is required; check all that apply)  |   | Secondary Indicators (minimum  | of two required)           |
| •  |   |   | Surface Soil Cracks (B6)   | •                          |
| Surface Water (A1)                                   | True Aquatic Plar                       |   | Sparsely Vegetated Concave   | : Surface (B8)             |
| High Water Table (A2)                                | Hydrogen Sulfide                        |   | Drainage Patterns (B10)  |                            |
| Saturation (A3)<br>Water Marks (B1)                  | Oxidized Rhizosp<br>Presence of Redu    | oheres on Living Roots (C3)             | Moss Trim Lines (B16)  |                            |
| Sediment Deposits (B2)                               |   | uction in Tilled Soils (C6)             | Dry-Season Water Table (C2)  | )                          |
| Drift Deposits (B3)                                  | Thin Muck Surfac                        |   | <ul><li>Crayfish Burrows (C8)</li><li>Saturation Visible on Aerial I</li></ul> | Imagary (C9)               |
| Algal Mat or Crust (B4)                              | Other (Explain in                       | Remarks)                                | Sataration visible on Acrian   | iniagery (co)              |
| Iron Deposits (B5)                                   |   |   | Stunted or Stressed Plants (I  | D1)                        |
| Inundation Visible on Aerial In                      | magery (B7)                             |   | Geomorphic Position (D2)   |                            |
| Water-Stained Leaves (B9)                            |   |   | Shallow Aquitard (D3)  |                            |
| Aquatic Fauna (B13)                                  |   |   | Microtopographic Relief (D4  | )                          |
| E Hal  |   |   | FAC-Neutral Test (D5)  |                            |
| Field Observations:                                  | Man No 6 Davido                         | ()l \                                   |  |                            |
| Surface Water Present?                               |   | (inches):                               |  |                            |
| Water Table Present?                                 | Yes No Depth                            | (inches):                               | Wetland Hydrology Present?   | Yes No                     |
| Saturation Present?                                  | Yes No 🟒 Depth                          | (inches):                               |  |                            |
| (includes capillary fringe)                          |   |   |  |                            |
| Describe Recorded Data (stream g                     | gauge, monitoring well, aerial photos   | s, previous inspections), if a          | vailable:  |                            |
|  |   |   |  |                            |
|  |   |   |  |                            |

| · · ·   | •                |             |             |  |                 |                |
|---|------------------|-------------|-------------|--|-----------------|----------------|
| Tree Stratum (Plot size: _ 5' × 40')  |                  | Dominant    |             | Dominance Test worksheet:  |                 |                |
| 1 Oversus phelles   |                  | Species?    | Status      | Number of Dominant Species That Are OBL, FACW, or FAC:                                   | 6               | (A)            |
| Quercus phellos     Quercus alba  | 30 20            | Yes Yes     | FAC<br>FACU | Total Number of Dominant Species   |                 |                |
| 3. Cornus amomum  | 20               | Yes         | FACW        | Across All Strata:   | 8               | (B)            |
| 4.  |                  | 163         | FACTV       | Percent of Dominant Species That   | 75              | (A/B)          |
| 5.  |                  |             |             | Are OBL, FACW, or FAC:   |                 | (/ (/ b)       |
| 6.  |                  |             |             | Prevalence Index worksheet:  |                 |                |
| 7.  |                  |             |             | Total % Cover of:  | <u>Multiply</u> | <u>By:</u>     |
| ·   | 70               | = Total Cov | er          | OBL species 0  | x 1 = _         | 0              |
| 50% of total cover: <u>35</u>   |                  | _           | 14          | FACW species 21  | x 2 = _         | 42             |
| Sapling/Shrub Stratum (Plot size: 15_)  | _ 20% 01 6       | star cover. |             | FAC species 231  | x3=             | 693            |
| 1. Liquidambar styraciflua  | 30               | Yes         | FAC         | FACU species 55  | × 4 =           | 220            |
| 2.  |                  |             |             | UPL species0   | x 5 = _         | 0              |
| 3.  |                  |             |             | Column Totals 307  | (A) _           | 955 (B)        |
| 4.  |                  |             |             | Prevalence Index = B/A =   | 3.1             |                |
| 5.  |                  |             |             | Hydrophytic Vegetation Indicators:   |                 |                |
| 6.  |                  |             |             | 1- Rapid Test for Hydrophytic \  | √egetation      | 1              |
| 7.  |                  |             |             | 2 - Dominance Test is >50%   |                 |                |
| 8.  |                  |             |             | - 3 - Prevalence Index is ≤ 3.01   |                 |                |
| 9.  |                  |             |             | 4 - Morphological Adaptations  |                 | supporting     |
| ·   | 30               | = Total Cov | er          | data in Remarks or on a separate sh  |                 |                |
| 50% of total cover: 15  |                  | -           | 6           | Problematic Hydrophytic Vege   |                 |                |
| Herb Stratum (Plot size: 5_)  |                  | otal cover. |             | <sup>1</sup> Indicators of hydric soil and wetlan<br>present, unless disturbed or proble | -               | gy must be     |
| 1. Microstegium vimineum  | 80               | Yes         | FAC         | <del></del>  |                 |                |
| 2. Lonicera japonica  | 15               | No          | FACU        | . Definitions of Four Vegetation Strate  | a:              |                |
| 3. Verbesina alternifolia   | 10               | No          | FAC         | -  <br>_   Tr <b>ee</b> – Woody plants, excluding vine                                   | or 2 in 77      | 6 cm) or more  |
| Smilax rotundifolia   | - <del>- 1</del> | No No       | FAC         | in diameter at breast height (DBH),  |                 |                |
| 5. Fraxinus pennsylvanica   | - <del></del>    | No          | FACW        | In diameter at 57 cast fielg. it (5511),   | regaranes.      | o i naigna     |
| 6.  |                  |             |             | -<br>  <b>Sapling/shrub</b> – Woody plants, exclu  | uding vine      | s. less than 3 |
| 7.  |                  |             |             | in. DBH and greater than or equal to   | _               |                |
| 8.  |                  |             |             |  |                 |                |
| 9.  |                  |             |             | Herb – All herbaceous (non-woody)  | plants, re      | gardless of    |
| 10.   |                  |             |             | size, and woody plants less than 3.2   | 8 ft tall.      |                |
| 11.   |                  |             |             | •  |                 |                |
|   | 107              | = Total Cov | er          | -<br>  <b>Wo</b> od <b>y vine</b> s – All woody vines grea                               | ter than 3      | .28 ft in      |
| 50% of total cover: 53.5  |                  | tal cover:  | 21.4        | height.  |                 |                |
| Woody Vine Stratum (Plot size: 5' x 40' )   | _ 20 % 01 6      | otal cover. |             |  |                 |                |
| 1. Toxicodendron radicans   | 40               | Yes         | FAC         |  |                 |                |
| 2. Smilax rotundifolia  | 40               | Yes         | FAC         | •  |                 |                |
| 3. Lonicera japonica  | 20               | Yes         | FACU        | Hydrophytic Vegetation Present?  | Yes ☑ No        | _              |
| 4.  |                  |             |             | .  |                 |                |
| 5.  |                  |             |             | •  |                 |                |
|   | 100              | = Total Cov | er          | •  |                 |                |
| 50% of total cover: 50  |                  | otal cover: | 20          |  |                 |                |
|   | _                |             |             |  |                 |                |
| Remarks: (Include photo numbers here or on a separa  A positive indication of hydrophytic vegetation was ob |                  | 0% of domin | ant species | indexed as OBL, FACW, or FAC).   |                 |                |
|   |                  |             |             |  |                 |                |

|                | cription: (Describe to  | o t <b>he depth</b> r |                       |                         |                            | or confirm        | n the absenc            | ce of indicators.)               |  |
|----------------|-------------------------|-----------------------|-----------------------|-------------------------|----------------------------|-------------------|-------------------------|----------------------------------|--|
| D <b>ep</b> th | Matrix                  |                       |                       | Featur                  |                            |                   |                         |                                  |  |
| (inches)       | Color (moist)           | <u></u> %             | Color (moist)         | <u> %</u>               | Type¹                      | _Loc²             |                         | T <b>extur</b> e                 | Remarks  |
| 0 - 18         | 10YR 4/6                | 100                   |                       |                         |                            |                   |                         | Silt Loam                        |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  | <u> </u>   |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         | - —                        |                   |                         |                                  | -  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  | · <del></del>  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
| ¹Tvne' C = (   | Concentration D = D     | enletion RM           | i = Reduced Matri     | × MS =                  | Masked S                   | <br>and Grai      | ns <sup>2</sup> Locatio | on: PL = Pore Lining, M =        | - Matrix   |
|                | Indicators:             | apracion, m           | Tread cod Tride       | 74 1112                 | masica s                   | arra aran         | is. Ectaric             | Indicators for Problem           |  |
| 1 -            |                         |                       | Dark                  | `urfaco (               | C7\                        |                   |                         | indicators for Problem           | lade Hydric Solis".                                      |
| _ Histosol (   | (AT)<br>pedon (A2)      |                       |                       | Surface (:<br>slue Belo |                            | (\$8) (MLF        | RA 147, 148)            | 2 cm Muck (A10) (I               |  |
| Black His      |                         |                       |                       |                         | ace (S9) <b>(</b> N        |                   |                         | Coast Prairie Redo               | x (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b> |
|                | n Sulfide (A4)          |                       |                       |                         | Matrix (F2                 |                   | ,                       | Piedmont Floodpla                | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b>              |
|                | Layers (A5)             |                       | _ Deple               |                         |                            | ,                 |                         | 147)                             |  |
| 2 cm Mu        | ck (A10) (LRR N)        |                       | Redox                 | Dark Su                 | ırface (F6)                |                   |                         | Very Shallow Dark                | Surface (TF12)   |
|                | Below Dark Surface (    | A11)                  |                       |                         | Surface (F                 | 7)                |                         | Other (Explain in R              | temarks)   |
|                | rk Surface (A12)        |                       | Redox                 | Depres                  | sions (F8)                 |                   |                         |                                  |  |
|                | ucky Mineral (S1) (LRR  | R N, MLRA 147         | <b>', 148)</b> Iron-N | langane                 | se Masses                  | (F12) (LRI        | R N, MLRA 13            | <b>6)</b> ₃Indicators of hydropl | nytic vegetation and                                     |
|                | eyed Matrix (S4)        |                       |                       |                         | c (, (                     | ,                 | ,                       | wetland hydrology mu             | ust be present, unless                                   |
| Sandy Re       | dox (55)<br>Matrix (S6) |                       |                       |                         | dplain Soi<br>aterial (F21 |                   |                         | disturbed or problem             |  |
|                |                         |                       | Keu F                 | arent Ma                | ateriai (FZ I              | ) (IVILICA I      | 21, 147)                |                                  |  |
|                | Layer (if observed):    |                       |                       |                         |                            |                   |                         |                                  |  |
| T              | ype:                    |                       | None                  | •                       |                            | H <b>yd</b> ric S | oil Present?            |                                  | Yes □ No ☑   |
|                | Depth (inches):         |                       |                       | •                       |                            |                   |                         |                                  |  |
| Remarks:       |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
|                |                         |                       |                       |                         |                            |                   |                         |                                  |  |
| <u> </u>       |                         |                       |                       |                         |                            |                   |                         |                                  |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                     | City/County:                           |  | Sampling Date: 2018-Jun         | e-28                         |
|---|--|--|---------------------------------|------------------------------|
| Applicant/Owner: NextEra                        |  | State:   | Sampling Point: V               | /-F18-41_PFO-2               |
| Investigator(s): Janelle Bernosk                | y, JF, SS                              | Section, Township,                             | Range:                          |                              |
| Landform (hillslope, terrace, etc.)             | : Depression                           | Local relief (concave, conv                    | ex, none): Concave              | Slop <b>e (%</b> ):_ 5 to 10 |
| Subregion (LRR or MLRA): M                      | ILRA 136 of LRR P                      | Lat: 36.5736612                                | Long: -79.5991735               | Datum: WGS84                 |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :23D |  |  | NWI classifica                  | tion: None                   |
| Are climatic/hydrologic condition:              | s on the site typical for this time of | f ye <b>ar?</b> Yes 🟒 No                       | (If no, explain in Remarl       | cs.)                         |
| Are Vegetation, Soil,                           | or Hydrology significantly             |  | al Circumstances" present?      | Yes 🔽 No                     |
| Are Vegetation, Soil,                           | or Hydrology naturally pr              | oblematic? (If needed,                         | explain any answers in Rema     | rks.)                        |
|   |  |  |                                 |                              |
| SUMMARY OF FINDINGS – A                         | kttach site map showing sam            | pling point locations, trar                    | nsects, important feature       | s, etc.                      |
| Hydrophytic Vegetation Present?                 | ? Yes _ <b>√</b> _ No                  |  |                                 |                              |
| Hydric Soil Present?                            | Yes _ 🗸 No                             |  |                                 |                              |
| Wetland Hydrology Present?                      |  | Is the Sampled Area withi                      | n a Wetland?                    | es <b>/_ No</b>              |
| Remarks:  |  |  |                                 |                              |
| Remarks.  |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
| Covertype is PFO. Area is wetland               | d, all three wetland parameters ar     | e present.                                     |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
| HYDROLOGY                                       |  |  |                                 |                              |
| Wetland Hydrology Indicators:                   |  |  |                                 |                              |
| Primary Indicators (minimum of                  | one is required; check all that app    | ly)  | Secondary Indicators (minim     | um of two required)          |
|   |  | -  | Surface Soil Cracks (B6)        | <del>.</del>                 |
| Surface Water (A1)                              | True Aquatic I                         |  | Sparsely Vegetated Conc         | ve Surface (B8)              |
| High Water Table (A2)                           | Hydrogen Sul                           |  | Drainage Patterns (B10)         |                              |
| Saturation (A3)                                 |  | ospheres on Living Roots (C3)                  | Moss Trim Lines (B16)           |                              |
| Water Marks (B1) Sediment Deposits (B2)         |  | educed Iron (C4) eduction in Tilled Soils (C6) | Dry-Season Water Table (        | C2)                          |
| Drift Deposits (B3)                             | Thin Muck Su                           |  | Crayfish Burrows (C8)           | (50)                         |
| Algal Mat or Crust (B4)                         | Other (Explain                         |  | Saturation Visible on Aeri      | ai imagery (C9)              |
| Iron Deposits (B5)                              |  | ,  | Stunted or Stressed Plant       | s (D1)                       |
| Inundation Visible on Aerial                    | Imagery (B7)                           |  | Geomorphic Position (D2         |                              |
| Water-Stained Leaves (B9)                       |  |  | Shallow Aquitard (D3)           |                              |
| Aquatic Fauna (B13)                             |  |  | Microtopographic Relief (       | D4)                          |
|   |  |  | <u>✓</u> FAC-Neutral Test (D5)  |                              |
| Field Observations:                             |  |  |                                 |                              |
| Surface Water Present?                          | Yes No De                              | oth (inches):                                  |                                 |                              |
| Water Table Present?                            | Yes No _ <b>_</b> ∠ De                 | oth (inches):                                  | <br> Wetland Hydrology Present? | Yes No                       |
| Saturation Present?                             |  | oth (inches): 12                               |                                 |                              |
| (includes capillary fringe)                     |  |  |                                 |                              |
|   | garage manitoring wall parial ph       | ntes province inspections) if                  | l<br>vrailable:                 |                              |
| Describe Recorded Data (stream                  | gauge, monitoring well, aerial pho     | otos, previous inspections), ii a              | avanavie:                       |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
| Remarks:  |  |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |
| The criterion for wetland hydrolo               | ngvis met                              |  |                                 |                              |
| The chienon for wedand hydrold                  | оду із піес.                           |  |                                 |                              |
|   |  |  |                                 |                              |
|   |  |  |                                 |                              |

| Tre       | ee Stratum (Plot size: <u>30)</u>  | Absolute<br>% Cover | Dominant Species? | Indicator<br>Status | Dominance Test worksheet: Number of Dominant Species That | _                 |  |
|-----------|------------------------------------|---------------------|-------------------|---------------------|---|-------------------|--|
| 1.        | Betula nigra                       | 10                  | Yes               | FACW                | Are OBL, FACW, or FAC:                                    | 4                 | (A)  |
|           | Carpinus caroliniana               | 10                  | Yes               | FAC                 | Total Number of Dominant Species                          | 4                 | (B)  |
| 3.        | Acer rubrum                        | 5                   | No                | FAC                 | Across All Strata:  | •                 |  |
|           |                                    |                     | Percent cover     |                     | Percent of Dominant Species That                          | 100               | (A/B)  |
| 1         | Quercus alba                       | 10                  | cannot be greater | FACU                | Are OBL, FACW, or FAC:                                    |                   |  |
| 4.        | Quei cus aiba                      | 10                  | than a previous   | FACU                | Prevalence Index worksheet:                               |                   |  |
|           |                                    |                     | species           |                     | - I   | <u>Multiply B</u> | -  |
| 5.        |                                    |                     |                   |                     |   | ×1= _             | 10   |
| 6.        |                                    |                     |                   |                     |   | ×2= _             | 24   |
| 7.        |                                    |                     |                   |                     |   | ×3= _             | 63   |
|           |                                    | 35                  | = Total Cover     |                     |   | × 4 =             | 48   |
|           | 50% of total cover: <u>17.5</u>    | _ 20% of to         | tal cover:        | 7                   |   | x 5 =             | 0  |
| <u>Sa</u> | pling/Shrub Stratum (Plot size:15) |                     |                   |                     | Column Totals <u>55</u>                                   | (A)               | 145 (B)  |
| 1.        |                                    |                     |                   |                     | Prevalence Index = B/A =                                  | 2.6               |  |
| 2.        |                                    |                     |                   |                     | Hydrophytic Vegetation Indicators:                        |                   |  |
| 3.        |                                    |                     |                   |                     | 1- Rapid Test for Hydrophytic Ve                          | egetation         |  |
| 4.        |                                    |                     |                   |                     | 2 - Dominance Test is >50%                                |                   |  |
| 5.        |                                    |                     |                   |                     | 3 - Prevalence Index is ≤ 3.01                            |                   |  |
| 6.        |                                    |                     |                   |                     | 4 - Morphological Adaptations¹ (                          | (Provide s        | upporting  |
| 7.        |                                    |                     |                   |                     | data in Remarks or on a separate she                      | eet)              |  |
| 8.        |                                    |                     |                   |                     | Problematic Hydrophytic Vegeta                            | ation¹ (Exp       | olain)   |
| 9.        |                                    |                     |                   |                     | Indicators of hydric soil and wetland                     | l hydrolog        | y must be  |
|           | -                                  | 0                   | = Total Cover     |                     | present, unless disturbed or problem                      | natic             |  |
|           | 50% of total cover: 0              |                     |                   | 0                   | Definitions of Four Vegetation Strata:                    |                   |  |
| He        | erb Stratum (Plot size: 5_)        | _ = 0 / 0           |                   |                     |   |                   |  |
|           | Dulichium arundinaceum             | 10                  | Yes               | OBL                 | Tree – Woody plants, excluding vines,                     |                   |  |
|           | Amphicarpaea bracteata             | 5                   | Yes               | FAC                 | - in diameter at breast height (DBH), re                  | egardless (       | of height.   |
|           | Polystichum acrostichoides         | 2                   | No                | FACU                | ·   |                   |  |
| 4.        | Fraxinus pennsylvanica             |                     | No                | FACW                | - Sapling/shrub - Woody plants, exclud                    | •                 |  |
|           | Liquidambar styraciflua            | 1                   | No                | FAC                 | in. DBH and greater than or equal to                      | 3.28 T (1 )       | m) tall.   |
| 6.        | Elquidamour Styrucinad             | <u>'</u>            |                   |                     |   |                   | II <del>-</del> <del>-</del> <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> |
| 7.        |                                    |                     |                   |                     | Herb – All herbaceous (non-woody) p                       | . 0               | ardless of   |
| ٠.        |                                    |                     |                   |                     | size, and woody plants less than 3.28                     | it tall.          |  |
| 8.        |                                    |                     |                   |                     |   |                   |  |
| 9.        |                                    |                     |                   |                     | <b>Wo</b> od <b>y vine</b> s – All woody vines greate     | er than 3.2       | 28 ft in   |
| 10        |                                    |                     |                   |                     | height.   |                   |  |
| 11        |                                    |                     |                   |                     |   |                   |  |
|           |                                    | 20                  | = Total Cover     |                     |   |                   |  |
|           | 50% of total cover:10              | _ 20% of to         | tal cover:        | 4                   |   |                   |  |
| W         | oody Vine Stratum (Plot size:)     |                     |                   |                     | Hydrophytic Vegetation Present? Ye                        | es 🛭 No 🗆         |  |
| 1.        |                                    |                     |                   |                     |   |                   |  |
| 2.        |                                    |                     |                   |                     |   |                   |  |
| 3.        |                                    |                     |                   |                     |   |                   |  |
| 4.        |                                    |                     |                   |                     | .   |                   |  |
| 5.        |                                    |                     |                   |                     |   |                   |  |
| ٥.        |                                    | 0                   | = Total Cover     |                     | -   |                   |  |
|           | 50% of total cover: <u>0</u>       |                     |                   | 0                   |   |                   |  |
|           | 50% of total cover. 0              | _ 20 /0 01 10       | car cover.        |                     | _   |                   |  |

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

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

| Profile De        | escription: (Describe to                             | t <b>he d</b> ep | th n <b>eed</b> ed to doo | ument the    | in <b>dicator</b>        | or confir   | m the absence              | ce of indicators.)                          |   |
|-------------------|--|------------------|---------------------------|--------------|--------------------------|-------------|----------------------------|---|---|
| Depth             | <b>Ma</b> trix                                       |                  | R                         | edox Featur  | es                       |             |                            |   |   |
| (in <b>ch</b> es) | Color (moist)  | %                | Color (moist)             | %            | Type¹                    | Loc²        |                            | Te <b>xtu</b> r <b>e</b>                    | Remarks   |
| 0 - 2             | 10YR 4/3   | 85               | 10YR 4/6                  | 15           | C                        | M           |                            | Loamy Sand                                  |   |
| 2 - 12            | 10YR 4/2   | 80               | 7.5YR 4/6                 | 15           | С С                      | M/PL        |                            | Loamy Sand                                  |   |
| 2 - 12            |  |                  | 10YR 4/1                  | 5            | D                        |             |                            | Loamy Sand                                  |   |
| 12 - 18           | 10YR 4/3   | 85               | 7.5YR 4/6                 | <br>15       |                          |             |                            | Loamy Sand                                  |   |
|                   |  |                  |                           |              |                          |             |                            | •   |   |
|                   |  |                  |                           |              | -                        |             |                            |   | -   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
| 1T C -            | Canadantian D - D                                    |                  | DAA - Daalusaad A         |              |                          |             |                            | - Di - Dava Lining Ma                       | - D. A. a. a. a. a. a. a. a. a. a. a. a. a. a.          |
|                   |  | epietion,        | , KIVI = Keaucea IV       | iatrix, MS = | Maskeu :                 | Sanu Gra    | iris. *Locatio             | on: PL = Pore Lining, M =                   |   |
| 1 -               | il Indicators:                                       |                  |                           | I . C        | (CT)                     |             |                            | Indicators for Problem                      | natic Hydric Solls <sup>a</sup> :                       |
| _ Histoso         | r (AT)<br>pipedon (A2)                               |                  | _                         | ark Surface  |                          | M) (82) a   | .RA 147, 148)              | 2 cm Muck (A10) (I                          | MLRA 147)   |
|                   | istic (A3)   |                  |                           | nin Dark Sur |                          |             |                            | Coast Prairie Redo                          | x (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7, <b>148)</b> |
| _                 | en Sulfide (A4)                                      |                  |                           | amy Gleyed   |                          |             |                            | Piedmont Floodpla                           | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b>             |
| Stratifie         | ed Layers (A5)                                       |                  | D                         | epleted Mat  | rix (F3)                 |             |                            | 147)  |   |
| _                 | uck (A10) <b>(</b> LR <b>R N)</b>                    |                  | _                         | edox Dark S  |                          |             |                            | Very Shallow Dark                           |   |
|                   | ed Below Dark Surface (                              | A11)             | _                         | epleted Dar  |                          |             |                            | Other (Explain in R                         | Remarks)  |
| _                 | ark Surface (A12)<br>Jucky Mineral (S1) <b>(</b> LRR | N MIDA           | K0                        | edox Depres  | ssions (F8)<br>see Masse | c (E12) (LE | OP NIMIRA 13               | 6)  |   |
|                   | Sleyed Matrix (S4)                                   | TIV, IVILITY     | U                         | mbric Surfa  | ce (F13) ( <b>N</b>      | II RA 136.  | . <b>12</b> 2)             | <b>6)<sub>3</sub>Indicators of hydrop</b> l | nytic vegetation and                                    |
|                   | Redox (S5)   |                  |                           | edmont Flo   |                          |             |                            | wetland hydrology mu                        |   |
| Strippe           | d Matrix (S6)  |                  | Re                        | ed Parent M  | aterial (F2              | 1) (MLRA    | 1 <b>2</b> 7, <b>1</b> 47) | disturbed or problem                        | atic.   |
| Restrictive       | e Layer (if observed):                               |                  |                           |              |                          |             |                            |   |   |
|                   | Туре:  |                  | None                      |              |                          | Hydric:     | Soil Present?              |   | Yes ☑ No □  |
|                   | Depth (inches):                                      |                  |                           |              |                          | -           |                            |   |   |
| Remarks:          |  |                  |                           |              |                          | •           |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
| _ ,               |  |                  |                           |              |                          |             |                            |   |   |
| The criter        | rion for hydric soil is m                            | net.             |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |
|                   |  |                  |                           |              |                          |             |                            |   |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate              | City/County:  |  | Sampling Date: 2018-Jun         | e-28                       |
|--|---|--|---------------------------------|----------------------------|
| Applicant/Owner: NextEra                 |   | State:   | Sampling Point: V               | /-F18-41_PSS-1             |
| nvestigator(s):Janelle Bernosk           | y, TS, JSF, ESN   | Section, Township,                             | Range:                          |                            |
| Landform (hillslope, terrace, etc.):     | : Terrace   | Local relief (concave, conv                    | ex, none): Concave              | Slop <b>e (%</b> ): 1 to 3 |
| Subregion (LRR or MLRA): M               | ILRA 136 of LRR P   | Lat: 36.5736831                                | Long: -79.5993823               | Datum: WGS84               |
| Soil <b>Map</b> Unit Name:23D            |   |  | NWI classifica                  | ntion: None                |
| Are climatic/hydrologic condition:       | s on the site typical for this time of                            | ye <b>ar?</b> Yes 🟒 No                         | (If no, explain in Remarl       | ks.)                       |
| Are Vegetation, Soil,                    | or Hydrology significantly  | disturbed? Are "Norma                          | al Circumstances" present?      | Yes <u></u> No             |
| Are Vegetation, Soil,                    | or Hydrology naturally pr   | oblematic? (If needed,                         | explain any answers in Rema     | rks.)                      |
|  |   |  |                                 |                            |
| SU <b>MMARY OF FINDI</b> NG <b>S</b> – A | ttach site map showing sam  | pling point locations, trar                    | nsects, important feature       | es, etc.                   |
| Hydrophytic Vegetation Present?          | ? Yes _ 🗸 No  |  |                                 |                            |
| Hydric Soil Present?                     | Yes _ <b>/</b> No   |  |                                 |                            |
| Wetland Hydrology Present?               | Yes _ <b>_</b> No   | Is the Sampled Area withi                      | n a Wetland?                    | ∕es <b>∕_ No</b>           |
| Remarks:                                 | 143 110   | is the sumpled / ited / ited                   |                                 | <u> </u>                   |
| Kemarks.                                 |   |  |                                 |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |
| Covertype is PSS. Area is wetland        | d, all three wetland parameters are                               | present.                                       |                                 |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |
|  | _   |  |                                 |                            |
| JVDBOLOCV                                |   |  |                                 |                            |
| HYDROLOGY                                |   |  |                                 |                            |
| Wetland Hydrology Indicators:            |   |  |                                 |                            |
| Primary Indicators (minimum of           | one is required; check all that appl                              | <u>ly)</u>                                     | Secondary Indicators (minim     | um of two required)        |
| Customa Mataur (A.1)                     | Truc Acustic I  | Name (D4.4)                                    | Surface Soil Cracks (B6)        |                            |
| Surface Water (A1)                       | True Aquatic F  |  | Sparsely Vegetated Conc         | ave Surface (B8)           |
| High Water Table (A2)<br>Saturation (A3) | Hydrogen Sulf   | nae Odor (CT)<br>ospheres on Living Roots (C3) | Drainage Patterns (B10)         |                            |
| Water Marks (B1)                         |   | educed Iron (C4)                               | Moss Trim Lines (B16)           | 52)                        |
| ✓ Sediment Deposits (B2)                 |   | eduction in Tilled Soils (C6)                  | Dry-Season Water Table (        | (2)                        |
| Drift Deposits (B3)                      | Thin Muck Sur   |  | Crayfish Burrows (C8)           | al Imagony (CO)            |
| Algal Mat or Crust (B4)                  | Other (Explain  |  | Saturation Visible on Aeri      | ai imagery (C9)            |
| Iron Deposits (B5)                       |   |  | Stunted or Stressed Plant       | ts (D1)                    |
| Inundation Visible on Aerial             | Imagery (B7)  |  | Geomorphic Position (D2         |                            |
| Water-Stained Leaves (B9)                |   |  | Shallow Aquitard (D3)           |                            |
| Aquatic Fauna (B13)                      |   |  | Microtopographic Relief (       | D4)                        |
|  |   |  | ✓ FAC-Neutral Test (D5)         |                            |
| Field Observations:                      |   |  |                                 |                            |
| Surface Water Present?                   | Yes No 🗸 Dep  | oth (inches):                                  |                                 |                            |
| Water Table Present?                     | Yes No Dep  | oth (inches):                                  | <br> Wetland Hydrology Present? | Yes _ <b>_</b> No          |
| Saturation Present?                      |   | oth (inches): 12                               | "                               | _•                         |
|  | 165 <u>v</u> 140 DC   | 72   |                                 |                            |
| (includes capillary fringe)              |   |  |                                 |                            |
| Describe Recorded Data (stream           | i <mark>gauge, mon</mark> itori <mark>ng well, ae</mark> rial pho | otos <b>, previous inspections</b> ), if a     | available:                      |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |
| Remarks:                                 |   |  |                                 |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |
|  |   |  |                                 |                            |

| · · · · · · · · · · · · · · · · · · ·                 | •                |              |           |   |               |               |
|---|------------------|--------------|-----------|---|---------------|---------------|
| Tues Church von (Diet sine)                           | <b>A</b> bsolute | Dominant     | Indicator | Dominance Test worksheet:   |               |               |
| Tree Stratum (Plot size:)                             | % Cover          | Species?     | Status    | Number of Dominant Species That                                     | 4             | (4)           |
| 1.  |                  |              |           | Are OBL, FACW, or FAC:  |               | (A)           |
| 2.  |                  |              |           | Total Number of Dominant Species Across All Strata:                 | 5             | (B)           |
| 3   |                  |              |           | Percent of Dominant Species That                                    |               |               |
| 4   |                  |              |           | - Are OBL, FACW, or FAC:  | 80            | (A/B)         |
| 5   |                  |              |           | Prevalence Index worksheet:   |               |               |
| 6   |                  |              |           | - Total % Cover of:   | Multiply E    | ₹vr           |
| 7   |                  |              |           | - OBL species 0   | x 1 =         | 0             |
|   | 0                | = Total Cov  | er        | FACW species 17   | x 2 =         | 34            |
| 50% of total cover: <u>0</u>                          | _20% of to       | tal cover:   | 0         | FAC species 56  | x3=           | 168           |
| Sapling/Shrub Stratum (Plot size:15)                  |                  |              |           |   | _             |               |
| 1. Platanus occidentalis                              | 15               | Yes          | FACW      | FACU species 15   | × 4 = _       | 60            |
| 2. Fagus grandifolia                                  | 15               | Yes          | FACU      | - UPL species 0   | x5= _         | 0             |
| 3.  |                  |              |           | Column Totals 88  | (A) _         | 262 (B)       |
| 4.  |                  |              |           | Prevalence Index = B/A =  | 3             |               |
| 5.  |                  |              |           | Hydrophytic Vegetation Indicators:                                  |               |               |
| 6.  |                  |              |           | - Lapid Test for Hydrophytic \                                      | √egetation    |               |
|   |                  |              |           | 2 - Dominance Test is >50%  |               |               |
| _   |                  |              |           | $\checkmark$ 3 - Prevalence Index is $\le$ 3.01                     |               |               |
| 8.  |                  |              |           | -  4 - Morphological Adaptations                                    | 1 (Provide :  | supporting    |
| 9   |                  |              |           | data in Remarks or on a separate sh                                 | neet)         |               |
|   | 30               | _= Total Cov |           | Problematic Hydrophytic Vege  | tation¹ (Ex   | plain)        |
| 50% of total cover: <u>15</u>                         | _ 20% of to      | tal cover:   | 6         | Indicators of hydric soil and wetlan                                | id hydrolog   | gy must be    |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )            |                  |              |           | present, unless disturbed or proble                                 | matic         |               |
| 1. Microstegium vimineum                              |                  | Yes          | FAC       | Definitions of Four Vegetation Strate                               | a:            |               |
| 2. Amphicarpaea bracteata                             | 20               | Yes          | FAC       | _   |               |               |
| 3. Dichanthelium clandestinum                         | 15               | Yes          | FAC       | Tree – Woody plants, excluding vine                                 | s, 3 in. (7.6 | cm) or more   |
| 4. Boehmeria cylindrica                               | 2                | No           | FACW      | in diameter at breast height (DBH),                                 | regardless    | of height.    |
| 5. Acer rubrum  | 1                | No           | FAC       |   |               |               |
| 6.  |                  |              |           | Sapling/shrub – Woody plants, exclu                                 | uding vines   | , less than 3 |
| 7.  |                  |              |           | in. DBH and greater than or equal to                                | o 3.28 ft (1  | m) tall.      |
| 8.  |                  |              |           | -   |               |               |
|   |                  |              |           | Herb – All herbaceous (non-woody)                                   | plants, reg   | ardless of    |
| 10  |                  |              |           | size, and woody plants less than 3.2                                | 8 ft tall.    |               |
|   |                  |              |           | -   |               |               |
| 11  | 58               | = Total Cov  | 0.0       | - <b> </b><br>  <b>Wo</b> od <b>y vine</b> s – All woody vines grea | torthan 3     | 28 ft in      |
| 50% - 5 t-t-1 30                                      |                  | •            |           | height.   | cer chan 5    | 20 10 111     |
| 50% of total cover: <u>29</u>                         | _ 20% of to      | otal cover:  | 11.6      | neight.   |               |               |
| Woody Vine Stratum (Plot size:)                       |                  |              |           |   |               |               |
| 1   |                  |              |           | -   |               |               |
| 2   |                  |              |           | -   |               |               |
| 3   |                  |              |           | Hydrophytic Vegetation Present?                                     | Yes ☑ No □    |               |
| 4   |                  |              |           | _   |               |               |
| 5   |                  |              |           | _   |               |               |
|   | 0                | = Total Cov  | er        |   |               |               |
| 50% of total cover: <u>0</u>                          | _ 20% of to      | tal cover:   | 0         |   |               |               |
| Remarks: (Include photo numbers here or on a separa   | te sheet )       |              |           |   |               |               |
| Remarks. (include prioto numbers here of our a separa | e sileet.)       |              |           |   |               |               |
|   |                  |              |           |   |               |               |
|   |                  |              |           |   |               |               |
|   |                  |              |           |   |               |               |
|   |                  |              |           |   |               |               |
|   |                  |              |           |   |               |               |
|   |                  |              |           |   |               |               |
|   |                  |              |           |   |               |               |

| Profile De | scription: (Describe to  | the dep   | th n <b>eed</b> ed to d | document                 | t <b>he</b> inc | dicator (    | or confir        | m the absence             | ce of indicators.)                    |   |
|------------|--|-----------|-------------------------|--------------------------|-----------------|--------------|------------------|---------------------------|---------------------------------------|---|
| Depth      | <b>Ma</b> trix   |           | Redox Features          |                          |                 |              |                  |                           |                                       |   |
| (inches)   | Color (moist)  | %         | Color (moi              | ist)                     | %               | % Type¹ Loc² |                  |                           | T <b>extur</b> e                      | Remarks                                     |
| 0 - 2      | 10YR 4/3   | 90        | 7.5YR 4/6               | 5                        | 10              | C            | M                |                           | Sandy Loam                            |   |
| 2 - 10     | 10YR 4/4   | 80        | 10YR 4/2                | 2                        | 10              | D            | M                |                           | Sand                                  |   |
| 2 - 10     |  |           | 10YR 5/6                |                          | 10              | С            | M                |                           |                                       |   |
| 10 - 20    | 10YR 3/2   | 70        | 2.5YR 4/6               |                          | 20              | С            | M/PL             | Si                        | ilty Clay Loam                        |   |
| 10 - 20    |  |           | 7.5YR 4/3               | <del></del> _            | 10              | С            |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  | -                         |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       | _   |
|            |  |           |                         |                          |                 |              |                  | -                         |                                       | _ ·   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
| ¹Tvpe: C = |  | epletion. | RM = Reduced            | d Matrix. i              | <br>MS = M      | lasked S     | and Gra          | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M               | = Matrix.                                   |
|            | il Indicators:   | артастот  | THE TREATER             | a trickering i           | .,,,            | as Rea       | ana ana          | mo. Locario               | Indicators for Probler                |   |
| _ Histoso  |  |           |                         | _ Dark Sur               | face (\$7       | 7)           |                  |                           |                                       | •   |
| _          | oipedon (A2)   |           |                         | _                        |                 |              | (S8) <b>(M</b> L | RA 147, 148)              | 2 cm Muck (A10) (                     |   |
| Black H    | istic (A3)   |           |                         | _<br>_Thin Dar           |                 |              |                  |                           |                                       | ox (A16) (MLRA 147, 148)                    |
|            | en Sulfide (A4)  |           | _                       | _ Loamy G                | -               |              | 2)               |                           |                                       | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
|            | d Layers (A5)  |           |                         | ∠ Depleted               |                 |              |                  |                           | 147)                                  | . Cf /TE43\                                 |
| _          | uck (A10) <b>(</b> LR <b>R N)</b><br>d Below Dark Surface ( <i>i</i> | Δ11)      |                         | _ Redox Da<br>_ Depleted |                 |              |                  |                           | Very Shallow Dark Other (Explain in l |   |
|            | ark Surface (A12)  | A11)      |                         | Redox De                 | epressio        | ons (F8)     |                  |                           |                                       | ·   |
|            | lucky Mineral (S1) (LRR  | N, MLRA   | 147, 148)               | _<br>Iron-Mar            | nganese         | Masses       | (F12) (LF        | RR N, MLRA 13             | <b>6)</b> ₃Indicators of hydrop       | hytic vocatation and                        |
|            | ileyed Matrix (S4)   |           | _                       |                          | Ju. 10.00       | ί            |                  | ,                         | wetland hydrology m                   | ust be present, unless                      |
| _          | ledox (S5)   |           | _                       |                          |                 |              |                  | MLRA 148)                 | disturbed or problem                  |   |
|            | d Matrix (S6)  |           |                         | _ Red Pare               | ent Mate        | erial (F21   | I) (MLRA         | 127, 147)                 | distance of problem                   |   |
|            | e Layer (if observed):<br>_  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            | Type:  |           | None                    |                          |                 |              | Hydric :         | Soil Present?             |                                       | Yes ☑ No □                                  |
|            | Depth (inches):  |           |                         |                          |                 |              |                  |                           |                                       |   |
| Remarks:   |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |
|            |  |           |                         |                          |                 |              |                  |                           |                                       |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                    | City/County:                               |   | Sampling Date: 2018-Jui   | ne-28                      |
|--|--|---|---|----------------------------|
| Applicant/Owner: NextEra                       |  | Sampling Point: 1                               | <i>N</i> -F18-41_UPL-1  |                            |
| Investigator(s):Janelle Bernosk                | y, EN, SS                                  | Range:  |   |                            |
| Landform (hillslope, terrace, etc.):           | : Hillslope                                | Local relief (concave, conv                     | ex, none): Convex   | Slop <b>e (%</b> ): 1 to 3 |
| Subregion (LRR or MLRA): M                     | ILRA 136 of LRR P                          | Lat: 36.5737501                                 | Long: -79.5995577   | Datum:WGS84                |
| Soil <b>Map</b> Unit Name: 23D                 |  |   | NWI classific   | ation: None                |
| Are climatic/hydrologic conditions             | s on the site typical for this time of :   | ye <b>ar?</b> Yes 🟒 No                          | (If no, explain in Rema   | ks.)                       |
| Are Vegetation, Soil,                          | or Hydrology significantly                 | disturbed? Are "Norma                           | al Circumstances" present?  | Yes 🟒 No                   |
| Are Vegetation, Soil,                          | or Hydrology naturally pro                 | blematic? (If needed,                           | explain any answers in Rem  | arks.)                     |
|  |  |   |   |                            |
| SU <mark>MMARY OF FINDI</mark> NGS – A         | ttach site ma <mark>p sho</mark> wing samp | ling point locations, tran                      | isects, important featur  | es, etc.                   |
| Hydrophytic Vegetation Present?                | YesNo _ <b>✓</b> _                         |   |   |                            |
| Hydric Soil Present?                           | Yes No                                     |   |   |                            |
| Wetland Hydrology Present?                     | Yes No _ <b>_</b>                          | Is the Sampled Area within                      | n a Wetland?  | Yes No                     |
| Remarks:                                       | 163110                                     | is the sampled / ited Within                    | TO TECUNIA.   | 105105_ <u>V</u>           |
| Remarks.                                       |  |   |   |                            |
|  |  |   |   |                            |
|  |  |   |   |                            |
| Covertype is UPL. Area is upland,              | , not all three wetland parameters a       | are present.                                    |   |                            |
|  |  |   |   |                            |
|  |  |   |   |                            |
|  |  |   |   |                            |
|  |  |   |   |                            |
| HYDROLOGY                                      |  |   |   |                            |
| Wetland Hydrology Indicators:                  |  |   |   |                            |
|  | one is required; check all that apply      | <i>(</i> )                                      | Secondary Indicators (minir   | num of two required)       |
|  |  | <b></b>   | Surface Soil Cracks (B6)  |                            |
| Surface Water (A1)                             | True Aquatic P                             |   | Sparsely Vegetated Cond   | ave Surface (B8)           |
| High Water Table (A2)                          | Hydrogen Sulfi                             |   | Drainage Patterns (B10)   |                            |
| Saturation (A3)                                |  | spheres on Living Roots (C3)                    | Moss Trim Lines (B16)   |                            |
| Water Marks (B1)                               |  | duced Iron (C4)                                 | Dry-Season Water Table  | (C2)                       |
| Sediment Deposits (B2)                         |  | duction in Tilled Soils (C6)                    | Crayfish Burrows (C8)   |                            |
| Drift Deposits (B3)<br>Algal Mat or Crust (B4) | Thin Muck Surf<br>Other (Explain           |   | Saturation Visible on Ae  | rial Imagery (C9)          |
| Iron Deposits (B5)                             | Other (Explain                             | iri Kemarks)                                    | Stunted or Strasged Diam  | stc (D1)                   |
| Inundation Visible on Aerial                   | Imagany (P7)                               |   | Stunted or Stressed Plan  |                            |
| Water-Stained Leaves (B9)                      | imagery (67)                               |   | <ul><li>Geomorphic Position (D:</li><li>Shallow Aquitard (D3)</li></ul> | 2)                         |
| Aquatic Fauna (B13)                            |  |   | Microtopographic Relief   | (D4)                       |
| , requality Facility (B13)                     |  |   | FAC-Neutral Test (D5)   | (0-1)                      |
| Field Observations:                            |  |   |   |                            |
| Surface Water Present?                         | Yes No <u></u> ✓ Dept                      | :h (inches):                                    |   |                            |
| Water Table Present?                           |  |   | <br>  Wetland Hydrology Present   | 2 Vos No 4                 |
|  | ·  | h (inches):                                     | wedand nydrology Present  | ? Yes No                   |
| Saturation Present?                            | Yes No <u></u> Dept                        | :h (inches):                                    |   |                            |
| (includes capillary fringe)                    |  |   |   |                            |
| Describe Recorded Data (stream                 | gauge, monitoring well, aerial phot        | tos, pre <mark>vious inspections</mark> ), if a | vailable:   |                            |
|  |  |   |   |                            |
|  |  |   |   |                            |
| Remarks:                                       |  |   |   |                            |
|  |  |   |   |                            |
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|  |  |   |   |                            |
|  |  |   |   |                            |

| · · ·   | •                |             |           |  |                   |                |
|---|------------------|-------------|-----------|--|-------------------|----------------|
| Tree Stratum (Plot size: _30)                       | <b>A</b> bsolute | Dominant    | Indicator | Dominance Test worksheet:  |                   |                |
| Tree structure (Froc size                           | % Cover          | Species?    | Status    | Number of Dominant Species That  | 3                 | (A)            |
| 1. Fagus grandifolia                                | 20               | Yes         | FACU      | Are OBL, FACW, or FAC:   |                   | `              |
| 2. Betula nigra                                     | 10               | Yes         | FACW      | Total Number of Dominant Species Across All Strata:  | 6                 | (B)            |
| 3. Fraxinus pennsylvanica                           | 5                | No          | FACW      | Percent of Dominant Species That   |                   |                |
| 4   |                  |             |           | - Are OBL, FACW, or FAC:   | 50                | (A/B)          |
| 5.  |                  |             |           | Prevalence Index worksheet:  |                   |                |
| 6.  |                  |             |           | - Total % Cover of:  | <u>Multiply</u> l | Bv:            |
| 7   |                  |             |           | OBL species 0  | x 1 =             | 0              |
|   | 35               | = Total Cov | er        | FACW species 20  | x 2 =             | 40             |
| 50% of total cover: <u>17.5</u>                     | _ 20% of to      | otal cover: | 7         | FAC species 46   | x3=               | 138            |
| Sapling/Shrub Stratum (Plot size:15)                |                  |             |           | FACU species 48  | × 4 =             | 192            |
| 1. <u>Liquidambar styraciflua</u>                   | 20               | Yes         | FAC       | - UPL species 0  | x5=               | 0              |
| 2. Fagus grandifolia                                | 15               | Yes         | FACU      | - Column Totals 114  | (A)               | 370 (B)        |
| 3. Cornus florida                                   | 5                | No          | FACU      | Prevalence Index = B/A =   | 3.2               | 570 (B)        |
| 4. Fraxinus pennsylvanica                           | 5                | No          | FACW      | · ·  |                   |                |
| 5   |                  |             |           | Hydrophytic Vegetation Indicators:   | . (               |                |
| 6   |                  |             |           | 1- Rapid Test for Hydrophytic V 2 - Dominance Test is > 50%                                    | vegetation        |                |
| 7   |                  |             |           |  |                   |                |
| 8.  |                  |             |           | 3 - Prevalence Index is ≤ 3.01   | مامانيميرا ( 1    | a una a minima |
| 9.  |                  |             |           | <ul> <li>4 - Morphological Adaptations</li> <li>data in Remarks or on a separate sh</li> </ul> | •                 | supporting     |
|   | <b>4</b> 5       | = Total Cov | er        | Problematic Hydrophytic Vege   |                   | mlain)         |
| 50% of total cover: <u>22.5</u>                     | 20% of to        | tal cover:  | 9         | Indicators of hydric soil and wetlan   |                   |                |
| Herb Stratum (Plot size: 5 )                        |                  |             |           | present, unless disturbed or proble  | ,                 | 5) mase be     |
| 1. Amphicarpaea bracteata                           | 20               | Yes         | FAC       | Definitions of Four Vegetation Strat   |                   |                |
| 2. Microstegium vimineum                            | 5                | No          | FAC       |  |                   |                |
| 3. Galium aparine                                   | 1                | No          | FACU      | -<br>_ Tr <b>ee</b> – Woody plants, excluding vine   | es. 3 in. (7.6    | cm) or more    |
| 4. Acer rubrum                                      | 1                | No No       | FAC       | in diameter at breast height (DBH),  |                   |                |
| 5. Parthenocissus quinquefolia                      | 1                | No          | FACU      |  | Ü                 |                |
| 6. Polystichum acrostichoides                       | 1                | No          | FACU      |  | uding vine:       | s, less than 3 |
| 7.  |                  |             |           | in. DBH and greater than or equal to   | o 3.28 ft (1      | m) tall.       |
| 8.  |                  |             |           |  |                   |                |
| 9.  |                  |             |           | Herb – All herbaceous (non-woody)  | plants, reg       | gardless of    |
| 10.   |                  |             |           | size, and woody plants less than 3.2   | 28 ft tall.       |                |
| 11.   |                  |             |           | -  |                   |                |
| ···   | 29               | = Total Cov | er        | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea  | iter than 3.      | .28 ft in      |
| 50% of total cover: <u>14.5</u>                     |                  | tal cover:  | 5.8       | height.  |                   |                |
| Woody Vine Stratum (Plot size: 30 )                 | _ 20 % 01 00     |             |           |  |                   |                |
| 1. Lonicera japonica                                | 5                | Yes         | FACU      |  |                   |                |
| 2.  |                  |             |           | -  |                   |                |
|   |                  |             |           | -  <br>  Hydrophytic Vegetation Present?   `   | Yes □ No F        | 7              |
|   |                  |             |           | -  |                   | _              |
| 5.  |                  |             |           | -  |                   |                |
|   | - ———<br>5       | = Total Cov | or        | -  |                   |                |
| 50% of total cover: 2.5                             |                  | -           | 1         |  |                   |                |
| Remarks: (Include photo numbers here or on a separa |                  | otal cover. |           |  |                   |                |
|   | ica sinaday      |             |           |  |                   |                |
|   |                  |             |           |  |                   |                |
|   |                  |             |           |  |                   |                |
|   |                  |             |           |  |                   |                |
|   |                  |             |           |  |                   |                |

| Profile De     | scription: (Describe to                        | th <b>e d</b> epth | n <b>eed</b> e <b>d to</b> d <b>oc</b> um | ent the i            | n <b>dicator</b> d                | or confir           | m the absenc             | e of indicators.)                    |                            |
|----------------|--|--------------------|---|----------------------|-----------------------------------|---------------------|--------------------------|--------------------------------------|----------------------------|
| D <b>ep</b> th | <b>Ma</b> trix                                 |                    | Redox Features                            |                      |                                   |                     |                          |                                      |                            |
| (inches)       | Color (moist)                                  | %                  | Color (moist)                             | 96                   | Type¹                             | Loc²                |                          | Te <b>xtu</b> r <b>e</b>             | R <b>em</b> arks           |
| 0 - 2          | 10YR 3/3                                       | 100                |   |                      |                                   |                     |                          | Loamy Sand                           |                            |
| 2 - 8          | 10YR 4/3                                       | 100                |   |                      |                                   |                     |                          | Sandy Loam                           |                            |
| 8 - 12         | 10YR 4/4                                       | 100                |   |                      |                                   |                     |                          | Sandy Loam                           |                            |
| 12 - 18        | 10YR 5/4                                       | 100                |   |                      |                                   |                     |                          | Loamy Sand                           |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  | epletion, R        | M = Reduced Matri                         | x, MS =              | Masked S                          | and Grai            | ns. <sup>2</sup> Locatio | on: PL = Pore Lining, M =            |                            |
|                | il Indicators:                                 |                    |   |                      |                                   |                     |                          | Indicators for Problem               | atic Hydric Soils3:        |
| _ Histoso      |  |                    |   | Surface (            |                                   | (0.0)               | D1 447 440               | 2 cm Muck (A10) <b>(N</b>            | <b>ILR</b> A 1 <b>47</b> ) |
|                | pipedon (A2)                                   |                    |   |                      |                                   |                     | RA 147, 148)             | Coast Prairie Redo:                  | x (A16) (MLRA 147, 148)    |
| _              | istic (A3)<br>en Sulfide (A4)                  |                    |   |                      | ace (S9) <b>(</b> N<br>Matrix (F2 |                     | , 146)                   | Piedmont Floodpla                    | in Soils (F19) (MLRA 136,  |
|                | d Layers (A5)                                  |                    | Deple                                     |                      |                                   | .,                  |                          | 147)                                 |                            |
|                | uck (A10) (LRR N)                              |                    | Redox                                     | Dark Su              | ırface (F6)                       |                     |                          | Very Shallow Dark                    | Surface (TF12)             |
|                | d Below Dark Surface (A                        | <del>(</del> 11)   |   |                      | Surface (F                        | 7)                  |                          | Other (Explain in R                  | emarks)                    |
|                | ark Surface (A12)                              | N. M. DA 4         | Redox                                     | Depres:              | sions (F8)                        | /E40\ /I E          | D.N. MIDA 45             | <b>~</b>                             |                            |
| 1 -            | /lucky Mineral (S1) (LRR<br>Eleyed Matrix (S4) | N, MLKA 14         | 47, 148) Iron-N                           | nangane<br>ic Surfac | se masses<br>e (F13) ( <b>M</b>   | (FIZ)(LN<br>IDA 136 | K N, MEKA 139<br>199)    | <sup>6)</sup> ₃Indicators of hydroph | ytic vegetation and        |
|                | Redox (S5)                                     |                    |   |                      | c () (                            | ,                   | VILRA 148)               | wetland hydrology mu                 | ist be present, unless     |
| _              | d Matrix (S6)                                  |                    |   |                      | terial (F21                       |                     |                          | disturbed or problema                | atic.                      |
| Restrictive    | e Layer (if observed):                         |                    |   |                      |                                   |                     |                          |                                      |                            |
|                | Type:  |                    | None                                      |                      |                                   | Hvdric S            | Soil <b>Present?</b>     |                                      | Yes □ No ☑                 |
|                | Depth (inches):                                | -                  |   | •                    |                                   | ,, a                | on Trabanca              |                                      |                            |
| Remarks:       |  |                    |   |                      |                                   |                     |                          |                                      |                            |
| Kemarks.       |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |
|                |  |                    |   |                      |                                   |                     |                          |                                      |                            |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                      | City/County:                           |                                    | Sampling Date: 2018-Jur         | ie-27                      |  |  |
|--|--|------------------------------------|---------------------------------|----------------------------|--|--|
| Applicant/Owner: NextEra                         |  | State:                             | Sampling Point: V               | V-F18-37_PFO-1             |  |  |
| nvestigator(s): Janelle Bernos                   | ky, TS, JSF, ESN                       | Section, Township,                 | Range:                          |                            |  |  |
| Landform (hillslope, terrace, etc.               | .): Depression                         | Local relief (concave, conv        | ex, none): Concave              | Slop <b>e (%</b> ): 1 to 3 |  |  |
| Subregion (LRR or MLRA):                         | MLRA 136 of LRR P                      | Lat: 36.566386                     | Long: -79.6009192               | Datum: WGS84               |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : 23C |  |                                    | NWI classific                   | ation: None                |  |  |
| Are climatic/hydrologic condition                | ns on the site typical for this time o | f ye <b>ar?</b> Yes 🟒 No           | (If no, explain in Remar        | ks.)                       |  |  |
| Are Vegetation, Soil,                            | or Hydrology significantl              | y disturbed? Are "Norma            | al Circumstances" present?      | Yes 🟒 No                   |  |  |
| Are Vegetation, Soil,                            | or Hydrology naturally p               | roblematic? (If needed,            | explain any answers in Rema     | irks.)                     |  |  |
|  |  |                                    |                                 |                            |  |  |
| SUMMARY OF FINDINGS - A                          | Attach site map showing sam            | pling point locations, trar        | nsects, important feature       | es, etc.                   |  |  |
| Hydrophytic Vegetation Present                   | t? Yes _ 🗸 No                          |                                    |                                 |                            |  |  |
| Hydric Soil Present?                             | Yes _ <b>/</b> No                      | İ                                  |                                 |                            |  |  |
| Wetland Hydrology Present?                       | Yes No                                 | Is the Sampled Area withi          | n a Wetland?                    | Yes <b>/ No</b>            |  |  |
|  | 163 <u>**</u> 140                      | is the Sampled Area with           | Ta Wedand:                      | 163 <u>7</u> 140           |  |  |
| Remarks:   |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
| Covertype is PFO. Area is wetlar                 | nd, all three wetland parameters ar    | e present.                         |                                 |                            |  |  |
| 31   | ,                                      | 1                                  |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
| HYDROLOGY  |  |                                    |                                 |                            |  |  |
| Wetland Hydrology Indicators:                    |  |                                    |                                 |                            |  |  |
| Primary Indicators (minimum o                    | f one is required; check all that app  | oly)                               | Secondary Indicators (minim     | num of two required)       |  |  |
|  |  |                                    | Surface Soil Cracks (B6)        |                            |  |  |
| Surface Water (A1)                               | True Aquatic                           | Plants (B14)                       | ✓ Sparsely Vegetated Conc       | ave Surface (B8)           |  |  |
| High Water Table (A2)                            | , ,                                    | lfide Odor (C1)                    | Drainage Patterns (B10)         |                            |  |  |
| Saturation (A3)                                  |  | cospheres on Living Roots (C3)     | Moss Trim Lines (B16)           |                            |  |  |
| Water Marks (B1)                                 |  | Reduced Iron (C4)                  | Dry-Season Water Table          | (C2)                       |  |  |
| Sediment Deposits (B2)                           |  | deduction in Tilled Soils (C6)     | Crayfish Burrows (C8)           |                            |  |  |
| Drift Deposits (B3)                              | Thin Muck Su                           |                                    | Saturation Visible on Aer       | ial Imagery (C9)           |  |  |
| Algal Mat or Crust (B4)                          | Otner (Explai                          | n in Remarks)                      | g l g. lpl                      |                            |  |  |
| Iron Deposits (B5)                               |  |                                    | Stunted or Stressed Plan        |                            |  |  |
| Inundation Visible on Aeria                      | l Imagery (B7)                         |                                    | Geomorphic Position (D2         | !)                         |  |  |
| ✓ Water-Stained Leaves (B9)                      |  |                                    | Shallow Aquitard (D3)           |                            |  |  |
| Aquatic Fauna (B13)                              |  |                                    | Microtopographic Relief (D4)    |                            |  |  |
|  |  |                                    | _ <u> FAC-Neutral Test (D5)</u> |                            |  |  |
| Field Observations:                              |  |                                    |                                 |                            |  |  |
| Surface Water Present?                           |  | oth (inches):                      |                                 |                            |  |  |
| Water Table Present?                             | Yes No De                              | oth (inches):                      | Wetland Hydrology Present       | ? Yes _∠_ No               |  |  |
| Saturation Present?                              | Yes No 🟒 De                            | oth (inches):                      |                                 |                            |  |  |
| (includes capillary fringe)                      |  |                                    | 1                               |                            |  |  |
|  | n gauge, monitoring well, aerial ph    | otos provious inspections) if s    | vailable:                       |                            |  |  |
| Describe Recorded Data (stream                   | ii gauge, monitoring weii, aeriai pri  | otos, previous irispections), ir a | available.                      |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
| Remarks:   |  |                                    |                                 |                            |  |  |
| Kernarks.  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |
|  |  |                                    |                                 |                            |  |  |

| <u> </u>  | •             |             |        | T   |               |             |
|---|---------------|-------------|--------|---|---------------|-------------|
| Tree Stratum (Plot size:30)                         |               | Dominant    |        | Dominance Test worksheet:                                   |               |             |
|   |               | Species?    | Status | Number of Dominant Species That                             | 6             | (A)         |
| 1. Fraxinus pennsylvanica                           |               | <u>Yes</u>  | FACW   | Are OBL, FACW, or FAC: Total Number of Dominant Species     |               |             |
| 2. Acer rubrum                                      |               | Yes         | FAC    | Across All Strata:  | 6             | (B)         |
| 3. <u>Liquidambar styraciflua</u>                   |               | Yes         | FAC    | Percent of Dominant Species That                            |               |             |
| 4. Carpinus caroliniana                             | 15            | No          | FAC    | Are OBL, FACW, or FAC:                                      | 100           | (A/B)       |
| 5. <i>Quercus alba</i>                              | 5             | No          | FACU   | Prevalence Index worksheet:                                 |               |             |
| 6   |               |             |        | Total % Cover of:   | Multiply B    | <u>y:</u>   |
| 7   |               |             |        | OBL species 0   | x 1 =         | 0           |
|   |               | = Total Cov | er     | FACW species 21   | x 2 =         | 42          |
| 50% of total cover: <u>40</u>                       | _ 20% of to   | tal cover:  | 16     | FAC species 80  | x 3 =         | 240         |
| Sapling/Shrub Stratum (Plot size:15)                | _             |             |        | FACU species 5  | x 4 =         | 20          |
| Liquidambar styraciflua                             | 5             | Yes         | FAC    | - UPL species 0   | x 5 =         | 0           |
| 2   |               |             |        | Column Totals 106   | (A)           | 302 (B)     |
| 3   |               |             |        | Prevalence Index = B/A =                                    | 2.8           |             |
| 4   |               |             |        | Hydrophytic Vegetation Indicators:                          |               |             |
| 5   |               |             |        | 1- Rapid Test for Hydrophytic \                             | /egetation    |             |
| 6   |               |             |        | ✓ 2 - Dominance Test is >50%                                | regetation    |             |
| 7   |               |             |        | $\checkmark$ 3 - Prevalence Index is $\le$ 3.01             |               |             |
| 8.  |               |             |        | 4 - Morphological Adaptations                               | ! (Provide s  | unnorting   |
| 9   |               |             |        | data in Remarks or on a separate sh                         |               | apporting   |
|   | 5             | = Total Cov | er     | Problematic Hydrophytic Vege                                | •             | olain)      |
| 50% of total cover: <u>2.5</u>                      | _ 20% of to   | tal cover:  | 1      | ¹Indicators of hydric soil and wetlan                       |               | -           |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )          |               |             |        | present, unless disturbed or proble                         | , ,           | ,           |
| 1. Smilax rotundifolia                              | 5             | Yes         | FAC    | Definitions of Four Vegetation Strata                       |               |             |
| 2. Fraxinus pennsylvanica                           | 1             | No          | FACW   |   |               |             |
| 3. Carex sp.  |               | No          | NI     | Tr <b>ee</b> – Woody plants, excluding vine                 | s, 3 in. (7.6 | cm) or more |
| 4.  |               |             |        | in diameter at breast height (DBH),                         |               |             |
| 5.  |               |             |        |   | ū             |             |
| 6.  |               |             |        | Sapling/shrub – Woody plants, exclu                         | uding vines,  | less than 3 |
| 7.  |               |             |        | in. DBH and greater than or equal to                        | 3.28 ft (1    | m) tall.    |
| 8.  |               |             |        |   |               |             |
| 9.  |               |             |        | Herb – All herbaceous (non-woody)                           | plants, rega  | ardless of  |
| 10.   |               |             |        | size, and woody plants less than 3.2                        | 8 ft tall.    |             |
| 11.   | . ——          |             |        | •   |               |             |
|   | 6             | = Total Cov | er     | -<br>  <b>Wo</b> od <b>y vine</b> s – All woody vines grea: | ter than 3.2  | 28 ft in    |
| 50% of total cover:3                                |               | •           | 1.2    | height.   |               |             |
| Woody Vine Stratum (Plot size:30)                   | _ 20 /0 01 (0 | di cover.   |        |   |               |             |
| Smilax rotundifolia                                 | 15            | Yes         | FAC    |   |               |             |
| 2.  |               |             | 1710   |   |               |             |
| -   | · ——          |             |        | .  <br>  Hydrophytic Vegetation Present?   \                | /oc ☑ No □    | ı           |
| 4.  |               |             |        | - Hydrophydd Vegetadoll Fresend                             | €3 ⊞ NO □     |             |
|   |               |             |        |   |               |             |
| 5   |               |             |        |   |               |             |
| 500/ - Shahal 7.5                                   | 15            | = Total Cov |        |   |               |             |
| 50% of total cover:7.5                              | _ 20% or to   | tai cover:  | 3      |   |               |             |
| Remarks: (Include photo numbers here or on a separa | e sneet.j     |             |        |   |               |             |
|   |               |             |        |   |               |             |

|                            | scription: (Describe to                      | th <b>e d</b> ep | th n <b>eed</b> ed to |            |                      |                                  | or confir            | m the absence              | e of indicators.)                |                            |
|----------------------------|--|------------------|-----------------------|------------|----------------------|----------------------------------|----------------------|----------------------------|----------------------------------|----------------------------|
| Depth _                    | Matrix                                       |                  |                       |            | Feature              |                                  |                      |                            | _                                |                            |
| (inches)                   | Color (moist)                                |                  | Color (n              |            | %_                   | Type <sup>1</sup>                | Loc²                 |                            | Te <b>xtu</b> r <b>e</b>         | Remarks                    |
| 0 - 16                     | 10YR 5/2                                     | 95               | 7.5YR                 | 5/8        | 5                    |                                  | M                    |                            | Silt Loam                        | _                          |
| 16 - 18                    | 10YR 5/2                                     | 80               | 2.5YR                 | 4/6        | 20                   | C                                | M                    | S                          | ilty Clay Loam                   |                            |
|                            | _  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  | -                          |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  | <del>-</del>               |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  | _                          |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  | epletion         | , RM = Redu           | ced Matrix | (, MS = 1            | Masked S                         | and Gra              | ins. <sup>2</sup> Locatio  | on: PL = Pore Lining, M =        |                            |
| 1 -                        | l Indicators:                                |                  |                       |            |                      |                                  |                      |                            | Indicators for Problem           | natic Hydric Soils³:       |
| _ Histosol                 |  |                  |                       | _ Dark S   |                      |                                  | (CO) (B.E.           | DA 447 440)                | 2 cm Muck (A10) <b>(N</b>        | MLRA 147)                  |
| _ Histic Ep<br>_ Black Hi: | sipedon (A2)                                 |                  |                       |            |                      | w Suriace<br>ace (S9) <b>(</b> N |                      | RA 147, 148)               | Coast Prairie Redo               | x (A16) (MLRA 147, 148)    |
| _                          | en Sulfide (A4)                              |                  |                       |            |                      | Matrix (F2                       |                      | , 140)                     | Piedmont Floodpla                | ain Soils (F19) (MLRA 136, |
|                            | d Layers (A5)                                |                  |                       | _ Deplet   | -                    |                                  | -,                   |                            | 1 <b>4</b> 7)                    |                            |
| _ 2 cm Mu                  | ıck (A10) <b>(</b> LR <b>R N)</b>            |                  |                       | Redox      | Dark Su              | rface (F6)                       |                      |                            | Very Shallow Dark                | Surface (TF12)             |
|                            | d Below Dark Surface (A                      | (11)             |                       |            |                      | Surface (F                       | 7)                   |                            | Other (Explain in R              | temarks)                   |
|                            | ark Surface (A12)                            |                  | 4.47.440)             | Redox      | Depress              | sions (F8)                       | /E40) // F           | D N. M. DA 40              | 0                                |                            |
|                            | lucky Mineral (S1) (LRR<br>leyed Matrix (S4) | N, MI∟KA         | . 147, 148)           | Iron-M     | anganes<br>- Surface | se мasses<br>e (F13) ( <b>М</b>  | (FTZ) (LF<br>LDA 136 | (R N, MERA 13<br>122)      | <b>6)</b> ₃Indicators of hydroph | nytic vegetation and       |
| _ ,                        | edox (S5)                                    |                  |                       |            |                      | - t , t                          | ,                    | MLRA 148)                  | wetland hydrology mเ             | ust be present, unless     |
| _                          | l Matrix (S6)                                |                  |                       |            |                      |                                  |                      | 1 <b>27</b> , <b>1</b> 47) | disturbed or problema            | atic.                      |
|                            | Layer (if observed):                         |                  |                       |            |                      |                                  | 1                    |                            |                                  |                            |
|                            | Type:  |                  | None                  |            |                      |                                  | Hydric               | Soil <b>Present?</b>       |                                  | Yes ☑ No □                 |
|                            | Depth (inches):                              |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
| Remarks:                   | 1 7 7  |                  |                       |            |                      |                                  | <u> </u>             |                            |                                  |                            |
| Kemarks.                   |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |
|                            |  |                  |                       |            |                      |                                  |                      |                            |                                  |                            |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate               | City/County:                          |   | Sampling Date: 2018-June        | e-27                        |
|---|---------------------------------------|---|---------------------------------|-----------------------------|
| Applicant/Owner: NextEra                  |                                       | State:  | Sampling Point: N               | 7-F18-37_UPL-1              |
| Investigator(s): _ Janelle Bernosky       | , TS, JSF, ESN                        | Section, Township,                              | Range:                          |                             |
| Landform (hillslope, terrace, etc.):      | _ Hillslope                           | Local relief (concave, conve                    | ex, none): Convex               | Slop <b>e (%</b> ):10 to 15 |
| Subregion (LRR or MLRA): MI               | LRA 136 of LRR P                      | Lat: 36.5663819                                 | Long: -79.6009781               | Datum: WGS84                |
| Soil <b>Map</b> Unit Name:23C             |                                       |   | NWI classifica                  | tion: None                  |
| Are climatic/hydrologic conditions        | on the site typical for this time of  | ye <b>ar?</b> Yes <u>✓</u> No                   | (If no, explain in Remark       | (S.)                        |
| Are Vegetation, Soil,                     | or Hydrology significantly            | disturbed? Are "Norma                           | l Circumstances" present?       | Yes 🟒 No                    |
| Are Vegetation, Soil,                     | or Hydrology naturally pro            | blematic? (If needed,                           | explain any answers in Rema     | rks.)                       |
|   |                                       |   |                                 |                             |
| SU <b>MMARY OF FINDI</b> NG <b>S</b> – At | tach site map showing samp            | ling point locations, tran                      | sects, important feature        | s, etc.                     |
| Hydrophytic Vegetation Present?           | Yes <u></u> No                        |   |                                 |                             |
| Hydric Soil Present?                      | Yes No                                |   |                                 |                             |
| Wetland Hydrology Present?                | Yes No <b>_</b> ✓_                    | is the Sampled Area withi                       | n a Wetland?                    | Yes <b>No _∠</b>            |
| Remarks:                                  |                                       | <b>'</b>  |                                 |                             |
|   |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |
| Covertype is UPL. Area is upland,         | not all three wetland parameters a    | are present.                                    |                                 |                             |
|   |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |
| HYDROLOGY                                 |                                       |   |                                 |                             |
| Wetland Hydrology Indicators:             |                                       |   |                                 |                             |
| Primary Indicators (minimum of c          | one is required; check all that apply | <u>A</u>  | Secondary Indicators (minim     | um of two required)         |
|   |                                       |   | Surface Soil Cracks (B6)        |                             |
| Surface Water (A1)                        | True Aquatic Pl                       |   | Sparsely Vegetated Conc         | ave Surface (B8)            |
| High Water Table (A2)                     | Hydrogen Sulfi                        |   | Drainage Patterns (B10)         |                             |
| Saturation (A3)<br>Water Marks (B1)       |                                       | spheres on Living Roots (C3)<br>duced Iron (C4) | Moss Trim Lines (B16)           |                             |
| Sediment Deposits (B2)                    |                                       | duction in Tilled Soils (C6)                    | Dry-Season Water Table (        | C2)                         |
| Drift Deposits (B3)                       | Thin Muck Surf                        |   | Crayfish Burrows (C8)           | (50)                        |
| Algal Mat or Crust (B4)                   | Other (Explain                        |   | Saturation Visible on Aeri      | ai Imagery (C9)             |
| Iron Deposits (B5)                        |                                       | ,   | Stunted or Stressed Plant       | s (D1)                      |
| Inundation Visible on Aerial II           | magery (B7)                           |   | Geomorphic Position (D2         |                             |
| Water-Stained Leaves (B9)                 |                                       |   | Shallow Aquitard (D3)           |                             |
| Aquatic Fauna (B13)                       |                                       |   | Microtopographic Relief (       | D4)                         |
|   |                                       |   | FAC-Neutral Test (D5)           |                             |
| Field Observations:                       |                                       |   |                                 |                             |
| Surface Water Present?                    | Yes No 🟒 Dept                         | th (inches):                                    |                                 |                             |
| Water Table Present?                      | Yes No _ <b>_/</b> Dept               | :h (inches):                                    | <br> Wetland Hydrology Present? | Yes No <b>_</b> _           |
| Saturation Present?                       | Yes No/ Dept                          | th (inches):                                    |                                 |                             |
| (includes capillary fringe)               |                                       |   |                                 |                             |
|   | gauge, monitoring well, aerial phot   | toc provings inconctions) if a                  | kailahla:                       |                             |
| Describe Recorded Data (stream)           | gauge, monitoring well, aeriai prior  | tos, previous irispections), ir a               | valiable.                       |                             |
|   |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |
| Remarks:                                  |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |
|   |                                       |   |                                 |                             |

| ,   | •            |             |        |   |                 |            |
|---|--------------|-------------|--------|---|-----------------|------------|
| Tree Stratum (Plot size:30)                         |              | Dominant    |        | Dominance Test worksheet:                               |                 |            |
|   |              | Species?    | Status | Number of Dominant Species That                         | 6               | (A)        |
| 1. Carpinus caroliniana                             | 20           | Yes         | FAC    | Are OBL, FACW, or FAC: Total Number of Dominant Species |                 | _          |
| 2. Quercus alba                                     |              | Yes .       | FACU   | Across All Strata:                                      | 8               | (B)        |
| 3. Prunus serotina                                  | 8            | No .        | FACU   | Percent of Dominant Species That                        |                 |            |
| 4. Pinus taeda                                      | 5            | No          | FAC    | Are OBL, FACW, or FAC:                                  | <b>7</b> 5      | (A/B)      |
| 5. Fraxinus pennsylvanica                           |              | No          | FACW   | Prevalence Index worksheet:                             |                 |            |
| 6   |              |             |        | Total % Cover of:                                       | Multiply By     | <u>r.</u>  |
| 7   |              |             |        | OBL species 0   | x 1 =           | 0          |
|   | 50           | = Total Cov |        | FACW species  | x 2 =           |            |
| 50% of total cover: <u>25</u>                       | _ 20% of to  | otal cover: | 10     | FAC species   | x 3 =           |            |
| Sapling/Shrub Stratum (Plot size:15)                |              |             |        | FACU species 36   | x 4 =           | 144        |
| 1. Carpinus caroliniana                             | 8            | <u>Yes</u>  | FAC    | UPL species 0   | x 5 =           | 0          |
| 2. Fraxinus pennsylvanica                           | 5            | Yes         | FACW   | Column Totals   | (A)             | (B)        |
| 3   |              |             |        | Prevalence Index = B/A =                                |                 |            |
| 4   |              |             |        | Hydrophytic Vegetation Indicators:                      |                 |            |
| 5   |              |             |        | 1- Rapid Test for Hydrophytic                           | Vegetation      |            |
| 6   |              |             |        | 2 - Dominance Test is >50%                              | 0               |            |
| 7   |              |             |        | 3 - Prevalence Index is ≤ 3.01                          |                 |            |
| 8.  |              |             |        | 4 - Morphological Adaptations                           | ¹ (Provide su   | pporting   |
| 9.  |              |             |        | data in Remarks or on a separate sh                     | neet)           |            |
|   | 13           | = Total Cov | er     | Problematic Hydrophytic Vege                            | etation¹ (Expl  | ain)       |
| 50% of total cover: <u>6.5</u>                      | _ 20% of to  | otal cover: | 2.6    | Indicators of hydric soil and wetlan                    | ıd hydrology    | must be    |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )          |              |             |        | present, unless disturbed or proble                     | matic           |            |
| 1. <i>Lonicera japonica</i>                         | 10           | Yes         | FACU   | Definitions of Four Vegetation Strat                    | a:              |            |
| 2. Smilax rotundifolia                              | 10           | Yes         | FAC    |   |                 |            |
| 3. <i>Parthenocissus quinquefolia</i>               | 3            | No          | FACU   | Tr <b>ee</b> – Woody plants, excluding vine             | s, 3 in. (7.6 c | m) or more |
| 4. Dichanthelium scoparium                          |              | No          | FACW   | in diameter at breast height (DBH),                     | regardless o    | f height.  |
| 5. Microstegium vimineum                            | 2            | No          | FAC    |   |                 |            |
| 6. <i>Viola sagittata</i>                           |              | No          | FAC    | Sapling/shrub – Woody plants, exclu                     | _               |            |
| 7. Carex sp.  |              | No          | NI     | in. DBH and greater than or equal to                    | o 3.28 ft (1 m  | n) tall.   |
| 8. Carpinus caroliniana                             | 1            | No          | FAC    |   |                 |            |
| 9.  |              |             |        | Herb – All herbaceous (non-woody)                       |                 | rdless of  |
| 10.   |              |             |        | size, and woody plants less than 3.2                    | :8 ft tall.     |            |
| 11.   |              |             |        |   |                 |            |
|   | 26           | = Total Cov | er     | <b>Wo</b> od <b>y vine</b> s – All woody vines grea     | ter than 3.28   | 3 ft in    |
| 50% of total cover: <u>13</u>                       | 20% of to    | tal cover:  | 5.2    | height.   |                 |            |
| Woody Vine Stratum (Plot size: 30 )                 |              |             |        |   |                 |            |
| Toxicodendron radicans                              | 20           | Yes         | FAC    |   |                 |            |
| 2. Smilax rotundifolia                              | 10           | Yes         | FAC    |   |                 |            |
| 3.  |              |             |        | Hydrophytic Vegetation Present?                         | Yes ☑ No □      |            |
| 4.  |              |             |        |   |                 |            |
| 5.  |              |             |        |   |                 |            |
|   | 30           | = Total Cov | er     |   |                 |            |
| 50% of total cover: 15                              |              | -           | 6      |   |                 |            |
| Remarks: (Include photo numbers here or on a separa |              |             |        |   |                 |            |
| Transcribe (in a separa                             | and Sincetal |             |        |   |                 |            |
|   |              |             |        |   |                 |            |

| Profile De         | scription: (Describe to                            | the dept   | h n <b>eed</b> ed to do | cument the    | in <b>dicator</b> ( | or confir | m the absenc               | c <b>e of indica</b> tors.)     |   |
|--------------------|--|--|-------------------------|---------------|---------------------|-----------|----------------------------|---------------------------------|---|
| D <b>ep</b> th     | <b>Ma</b> trìx                                     |  |                         | edox Featur   |                     |           |                            |                                 |   |
| (inches)           | Color (moist)                                      | %  | Color (moist            | ) %           | Type¹               | Loc²      |                            | Te <b>xture</b>                 | Remarks                                       |
| 0 - 2              | 7.5YR 3/3  | 100  |                         |               |                     |           |                            | Loam                            |   |
| 2 - 18             | 2.5YR 4/3  | 100  |                         |               |                     |           |                            | Loam                            |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
| <u>¹</u> ⊤ype: C = | Concentration, D = D                               | epletion, I  | RM = Reduced N          | /latrix, MS = | Masked S            | and Grai  | ins. ²Locatio              | on: PL = Pore Lining, M         | = Matrix.                                     |
| Hydric Soi         | l Indicators:                                      |  |                         |               |                     |           |                            | Indicators for Problem          | matic Hydric Soils3:                          |
| _ Histosol         | (A1)   |  | _ D                     | ark Surface   | (S7)                |           |                            | 2 cm Muck (A10) (               | (MLDA 147)                                    |
|                    | ipedon (A2)  |  |                         | olyvalue Beld |                     |           |                            |                                 | ox (A16) <b>(MLRA 147, 148)</b>               |
| _ Black Hi         |  |  |                         | hin Dark Sur  |                     |           | , 148)                     |                                 | lain Soils (F19) (ML <b>RA 1</b> 3 <b>6</b> , |
|                    | en Sulfide (A4)                                    |  | _                       | oamy Gleyed   | •                   | 2)        |                            | Fleamont Floodp                 | Idili 30113 (F13) (WILIVA 130,                |
|                    | d Layers (A5)<br>ick (A10) <b>(</b> LR <b>R N)</b> |  |                         | epleted Mat   |                     |           |                            | •                               | k Surface (TE12)                              |
|                    | d Below Dark Surface (A                            | Redox Dark Surface (F6) Very Shallow Dark (A11) Depleted Dark Surface (F7) Other (Explain in R |                         |               |                     |           |                            |                                 |   |
|                    | ark Surface (A12)                                  | ,  | R                       | edox Depres   | sions (F8)          |           |                            |                                 |   |
|                    | lucky Mineral (S1) (LRR                            | N, MLRA 1  |                         | on-Mangane    | se Masses           | (F12) (LR | R N, MLRA 13               | <b>6)</b> ₃Indicators of hydrop | hytic vagatation and                          |
|                    | leyed Matrix (S4)                                  |  | _ ~                     | bc ba. ra.    | -c (, .b) (         |           | ,                          | -indicators or rigurop          | nust be present, unless                       |
| _                  | edox (S5)  |  |                         | iedmont Floo  |                     |           |                            | disturbed or problen            |   |
| _ Stripped         | l Matrix (S6)                                      |  | R                       | ed Parent M   | aterial (F21        | I) (MLRA  | 1 <b>2</b> 7, <b>1</b> 47) | disturbed or problem            | natic.  |
| Restrictive        | : Layer (if observed):                             |  |                         |               |                     |           |                            |                                 |   |
|                    | Туре:  |  | None                    |               |                     | Hydric 9  | Soil <b>Present?</b>       |                                 | Yes □ No ☑                                    |
|                    | Depth (inches):                                    |  |                         |               |                     |           |                            |                                 |   |
| Remarks:           |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |
|                    |  |  |                         |               |                     |           |                            |                                 |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate City/Count                     | y:_Cascade, Pittsylvania           | Sampling Date:                   | 2018-July-30   |                             |  |  |
|--|------------------------------------|----------------------------------|--|-----------------------------|--|--|
| Applicant/Owner: NextEra                                   | S <sup>1</sup>                     | tate: Virginia                   | Sampling Point: W-G1                                   | 8-16_PEM-1                  |  |  |
| nvestigator(s): Beth Clements, SS MS                       | Secti <b>on</b> ,                  | Township, Range                  | e:   |                             |  |  |
| Landform (hillslope, terrace, etc.): Swale                 | Local relief (cor                  | nc <mark>ave, conve</mark> x, no | one): Concave  | Slop <b>e (%</b> ): 5 to 10 |  |  |
| Subregion (LRR or MLRA): MLRA 136 of LRR P                 | Lat: 36                            | 6.5704678                        | Long: -79.6034426                                      | Datum: WGS84                |  |  |
| Soil <b>Map</b> Unit Name: 23C                             |                                    |                                  | NWI classification                                     | n: None                     |  |  |
| Are climatic/hydrologic conditions on the site typical for | •                                  | es 🚣 No                          | (If no, explain in Remarks.)                           |                             |  |  |
|  | •                                  |                                  | ·  | Yes 🟒 No                    |  |  |
| Are Vegetation, Soil, or Hydrology                         | naturally problematic?             | (If needed, expla                | in any answers in Remarks.                             | )                           |  |  |
|  |                                    |                                  |  |                             |  |  |
| SUMMARY OF FINDINGS – Attach site map sho                  | wing sampling point locat          | tions, transect                  | s, important features, e                               | etc.                        |  |  |
| Hydrophytic Vegetation Present? Yes                        | No                                 |                                  |  |                             |  |  |
| Hydric Soil Present? Yes 🔽                                 | No                                 |                                  |  |                             |  |  |
| Wetland Hydrology Present? Yes 🔽                           | No Is the Sampled                  | l Area within a W                | etland? Yes_   | No                          |  |  |
| Remarks:   | <u> </u>                           |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
| Covertype is PEM. Area is wetland, all three wetland pa    | rameters are present.              |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
| HYDROLOGY  |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
| Wetland Hydrology Indicators:                              |                                    |                                  |  |                             |  |  |
| Primary Indicators (minimum of one is required; check      | <u>all that apply)</u>             |                                  | ndary Indicators (minimum                              | or two requirea)            |  |  |
| Surface Water (A1) Tr                                      | ue Aquatic Plants (B14)            |                                  | urface Soil Cracks (B6)<br>parsely Vegetated Concave : | Surface (BS)                |  |  |
|  | ydrogen Sulfide Odor (C1)          |                                  | rainage Patterns (B10)                                 | surface (Bo)                |  |  |
| Saturation (A3) O:   | xidized Rhizospheres on Living     | Doote (C2)                       | Moss Trim Lines (B16)                                  |                             |  |  |
| Water Marks (B1) Pr  | resence of Reduced Iron (C4)       |                                  | Dry-Season Water Table (C2)                            |                             |  |  |
|  | ecent Iron Reduction in Tilled Se  | oils (C6) C                      | Crayfish Burrows (C8)                                  |                             |  |  |
| "  | nin Muck Surface (C7)              | S                                | aturation Visible on Aerial Ir                         | nagery (C9)                 |  |  |
| <del>-</del>   | ther (Explain in Remarks)          | _                                |  |                             |  |  |
| Iron Deposits (B5)   |                                    |                                  | tunted or Stressed Plants (D                           | 11)                         |  |  |
| Inundation Visible on Aerial Imagery (B7)                  |                                    |                                  | ieomorphic Position (D2)                               |                             |  |  |
| Water-Stained Leaves (B9)<br>Aquatic Fauna (B13)           |                                    |                                  | hallow Aquitard (D3)<br>ficrotopographic Relief (D4)   |                             |  |  |
|  |                                    |                                  | AC-Neutral Test (D5)                                   |                             |  |  |
| Field Observations:  |                                    |                                  | te made al mase (BB)                                   |                             |  |  |
| Surface Water Present? Yes No                              | Depth (inches):                    |                                  |  |                             |  |  |
| Water Table Present? Yes No                                | Depth (inches):                    |                                  | and Hydrology Present?                                 | Yes _ <b>∠</b> _ No         |  |  |
| Saturation Present? Yes No 🗸                               | Depth (inches):                    |                                  | , <b>u</b>   | <b></b>                     |  |  |
| (includes capillary fringe)                                | Depart (menes).                    |                                  |  |                             |  |  |
|  |                                    |                                  | -l   |                             |  |  |
| Describe Recorded Data (stream gauge, monitoring we        | ii, aeriai priotos, previous inspe | ections), it availai             | oie:   |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
| Remarks:   |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |
|  |                                    |                                  |  |                             |  |  |

| · · · · · · · · · · · · · · · · · · ·               | •                |              |           |   |              |            |
|---|------------------|--------------|-----------|---|--------------|------------|
| Tree Stratum (Plot size:20x3)                       | <b>A</b> bsolute | Dominant     | Indicator | Dominance Test worksheet:                           |              |            |
| Tree Structure (Flot Size                           | % Cover          | Species?     | Status    | Number of Dominant Species That                     | 1            | (A)        |
| 1.  |                  |              |           | Are OBL, FACW, or FAC:                              |              |            |
| 2   |                  |              |           | Total Number of Dominant Species Across All Strata: | 1            | (B)        |
| 3.  |                  |              |           | Percent of Dominant Species That                    |              |            |
| 4   |                  |              |           | - Are OBL, FACW, or FAC:                            | 100          | (A/B)      |
| 5   |                  |              |           | Prevalence Index worksheet:                         |              |            |
| 6.  |                  |              |           | Total % Cover of:                                   | Multiply B   | y:         |
| 7   |                  |              |           | OBL species 112                                     | x 1 =        | 112        |
|   | 0                | _= Total Cov | er        | FACW species 11                                     | x 2 =        | 22         |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:  | 0         | FAC species 6                                       | x 3 =        | 18         |
| Sapling/Shrub Stratum (Plot size:10x3)              |                  |              |           | FACU species 0                                      | × 4 =        | 0          |
| 1   |                  |              |           | - UPL species 0                                     | x 5 =        | 0          |
| 2   |                  |              |           | - Column Totals 129                                 | _            | 152 (B)    |
| 3   |                  |              |           | Prevalence Index = B/A =                            | _            | . , ,      |
| 4   |                  |              |           | Hydrophytic Vegetation Indicators:                  |              |            |
| 5   |                  |              |           | 1- Rapid Test for Hydrophytic V                     | /egetation   |            |
| 6   |                  |              |           | ✓ 2 - Dominance Test is >50%                        | · coccacion  |            |
| 7   | ·                |              |           | 3 - Prevalence Index is ≤ 3.01                      |              |            |
| 8.  |                  |              |           | -  4 - Morphological Adaptations                    | ¹ (Provide s | upporting  |
| 9   |                  |              |           | data in Remarks or on a separate sh                 |              |            |
|   | 0                | _= Total Cov | er        | Problematic Hydrophytic Vege                        | tation¹ (Exp | olain)     |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:  | 0         | Indicators of hydric soil and wetlan                | d hydrolog   | y must be  |
| Herb Stratum (Plot size: 5 )                        |                  |              |           | present, unless disturbed or proble                 | matic        |            |
| 1. Murdannia keisak                                 | 95               | <u>Yes</u>   | OBL       | Definitions of Four Vegetation Strate               | a:           |            |
| 2. Leersia oryzoides                                | 15               | No           | OBL       | -   |              |            |
| 3. <u>Bidens aristosa</u>                           | 5                | No           | FACW      | Tr <b>ee</b> – Woody plants, excluding vine         |              |            |
| 4. Arthraxon hispidus                               | 5                | No           | FAC       | - in diameter at breast height (DBH),               | regardless   | of height. |
| 5. Juncus effusus                                   | 5                | No           | FACW      |   |              |            |
| 6. <i>Persicaria sagittata</i>                      | 2                | No           | OBL       | Sapling/shrub – Woody plants, exclu                 | -            |            |
| 7. Persicaria longiseta                             |                  | No           | FAC       | in. DBH and greater than or equal to                | 0 3.28 π (1  | m) tall.   |
| 8. Eupatorium perfoliatum                           | 1                | No           | FACW      | Herb – All herbaceous (non-woody)                   | plants ros   | ardlace of |
| 9   |                  |              |           | size, and woody plants less than 3.2                |              | aruless of |
| 10  |                  |              |           | -   | ore can.     |            |
| 11  | . ——             |              |           | -   |              |            |
|   |                  | = Total Cov  |           | <b>Woody vine</b> s – All woody vines grea          | ter than 3.2 | 28 ft in   |
| 50% of total cover: <u>64.5</u>                     | _ 20% of to      | otal cover:  | 25.8      | height.   |              |            |
| Woody Vine Stratum (Plot size: 20x3 )               |                  |              |           |   |              |            |
| 1   |                  |              |           | -   |              |            |
| 2.  |                  |              |           |   |              |            |
| 3.  |                  |              |           | - Hydrophytic Vegetation Present? `                 | Yes ☑ No ⊔   |            |
| 4   |                  |              |           | .   |              |            |
| 5   |                  |              |           | .   |              |            |
|   | 0                | = Total Cov  |           |   |              |            |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:  | 0         |   |              |            |
| Remarks: (Include photo numbers here or on a separa | te sheet.)       |              |           |   |              |            |
|   |                  |              |           |   |              |            |
|   |                  |              |           |   |              |            |
|   |                  |              |           |   |              |            |
|   |                  |              |           |   |              |            |
|   |                  |              |           |   |              |            |
|   |                  |              |           |   |              |            |
|   |                  |              |           |   |              |            |

| Profile De              | scription: (Describe to         | th <b>e d</b> ep | oth n <b>eed</b> ed to doc | ıment the                  | in <b>dicator</b> | or confir   | m the absen              | ce of indicators.)            |                                    |
|-------------------------|---------------------------------|------------------|----------------------------|----------------------------|-------------------|-------------|--------------------------|-------------------------------|------------------------------------|
| Depth _                 | Matrix                          |                  | Re                         | dox F <mark>eatu</mark> r  |                   |             |                          |                               |                                    |
| (in <b>ch</b> es)       | Color (moist)                   | %                | Color (moist)              |                            | _Тур <b>е¹</b>    | Loc²        |                          | T <b>e</b> xture              | Remarks                            |
| 0 - 6                   | 10YR 4/2                        | 80               | 2.5YR 3/6                  | 20                         | C                 | M/PL        |                          | Silt Loam                     |                                    |
| 6 - 10                  | 10YR 4/1                        | 70               | 7.5YR 4/6                  | 30                         | C                 | M/PL        |                          | Sandy Loam                    |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
| <u> </u>                |                                 |                  |                            |                            | - ——              |             | -                        |                               | <del></del>                        |
|                         |                                 |                  |                            |                            | - ——              |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               | _                                  |
|                         |                                 |                  |                            |                            |                   |             |                          |                               | _                                  |
|                         |                                 | epletion         | , RM = Reduced M           | atrix, MS =                | Masked S          | Sand Gra    | ins. <sup>z</sup> Locati | on: PL = Pore Lining, M =     |                                    |
| 1 -                     | il Indicators:                  |                  |                            |                            |                   |             |                          | Indicators for Problem        | natic Hydric Soils³:               |
| _ Histosol              |                                 |                  |                            | irk Surface (              |                   | (00) 45     | D. 447 ***               | 2 cm Muck (A10) (i            | ML <b>RA 147)</b>                  |
| — Histic Ep<br>Black Hi | oipedon (A2)                    |                  |                            |                            |                   |             | RA 147, 148)             |                               | ox (A16) (MLRA 147, 148)           |
| _                       | en Sulfide (A4)                 |                  |                            | in Dark Surl<br>amy Gleyed |                   |             | , 148)                   | Piedmont Floodpla             | ain Soils (F19) <b>(MLRA 13</b> 6, |
|                         | d Layers (A5)                   |                  | _                          | pleted Mati                | •                 | ۷,          |                          | 147)                          |                                    |
|                         | uck (A10) (LRR N)               |                  |                            | dox Dark Sı                |                   | )           |                          | Very Shallow Dark             | : Surface (TF12)                   |
|                         | d Below Dark Surface (A         | (11)             | _                          | pleted Dark                |                   |             |                          | Other (Explain in F           | Remarks)                           |
| I —                     | ark Surface (A12)               |                  | _ Re                       | dox Depres                 | sions (F8)        |             |                          |                               |                                    |
| 1 -                     | fucky Mineral (\$1) (LRR        | N, MLRA          | . 147, 148) lrd            | in-Mangane<br>nbric Surfac | se Masse:         | S (F12) (LF | R N, MLRA 13             | 36)₃<br>Indicators of hydroph | hytic vegetation and               |
|                         | ileyed Matrix (S4)<br>edox (S5) |                  |                            | dmont Floo                 | ( , (             |             | ,                        | wetland hydrology mi          | ust be present, unless             |
| _                       | Matrix (S6)                     |                  | _                          | d Parent Ma                |                   |             |                          | disturbed or problem          | atic.                              |
|                         | Layer (if observed):            |                  |                            |                            |                   | Î           |                          |                               |                                    |
|                         | Type:                           |                  | Rock layer                 |                            |                   | Hydric      | Soil Present?            |                               | Yes ☑ No □                         |
|                         | Depth (inches):                 |                  | 10                         |                            |                   | l'iyane.    | JOH I TESETIC.           |                               | res in the in                      |
|                         | Daper (menes).                  |                  |                            |                            |                   |             |                          |                               |                                    |
| Remarks:                |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
|                         |                                 |                  |                            |                            |                   |             |                          |                               |                                    |
| <u> </u>                |                                 |                  |                            |                            |                   |             |                          |                               |                                    |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                         | City/County:                               |  | Sampling Date: 2018-July-30  |                             |  |  |
|---|--|--|--|-----------------------------|--|--|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra |  | State:   | Sampling Point: V  | V-G18-16_UPL-1              |  |  |
| Investigator(s): Beth Clements,                     | SS MS                                      | Section, Township,                                 | Range:   |                             |  |  |
| Landform (hillslope, terrace, etc.):                | Swale                                      | Local relief (concave, conve                       | ex, none):None   | Slop <b>e (%</b> ): 1 to 10 |  |  |
| Subregion (LRR or MLRA): M                          | ILRA 136 of LRR P                          | Lat: 36.5705512                                    | Long: -79.6034039  | Datum: WGS84                |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :23C     |  |  | NWI classifica   | ation: None                 |  |  |
| Are climatic/hydrologic conditions                  | s on the site typical for this time of y   | year? Yes 🔽 No                                     | (If no, explain in Remar   | ks.)                        |  |  |
| Are Vegetation, Soil,                               | or Hydrology significantly                 | disturbed? Are "Norma                              | l Circumstances" present?  | Yes 🟒 No                    |  |  |
| Are Vegetation, Soil,                               | or Hydrology naturally pro                 | blematic? (If needed,                              | explain any answers in Rema  | arks.)                      |  |  |
|   |  |  |  |                             |  |  |
| SUMMARY OF FINDINGS – A                             | ttach site ma <mark>p showing sam</mark> p | ling point locations, tran                         | sects, important feature   | es, etc.                    |  |  |
| Hydrophytic Vegetation Present?                     | Yes No <b>✓</b>                            |  |  |                             |  |  |
| Hydric Soil Present?                                | Yes No <b>_√</b> _                         |  |  |                             |  |  |
| Wetland Hydrology Present?                          | Yes No _ <b>_</b> /                        | Is the <b>Sam</b> pl <b>ed</b> A <b>rea</b> within | n a Wetland?   | <b>Yes</b> No _ <b>∠</b> _  |  |  |
|   | 163 NO _ <b>V</b>                          | is the sampled Area within                         | i a vvedana:   | 163 NO <u>_</u>             |  |  |
| Remarks:  |  |  |  |                             |  |  |
|   |  |  |  |                             |  |  |
|   |  |  |  |                             |  |  |
| Covertype is UPL. Area is upland,                   | , not all three wetland parameters a       | are present.                                       |  |                             |  |  |
| •   | ·  | ·  |  |                             |  |  |
|   |  |  |  |                             |  |  |
|   |  |  |  |                             |  |  |
|   |  |  |  |                             |  |  |
| HYDROLOGY   |  |  |  |                             |  |  |
| Wetland Hydrology Indicators:                       |  |  |  |                             |  |  |
| , ,,  | one is required; check all that apply      | d  | Secondary Indicators (minim  | num of two required)        |  |  |
| Timary maleacors (minimamor)                        | Site 15 regained, effect an effect apply   | $\boldsymbol{\mu}$                                 | Surface Soil Cracks (B6)   | idin or two regained)       |  |  |
| Surface Water (A1)                                  | True Aquatic Pl                            | ants (B14)   | Sparsely Vegetated Conc  | ave Surface (B8)            |  |  |
| High Water Table (A2)                               | Hydrogen Sulfi                             | de Odor (C1)                                       | Drainage Patterns (B10)  |                             |  |  |
| Saturation (A3)                                     | Oxidized Rhizo                             | spheres on Living Roots (C3)                       | Moss Trim Lines (B16)  |                             |  |  |
| Water Marks (B1)                                    |  | duced Iron (C4)                                    | Dry-Season Water Table (C2)  |                             |  |  |
| Sediment Deposits (B2)                              |  | duction in Tilled Soils (C6)                       | Crayfish Burrows (C8)  |                             |  |  |
| Drift Deposits (B3)                                 | Thin Muck Surf                             |  | Saturation Visible on Aer  | ial Imagery (C9)            |  |  |
| Algal Mat or Crust (B4)                             | Other (Explain                             | in Remarks)  | Churchad au Churchad al Dian   | +a /D1\                     |  |  |
| Iron Deposits (B5) Inundation Visible on Aerial I   | Imagon/(P7)                                |  | <ul><li>Stunted or Stressed Plan</li><li>Geomorphic Position (D2</li></ul> |                             |  |  |
| Water-Stained Leaves (B9)                           | iniagery (67)                              |  | Shallow Aquitard (D3)  | -)                          |  |  |
| Aquatic Fauna (B13)                                 |  |  | Microtopographic Relief  | (D4)                        |  |  |
|   |  |  | FAC-Neutral Test (D5)  | (5.1)                       |  |  |
| Field Observations:                                 |  |  |  |                             |  |  |
| Surface Water Present?                              | Yes No <u></u> ✓ Dept                      | h (inches):  |  |                             |  |  |
| Water Table Present?                                |  |  | <br>  Wetland Hydrology Present?   | ? Yes No <b>_∠</b>          |  |  |
|   | •  |  | vvedand riyarology r resents   | 16310                       |  |  |
| Saturation Present?                                 | Yes No Dept                                | h (inches):  |  |                             |  |  |
| (includes capillary fringe)                         |  |  |  |                             |  |  |
| Describe Recorded Data (stream                      | gauge, monitoring well, aerial phot        | tos <mark>, previous inspections</mark> ), if a    | vailable:  |                             |  |  |
|   |  |  |  |                             |  |  |
|   |  |  |  |                             |  |  |
| Remarks:  |  |  |  |                             |  |  |
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|   |  |  |  |                             |  |  |

| , ,   | •             |                     |           |   |                         |                |
|---|---------------|---------------------|-----------|---|-------------------------|----------------|
| Tree Stratum (Plot size:20x3)                       | Absolute      | : D <b>ominan</b> t | Indicator | Dominance Test worksheet:                               |                         |                |
| Tree stratum (Plot size:                            | % Cover       | Species?            | Status    | Number of Dominant Species That                         | 1                       | (A)            |
| 1.  |               |                     |           | Are OBL, FACW, or FAC:                                  |                         | (A)            |
| 2.  |               |                     |           | Total Number of Dominant Species Across All Strata:     | 2                       | (B)            |
| 3   |               |                     |           | Percent of Dominant Species That                        |                         |                |
| 4   | . ——          |                     |           | - Are OBL, FACW, or FAC:                                | 50                      | (A/B)          |
| 5   |               |                     |           | Prevalence Index worksheet:                             |                         |                |
| 6   |               |                     |           | - Total % Cover of:                                     | <u>Multiply I</u>       | Bv:            |
| 7   |               |                     |           | - OBL species 0   | x 1 =                   | 0              |
|   | 0             | = Total Cov         | rer       | FACW species 4  | x 2 =                   | 8              |
| 50% of total cover: <u>0</u>                        | _ 20% of to   | otal cover:         | 0         | FAC species 61  | x3=                     | 183            |
| Sapling/Shrub Stratum (Plot size:10x3)              |               |                     |           | FACU species 25   | ×4=                     | 100            |
| 1   |               |                     |           | - UPL species 0   | x5=                     | 0              |
| 2.  |               |                     |           | <u> </u>  | _                       |                |
| 3.  |               |                     |           | Column Totals 90  | (A) -                   | 291 (B)        |
| 4.  |               |                     |           | Prevalence Index = B/A =                                | 3.2                     |                |
| 5.  |               |                     |           | Hydrophytic Vegetation Indicators:                      |                         |                |
| 6.  |               |                     |           | 1- Rapid Test for Hydrophytic                           | Vegetation              |                |
|   |               |                     |           | 2 - Dominance Test is > 50%                             |                         |                |
| 7.<br>8.  |               |                     |           | 3 - Prevalence Index is ≤ 3.01                          |                         |                |
| 8.<br>9.  |               |                     |           | -  4 - Morphological Adaptations                        | <sup>1</sup> (Provide : | supporting     |
| 9.  |               |                     |           | - data in Remarks or on a separate sl                   | heet)                   |                |
| 500 5 1   | 0             | _= Total Cov        |           | Problematic Hydrophytic Vege                            | atation¹ (Ex            | plain)         |
| 50% of total cover: <u>0</u>                        | _ 20% of to   | otal cover:         | 0         | Indicators of hydric soil and wetlar                    | าd hydrolog             | gy must be     |
| Herb Stratum (Plot size: 5 )                        |               |                     |           | present, unless disturbed or proble                     | matic                   |                |
| 1. <u>Dichanthelium clandestinum</u>                | 40            | Yes                 | FAC       | ■ Definitions of Four Vegetation Strat                  | :a:                     |                |
| 2. Sorghum halepense                                | 20            | Yes                 | FACU      | -   |                         |                |
| 3. Microstegium vimineum                            | 15            | No                  | FAC       | Tr <b>ee</b> – Woody plants, excluding vine             | es, 3 in. (7.6          | cm) or more    |
| 4. Arthraxon hispidus                               | 5             | No                  | FAC       | in diameter at breast height (DBH),                     | regardless              | of height.     |
| 5. <i>Dactylis glomerata</i>                        | 5             | No                  | FACU      | _   |                         |                |
| 6. <i>Bidens aristosa</i>                           | 2             | No                  | FACW      | Sapling/shrub – Woody plants, excl                      | uding vines             | s, less than 3 |
| 7. Cinna arundinacea                                | 2             | No                  | FACW      | in. DBH and greater than or equal t                     | :o 3.28 ft (1           | m) tall.       |
| 8. Liquidambar styraciflua                          | 1             | No                  | FAC       |   |                         |                |
| 9.  |               |                     |           | Herb – All herbaceous (non-woody)                       | plants, reg             | gardless of    |
| 10.   |               |                     |           | size, and woody plants less than 3.2                    | 28 ft tall.             |                |
| 11.   |               |                     |           | -   |                         |                |
|   | 90            | = Total Cov         |           | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea | ater than 3             | 28 ft in       |
| 50% of total cover: <u>45</u>                       |               | tal cover:          | 18        | height.   |                         |                |
| Woody Vine Stratum (Plot size: 20x3 )               | _ 20 /0 01 (0 | car cover.          |           |   |                         |                |
| 1   |               |                     |           |   |                         |                |
|   |               |                     |           | -   |                         |                |
| 2.  |               |                     |           | -   | ) (                     | _              |
| 3.  |               |                     |           | - Hydrophytic Vegetation Present?                       | Yes ⊔ No ⊾              | <u> </u>       |
| 4   | . ——          |                     |           | -   |                         |                |
| 5   |               |                     |           | _   |                         |                |
|   | 0             | = Total Cov         | rer       |   |                         |                |
| 50% of total cover: <u>0</u>                        | _ 20% of to   | otal cover:         | 0         |   |                         |                |
| Remarks: (Include photo numbers here or on a separa | te sheet )    |                     |           |   |                         |                |
| , ,   | •             |                     |           |   |                         |                |
|   |               |                     |           |   |                         |                |
|   |               |                     |           |   |                         |                |
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|   |               |                     |           |   |                         |                |
|   |               |                     |           |   |                         |                |
| <u> </u>  |               |                     |           |   |                         |                |

|                       | scription: (Describe to    | th <b>e d</b> ep |                           |             |                                    | or confir  | m the absen               | ce of indicators.)                    |  |
|-----------------------|----------------------------|------------------|---------------------------|-------------|------------------------------------|------------|---------------------------|---------------------------------------|--|
| Depth _               | Matrix                     |                  |                           | Featur      |                                    |            |                           | _                                     |  |
| (inches)              | Color (moist)              | <u>%</u>         | Color (moist)             | . <u></u>   | Type¹                              | _Loc²      |                           | Texture                               | Remarks                                    |
| 0-4                   | 10YR 5/3                   | 95               | 10YR 5/6                  | 5           |                                    | M          |                           | Sandy Loam                            |  |
| 4 - 13                | 10YR 5/4                   | 90               | 2.5YR 5/3                 | 5           | C                                  | M          |                           | Sandy Loam                            |  |
| 4 - 13                |                            |                  | 10YR 5/8                  | 5           | C                                  | M          |                           |                                       |  |
| 13 - 18               | 10YR 6/4                   | 90               | 10YR 5/8                  | 8           | D                                  | M          |                           | Sandy Loam                            |  |
| 13 - 18               |                            |                  | 10YR 5/3                  | 2           | D                                  | M          |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
| _                     |                            |                  |                           |             |                                    |            |                           |                                       |  |
| _                     |                            |                  |                           |             |                                    |            |                           |                                       | •  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       | ·  |
|                       |                            |                  | DAR Deduced Mark          |             |                                    |            |                           | - DI BII-I M                          | B 0 - 4-2-2-                               |
|                       |                            | pretion          | , RM = Reduced Matri      | x, MS =     | маѕкеа 5                           | and Gra    | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M =             |  |
|                       | il Indicators:             |                  |                           | _           |                                    |            |                           | Indicators for Problem                | natic Hydric Soils <sup>3</sup> :          |
| _ Histosol            |                            |                  | Dark 9                    |             |                                    | (CO) (BAIL | DA 447 440V               | 2 cm Muck (A10) <b>(N</b>             | /ILRA 147)                                 |
| HISCIC ED<br>Black Hi | oipedon (A2)               |                  |                           |             | sw Surrace<br>face (S9) <b>(</b> N |            | RA 147, 148)              | Coast Prairie Redo                    | x (A16) (ML <b>RA 147, 148</b> )           |
|                       | en Sulfide (A4)            |                  |                           |             | Matrix (F2                         |            | , 140)                    | Piedmont Floodpla                     | in Soils (F19) <b>(MLR</b> A 1 <b>36</b> , |
|                       | d Layers (A5)              |                  | Deple                     |             |                                    | -,         |                           | 1 <b>4</b> 7)                         | , i  |
|                       | uck (A10) (LRR N)          |                  |                           |             | ırface (F6)                        |            |                           | Very Shallow Dark                     | Surface (TF12)                             |
| _ Deplete             | d Below Dark Surface (A    | 11)              | _ Deple                   | ted Dark    | Surface (F                         | =7)        |                           | Other (Explain in R                   | emarks)                                    |
|                       | ark Surface (A12)          |                  | Redox                     | Depres      | sions (F8)                         |            |                           | •                                     |  |
| 1 -                   | lucky Mineral (S1) (LRR I  | N, MLRA          | . <b>147, 148)</b> Iron-N | langane     | se Masses                          | (F12) (LR  | R N, MLRA 13              | <sup>:6)</sup> ₃Indicators of hydroph | ytic vegetation and                        |
|                       | ileyed Matrix (S4)         |                  |                           |             | () (                               | L          | ,                         | wetland hydrology mu                  | ist be present, unless                     |
|                       | edox (S5)<br>I Matríx (S6) |                  |                           |             | aterial (F21                       |            | MLRA 148)                 | disturbed or problema                 |  |
|                       |                            |                  | Keu Fi                    | al CITCIVIA | aterial (FZ)                       | (IMILITY   | 127, 147)                 | ·                                     |  |
|                       | e Layer (if observed):     |                  | Niere                     |             |                                    | l          |                           |                                       |  |
|                       | Type:                      |                  | None                      | •           |                                    | Hydric :   | Soil <b>Present?</b>      |                                       | Yes □ No ☑                                 |
|                       | Depth (inches):            |                  |                           |             |                                    |            |                           |                                       |  |
| Remarks:              |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |
|                       |                            |                  |                           |             |                                    |            |                           |                                       |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                     | City/County:                            |                                       | Sampling Date: 2018-June-26   |                             |  |  |
|---|---|---------------------------------------|---|-----------------------------|--|--|
| Applicant/Owner: NextEra                        |   | State:                                | Sampling Point:   | W-E18-36_PFO-1              |  |  |
| nvestigator(s):Jen Feese, ESN                   | I, JSF, TS, JB                          | Section, Township,                    | Range:  |                             |  |  |
| andform (hillslope, terrace, etc.               | ): Swale                                | Local relief (concave, conv           | ex, none): Concave  | Slop <b>e (%</b> ): 10 to 1 |  |  |
| Subregion (LRR or MLRA):i                       | MLRA 136 of LRR P                       | Lat: 36.5675648                       | Long: -79.6056945   | Datum:WGS84                 |  |  |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> : 23C |   |                                       | NWI classific   | ation: None                 |  |  |
| Are climatic/hydrologic condition               | ns on the site typical for this time of | ye <b>ar?</b> Yes <u></u> ✓ No        | (If no, explain in Rema   | rks.)                       |  |  |
| Are Vegetation, Soil,                           | or Hydrology significantly              | disturbed? Are "Norma                 | al Circumstances" present?  | Yes 🟒 No                    |  |  |
| Are Vegetation, Soil,                           | or Hydrology naturally pr               | oblematic? (If needed,                | explain any answers in Rem  | arks.)                      |  |  |
|   |   |                                       |   |                             |  |  |
| SUMMARY OF FINDINGS - A                         | Attach site map showing sam             | pling point locations, trar           | isects, important featur  | es, etc.                    |  |  |
| Hydrophytic Vegetation Present                  | t? Yes/_ No                             |                                       |   |                             |  |  |
| Hydric Soil Present?                            | Yes _✓ No                               |                                       |   |                             |  |  |
| Wetland Hydrology Present?                      | Yes _ <b>✓</b> No                       | Is the Sampled Area withi             | n a Wetland?  | Yes <b>∕_ No</b>            |  |  |
| Remarks:  | 145                                     | is the sumpled / ited / ited          | TO TECHNICA   |                             |  |  |
| Remarks.  |   |                                       |   |                             |  |  |
|   |   |                                       |   |                             |  |  |
|   |   |                                       |   |                             |  |  |
|   |   |                                       |   |                             |  |  |
| Covertype is PEO. Area is wetlar                | nd, all three wetland parameters are    | e present.                            |   |                             |  |  |
| covereype is 11 o. 7 ii da is videlar           | ra, an em de vicelana parameters an     | preserie.                             |   |                             |  |  |
|   |   |                                       |   |                             |  |  |
|   |   |                                       |   |                             |  |  |
|   |   |                                       |   |                             |  |  |
|   |   |                                       |   |                             |  |  |
| HYDROLOGY                                       |   |                                       |   |                             |  |  |
| Wetland Hydrology Indicators:                   |   |                                       |   |                             |  |  |
| , ,,  | f one is required; check all that app   | ly)                                   | Secondary Indicators (minin   | num of two required)        |  |  |
| •   |   | -                                     | Surface Soil Cracks (B6)  | <del>.</del>                |  |  |
| Surface Water (A1)                              | True Aquatic F                          | Plants (B14)                          | Sparsely Vegetated Cond   | tave Surface (B8)           |  |  |
| High Water Table (A2)                           | Hydrogen Sult                           |                                       | Drainage Patterns (B10)   |                             |  |  |
| Saturation (A3)                                 |   | ospheres on Living Roots (C3)         | Moss Trim Lines (B16)   |                             |  |  |
| Water Marks (B1)                                |   | educed Iron (C4)                      | Dry-Season Water Table (C2)   |                             |  |  |
| Sediment Deposits (B2)                          |   | eduction in Tilled Soils (C6)         | Crayfish Burrows (C8)   |                             |  |  |
| Drift Deposits (B3)                             | Thin Muck Sur                           |                                       | Saturation Visible on Ae  | rial Imagery (C9)           |  |  |
| Algal Mat or Crust (B4)                         | Other (Explain                          | i in Remarks)                         | 5: 1 5: 1D  | (D4)                        |  |  |
| Iron Deposits (B5)                              | Lara = 5.5 (DZ)                         |                                       | Stunted or Stressed Plan  |                             |  |  |
| Inundation Visible on Aeria                     | Timagery (B7)                           |                                       | <ul><li>Geomorphic Position (D:<br/>Shallow Aquitard (D3)</li></ul> | 2)                          |  |  |
| Water-Stained Leaves (B9) Aquatic Fauna (B13)   |   |                                       | Microtopographic Relief   | (D4)                        |  |  |
| Aquatic Faulia (B13)                            |   |                                       | ✓ FAC-Neutral Test (D5)   | (04)                        |  |  |
| Field Observations:                             |   |                                       |   |                             |  |  |
| Surface Water Present?                          | Yes No <u></u> ✓ Deg                    | oth (inches):                         |   |                             |  |  |
|   |   |                                       | Maria and the decidence Decidence                                   | 7 V N-                      |  |  |
| Water Table Present?                            | ·                                       | oth (inches):                         | Wetland Hydrology Present   | ? Yes _ <b>∠</b> _ No       |  |  |
| Saturation Present?                             | Yes <u></u> No Dep                      | oth (inches): 4                       |   |                             |  |  |
| (includes capillary fringe)                     |   |                                       |   |                             |  |  |
| Describe Recorded Data (stream                  | n gauge, monitoring well, aerial pho    | otos, previous inspections), if a     | vailable <sup>,</sup>   |                             |  |  |
|   |   | · · · · · · · · · · · · · · · · · · · |   |                             |  |  |
|   |   |                                       |   |                             |  |  |
|   |   |                                       |   |                             |  |  |
| Remarks:  |   |                                       |   |                             |  |  |
| <br>  |   |                                       |   |                             |  |  |
|   |   |                                       |   |                             |  |  |
|   |   |                                       |   |                             |  |  |
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|   |   |                                       |   |                             |  |  |

| ` '   |             |                  |              |   |                      |             |
|---|-------------|------------------|--------------|---|----------------------|-------------|
| Tree Stratum (Plot size:30)                         |             | Dominant         |              | Dominance Test worksheet:                                   |                      |             |
|   |             | Species?         | Status       | Number of Dominant Species That Are OBL, FACW, or FAC:      | 5                    | (A)         |
| Fraxinus pennsylvanica     Quercus alba             | 25          | Yes Yes          | FACW<br>FACU | Total Number of Dominant Species                            |                      |             |
| 3.  |             | 163              | TACO         | Across All Strata:  | 6                    | (B)         |
| 4.  |             |                  |              | Percent of Dominant Species That                            | <b>8</b> 3. <b>3</b> | (A/B)       |
| 5.  |             |                  |              | Are OBL, FACW, or FAC:                                      |                      |             |
| 6.  |             |                  |              | Prevalence Index worksheet:                                 |                      |             |
| 7.  |             |                  |              | Total % Cover of:   | Multiply B           |             |
|   | 35          | = Total Cov      | er           | - OBL species 30<br>FACW species 35                         | x1=                  | 30          |
| 50% of total cover: <u>17.5</u>                     |             | -<br>otal cover: | 7            | FACW species 35 FAC species 15                              | x2=<br>x3=           | 70<br>45    |
| Sapling/Shrub Stratum (Plot size:15)                |             |                  |              | FACU species 23   | ×4=                  | 92          |
| 1. Platanus occidentalis                            | 5           | Yes              | FACW         | - UPL species 0   | x5=                  | 0           |
| 2. Acer rubrum                                      | 5           | Yes              | FAC          | Column Totals 103   | _                    | 237 (B)     |
| 3. Fraxinus pennsylvanica                           | 5           | Yes              | FACW         | Prevalence Index = B/A =                                    | 2.3                  | 237 (6)     |
| 4   |             |                  |              | Hydrophytic Vegetation Indicators:                          |                      |             |
| 5   |             |                  |              | - 1- Rapid Test for Hydrophytic                             | Vegetation           |             |
| 6   |             |                  |              | ✓ 2 - Dominance Test is >50%                                | regetation           |             |
| 7   |             |                  |              | $\checkmark$ 3 - Prevalence Index is $\le 3.0^{\circ}$      |                      |             |
| 8.  |             |                  |              | 4 - Morphological Adaptations                               | ¹ (Provide s         | upporting   |
| 9   |             |                  |              | data in Remarks or on a separate sh                         |                      |             |
|   | 15          | = Total Cov      | er           | Problematic Hydrophytic Vege                                | etation¹ (Exp        | lain)       |
| 50% of total cover:7.5                              | _ 20% of to | otal cover:      | 3            | Indicators of hydric soil and wetlan                        | id hydrolog          | y must be   |
| Herb Stratum (Plot size: 5)                         |             |                  |              | present, unless disturbed or proble                         | matic                |             |
| 1. Leersia oryzoides                                | 30          | Yes              | OBL          | Definitions of Four Vegetation Strat                        | a:                   |             |
| 2. Lonicera japonica                                | 10          | No               | FACU         |   |                      |             |
| 3. <u>Smilax rotundifolia</u>                       | 5           | No               | FAC          | Tr <b>ee</b> – Woody plants, excluding vine                 |                      |             |
| 4. Carpinus caroliniana                             | 5           | No               | FAC          | · in diameter at breast height (DBH),                       | regardless o         | of height.  |
| 5. Smilax glauca                                    |             | No               | FACU         | -   |                      |             |
| 6. <u>Osmorhiza claytonii</u>                       | 1           | No               | FACU         | Sapling/shrub – Woody plants, exclu                         | -                    |             |
| 7.  |             |                  |              | in. DBH and greater than or equal to                        | 3 3.20 IL(1 I        | n) tan.     |
| 8.  |             |                  |              | Herb – All herbaceous (non-woody)                           | nlants res:          | ardless of  |
| 9   |             |                  |              | size, and woody plants less than 3.2                        |                      | ai die33 Oi |
| 10  |             |                  |              | -   |                      |             |
| <sup>11</sup>                                       |             |                  |              | -   |                      | O 6-1-      |
| 500 6   | 53          | = Total Cov      |              | <b>Wo</b> od <b>y vine</b> s – All woody vines grea height. | ter than 3.2         | σπın        |
| 50% of total cover: <u>26.5</u>                     | _ 20% of to | otal cover:      | 10.6         | leight.   |                      |             |
| Woody Vine Stratum (Plot size: 30 )                 |             |                  |              |   |                      |             |
| 1   |             |                  |              | -   |                      |             |
| 2   |             |                  |              | Hydrophytic Vegetation Present? ``                          | Voc 🗆 No 🗆           |             |
| 4.  |             |                  |              | - Hydrophydd vegetadon resend                               | 163 E 110 L          |             |
| 5.  |             |                  |              | -   |                      |             |
|   |             | = Total Cov      | or           |   |                      |             |
| 50% of total cover: 0                               |             | -                | 0            |   |                      |             |
|   |             | ital cover.      |              |   |                      |             |
| Remarks: (Include photo numbers here or on a separa | te sheet.)  |                  |              |   |                      |             |
|   |             |                  |              |   |                      |             |
|   |             |                  |              |   |                      |             |
|   |             |                  |              |   |                      |             |
|   |             |                  |              |   |                      |             |
|   |             |                  |              |   |                      |             |
|   |             |                  |              |   |                      |             |
|   |             |                  |              |   |                      |             |

| Profile De        | scription: (Describe to                            | the dept  | th n <b>eeded to</b> d <b>ocu</b> m | nent the i              | ndicator           | or confir          | m the absence              | e of indicators.)                    |  |
|-------------------|--|-----------|-------------------------------------|-------------------------|--------------------|--------------------|----------------------------|--------------------------------------|--|
| Depth             | <b>Ma</b> trix                                     |           | Redo                                | x Feature               | es                 |                    |                            |                                      |  |
| (in <b>ch</b> es) | Color (moist)                                      | %         | Color (moist)                       | %                       | Type¹              | Loc²               |                            | T <b>e</b> xture                     | R <b>em</b> arks   |
| 0 - 2             | 10YR 4/1   | 85        | 10YR 5/1                            | 10                      |                    |                    |                            | Loam                                 |  |
| 0 - 2             |  |           | 7.5YR 4/4                           |                         |                    | M                  |                            |                                      |  |
| 2 - 8             | 10YR 4/2   | 85        | 10YR 5/1                            | 5                       |                    |                    |                            | Silt Loam                            |  |
| 2 - 8             |  |           | 7.5YR 4/4                           | 10                      |                    | M/PL               |                            |                                      |  |
| 8 - 12            | 7.5YR <b>4</b> /4                                  | 90        | 7.5YR 4/4                           | 10                      |                    |                    | Si                         | ity Clay Loam                        |  |
| 12 - 18           | 2.5Y 5/3   | 60        | 10YR 5/6                            | 15                      |                    |                    |                            | Ity Clay Loam                        |  |
| 12 - 18           |  |           | 7.5YR 4/4                           | 15                      | · — c              |                    |                            | isy elay 20am                        | _  |
| 12 - 18           |  |           | 10YR 4/2                            | 10                      | D                  |                    | -                          |                                      |  |
| 12 - 16           |  |           | TUYK 4/2                            |                         | . <del></del>      | M                  |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      | _  |
| <u>'Type:</u> C = | Concentration, D = D                               | epletion, | RM = Reduced Mat                    | rix, MS = I             | Masked S           | Sand Gra           | ins. <sup>2</sup> Locatio  | on: PL = Pore Lining, M =            | : Matrix.  |
| Hydric Soi        | il Indicators:                                     |           |                                     |                         |                    |                    |                            | Indicators for Problem               | natic Hydric Soils3:                                     |
| _ Histosol        |  |           |                                     | Surface (               |                    |                    |                            | 2 cm Muck (A10) <b>(N</b>            | MLRA 147)  |
|                   | pipedon (A2)                                       |           |                                     |                         |                    |                    | .RA 147, 148)              |                                      | x (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b> |
| _ Black Hi        |  |           |                                     | Dark Surf               |                    |                    | 7, 148)                    |                                      | ain Soils (F19) (MLRA 136,                               |
| _ , _             | en Sulfide (A4)                                    |           |                                     | ny Gleyed               |                    | 2)                 |                            | 147)                                 | (11) (14) (14) (14) (15 <b>0,</b>                        |
|                   | d Layers (A5)<br>uck (A10) <b>(</b> LR <b>R N)</b> |           |                                     | eted Matr<br>ox Dark Su |                    |                    |                            | Very Shallow Dark                    | Surface (TE12)   |
|                   | d Below Dark Surface (                             | Δ11)      |                                     | eted Dark               |                    |                    |                            | Other (Explain in R                  |  |
|                   | ark Surface (A12)                                  | A11)      | Redo                                | x Depress               | sions (F8)         |                    |                            |                                      | •  |
| _                 | lucky Mineral (S1) (LRF                            | N, MLRA   | 147, 148) Iron-                     | Manganes                | se Masses          | s (F12) (LI        | RR N, MLRA 13              | <sup>6)</sup> ₃Indicators of hydroph |  |
| 1 -               | ileyed Matrix (S4)                                 |           | Umb                                 | ric Surfac              | e (F13) ( <b>N</b> | ILRA 136,          | <b>12</b> 2)               | andicators of hydropr                | ytic vegetation and                                      |
| Sandy R           | edox (S5)  |           | Piedı                               | mont Floo               | dplain So          | ils (F19) <b>(</b> | MLRA 148)                  | wetland hydrology mu                 | '  |
| _ Stripped        | l Matrix (S6)                                      |           | Red I                               | arent Ma                | terial (F2         | 1) <b>(M</b> LRA   | 1 <b>27</b> , <b>1</b> 47) | disturbed or problema                | atic.  |
| Restrictive       | Layer (if observed):                               |           |                                     |                         |                    |                    |                            |                                      |  |
|                   | Type:  |           | None                                |                         |                    | Hvdric             | Soil Present?              |                                      | Yes ☑ No □   |
|                   | Depth (inches):                                    |           |                                     | -                       |                    |                    |                            |                                      |  |
|                   | Daper (menas).                                     |           |                                     | _                       |                    |                    |                            |                                      |  |
| Remarks:          |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |
|                   |  |           |                                     |                         |                    |                    |                            |                                      |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                               | City/County:                           |  | Sampling Date: 2018-June-26   |                            |  |  |
|---|--|--|---|----------------------------|--|--|
| Applicant/Owner: NextEra                                  |  | State:   | Sampling Point: V   | V-E18-36_UPL-1             |  |  |
| Investigator(s):Janelle Bernosk                           | y, TS                                  | Section, Township,                                       | Range:  |                            |  |  |
| Landform (hillslope, terrace, etc.):                      | : Hillslope                            | Local relief (concave, conv                              | ex, none): Concave  | Slop <b>e (%</b> ): 2 to 5 |  |  |
| Subregion (LRR or MLRA): M                                | ILRA 136 of LRR P                      | Lat: 36.5676098  | Long: -79.6057995   | Datum: WGS84               |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :              |  |  | NWI classific   | ation:                     |  |  |
| Are climatic/hydrologic conditions                        | s on the site typical for this time of | year? Yes 🟒 No   | (If no, explain in Remar  | ks.)                       |  |  |
| Are Vegetation, Soil,                                     | or Hydrology significantly             | disturbed? Are "Norma                                    | al Circumstances" present?  | Yes No                     |  |  |
| Are Vegetation, Soil,                                     | or Hydrology naturally pro             | oblematic? (If needed,                                   | explain any answers in Rema   | arks.)                     |  |  |
|   |  |  |   |                            |  |  |
| SU <b>MMARY O</b> F FI <b>NDI</b> NGS – A                 | ttach site map showing samp            | ling point locations, tran                               | sects, important feature  | es, etc.                   |  |  |
| Hydrophytic Vegetation Present?                           | Yes No <u></u> ✓                       |  | •   |                            |  |  |
| Hydric Soil Present?                                      | Yes No _ <b>_</b> _                    |  |   |                            |  |  |
| •   |  | Is the Carpoled Area within                              | a a Mathanda  | Voc. No. /                 |  |  |
| Wetland Hydrology Present?                                | Yes No <b>_∠</b>                       | Is the Sampled Area within                               | ra wedands  | Yes No <u></u> ✓           |  |  |
| Remarks:  |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |
| Covertype is UPL. Area is upland,                         | , not all three wetland parameters a   | are present.   |   |                            |  |  |
|   | ·                                      | •  |   |                            |  |  |
|   |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |
| HYDROLOGY   |  |  |   |                            |  |  |
| Wetland Hydrology Indicators:                             |  |  |   |                            |  |  |
|   | one is required; check all that apply  | ν)   | Secondary Indicators (minim   | num of two required)       |  |  |
| Timary maleacors (miniman or                              | one is required, effect all charapping | <u>u</u>   | Surface Soil Cracks (B6)  | idin or are required;      |  |  |
| Surface Water (A1)  | True Aquatic P                         | lants (B14)  | Sparsely Vegetated Conc   | ave Surface (B8)           |  |  |
| High Water Table (A2)                                     | Hydrogen Sulfi                         | ide Odor (C1)  | Drainage Patterns (B10)   |                            |  |  |
| Saturation (A3)   | Oxidized Rhizo                         | spheres on Living Roots (C3)                             | Moss Trim Lines (B16)   |                            |  |  |
| Water Marks (B1)  |  | educed Iron (C4)   | Dry-Season Water Table (C2)   |                            |  |  |
| Sediment Deposits (B2)                                    |  | duction in Tilled Soils (C6)                             | Crayfish Burrows (C8)   |                            |  |  |
| Drift Deposits (B3)                                       | Thin Muck Sun                          |  | Saturation Visible on Aer   | ial Imagery (C9)           |  |  |
| Algal Mat or Crust (B4)                                   | Other (Explain                         | in Remarks)  | Charles de a Charles et Diese   | (D1)                       |  |  |
| Iron Deposits (B5)  | lan a grant (DZ)                       |  | Stunted or Stressed Plan  |                            |  |  |
| Inundation Visible on Aerial<br>Water-Stained Leaves (B9) | imagery (67)                           |  | <ul><li>Geomorphic Position (D2</li><li>Shallow Aquitard (D3)</li></ul> | 2)                         |  |  |
| Aquatic Fauna (B13)                                       |  |  | Microtopographic Relief   | (D4)                       |  |  |
|   |  |  | FAC-Neutral Test (D5)   | (5.7)                      |  |  |
| Field Observations:                                       |  |  |   |                            |  |  |
| Surface Water Present?                                    | Yes No <u></u> ✓ Dept                  | th (inches):   |   |                            |  |  |
| Water Table Present?                                      |  | th (inches):   | <br>  Wetland Hydrology Presents  | ? Yes No                   |  |  |
|   | ·                                      |  | Victoria Hydrology i reserie  | . 10310                    |  |  |
| Saturation Present?                                       | Yes No <u></u> ✓ Dept                  | ch (inches):   |   |                            |  |  |
| (includes capillary fringe)                               |  |  |   |                            |  |  |
| Describe Recorded Data (stream                            | gauge, monitoring well, aerial pho     | tos <b>, p</b> re <mark>vious inspections</mark> ), if a | vailable:   |                            |  |  |
|   |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |
| Remarks:  |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |
|   |  |  |   |                            |  |  |

| ·  | •           |              |           |  |               |             |
|--|-------------|--------------|-----------|--|---------------|-------------|
| Tree Stratum (Plot size:30)                          | Absolute    | Dominant     | Indicator | Dominance Test worksheet:  |               |             |
| Tree structure (Froc Size                            | % Cover     | Species?     | Status    | Number of Dominant Species That  | 4             | (A)         |
| 1. Pinus taeda                                       | 35          | Yes          | FAC       | Are OBL, FACW, or FAC:   |               |             |
| 2. Liquidambar styraciflua                           | 30          | Yes          | FAC       | Total Number of Dominant Species Across All Strata:                    | 8             | (B)         |
| 3. <u>Carya ovata</u>                                |             | Yes          | FACU      | Percent of Dominant Species That                                       |               |             |
| 4. Fagus grandifolia                                 | 15          | No           | FACU      | - Are OBL, FACW, or FAC:   | 50            | (A/B)       |
| 5  |             |              |           | Prevalence Index worksheet:  |               |             |
| 6.   |             |              |           | <u>Total % Cover of:</u>   | Multiply I    | By:         |
| 7  |             |              |           | OBL species 0  | x 1 =         | 0           |
|  |             | -            |           | FACW species 0   | x 2 =         | 0           |
| 50% of total cover: <u>50</u>                        | _ 20% of to | otal cover:  | 20        | FAC species 90   | x 3 =         | 270         |
| Sapling/Shrub Stratum (Plot size:15)                 | 15          | Von          | FACIL     | FACU species 75  | x 4 =         | 300         |
| 1. Carya ovata                                       |             | Yes          | FACU      | UPL species 0  | x 5 =         | 0           |
| 2. Liquidambar styraciflua                           | 10          | Yes          | FAC       | Column Totals 165  | (A)           | 570 (B)     |
| 3. Quercus alba                                      | 10          | Yes          | FACU      | Prevalence Index = B/A =   | 3.5           |             |
| 4.   |             |              |           | Hydrophytic Vegetation Indicators:                                     |               |             |
| 5.   |             |              |           | 1- Rapid Test for Hydrophytic  | √egetation    | ı           |
| 6.   |             |              |           | 2 - Dominance Test is > 50%  | Ü             |             |
| 7  |             |              |           | 3 - Prevalence Index is ≤ 3.01   |               |             |
| 8.   |             |              |           | -  4 - Morphological Adaptations                                       | ¹ (Provide    | supporting  |
| 9  |             |              |           | data in Remarks or on a separate sh                                    | neet)         |             |
|  | 35          | _= Total Cov |           | Problematic Hydrophytic Vege   | tation¹ (Ex   | :plain)     |
| 50% of total cover: <u>17.5</u>                      | _ 20% of to | otal cover:  | 7         | Indicators of hydric soil and wetlan                                   | id hydrolog   | gy must be  |
| Herb Stratum (Plot size: 5 )                         |             |              |           | present, unless disturbed or proble                                    | matic         |             |
| 1. Lonicera japonica                                 | 15          | Yes          | FACU      | Definitions of Four Vegetation Strat                                   | a:            |             |
| 2. Smilax hispida                                    | 15          | Yes          | FAC       |  |               |             |
| 3  |             |              |           | Tr <b>ee</b> – Woody plants, excluding vine                            | s, 3 in. (7.6 | cm) or more |
| 4  |             |              |           | in diameter at breast height (DBH),                                    | regardless    | of height.  |
| 5.   |             |              |           |  |               |             |
| 6.   |             |              |           | Sapling/shrub – Woody plants, exclu                                    | _             |             |
| 7  |             |              |           | in. DBH and greater than or equal to                                   | 5 3.28 ft (1  | m) tall.    |
| 8.   |             |              |           | -  |               |             |
| 9.   |             |              |           | Herb – All herbaceous (non-woody) size, and woody plants less than 3.2 |               | gardless of |
| 10   |             |              |           | - I size, and woody plants less than 5.2                               | .o It tall.   |             |
| 11   |             |              |           |  |               |             |
|  | 30          | = Total Cov  | er        | <b>Wo</b> od <b>y vine</b> s – All woody vines grea                    | ter than 3.   | .28 ft in   |
| 50% of total cover: <u>15</u>                        | _ 20% of to | otal cover:  | 6         | height.  |               |             |
| Woody Vine Stratum (Plot size:)                      |             |              |           |  |               |             |
| 1  |             |              |           |  |               |             |
| 2  |             |              |           |  |               |             |
| 3.   |             |              |           | Hydrophytic Vegetation Present? `                                      | Yes □ No 🏻    | ⊿           |
| 4  |             |              |           |  |               |             |
| 5  |             |              |           |  |               |             |
|  | 0           | = Total Cov  | er        |  |               |             |
| 50% of total cover: 0                                | 20% of to   | otal cover:  | 0         |  |               |             |
| Remarks: (Include photo numbers here or on a separa  | te sheet )  |              |           |  |               |             |
| Remarks. (include prioto numbers here of on a separa | ie sneed.)  |              |           |  |               |             |
|  |             |              |           |  |               |             |
|  |             |              |           |  |               |             |
|  |             |              |           |  |               |             |
|  |             |              |           |  |               |             |
|  |             |              |           |  |               |             |
|  |             |              |           |  |               |             |
|  |             |              |           |  |               |             |

|              | cription: (Describe to         | o th <b>e d</b> epth |                 |                 |                | or confir | n the absenc             | e of indicators.)                    |  |
|--------------|--------------------------------|----------------------|-----------------|-----------------|----------------|-----------|--------------------------|--------------------------------------|--|
| Depth _      | Matrix                         |                      |                 | Redox Featu     |                | 13        |                          | T                                    | D!   |
| (inches)     | Color (moist)                  |                      | Color (mois     | t) <u>%</u>     | Type¹_         | _Loc²     |                          | Texture                              | . Remarks  |
| 0 - 10       | 10YR 5/2                       | _100                 |                 |                 |                |           |                          | Loam                                 | . <del></del>  |
| 10 - 18      | 2.5Y 5/3                       | 100                  |                 |                 |                |           | Fin                      | ne Sandy Loam                        | . <u> </u>   |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
| ¹Type: C = 0 | Concentration, D = D           | epletion, F          | RM = Reduced    | Matrix, MS =    | Masked S       | and Grai  | ns. <sup>2</sup> Locatio | n: PL = Pore Lining, M =             | Matrix.  |
| Hydric Soil  |                                |                      |                 |                 |                |           |                          | Indicators for Problem               |  |
| Histosol (   |                                |                      | Г               | Dark Surface    | (\$7)          |           |                          |                                      | -  |
|              | pedon (A2)                     |                      |                 | Polyvalue Bel   |                | (S8) (MII | RA 147, 148)             | 2 cm Muck (A10) <b>(M</b>            |  |
| Black His    |                                |                      |                 | hin Dark Su     |                |           |                          | · <del></del>                        | (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b> |
|              | n Sulfide (A4)                 |                      |                 | oamy Gleye      |                |           | , ,                      | Piedmont Floodpla                    | in Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b>             |
|              | Layers (A5)                    |                      | _               | Depleted Mai    |                | ,         |                          | 147)                                 |  |
| _ 2 cm Mud   | k (A10) (LRR N)                |                      | _ F             | Redox Dark S    | iurface (F6)   |           |                          | Very Shallow Dark S                  | Surface (TF12)   |
|              | Below Dark Surface (           | A11)                 | [               | Depleted Dar    | k Surface (I   | F7)       |                          | Other (Explain in Re                 | emarks)  |
|              | k Surface (A12)                |                      | _ F             | Redox Depre     | ssions (F8)    |           |                          |                                      |  |
| _            | ucky Mineral (S1) <b>(</b> LRR | R N, MLRA 1          | <b>47, 148)</b> | ron-Mangan      | ese Masses     | (F12) (LR | R N, MLRA 130            | <sup>6)</sup> ₃Indicators of hydroph | ytic vegetation and                                    |
|              | eyed Matrix (S4)               |                      | _ `             | 3111B111C BG11G | cc (b) (       |           | ,                        | wetland hydrology mu                 | st be present, unless                                  |
| Sandy Re     |                                |                      |                 | Piedmont Flo    |                |           |                          | disturbed or problema                |  |
|              | Matrix (S6)                    |                      |                 | Red Parent M    | iateriai (FZ i | I) (MLRA  | 127, 147)                |                                      |  |
|              | Layer (if observed):           |                      |                 |                 |                |           |                          |                                      |  |
| Т            | ype:                           |                      | None            |                 |                | Hydric 9  | Soil <b>Present?</b>     |                                      | Yes □ No ☑   |
|              | Depth (inches):                |                      |                 |                 |                |           |                          |                                      |  |
| Remarks:     |                                |                      |                 |                 |                | •         |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |
|              |                                |                      |                 |                 |                |           |                          |                                      |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate  | City/County:_             | Danville, Pittsylvania C                       | Sampling          | Date: 2018-July-30                                |                           |
|--|---------------------------|--|-------------------|---|---------------------------|
| Applicant/Owner: NextEra   |                           |  | State: VA         | Sampling Point:                                   | W-F18-36_PEM-1            |
| nvestigator(s): Beth Clements, JE                                  | )F, AJW                   | Secti  | on, Township,     | Range:  |                           |
| _andform (hillslope, terrace, etc.):                               | Swale                     | Local relief (                                 | concave, conv     | ex, none): Concave                                | Slop <b>e (%</b> ):1 to 3 |
| Subregion (LRR or MLRA): MLF                                       | RA 136 of LRR P           | Lat:   | 36.567389         | Long: -79.6065858                                 | Datum: WGS84              |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : 23C                   |                           |  |                   | NWI classif                                       | ic <b>ation</b> : None    |
| Are climatic/hydrologic conditions o                               |                           | •  | Yes <u></u> ✓ No  | (If no, explain in Rem                            | arks.)                    |
| Are Vegetation, Soil,  | or Hydrology sig          |  |                   | al Circumstances" present?                        | Yes No                    |
| Are Vegetation, Soil,  | or Hydrology na           | turally problematic?                           | (If needed,       | explain any answers in Rer                        | narks.)                   |
| SU <b>MMARY OF FINDI</b> NG <b>S</b> – Att                         | ach site map showi        | ng sampling point lo                           | cations, tran     | isects, important featu                           | res, etc.                 |
| Hydrophytic Vegetation Present?                                    | Yes <u></u> ✓ No          | -  |                   |   |                           |
| Hydric Soil Present?   | Yes 🟒 No                  | i  |                   |   |                           |
| Wetland Hydrology Present?   | Yes <u></u> ✓ No          | Is the Samp                                    | led Area within   | n <b>a We</b> tland?                              |                           |
| Covertype is PEM. Area is wetland,                                 | all three wetland parar   | neters are present.                            |                   |   |                           |
| HYDROLOGY Wetland Hydrology Indicators:                            |                           |  |                   |   |                           |
| Primary Indicators (minimum of or                                  | ne is required; check all | that apply)                                    |                   | Secondary Indicators (min                         | imum of two required)     |
| Surface Water (A1)   | Truo                      | Agustic Plants (R14)                           |                   | Surface Soil Cracks (B6                           |                           |
| <ul><li>Surface Water (A1)</li><li>High Water Table (A2)</li></ul> |                           | Aquatic Plants (B14)<br>ogen Sulfide Odor (C1) |                   | Sparsely Vegetated Cor                            |                           |
| ✓ Saturation (A3)  | •                         | ized Rhizospheres on Liv                       | ing Roots (C3)    | Drainage Patterns (B10<br>Moss Trim Lines (B16)   | ))                        |
| Water Marks (B1)   |                           | ence of Reduced Iron (C4                       | -                 | Moss min Lines (BTo)<br>Dry-Season Water Tabl     | e (C2)                    |
| Sediment Deposits (B2)   | Rece                      | nt Iron Reduction in Tille                     | d Soils (C6)      | Crayfish Burrows (C8)                             | - (/                      |
| Drift Deposits (B3)  |                           | Muck Surface (C7)                              |                   | Saturation Visible on A                           | erial Imagery (C9)        |
| Algal Mat or Crust (B4)  | Othe                      | r (Explain in Remarks)                         |                   | 5   | (0.4)                     |
| Iron Deposits (B5) Inundation Visible on Aerial Im                 | nagous (D7)               |  |                   | Stunted or Stressed Pla<br>Geomorphic Position (I |                           |
| Water-Stained Leaves (B9)  | ragery (b7)               |  |                   | Shallow Aquitard (D3)                             | J2)                       |
| Aquatic Fauna (B13)  |                           |  |                   | Microtopographic Relie                            | ef (D4)                   |
|  |                           |  |                   | FAC-Neutral Test (D5)                             |                           |
| Field Observations:  |                           |  |                   |   |                           |
| Surface Water Present?   | Yes No _ <b>_</b>         | Depth (inches):                                |                   |   |                           |
| Water Table Present?   | Yes No                    | Depth (inches):                                | 10                | <br>Wetland Hydrology Preser                      | nt? Yes No                |
| Saturation Present?  | Yes _ ✓ No                | Depth (inches):                                | 0                 |   | •                         |
| (includes capillary fringe)  | _ <del>_</del>            |  |                   |   |                           |
| Describe Recorded Data (stream g                                   | auge monitoring well      | aerial photos, previous ir                     | spections) if a   | vailable <sup>,</sup>                             |                           |
| Describe Recorded Data (Stream g                                   | auge, monitoring well, a  | aenai priotos, previous ir                     | ispections), ii a | vaнавіе.  |                           |
| Remarks:   |                           |  |                   |   |                           |
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|---|-------------|---------------|-----------|--|---------------|-------------|
| Troo Strature (Diet sizer 10v20)                    | Absolute    | Dominant      | Indicator | Dominance Test worksheet:                                |               |             |
| <u>Tree Stratum</u> (Plot size: <u>10x20)</u>       | % Cover     | Species?      | Status    | Number of Dominant Species That                          | 3             | (A)         |
| 1.  |             |               |           | Are OBL, FACW, or FAC:                                   |               | (A)         |
| 2.  |             |               |           | Total Number of Dominant Species                         | 3             | (B)         |
| 3.  |             |               |           | Across All Strata: Percent of Dominant Species That      |               | _           |
| 4   |             |               |           | - Are OBL, FACW, or FAC:                                 | 100           | (A/B)       |
| 5   |             |               |           | Prevalence Index worksheet:                              |               |             |
| 6   |             |               |           | - Total % Cover of:                                      | Multiply B    | h.e         |
| 7   |             |               |           | - OBL species 100  | x 1 =         | 100         |
|   | 0           | = Total Cove  | er        | FACW species 15  | x2=           | 30          |
| 50% of total cover: <u>0</u>                        | 20% of to   | tal cover:    | 0         | FAC species 55   | _             |             |
| Sapling/Shrub Stratum (Plot size:15)                |             |               |           |  | x3= _         | 165         |
| 1. Salix nigra                                      | 5           | Yes           | OBL       | · —  | ×4= _         | 0           |
| 2.  |             |               |           | - UPL species 0  | ×5= —         | 0           |
| 3.  |             |               |           | Column Totals 170  |               | 295 (B)     |
| 4.  |             |               |           | Prevalence Index = B/A =                                 | <u> 1.7 </u>  |             |
| 5.  |             |               |           | Hydrophytic Vegetation Indicators:                       |               |             |
| 6.  |             |               |           | - Lapid Test for Hydrophytic \                           | egetation/    |             |
| 7   |             |               |           | 2 - Dominance Test is >50%                               |               |             |
| /   |             |               |           | $\checkmark$ 3 - Prevalence Index is $\le$ 3.01          |               |             |
| 8.  |             |               |           | -  4 - Morphological Adaptations                         | ¹ (Provide s  | upporting   |
| 9   |             |               |           | data in Remarks or on a separate sh                      | neet)         |             |
|   | 5           | _= Total Cove |           | Problematic Hydrophytic Vege                             | tation¹ (Exp  | olain)      |
| 50% of total cover: <u>2.5</u>                      | _ 20% of to | otal cover:   | 1         | Indicators of hydric soil and wetlan                     | d hydrolog    | y must be   |
| Herb Stratum (Plot size: 5 )                        |             |               |           | present, unless disturbed or proble                      | matic         |             |
| 1. Leersia oryzoides                                | 80          | Yes           | OBL       | Definitions of Four Vegetation Strate                    | a:            |             |
| 2. Microstegium vimineum                            | 45          | Yes           | FAC       | _  |               |             |
| 3. <i>Persicaria sagittata</i>                      | 15          | No            | OBL       | Tr <b>ee</b> – Woody plants, excluding vine              | s, 3 in. (7.6 | cm) or more |
| 4. Phalaris arundinacea                             | 15          | No            | FACW      | in diameter at breast height (DBH),                      | regardless (  | of height.  |
| 5. Dichanthelium clandestinum                       | 5           | No            | FAC       |  |               |             |
| 6. Amphicarpaea bracteata                           | 5           | No            | FAC       | Sapling/shrub – Woody plants, exclu                      | uding vines,  | less than 3 |
| 7.  |             |               |           | in. DBH and greater than or equal to                     | o 3.28 ft (1  | m) tall.    |
| 8.  |             |               |           |  |               |             |
| 9.  |             |               |           | Herb – All herbaceous (non-woody)                        | plants, rega  | ardless of  |
| 10  |             |               |           | size, and woody plants less than 3.2                     | 8 ft tall.    |             |
| 11.   |             |               |           | -  |               |             |
|   | 165         | = Total Cove  | or.       | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea: | ter than 3.2  | 8 ft in     |
| 50% of total cover: <u>82.5</u>                     |             | tal cover:    | 33        | height.  | cer chairs.2  | .0 16 111   |
| ·   | _ 20% 01 (0 | itai cover.   |           | - Industrial   |               |             |
| Woody Vine Stratum (Plot size: 30 )                 |             |               |           |  |               |             |
| 1.  |             |               |           | -  |               |             |
| 2.  |             |               |           |  | . = =         |             |
| 3.  |             |               |           | - Hydrophytic Vegetation Present? \                      | res ₪ No ⊔    |             |
| 4   |             |               |           | -  |               |             |
| 5   |             |               |           | -  |               |             |
|   | 0           | = Total Cove  | er        |  |               |             |
| 50% of total cover: <u>0</u>                        | _ 20% of to | otal cover:   | 0         |  |               |             |
| Remarks: (Include photo numbers here or on a separa | te sheet.)  |               |           | •  |               |             |
| Trainer to the same prior to the same as a separa   | a sileday   |               |           |  |               |             |
|   |             |               |           |  |               |             |
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|   |             |               |           |  |               |             |
|   |             |               |           |  |               |             |
|   |             |               |           |  |               |             |

|                           | scription: (Describe to                       | th <b>e d</b> ep | oth needed to docu | ıment the                  | in <b>dicator</b> | or confir                | m the absenc              | ce of indicators.)               |   |
|---------------------------|---|------------------|--------------------|----------------------------|-------------------|--------------------------|---------------------------|----------------------------------|---|
| Depth                     | <b>Ma</b> trix                                |                  | Redox Features     |                            |                   |                          |                           |                                  |   |
| (inches)                  | Color (moist)                                 | %                | Color (moist)      |                            | Type <sup>1</sup> | Locz                     |                           | T <b>e</b> xture                 | R <b>em</b> ar <b>k</b> s                   |
| 0 - 6                     | 10YR 5/2                                      | 80               | 7.5YR 3/4          | 20                         | C                 | M/PL                     | Clay Loam                 |                                  |   |
| 6 - 10                    | 10YR 4/1                                      | 90               | 10YR 4/6           | 10                         |                   | M                        | Silty Clay Loam           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  | _   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  | _   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  | _   |
|                           |   |                  |                    |                            |                   |                          | -                         |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  | <del>-</del>                                |
|                           |   | epletion         | , RM = Reduced Ma  | atrix, MS =                | Masked S          | Sand Gra                 | ins. <sup>z</sup> Locatio | on: PL = Pore Lining, M =        |   |
| 1 *                       | il Indicators:                                |                  |                    |                            |                   |                          |                           | Indicators for Problen           | natic Hydric Soils³:                        |
| _ Histosol                |   |                  | _                  | rk Surface (               |                   | (00) 155                 | D. 447 440:               | 2 cm Muck (A10) (I               | MLRA 147)                                   |
| _ Histic Ep<br>_ Black Hi | oipedon (A2)                                  |                  |                    | lyvalue Bek<br>in Dark Sur |                   |                          | RA 147, 148)              |                                  | ox (A16) (MLRA 147, 148)                    |
| _                         | en Sulfide (A4)                               |                  |                    | amy Gleyec                 |                   |                          | , 146)                    | Piedmont Floodpla                | ain Soils (F19) (ML <b>RA 1</b> 3 <b>6,</b> |
|                           | d Layers (A5)                                 |                  |                    | pleted Mat                 |                   | <i>_</i> ;               |                           | 147)                             |   |
|                           | uck (A10) (LRR N)                             |                  |                    | dox Dark Sı                |                   | )                        |                           | Very Shallow Dark                | :Surface (TF12)                             |
|                           | d Below Dark Surface (A                       | A11)             |                    | pleted Darl                |                   |                          |                           | Other (Explain in F              | Remarks)                                    |
|                           | ark Surface (A12)                             |                  | _ Re               | dox Depres                 | sions (F8)        | 4540\ 415                |                           | c)                               |   |
| _                         | łucky Mineral (S1) (LRR<br>ileyed Matrix (S4) | N, MLKA          | . 147, 148)  ro    | n-Mangane<br>ibric Surfac  | se Masses         | 5 (F1Z) (LH<br>11 DA 126 | KR N, MLKA 13<br>122)     | <b>6)</b> ₃Indicators of hydropl | hytic vegetation and                        |
|                           | edox (S5)                                     |                  |                    | dmont Floo                 | -c (, , b) (, t   |                          | ,                         | wetland hydrology mi             | ust be present, unless                      |
| _                         | d Matrix (S6)                                 |                  |                    | d Parent M                 |                   |                          |                           | disturbed or problem             | atic.                                       |
| Restrictive               | Layer (if observed):                          |                  |                    |                            |                   | I                        |                           |                                  |   |
|                           | Type:   |                  | Rock               |                            |                   | Hydric                   | Soil Present?             |                                  | Yes ☑ No □                                  |
|                           | Depth (inches):                               |                  | 10                 |                            |                   | ,                        | Jon Francisco             |                                  | 145 2 116 2                                 |
| Remarks:                  |   |                  |                    |                            |                   | <u> </u>                 |                           |                                  |   |
| Kemarks.                  |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
|                           |   |                  |                    |                            |                   |                          |                           |                                  |   |
| <u> </u>                  |   |                  |                    |                            |                   |                          |                           |                                  |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                            | City/County:                          |   | Sampling Date: 2018-Jun     | e-26                        |
|--|---------------------------------------|---|-----------------------------|-----------------------------|
| Applicant/Owner: NextEra                               |                                       | State:  | Sampling Point: W           | /-F18-36_PFO-1              |
| Investigator(s): _ Jenn Favela, SS,SB                  |                                       | Section, Township,                              | Range:                      |                             |
| Landform (hillslope, terrace, etc.):                   | Swale                                 | Local relief (concave, conv                     | ex, none): Concave          | Slop <b>e (%</b> ): 5 to 10 |
| Subregion (LRR or MLRA): MLR/                          | A 136 of LRR P                        | Lat: 36.5673582                                 | Long: -79.6063412           | Datum: WGS84                |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> :23C: Mayoda | an fine sandy loam; 7-15% slope       |   | NWI classifica              | ition: None                 |
| Are climatic/hydrologic conditions or                  | n the site typical for this time of y | ye <b>ar?</b> Yes 🟒 No                          | (If no, explain in Remark   | <s.)< td=""></s.)<>         |
| Are Vegetation, Soil,                                  | or Hydrology significantly o          | disturbed? Are "Norma                           | al Circumstances" present?  | Yes 🟒 No                    |
| Are Vegetation, Soil,                                  | or Hydrology naturally pro            | blematic? (If needed,                           | explain any answers in Rema | rks.)                       |
|  |                                       |   |                             |                             |
| SU <mark>MMARY OF FINDI</mark> NGS – Atta              | ch site map showing samp              | ling point locations, tran                      | isects, important feature   | s, etc.                     |
| Hydrophytic Vegetation Present?                        | Yes _✓_ No                            |   |                             |                             |
| Hydric Soil Present?                                   | Yes _✓_ No                            | j   |                             |                             |
| Wetland Hydrology Present?                             | Yes _ <b>.</b> ✓_ No                  | Is the Sampled Area within                      | n <b>a Wetlan</b> d?        | ′es <b>/_ No</b>            |
| Remarks:   |                                       | <u> </u>  |                             |                             |
|  |                                       |   |                             |                             |
|  |                                       |   |                             |                             |
|  |                                       |   |                             |                             |
| Covertype is PFO. Area is wetland, a                   | ll three wetland parameters are       | present.  |                             |                             |
|  |                                       |   |                             |                             |
|  |                                       |   |                             |                             |
|  |                                       |   |                             |                             |
|  |                                       |   |                             |                             |
| HYDROLOGY  |                                       |   |                             |                             |
| Wetland Hydrology Indicators:                          |                                       |   |                             |                             |
| Primary Indicators (minimum of one                     | e is required; check all that apply   | Ù   | Secondary Indicators (minim | um of two required)         |
|  |                                       |   | Surface Soil Cracks (B6)    |                             |
| Surface Water (A1)                                     | True Aquatic Pl                       |   | Sparsely Vegetated Conc     | ave Surface (B8)            |
| High Water Table (A2)                                  | Hydrogen Sulfic                       |   | Drainage Patterns (B10)     |                             |
| Saturation (A3)<br>Water Marks (B1)                    |                                       | spheres on Living Roots (C3)<br>duced Iron (C4) | Moss Trim Lines (B16)       |                             |
| Sediment Deposits (B2)                                 |                                       | duction in Tilled Soils (C6)                    | Dry-Season Water Table (    | C2)                         |
| Drift Deposits (B3)                                    | Thin Muck Surf                        |   | Crayfish Burrows (C8)       | al lima gaw (CO)            |
| Algal Mat or Crust (B4)                                | Other (Explain                        |   | Saturation Visible on Aeri  | ai imagery (C9)             |
| Iron Deposits (B5)                                     | <del></del> · · ·                     |   | Stunted or Stressed Plant   | rs (D1)                     |
| Inundation Visible on Aerial Ima                       | agery (B7)                            |   | Geomorphic Position (D2     |                             |
| Water-Stained Leaves (B9)                              |                                       |   | Shallow Aquitard (D3)       |                             |
| Aquatic Fauna (B13)                                    |                                       |   | Microtopographic Relief (   | D4)                         |
|  |                                       |   | FAC-Neutral Test (D5)       |                             |
| Field Observations:                                    |                                       |   |                             |                             |
| Surface Water Present?                                 | Yes No Dept                           | h (inches):                                     |                             |                             |
| Water Table Present?                                   | Yes No/ Dept                          | h (inches):                                     | Wetland Hydrology Present?  | Yes No                      |
| Saturation Present?                                    | Yes No _ <b>✓</b> Dept                | h (inches):                                     |                             |                             |
| (includes capillary fringe)                            | ·                                     |   |                             |                             |
| Describe Recorded Data (stream ga                      | uge, monitoring well, serial phot     | ros provious inspections) if a                  | vailable:                   |                             |
| Describe Recorded Data (stream gar                     | age, monitoring well, denai prior     | os, previous irispections), ir a                | ivaliable.                  |                             |
|  |                                       |   |                             |                             |
| Down a when  |                                       |   |                             |                             |
| Remarks:   |                                       |   |                             |                             |
|  |                                       |   |                             |                             |
|  |                                       |   |                             |                             |
|  |                                       |   |                             |                             |
|  |                                       |   |                             |                             |
|  |                                       |   |                             |                             |
|  |                                       |   |                             |                             |

| ·   | •           |                  |             |   |                   |               |
|---|-------------|------------------|-------------|---|-------------------|---------------|
| Tree Stratum (Plot size:30)                           |             | Dominant         |             | Dominance Test worksheet:   |                   |               |
|   |             | Species?         | Status      | Number of Dominant Species That Are OBL, FACW, or FAC:            | 4                 | (A)           |
| 1. Quercus alba                                       | 10          | Yes Yes          | FACU<br>FAC | Total Number of Dominant Species                                  |                   |               |
| Quercus phellos     Platanus occidentalis             | 10          |                  |             | Across All Strata:  | 7                 | (B)           |
| 4.  |             | Yes              | FACW        | Percent of Dominant Species That                                  | 57.1              | ——<br>(A/B)   |
| 5.  |             |                  |             | Are OBL, FACW, or FAC:  |                   | (A/b)         |
| 6.  |             |                  |             | Prevalence Index worksheet:                                       |                   |               |
| 7.  |             |                  |             | Total % Cover of:   | <u>Multiply E</u> | <u>3y:</u>    |
| ·   | 30          | = Total Cov      | er          | OBL species 0   | x 1 =             | 0             |
| 50% of total cover: <u>15</u>                         |             | -                | 6           | FACW species 40   | x 2 = _           | 08            |
| Sapling/Shrub Stratum (Plot size: 15_)                | _ 20 % 01 ( | otal cover.      |             | FAC species 28  | x 3 = _           | 84            |
| Cercis canadensis                                     | 5           | Yes              | FACU        | FACU species 26   | × 4 =             | 104           |
| 2. Carya ovata  | 1           | No               | FACU        | UPL species0  | x 5 = _           | 0             |
| 3.  |             |                  |             | Column Totals 94  | (A) _             | 268 (B)       |
| 4.  |             |                  |             | Prevalence Index = B/A =  | 2.9               |               |
| 5.  |             |                  |             | Hydrophytic Vegetation Indicators:                                |                   |               |
| 6.  |             |                  |             | 1- Rapid Test for Hydrophytic \                                   | √egetation        |               |
| 7.  |             |                  |             | 2 - Dominance Test is >50%  |                   |               |
| 8.  |             |                  |             | $\sqrt{}$ 3 - Prevalence Index is ≤ 3.01                          |                   |               |
| 9.  |             |                  |             | -  4 - Morphological Adaptations                                  |                   | supporting    |
|   | 6           | = Total Cov      | er          | data in Remarks or on a separate sh                               |                   |               |
| 50% of total cover: 3                                 |             | -                | 1.2         | Problematic Hydrophytic Vege Indicators of hydric soil and wetlan |                   | · ·           |
| Herb Stratum (Plot size: 5 )                          | _           |                  |             | present, unless disturbed or proble                               | , .               | y must be     |
| 1. Dichanthelium scoparium                            | 30          | Yes              | FACW        | Definitions of Four Vegetation Strata                             |                   |               |
| 2. Microstegium vimineum                              | 10          | Yes              | FAC         | Definitions of Four Vegetation Strate                             |                   |               |
| 3. Amphicarpaea bracteata                             | 8           | No No            | FAC         | -<br>  Tr <b>ee</b> – Woody plants, excluding vine                | s. 3 in. (7.6     | cm) or more   |
| 4.  |             |                  |             | in diameter at breast height (DBH),                               |                   |               |
| 5.  |             |                  |             |   |                   | Ü             |
| 6.  |             |                  |             | Sapling/shrub – Woody plants, exclu                               | uding vines       | , less than 3 |
| 7.  |             |                  |             | in. DBH and greater than or equal to                              | o 3.28 ft (1      | m) tall.      |
| 8.  |             |                  |             |   |                   |               |
| 9.  |             |                  |             | Herb – All herbaceous (non-woody)                                 |                   | ardless of    |
| 10.   |             |                  |             | size, and woody plants less than 3.2                              | :8 ft tall.       |               |
| 11.   | -           |                  |             |   |                   |               |
|   | 48          | = Total Cov      | er          | <b>Wo</b> od <b>y vine</b> s – All woody vines grea               | ter than 3.2      | 28 ft in      |
| 50% of total cover: <u>24</u>                         | 20% of to   | -<br>otal cover: | 9.6         | height.   |                   |               |
| Woody Vine Stratum (Plot size: 30 )                   |             |                  |             |   |                   |               |
| 1. Lonicera japonica                                  | 10          | Yes              | FACU        |   |                   |               |
| 2.  |             |                  |             |   |                   |               |
| 3.  |             |                  |             | Hydrophytic Vegetation Present?                                   | Yes ☑ No □        | ]             |
| 4.  |             |                  |             |   |                   |               |
| 5.  |             |                  |             |   |                   |               |
|   | 10          | = Total Cov      | er          |   |                   |               |
| 50% of total cover: <u>5</u>                          | 20% of to   | -<br>otal cover: | 2           |   |                   |               |
| Remarks: (Include photo numbers here or on a separa   | to cheat )  |                  |             |   |                   |               |
| Remarks. (include prioto numbers here of our a separa | e sneet.)   |                  |             |   |                   |               |
|   |             |                  |             |   |                   |               |
|   |             |                  |             |   |                   |               |
|   |             |                  |             |   |                   |               |
|   |             |                  |             |   |                   |               |
|   |             |                  |             |   |                   |               |
|   |             |                  |             |   |                   |               |

| D <b>ep</b> th         | Matrix   | o ana dap     | the depth needed to document the indicator or confirm the<br>Redox Features |                     | are absent                         |                  |                            |                                  |   |  |
|------------------------|--|---------------|---|---------------------|------------------------------------|------------------|----------------------------|----------------------------------|---|--|
| (inches)               | Color (moist)  | %             | Color (moist)   | 96                  | Type <sup>1</sup>                  | Loc <sup>2</sup> |                            | Te <b>xture</b>                  | R <b>emark</b> s                            |  |
| 0 - 9                  | 10YR 5/2   | 90            | 2.5YR 4/6   | 10                  |                                    |                  |                            | Silt Loam                        |   |  |
| 9 - 14                 | 2.5Y 4/1   | 93            | 10YR 4/4  | 7                   |                                    | M                |                            | Loamy Sand                       |   |  |
| 14 - 18                | 2.5Y 5/1   | 95            | 2.5Y 7/6  | 5                   | - <del></del>                      |                  |                            | Loamy Sand                       |   |  |
|                        | 2.51 5/1   |               | 2.51770   |                     |                                    |                  |                            | Louiny Suna                      |   |  |
|                        |  |               |   |                     | - ——                               |                  |                            |                                  |   |  |
|                        |  |               |   |                     | - ——                               |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  | -   |  |
|                        |  |               |   |                     | - ——                               |                  |                            |                                  | _   |  |
|                        |  |               |   |                     |                                    |                  | -                          |                                  | -,  |  |
|                        |  |               |   |                     | - ——                               |                  |                            |                                  | _   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  | Depletion,    | RM = Reduced Matri:   | x, MS =             | Masked S                           | and Gra          | ins. <sup>2</sup> Locatio  | on: PL = Pore Lining, M =        |   |  |
| 1 -                    | l Indicators:  |               |   | _                   |                                    |                  |                            | Indicators for Problem           | natic Hydric Soils³:                        |  |
| _ Histosol             |  |               |   | urface (            |                                    | (00) (1)         | D. 447 440                 | 2 cm Muck (A10) (I               | MLRA 147)                                   |  |
| Histic Ep<br>Black His | ipedon (A2)  |               |   |                     | sw Surface<br>face (S9) <b>(</b> 1 |                  | RA 147, 148)               | Coast Prairie Redo               | x (A16) (MLRA 147, 148)                     |  |
|                        | en Sulfide (A4)                                      |               |   |                     | Matrix (F2                         |                  | 7, 140)                    | Piedmont Floodpla                | ain Soils (F19) (ML <b>RA 1</b> 3 <b>6,</b> |  |
|                        | d Layers (A5)  |               | Deplet  | -                   |                                    | -,               |                            | 147)                             |   |  |
|                        | ick (A10) (LRR N)                                    |               | Redox   | Dark Su             | ırface (F6)                        |                  |                            | Very Shallow Dark                | Surface (TF12)                              |  |
|                        | d Below Dark Surface (                               | (A11)         |   |                     | Surface (I                         | =7)              | Other (Explain in Remarks) |                                  |   |  |
|                        | rk Surface (A12)                                     |               | Redox   | Depres              | sions (F8)                         | . (E13) (LI      | DD N. MALDA 45.            | 0                                |   |  |
| _                      | lucky Mineral (S1) <b>(</b> LRI<br>leyed Matrix (S4) | K IN, IVILIKA |   | rangane<br>c Surfac | e (F13) ( <b>M</b>                 | I R <b>A 136</b> | KK N, WILKA 139            | <b>6)</b> ₃Indicators of hydropl | nytic vegetation and                        |  |
|                        | edox (S5)  |               |   |                     |                                    | L                | MLRA 148)                  | wetland hydrology mi             | ust be present, unless                      |  |
| _                      | Matrix (S6)  |               |   |                     | aterial (F21                       |                  |                            | disturbed or problem             | atic.                                       |  |
| Restrictive            | Layer (if observed):                                 |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        | Туре:  |               | None  |                     |                                    | Hydric           | Soil Present?              |                                  | Yes ☑ No □                                  |  |
|                        | Depth (inches):                                      |               |   |                     |                                    |                  |                            |                                  |   |  |
| Remarks:               |  |               |   |                     |                                    | •                |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
| 1                      |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |
|                        |  |               |   |                     |                                    |                  |                            |                                  |   |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                                | City/County:                             |                                   | Sampling Date: 2018-Ju  | ne-26                      |
|--|--|-----------------------------------|---|----------------------------|
| Applicant/Owner: NextEra                                   |  | State:                            | Sampling Point:_  | W-F18-36_UPL-1             |
| Investigator(s):Jenn Favela, E                             | ESN, JSF                                 | Section, Township,                | Range:  |                            |
| Landform (hillslope, terrace, etc                          | c.): Terrace                             | Local relief (concave, conv       | ex, none): None   | Slop <b>e (%</b> ): 1 to 3 |
| Subregion (LRR or MLRA):                                   | MLRA 136 of LRR P                        | <b>L</b> at: 36.567368            | Long: -79.6062721   | Datum:WGS84                |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : <u>Mayoda</u> | an fine sandy loam: 7-15% slope          |                                   | NWI classific   | c <b>ation</b> : None      |
| Are climatic/hydrologic conditio                           | ons on the site typical for this time of | ye <b>ar?</b> Yes <u></u> ✓ No    | (If no, explain in Rema   | rks.)                      |
| Are Vegetation, Soil                                       | , or Hydrology significantly             | disturbed? Are "Norma             | al Circumstances" present?  | Yes <u></u> No             |
| Are Vegetation, Soil                                       | , or Hydrology naturally pro             | oblematic? (If needed,            | explain any answers in Rem  | arks.)                     |
|  |  |                                   |   |                            |
| SUMMARY OF FINDINGS -                                      | Attach site map showing samp             | oling point locations, tran       | isects, important featur  | es, etc.                   |
| Hydrophytic Vegetation Preser                              | nt? Yes 🗸 No                             | 1                                 |   |                            |
| Hydric Soil Present?                                       | Yes No                                   | i                                 |   |                            |
| Wetland Hydrology Present?                                 | Yes No <b>_✓</b> _                       | is the Sampled Area with          | in a Wetland?   | Yes <b>No∕</b> _           |
| Remarks:   |  |                                   |   |                            |
| Kemarks.   |  |                                   |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
| Covertype is UPL. Area is uplar                            | nd, not all three wetland parameters     | are present.                      |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
| HYDROLOGY  |  |                                   |   |                            |
| Motional I hadrologic Indicators                           |  |                                   |   |                            |
| Wetland Hydrology Indicators:                              |  | La                                | 5 d t- di ( i)  |                            |
| Primary indicators (minimum c                              | of one is required; check all that appl  | λī                                | Secondary Indicators (mini  | •                          |
| Surface Water (A1)   | True Aquatic P                           | Plants (B14)                      | <ul><li>Surface Soil Cracks (B6)</li><li>Sparsely Vegetated Con</li></ul> |                            |
| High Water Table (A2)                                      | '<br>Hydrogen Sulf                       |                                   | Sparsely vegetated Con<br>Drainage Patterns (B10)                         |                            |
| Saturation (A3)  | Oxidized Rhizo                           | ospheres on Living Roots (C3)     | Moss Trim Lines (B16)   |                            |
| Water Marks (B1)   | Presence of Ro                           | educed Iron (C4)                  | Dry-Season Water Table  | : (C2)                     |
| Sediment Deposits (B2)                                     | Recent Iron Re                           | eduction in Tilled Soils (C6)     | Crayfish Burrows (C8)   | ()                         |
| Drift Deposits (B3)  | Thin Muck Sur                            | face (C7)                         | Saturation Visible on Ae  | rial Imagery (C9)          |
| Algal Mat or Crust (B4)                                    | Other (Explain                           | in Remarks)                       |   | 7                          |
| Iron Deposits (B5)   |  |                                   | Stunted or Stressed Pla   | nts (D1)                   |
| Inundation Visible on Aeria                                | 0 7                                      |                                   | Geomorphic Position (D  | 2)                         |
| Water-Stained Leaves (B9)                                  |  |                                   | Shallow Aquitard (D3)   |                            |
| Aquatic Fauna (B13)  |  |                                   | Microtopographic Relief   | · (D4)                     |
|  |  |                                   | FAC-Neutral Test (D5)   |                            |
| Field Observations:  |  |                                   |   |                            |
| Surface Water Present?                                     | Yes No 🟒 Dep                             | th (inches):                      |   |                            |
| Water Table Present?                                       | Yes No Dep                               | th (inches):                      | Wetland Hydrology Present   | t? Yes No                  |
| Saturation Present?  | Yes No 🟒 Dep                             | th (inches):                      |   |                            |
| (includes capillary fringe)                                |  |                                   |   |                            |
|  |  |                                   |   |                            |
| Describe Recorded Data (Strea                              | m gauge, monitoring well, aerial pho     | otos, previous inspections), if a | ivaliable:  |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
| Remarks:   |  |                                   |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |
|  |  |                                   |   |                            |

|   | •                  |              |           |   |                |             |
|---|--------------------|--------------|-----------|---|----------------|-------------|
| Tree Stratum (Plot size:30)                         | <b>A</b> bsolute   | Dominant     | Indicator | Dominance Test worksheet:                           |                |             |
| The Structure (110) Size                            | % Cover            | Species?     | Status    | Number of Dominant Species That                     | 5              | (A)         |
| 1. Carya ovata                                      | 30                 | Yes          | FACU      | Are OBL, FACW, or FAC:                              |                |             |
| 2. Platanus occidentalis                            | 15                 | Yes          | FACW      | Total Number of Dominant Species Across All Strata: | 8              | (B)         |
| 3. <u>Liquidambar styraciflua</u>                   | 15                 | Yes          | FAC       | Percent of Dominant Species That                    |                | _           |
| 4. Carpinus caroliniana                             | 5                  | No           | FAC       | - Are OBL, FACW, or FAC:                            | 62.5           | (A/B)       |
| 5   |                    |              |           | Prevalence Index worksheet:                         |                |             |
| 6   |                    |              |           | - <u>Total % Cover of:</u>                          | Multiply B     | y:          |
| 7   |                    |              |           | OBL species 0                                       | x 1 =          | 0           |
|   | 65                 | = Total Cov  | er        | FACW species 17                                     | x 2 =          | 34          |
| 50% of total cover: <u>32.5</u>                     | _ 20% of to        | otal cover:  | 13        | FAC species 60                                      | x 3 =          | 180         |
| Sapling/Shrub Stratum (Plot size:15)                |                    |              |           | FACU species 57                                     | × 4 =          | 228         |
| 1. Carya ovata                                      |                    | Yes          | FACU      | - UPL species 0                                     | x 5 =          | 0           |
| 2. Elaeagnus umbellata                              |                    | No_          | NI        | - Column Totals 134                                 | (A)            | 442 (B)     |
| 3. Fraxinus pennsylvanica                           |                    | No           | FACW      | Prevalence Index = B/A =                            | 3.3            |             |
| 4.  |                    |              |           | Hydrophytic Vegetation Indicators:                  |                |             |
| 5   | . ——               |              |           | 1- Rapid Test for Hydrophytic                       | Vegetation     |             |
| 6   |                    |              |           | ✓ 2 - Dominance Test is >50%                        | 0              |             |
| 7   |                    |              |           | 3 - Prevalence Index is ≤ 3.01                      |                |             |
| 8.  |                    |              |           | -   4 - Morphological Adaptations                   | ¹ (Provide s   | upporting   |
| 9   |                    |              |           | data in Remarks or on a separate sh                 |                |             |
|   | 22                 | _= Total Cov | er        | Problematic Hydrophytic Vege                        | tation¹ (Exp   | olain)      |
| 50% of total cover: <u>11</u>                       | _ 20% of to        | otal cover:  | 4.4       | Indicators of hydric soil and wetlan                | id hydrolog    | y must be   |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )          |                    |              |           | present, unless disturbed or proble                 | matic          |             |
| 1. <u>Carpinus caroliniana</u>                      | 5                  | Yes          | FAC       | Definitions of Four Vegetation Strat                | a:             |             |
| 2. Carex sp.  | 5                  | Yes          | NI        |   |                |             |
| 3. <u>Toxicodendron radicans</u>                    | 3                  | Yes          | FAC       | Tr <b>ee</b> – Woody plants, excluding vine         | s, 3 in. (7.6  | cm) or more |
| 4. Cercis canadensis                                | 2                  | No           | FACU      | in diameter at breast height (DBH),                 | regardless     | of height.  |
| 5. Lonicera japonica                                | 2                  | No           | FACU      |   |                |             |
| 6. <u>Vitis rotundifolia</u>                        | 2                  | No           | FAC       | Sapling/shrub – Woody plants, exclu                 | •              |             |
| 7. Juniperus virginiana                             | 1                  | No           | FACU      | in. DBH and greater than or equal to                | o 3.28 ft (1 i | m) tall.    |
| 8. <u>Dichanthelium scoparium</u>                   | 1                  | No           | FACW      | -   |                |             |
| 9. <i>Quercus alba</i>                              | 1                  | No           | FACU      | Herb - All herbaceous (non-woody)                   |                | ardless of  |
| 10. Smilax glauca                                   | 1                  | No           | FACU      | size, and woody plants less than 3.2                | .o it tall.    |             |
| 11  |                    |              |           |   |                |             |
|   | 23                 | = Total Cov  | er        | <b>Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.2   | 28 ft in    |
| 50% of total cover: <u>11.5</u>                     | _ 20% of to        | otal cover:  | 4.6       | height.   |                |             |
| Woody Vine Stratum (Plot size: 30 )                 |                    |              |           |   |                |             |
| Toxicodendron radicans                              | 30                 | Yes          | FAC       |   |                |             |
| 2   |                    |              |           |   |                |             |
| 3   |                    |              |           | Hydrophytic Vegetation Present?                     | Yes ☑ No 🗆     |             |
| 4   |                    |              |           |   |                |             |
| 5   |                    |              |           |   |                |             |
|   | 30                 | = Total Cov  | er        |   |                |             |
| 50% of total cover: <u>15</u>                       | _ 20% of to        | otal cover:  | 6         |   |                |             |
| Remarks: (Include photo numbers here or on a separa | t <b>e</b> sheet.) |              |           |   |                |             |
|   |                    |              |           |   |                |             |

|                        | scription: (Describe to                                     | th <b>e d</b> epti |                 |                            |               | or confir            | m the absend              | ce of indicators.)               |   |
|------------------------|---|--------------------|-----------------|----------------------------|---------------|----------------------|---------------------------|----------------------------------|---|
| D <b>ep</b> th _       | <b>Ma</b> trix  |                    |                 | dox Featur                 |               |                      |                           |                                  |   |
| (inches)               | Color (moist)   |                    | Color (moist)   |                            | Type¹         | _Loc²                |                           | Te <b>xtu</b> r <b>e</b>         | Remarks                                     |
| 0 - 12                 | 10YR 4/6  | 100                |                 |                            |               |                      |                           | Loamy Sand                       |   |
| 12 - 18                | 10YR 4/4  | 100                |                 |                            |               |                      |                           | Loamy Sand                       |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            | -             |                      |                           |                                  |   |
|                        |   |                    |                 | _                          |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  | <del></del>                                 |
| ·                      |   |                    |                 |                            |               |                      |                           |                                  |   |
| <del></del>            |   |                    |                 |                            | <del></del> . |                      |                           |                                  |   |
|                        |   | epletion, I        | RM = Reduced Ma | atrix, MS =                | Masked S      | and Gra              | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M =        |   |
| -                      | Indicators:   |                    |                 |                            |               |                      |                           | Indicators for Problem           | natic Hydric Soils³:                        |
| _ Histosol             |   |                    | _               | rk Surface (               |               | ፈሮርስ ፈክም፣            | DA 147 440°               | 2 cm Muck (A10) (P               | MLRA 147)                                   |
| Histic Ep<br>Black His | ipedon (A2)   |                    |                 | lyvalue Bek<br>in Dark Sur |               |                      | RA 147, 148)              |                                  | x (A16) (MLRA 147, 148)                     |
| _                      | n Sulfide (A4)  |                    |                 | amy Gleyed                 |               |                      | , 140)                    | Piedmont Floodpla                | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
|                        | l Layers (A5)   |                    | _               | pleted Mat                 |               | -,                   |                           | 147)                             |   |
| _ 2 cm Mu              | ck (A10) <b>(</b> LR <b>R N)</b>                            |                    | _ Re            | dox Dark Si                | urface (F6)   |                      |                           | Very Shallow Dark                | Surface (TF12)                              |
|                        | l Below Dark Surface (A                                     | <b>\11</b> )       |                 | pleted Darl                |               | =7)                  |                           | Other (Explain in R              | temarks)                                    |
|                        | rk Surface (A12)  |                    | _ Re            | dox Depres                 | sions (F8)    | . (E40) (LE          | D N 1 1 D 4 4 7           | <b>C</b> 3                       |   |
| _                      | ucky Mineral (S1) <b>(</b> LR <b>R</b><br>leyed Matrix (S4) | N, MLRA I          | 147, 148) Iro   | n-Mangane<br>nbric Surfac  | se Masses     | (FIZ)(LN<br>IIDA 136 | IR N, MERA 13<br>1921     | <b>6)</b> ₃Indicators of hydroph | nytic vegetation and                        |
|                        | edox (S5)   |                    |                 | dmont Floo                 | -c ( ) (      | L                    | ,                         | wetland hydrology mเ             | ust be present, unless                      |
| _                      | Matrix (S6)   |                    |                 | d Parent M                 |               |                      |                           | disturbed or problema            | atic.                                       |
| Restrictive            | Layer (if observed):  |                    |                 |                            |               |                      |                           |                                  |   |
|                        | Type:   |                    | None            |                            |               | Hydric               | Soil Present?             |                                  | Yes □ No ☑                                  |
|                        | Depth (inches):   |                    |                 |                            |               | '','                 | Jon Trubune               |                                  | 145 = 115 =                                 |
| Remarks:               | 5 ap a. (a. 165).   |                    |                 |                            |               | 1                    |                           |                                  |   |
| Remarks.               |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |
|                        |   |                    |                 |                            |               |                      |                           |                                  |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                     | City/County:                         |  | Sampling Date: 2018-June  | e-26                           |  |  |  |
|---|--------------------------------------|--|---|--------------------------------|--|--|--|
| Applicant/Owner: NextEra                        |                                      | State:   | Sampling Point: W   | Sampling Point: W-E18-31_PFO-1 |  |  |  |
| Investigator(s):Janelle Bernosky                | y, TS                                | Section, Township,                               | Range:  |                                |  |  |  |
| Landform (hillslope, terrace, etc.):            | Flood Plain                          | Local relief (concave, conv                      | ex, none): Concave  | Slop <b>e (%</b> ):1 to 3      |  |  |  |
| Subregion (LRR or MLRA): M                      | LRA 136 of LRR P                     | Lat: 36.5618953                                  | Long: -79.6028297   | Datum: WGS84                   |  |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :23C |                                      |  | NWI classifica  | tion: None                     |  |  |  |
| Are climatic/hydrologic conditions              | on the site typical for this time of | ye <b>ar?</b> Yes 🔽 No                           | (If no, explain in Remark   | cs.)                           |  |  |  |
| Are Vegetation, Soil,                           | or Hydrology significantly           | disturbed? Are "Norma                            | al Circumstances" present?  | Yes 🟒 No                       |  |  |  |
| Are Vegetation, Soil,                           | or Hydrology naturally pr            | oblematic? (If needed,                           | explain any answers in Remai  | ks.)                           |  |  |  |
|   |                                      |  |   |                                |  |  |  |
| SUMMARY OF FINDINGS – At                        | ttach site map showing sam           | oling point locations, tran                      | sects, important feature  | s, etc.                        |  |  |  |
| Hydrophytic Vegetation Present?                 | Yes <u></u> No                       | 1  | •   |                                |  |  |  |
| Hydric Soil Present?                            | Yes _ ✓ No                           |  |   |                                |  |  |  |
| •   |                                      | Is the Carpoled Area within                      | o a Motlanda V  | oc / No                        |  |  |  |
| Wetland Hydrology Present?                      | Yes No                               | Is the Sampled Area within                       | T a vveuarius   | es No                          |  |  |  |
| Remarks:  |                                      |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
| Covertype is PFO. Area is wetland               | d, all three wetland parameters are  | e present.                                       |   |                                |  |  |  |
| 31  | ,                                    |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
| HYDROLOGY                                       |                                      |  |   |                                |  |  |  |
| Motland I halvalam (Indicators)                 |                                      |  |   |                                |  |  |  |
| Wetland Hydrology Indicators:                   |                                      | LA.  |   |                                |  |  |  |
| Primary indicators (minimum or c                | one is required; check all that app  | λī   | Secondary Indicators (minim   | <u>um or two requirea)</u>     |  |  |  |
| Surface Water (A1)                              | True Aquatic F                       | Plants (B14)                                     | <ul><li>Surface Soil Cracks (B6)</li><li>Sparsely Vegetated Conca</li></ul> | wa Surfaca (D9)                |  |  |  |
| High Water Table (A2)                           | Hydrogen Sult                        |  | ✓ Drainage Patterns (B10)   | ive surface (bo)               |  |  |  |
| Saturation (A3)                                 | •                                    | ospheres on Living Roots (C3)                    | ) Moss Trim Lines (B16)   |                                |  |  |  |
| Water Marks (B1)                                | Presence of R                        | educed Iron (C4)                                 | Moss ITITI Lines (BTd)<br>Dry-Season Water Table (C2)                       |                                |  |  |  |
| Sediment Deposits (B2)                          | Recent Iron Re                       | eduction in Tilled Soils (C6)                    | Crayfish Burrows (C8)   | ,                              |  |  |  |
| ✓ Drift Deposits (B3)                           | Thin Muck Sui                        |  | Saturation Visible on Aeri  | al Imagery (C9)                |  |  |  |
| Algal Mat or Crust (B4)                         | Other (Explain                       | in Remarks)                                      |   |                                |  |  |  |
| Iron Deposits (B5)                              |                                      |  | Stunted or Stressed Plant   |                                |  |  |  |
| Inundation Visible on Aerial I                  | magery (B7)                          |  | ✓ Geomorphic Position (D2)  |                                |  |  |  |
| ✓ Water-Stained Leaves (B9)                     |                                      |  | Shallow Aquitard (D3)   | D.4)                           |  |  |  |
| Aquatic Fauna (B13)                             |                                      |  | Microtopographic Relief (   | D4)                            |  |  |  |
| Field Observations:                             |                                      |  | FAC-Neutral Test (D5)   |                                |  |  |  |
|   | Vos No ( Don                         | the (inches)                                     |   |                                |  |  |  |
| Surface Water Present?                          |                                      | th (inches):                                     |   |                                |  |  |  |
| Water Table Present?                            | ·                                    | th (inches):                                     | Wetland Hydrology Present?  | Yes No                         |  |  |  |
| Saturation Present?                             | Yes No Dep                           | th (inches):                                     |   |                                |  |  |  |
| (includes capillary fringe)                     |                                      |  |   |                                |  |  |  |
| Describe Recorded Data (stream                  | gauge, monitoring well, aerial pho   | otos, pre <mark>vious inspections</mark> ), if a | vailable:   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
| Remarks:  |                                      |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
| The criterion for wetland hydrolo               | gy is met.                           |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |
|   |                                      |  |   |                                |  |  |  |

|                 |   | •                  |              |           | T   |                |               |
|-----------------|---|--------------------|--------------|-----------|---|----------------|---------------|
| Tree St         | tratum (Plot size: <u>30)</u>                   | <b>A</b> bsolute   | Dominant     | Indicator | Dominance Test worksheet:   |                |               |
| ii cc 5         | (Flot Size. <u>So</u> )                         | % Cover            | Species?     | Status    | Number of Dominant Species That   | 5              | (A)           |
| 1. <u>Ace</u>   | er rubrum                                       | 30                 | Yes          | FAC       | Are OBL, FACW, or FAC:  |                |               |
| 2. <i>Cel</i>   | ltis occidentalis                               | 20                 | Yes          | FACU      | Total Number of Dominant Species  | 7              | (B)           |
| 3. <u>Ace</u>   | er negundo                                      | 20                 | Yes          | FAC       | Across All Strata: Percent of Dominant Species That   |                | —             |
| 4. <i>Pla</i>   | tanus occidentalis                              | 18                 | No           | FACW      | Are OBL, FACW, or FAC:  | 71. <b>4</b>   | (A/B)         |
| 5. <i>Fra</i>   | axinus pennsylvanica                            | 15                 | No           | FACW      | Prevalence Index worksheet:   |                |               |
| 6               |   |                    |              |           | Total % Cover of:   | Multiply B     | 3v:           |
| 7               |   |                    |              |           | OBL species 0   | x 1 =          | 0             |
|                 |   | 103                | _= Total Cov | er        | FACW species 51   | x 2 =          | 102           |
|                 | 50% of total cover: <u>51.5</u>                 | _ 20% of to        | otal cover:  | 20.6      | FAC species 70  | x 3 =          | 210           |
| <u>Saplin</u>   | g/Shrub Stratum (Plot size:15)                  |                    |              |           | FACU species 32   | × 4 =          | 128           |
| 1. <i>Fra</i>   | exinus pennsylvanica                            | 18                 | Yes          | FACW      | UPL species 0   | x 5 =          | 0             |
| 2. <u>Ace</u>   | er negundo                                      | 15                 | Yes          | FAC       | Column Totals 153   | (A) —          | 440 (B)       |
| 3. <u>Lig</u>   | ustrum sinense                                  | 12                 | Yes          | FACU      | Prevalence Index = B/A =  | 2.9            | 110 (B)       |
| 4               |   |                    |              |           |   |                |               |
| 5               |   |                    |              |           | <ul><li>Hydrophytic Vegetation Indicators:</li><li> 1- Rapid Test for Hydrophytic \</li></ul> | /ogotation     |               |
| 6               |   |                    |              |           | 2 - Dominance Test is >50%  | regetation     |               |
| 7               |   |                    |              |           | $\checkmark$ 3 - Prevalence Index is $\le 3.0^{\circ}$  |                |               |
| 8.              |   |                    |              |           | 4 - Morphological Adaptations   | 1 (Drovido c   | unnorting     |
| 9               |   |                    |              |           | data in Remarks or on a separate sh   |                | upporting     |
|                 |   | 45                 | = Total Cov  | er        | Problematic Hydrophytic Vege  | •              | olain)        |
|                 | 50% of total cover: <u>22.5</u>                 | _20% of to         | otal cover:  | 9         | ¹Indicators of hydric soil and wetlan   |                | -             |
| Herb S          | <u> Stratum</u> (Plot size: <u>5</u> )          |                    |              |           | present, unless disturbed or proble   | , ,            | y mase sa     |
| 1. <i>Pei</i>   | rsicaria virginiana                             | 5                  | Yes          | FAC       | Definitions of Four Vegetation Strata   |                |               |
| 2.              |   |                    |              |           |   |                |               |
| 3.              |   |                    |              |           | Tr <b>ee</b> – Woody plants, excluding vine   | s. 3 in. (7.6  | cm) or more   |
| 4.              |   |                    |              |           | in diameter at breast height (DBH),   |                |               |
| 5.              |   |                    |              |           |   | •              |               |
| 6.              |   |                    |              |           | Sapling/shrub – Woody plants, exclu   | uding vines    | , less than 3 |
| 7.              |   |                    |              |           | in. DBH and greater than or equal to  | o 3.28 ft (1   | m) tall.      |
| 8.              |   |                    |              |           |   |                |               |
| 9.              |   |                    |              |           | Herb – All herbaceous (non-woody)   | plants, reg    | ardless of    |
| 10.             |   |                    |              |           | size, and woody plants less than 3.2  | 8 ft tall.     |               |
| 11.             |   |                    |              |           | •   |                |               |
| l'''-           |   | 5                  | = Total Cov  |           | <b>Wo</b> od <b>y vine</b> s – All woody vines grea:  | ter than 3.1   | 28 ft in      |
|                 | 50% of total cover: <u>2.5</u>                  |                    | -            | 1         | height.   | car criair biz |               |
| Woods           | y Vine Stratum (Plot size:)                     | _ 20 /0 01 (0      | cai covei.   |           |   |                |               |
| 1.              |   |                    |              |           |   |                |               |
| 2.              |   |                    |              |           |   |                |               |
| 3.              |   |                    |              |           | .  <br>  Hydrophytic Vegetation Present?   \  | √oc □ No □     | 1             |
| 4. —            |   |                    |              |           | inydrophydd vegetadoir resent:  | 163 E 110 L    | J             |
|                 |   |                    |              |           |   |                |               |
| <sup>5.</sup> — |   |                    |              |           |   |                |               |
|                 | 500/ - Fhatal                                   | 0                  | = Total Cov  |           |   |                |               |
|                 | 50% of total cover: 0                           | _ 20% or to        | otal cover:  | 0         |   |                |               |
| Remar           | ks: (Include photo numbers here or on a separat | e s <b>ne</b> et.) |              |           |   |                |               |
|                 |   |                    |              |           |   |                |               |

| Profile De  | scription: (Describe to                              | the dep       | th n <b>eed</b> ed to | documer    | nt the i | ndicator                 | or confir        | m the absence              | ce of indicators.)                          |  |
|-------------|--|---------------|-----------------------|------------|----------|--------------------------|------------------|----------------------------|---|--|
| Depth       | Matrix   |               |                       | Redox I    | Feature  | es                       |                  |                            |   |  |
| (inches)    | Color (moist)  | 96            | Color (m              | oist)      | %        | Туре¹                    | Loc²             |                            | Texture                                     | Remarks  |
| 0 - 5       | 10YR 4/2   | 85            | 10YR 4                | /6         | 15       |                          | PL               |                            | Loam  |  |
| 5 - 15      | 10YR 4/2   | 85            | 7.5YR 5               | 5/6        | 15       |                          |                  |                            | Loam  |  |
| 15 - 18     | 7.5YR 3/3  | 75            | 7.5YR 4               | <br>1/6    | 25       |                          | M/PL             |                            | Loam  |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   | _  |
|             |  |               |                       |            |          |                          |                  |                            |   | _  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
| <u> </u>    |  |               |                       |            |          |                          |                  |                            |   | _  |
| 1T          | Communication D. D.                                  |               | DM Deduc              |            | 1.45     | N = = 1 = = 1.0          |                  |                            | DI D I A4                                   | B. 8 - 4   |
|             |  | epletion,     | , км = кеаис          | ed Matrix, | , MS = 1 | маѕкеа ѕ                 | sand Gra         | ins. <sup>2</sup> Locatio  | on: PL = Pore Lining, M                     |  |
| 1 -         | il Indicators:                                       |               |                       | 5 16       |          | m=1                      |                  |                            | Indicators for Proble                       | matic Hydric Solls <sup>a</sup> :                          |
| _ Histosol  | (AT)<br>pipedon (A2)                                 |               |                       | Dark Su    |          |                          | IM) (82) z       | .RA 147, 148)              | 2 cm Muck (A10)                             | (ML <b>RA 147)</b>   |
| Black Hi    | · · · · · · · · · · · · · · · · · · ·                |               |                       | _ Thin Da  |          |                          |                  |                            | Coast Prairie Red                           | ox (A16) <b>(MLR</b> A 1 <b>47</b> , 1 <b>4</b> 8 <b>)</b> |
|             | en Sulfide (A4)                                      |               |                       | Loamy      |          |                          |                  | , ,                        | Piedmont Floodp                             | lain Soils (F19) (MLRA 136,                                |
| _ Stratifie | d Layers (A5)  |               |                       | _ Deplete  | ed Matr  | ix (F3)                  |                  |                            | 147)  |  |
| _           | uck (A10) (LRR N)                                    |               |                       | Redox [    |          |                          |                  |                            | Very Shallow Dari                           |  |
|             | d Below Dark Surface (.                              | A11)          |                       | _ Deplete  |          |                          | F7)              |                            | Other (Explain in                           | Remarks)   |
|             | ark Surface (A12)<br>Iucky Mineral (S1) <b>(</b> LRR | N MIRA        | 147 148)              | Redox [    | anganes  | siuris (ro)<br>se Masses | s (E12) (LE      | RN MIRA 13                 | 6)  |  |
| _           | ileyed Matrix (S4)                                   | . 14, 1412101 | 1-11, 1-01            | Umbric     | Surfac   | e (F13) ( <b>N</b>       | ILRA 136.        | 122)                       | <b>6)</b> <sub>3</sub> Indicators of hydrop | hytic vegetation and                                       |
|             | edox (S5)  |               |                       | _          |          |                          |                  | MLRA 148)                  |   | nust be present, unless                                    |
| Stripped    | l Matrix (S6)  |               |                       | Red Par    | rent Ma  | iterial (F2              | 1) <b>(M</b> LRA | 1 <b>2</b> 7, <b>1</b> 47) | disturbed or problen                        | natic.   |
| Restrictive | Layer (if observed):                                 |               |                       |            |          |                          |                  |                            |   |  |
|             | Туре:  |               | None                  |            |          |                          | Hydric:          | Soil Present?              |   | Yes ☑ No □   |
|             | Depth (inches):                                      |               |                       |            |          |                          |                  |                            |   |  |
| Remarks:    |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |
|             |  |               |                       |            |          |                          |                  |                            |   |  |

Photo of Sample Plot North



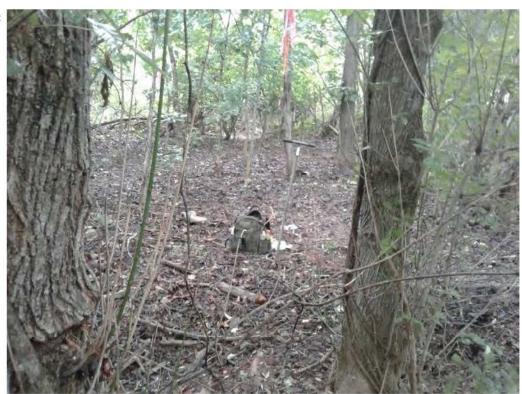
Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate City/County: Danville, Pittsylvania C                                       | Sampling Date: 2018-June-26                                  |
|---|--|
| Applicant/Owner: NextEra S  | tate: Virginia Sampling Point: W-E18-31_UPL-1                |
| Investigator(s): Jen Feese, TS, JSF, ESN Section,   | , Township, Range:   |
| Landform (hillslope, terrace, etc.): Terrace Local relief (cor  | ncave, convex, none): Convex Slope (%): 5 to 10              |
| Subregion (LRR or MLRA): MLRA 136 of LRR P Lat: 30  | 6.5617102 Long: -79.6024467 Datum: WGS84                     |
| Soil <b>Map Unit</b> Nam <b>e</b> : 23c   | NWI classification: None                                     |
| · · ·   | es 🔽 No (If no, explain in Remarks.)                         |
|   | 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 locat                                      | tions, transects, important features, etc.                   |
| Hydrophytic Vegetation Present? Yes _≠_ No  |  |
| Hydric Soil Present? Yes No _ <b>_∕</b>   |  |
| Wetland Hydrology Present? Yes No _ <b>∠</b> Is the Sample  | d Area within a Wetland? Yes No/                             |
| Covertype is UPL. Area is upland, not all three wetland parameters are present.                         |  |
| HYDROLOGY Wetland Hydrology Indicators:   |  |
| Primary Indicators (minimum of one is required; check all that apply)                                   | Secondary Indicators (minimum of two required)               |
| Triniary indicators (minimum of one is required, check an chacappy)                                     | Surface Soil Cracks (B6)                                     |
| Surface Water (A1) True Aquatic Plants (B14)  | Sparsely Vegetated Concave Surface (B8)                      |
| High Water Table (A2) Hydrogen Sulfide Odor (C1)  | Drainage Patterns (B10)                                      |
| Saturation (A3) Oxidized Rhizospheres on Living   | Roots (C3) Moss Trim Lines (B16)                             |
| Water Marks (B1) Presence of Reduced Iron (C4)  | Dry-Season Water Table (C2)                                  |
| Sediment Deposits (B2)  Recent Iron Reduction in Tilled S  Drift Deposits (B3)  This Musik Surface (C7) | crayiisii bairiows (co)                                      |
| Drift Deposits (B3) Thin Muck Surface (C7)<br>Algal Mat or Crust (B4) Other (Explain in Remarks)        | Saturation Visible on Aerial Imagery (C9)                    |
| Iron Deposits (B5)  | Stunted or Stressed Plants (D1)                              |
| Inundation Visible on Aerial Imagery (B7)   | Geomorphic Position (D2)                                     |
| Water-Stained Leaves (B9)   | Shallow Aquitard (D3)  |
| Aquatic Fauna (B13)   | Microtopographic Relief (D4)                                 |
|   | FAC-Neutral Test (D5)  |
| Field Observations:   |  |
| Surface Water Present? Yes No Depth (inches):   |  |
| Water Table Present? Yes No _ <b>_</b> ✓ Depth (inches):  | <b>Wetland H</b> yd <b>rology Prese</b> nt? Yes No <b>_∠</b> |
| Saturation Present? Yes No 🗸 Depth (inches):  |  |
| (includes capillary fringe)   |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe                    | ections) if available:                                       |
|   | ections), it available.                                      |
| Describe Recorded Data (Stream gauge, monitoring Weil, aerial priotos, previous inspi                   |  |
| Remarks:  |  |
|   |  |
|   |  |
|   |  |
|   |  |
|   |  |

| ,  | •                |              |           |   |                 |                |
|--|------------------|--------------|-----------|---|-----------------|----------------|
| Tree Stratum (Plot size:30)                          | <b>A</b> bsolute | Dominant     | Indicator | Dominance Test worksheet:                               |                 |                |
|  |                  | Species?     | Status    | Number of Dominant Species That                         | 6               | (A)            |
| 1. Carpinus caroliniana                              | 30               | Yes .        | FAC       | Are OBL, FACW, or FAC: Total Number of Dominant Species |                 |                |
| 2. Quercus rubra                                     |                  | Yes .        | FACU      | Across All Strata:                                      | 10              | (B)            |
| 3. Fraxinus pennsylvanica                            |                  | Yes .        | FACW      | Percent of Dominant Species That                        |                 |                |
| 4. Cornus florida                                    | 5                | No           | FACU      | Are OBL, FACW, or FAC:                                  | 60              | (A/B)          |
| 5  |                  |              |           | Prevalence Index worksheet:                             |                 |                |
| 6.   |                  |              |           | Total % Cover of:                                       | <u>Multiply</u> | <u>By:</u>     |
| 7  |                  |              |           | OBL species 0   | x 1 =           | 0              |
| 500 6  | 75               | = Total Cov  |           | FACW species 15   | x 2 = _         | 30             |
| 50% of total cover: 37.5                             | _ 20% of to      | ital cover:  | 15        | FAC species 65  | x 3 =           | 195            |
| Sapling/Shrub Stratum (Plot size:15)                 | 15               | Voa          | E A C     | FACU species 59   | x 4 =           | 236            |
| 1. Carpinus caroliniana                              |                  | Yes .        | FAC       | UPL species 1   | x 5 =           | 5              |
| 2. Liquidambar styraciflua                           | 5                | Yes .        | FAC       | Column Totals 140                                       | (A)             | 466 (B)        |
| 3. Carya glabra                                      | 4                | No           | FACU      | Prevalence Index = B/A =                                | 3.3             |                |
| 4  |                  |              |           | Hydrophytic Vegetation Indicators:                      |                 |                |
| 5  |                  |              |           | 1- Rapid Test for Hydrophytic                           | Vegetation      | 1              |
| 6.   |                  |              |           | ✓ 2 - Dominance Test is >50%                            | Ü               |                |
| 7  |                  |              |           | 3 - Prevalence Index is ≤ 3.01                          |                 |                |
| 8  |                  |              |           | 4 - Morphological Adaptations                           | ¹ (Provide      | supporting     |
| 9  |                  |              |           | data in Remarks or on a separate sh                     |                 | 11 0           |
|  | 24               | _= Total Cov | er        | Problematic Hydrophytic Vege                            | etation¹ (Ex    | (plain)        |
| 50% of total cover: <u>12</u>                        | _ 20% of to      | tal cover:   | 4.8       | Indicators of hydric soil and wetlan                    | id hydrolo:     | gy must be     |
| <u>Herb Stratum</u> (Plot size: <u>5</u> )           |                  |              |           | present, unless disturbed or proble                     | matic           |                |
| 1. <i>Fabaceae</i>                                   | 10               | Yes          | NI        | Definitions of Four Vegetation Strat                    | a:              |                |
| 2. Smilax bona-nox                                   | 10               | Yes          | FACU      |   |                 |                |
| 3. <i>Cornus florida</i>                             | 7                | Yes          | FACU      | Tr <b>ee</b> – Woody plants, excluding vine             | s, 3 in. (7.6   | 6 cm) or more  |
| 4. Lonicera japonica                                 | 5                | No           | FACU      | in diameter at breast height (DBH),                     | regardless      | of height.     |
| 5. Smilax rotundifolia                               | 4                | No           | FAC       |   |                 |                |
| 6. <i>Carpinus caroliniana</i>                       | 4                | No           | FAC       | Sapling/shrub – Woody plants, exclu                     | uding vine:     | s, less than 3 |
| 7. Parthenocissus quinquefolia                       | 3                | No           | FACU      | in. DBH and greater than or equal to                    | o 3.28 ft (1    | m) tall.       |
| 8. Galium circaezans                                 | 1                | No           | UPL       |   |                 |                |
| 9.   |                  |              |           | Herb – All herbaceous (non-woody)                       |                 | gardless of    |
| 10.  |                  |              |           | size, and woody plants less than 3.2                    | :8 ft tall.     |                |
| 11.  |                  |              |           |   |                 |                |
|  | 44               | = Total Cov  | er        | <b>Wo</b> od <b>y vine</b> s – All woody vines grea     | ter than 3      | .28 ft in      |
| 50% of total cover: <u>22</u>                        | 20% of to        | tal cover:   | 8.8       | height.   |                 |                |
| Woody Vine Stratum (Plot size: 30 )                  | _                |              |           |   |                 |                |
| 1. Toxicodendron radicans                            | 5                | Yes          | FAC       |   |                 |                |
| 2. Smilax rotundifolia                               | 2                | Yes          | FAC       |   |                 |                |
| 3.   |                  |              |           | Hydrophytic Vegetation Present?                         | Yes ☑ No [      |                |
| 4.   |                  |              |           |   |                 |                |
| 5.   |                  |              |           |   |                 |                |
|  | 7                | = Total Cov  | er        |   |                 |                |
| 50% of total cover: 3.5                              |                  | -            | 1.4       |   |                 |                |
|  | _                |              |           |   |                 |                |
| Remarks: (Include photo numbers here or on a separat | a sincely        |              |           |   |                 |                |
|  |                  |              |           |   |                 |                |

|             | cription: (Describe to                               | th <b>e d</b> ep | th n <b>eed</b> ed to |           |                    |                                 | or confir           | m the absenc              | e of indicators.)                   |                                   |
|-------------|--|------------------|-----------------------|-----------|--------------------|---------------------------------|---------------------|---------------------------|-------------------------------------|-----------------------------------|
| Depth       | Matrix Calar (maist)                                 | 0/               | Colon/m               |           | Feature            |                                 | 12                  |                           | Tarduna                             | Damenta                           |
| (inches)    | Color (moist)  | %                | Color (m              | OIST)     | %                  | Type¹                           | _Loc²               |                           | Texture                             | Remarks                           |
| 0 - 2       | 10YR 4/3   | 100              |                       |           |                    |                                 |                     |                           | Loam                                |                                   |
| 2 - 18      | 10YR 4/4   | 100              |                       |           |                    |                                 |                     |                           | Loam                                |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     | 1                         |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     | -                         |                                     |                                   |
|             | -  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     | -                         |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
| ¹Type: C =  | Concentration, D = De                                | pletion,         | RM = Reduc            | ed Matrix | , MS = i           | Masked S                        | and Gra             | ins. <sup>z</sup> Locatio | n: PL = Pore Lining, M              | = Matrix.                         |
| Hydric Soil | Indicators:  |                  |                       |           |                    |                                 |                     |                           | Indicators for Problem              | matic Hydric Soils <sup>3</sup> : |
| _ Histosol  |  |                  |                       | Dark S    | urface (S          | 57)                             |                     |                           |                                     | •                                 |
| _           | ipedon (A2)  |                  |                       |           |                    |                                 | (S8) <b>(M</b> L    | RA 147, 148)              | 2 cm Muck (A10) (                   |                                   |
| Black His   | tíc (A3)   |                  |                       |           |                    | ace (S9) <b>(</b> N             |                     |                           | · <del></del>                       | ox (A16) <b>(MLRA 147, 148)</b>   |
| _ Hydroge   | n Sulfide (A4)                                       |                  |                       | _         | -                  | Matrix (F2                      | 3)                  |                           |                                     | lain Soils (F19) (MLRA 136,       |
|             | l Layers (A5)  |                  |                       | _ Deplet  |                    |                                 |                     |                           | 147)                                |                                   |
|             | ck (A10) (LRR N)                                     |                  |                       |           |                    | rface (F6)                      |                     |                           | Very Shallow Darl                   |                                   |
|             | Below Dark Surface (A                                | 11)              |                       |           |                    | Surface (F                      | -7)                 |                           | Other (Explain in                   | Remarks)                          |
|             | rk Surface (A12)                                     | NI MILITA        | 147 1401              | _ Redox   | Depress            | sions (F8)                      | (E13) (LE           | D N. MILDA 104            | c)                                  |                                   |
|             | ucky Mineral (S1) <b>(</b> LRR l<br>eyed Matrix (S4) | N, MILKA         | 147, 148)             | _ Iron-w  | anganes<br>Surface | se Masses<br>e (F13) ( <b>M</b> | (FIZ)(LN<br>IDA 136 | KK IN, MILKA 130<br>1991  | <sup>6)</sup> ₃Indicators of hydrop | hytic vegetation and              |
| Sandy Gi    | •  |                  |                       |           |                    | - ( , (                         |                     | MLRA 148)                 | wetland hydrology m                 | oust be present, unless           |
| _           | Matrix (S6)  |                  |                       |           |                    | terial (F21                     |                     |                           | disturbed or problen                | natic.                            |
|             | Layer (if observed):                                 |                  |                       |           |                    |                                 |                     | , ,                       |                                     |                                   |
|             | Type:  |                  | None                  |           |                    |                                 | l la salada i       | Call Duamanto             |                                     | Van El Na El                      |
|             | - '  |                  | None                  |           |                    |                                 | <b>нуа</b> пс :     | Soil Present?             |                                     | Yes □ No ☑                        |
|             | Depth (inches):                                      |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
| Remarks:    |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |
|             |  |                  |                       |           |                    |                                 |                     |                           |                                     |                                   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                         | City/County:                            |   | Sampling Date: 2018-Jun   | e-26                       |  |  |
|---|---|---|---|----------------------------|--|--|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra |   | State:  | Sampling Point: V   | V-E18-33_PFO-1             |  |  |
| nvestigator(s): Janelle Bernos                      | ky, TS                                  | Section, Township,                                  | Range:  |                            |  |  |
| Landform (hillslope, terrace, etc.                  | .): Foot slope                          | Local relief (concave, conv                         | ex, none): Concave  | Slop <b>e (%</b> ): 1 to 3 |  |  |
| Su <b>bre</b> gion (LRR or MLRA):                   | MLRA 136 of LRR P                       | <b>L</b> at: 36.5658846                             | Long: -79.6071374   | Datum: WGS84               |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : 23C    |   |   | NWI classifica  | ation: None                |  |  |
| Are climatic/hydrologic condition                   | ns on the site typical for this time of | f year? Yes 🟒 No                                    | (If no, explain in Remar  | ks.)                       |  |  |
| Are Vegetation, Soil,                               | or Hydrology significantly              | disturbed? Are "Norma                               | al Circumstances" present?  | Yes 🟒 No                   |  |  |
| Are Vegetation, Soil,                               | or Hydrology naturally pr               | oblematic? (If needed,                              | explain any answers in Rema   | rks.)                      |  |  |
|   |   |   |   |                            |  |  |
| SUMMARY OF FINDINGS - A                             | Attach site map showing sam             | pling point locations, trar                         | nsects, important feature   | es, etc.                   |  |  |
| Hydrophytic Vegetation Present                      | t? Yes No                               |   |   |                            |  |  |
| Hydric Soil Present?                                | Yes _ / No                              |   |   |                            |  |  |
| Wetland Hydrology Present?                          | Yes No                                  | Is the Sampled Area withi                           | n a <b>Wet</b> land?  | ∕es <b>∕_ No</b>           |  |  |
|   | 163 <u>7</u> NO                         | is the sampled Area with                            | Ta Wedand:  | les_ <b>y</b> _ NO         |  |  |
| Remarks:  |   |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
| Covertype is PFO. Area is wetlar                    | nd, all three wetland parameters are    | e present.  |   |                            |  |  |
|   | ·                                       |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
| HYDROLOGY   |   |   |   |                            |  |  |
| Wetland Hydrology Indicators:                       |   |   |   |                            |  |  |
|   | f one is required; check all that app   | lv)   | Secondary Indicators (minim   | um of two required)        |  |  |
| Timary marcators (minimani o                        | Toric is required, encertain triatapp   | <u>.y.</u>  | Surface Soil Cracks (B6)  | ani or avorequirea)        |  |  |
| Surface Water (A1)                                  | True Aquatic F                          | Plants (B14)  | Sparsely Vegetated Conc   | ave Surface (B8)           |  |  |
| High Water Table (A2)                               | Hydrogen Sulf                           | fide Odor (C1)                                      | Drainage Patterns (B10)   | are partace (po)           |  |  |
| ✓ Saturation (A3)                                   | Oxidized Rhize                          | ospheres on Living Roots (C3)                       | Moss Trim Lines (B16)   |                            |  |  |
| Water Marks (B1)                                    | Presence of R                           | educed Iron (C4)                                    | Dry-Season Water Table (C2)   |                            |  |  |
| Sediment Deposits (B2)                              |   | eduction in Tilled Soils (C6)                       | Crayfish Burrows (C8)   |                            |  |  |
| Drift Deposits (B3)                                 | Thin Muck Sur                           |   | Saturation Visible on Aeri  | al Imagery (C9)            |  |  |
| Algal Mat or Crust (B4)                             | Other (Explain                          | i in Remarks)                                       | 50 1 50 1DI   | (D4)                       |  |  |
| Iron Deposits (B5)                                  | L I (DZ)                                |   | Stunted or Stressed Plant   |                            |  |  |
| Inundation Visible on Aeria                         | Timagery (B7)                           |   | Geomorphic Position (D2   | )                          |  |  |
| Water-Stained Leaves (B9) Aquatic Fauna (B13)       |   |   | <ul><li>Shallow Aquitard (D3)</li><li>Microtopographic Relief (</li></ul> | ·D4)                       |  |  |
| Aquacic Fauria (BTS)                                |   |   | ✓ FAC-Neutral Test (D5)   | .04)                       |  |  |
| Field Observations:                                 |   |   |   |                            |  |  |
| Surface Water Present?                              | Yes No _ <b>∠</b> Deg                   | oth (inches):                                       |   |                            |  |  |
| Water Table Present?                                |   |   | <br>  Wetland Hydrology Present?  | Voc. 4 No.                 |  |  |
|   | ·                                       | oth (inches):                                       | Wedand Hydrology Fresent:   | Yes No                     |  |  |
| Saturation Present?                                 | Yes <u>✓</u> No Dep                     | oth (inches): 8                                     |   |                            |  |  |
| (includes capillary fringe)                         |   |   |   |                            |  |  |
| Describe Recorded Data (stream                      | n gauge, monitoring well, aerial pho    | otos <b>, p</b> re <b>vious inspections</b> ), if a | available:  |                            |  |  |
|   |   |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
| Remarks:  |   |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
|   |   |   |   |                            |  |  |
| I   |   |   |   |                            |  |  |

| <u> </u>  | •                     |              |             |   |               |               |  |  |  |
|---|-----------------------|--------------|-------------|---|---------------|---------------|--|--|--|
| Tree Stratum (Plot size:30)                         |                       | Dominant     |             | Dominance Test worksheet:                                 |               |               |  |  |  |
| ·   |                       | Species?     | Status      | Number of Dominant Species That Are OBL, FACW, or FAC:    | 5             | (A)           |  |  |  |
| Liquidambar styraciflua     Frayinus papagulyanisa  | . <del>45</del><br>25 | Yes Yes      | FAC         | Total Number of Dominant Species                          |               |               |  |  |  |
| 2. Fraxinus pennsylvanica 3. Ulmus rubra            | 15                    |              | FACW<br>FAC | Across All Strata:  | 6             | (B)           |  |  |  |
| ·   |                       | No           | FAC         | Percent of Dominant Species That                          | 83.3          | (A (D)        |  |  |  |
| 5.  |                       |              |             | Are OBL, FACW, or FAC:                                    |               | (A/B)         |  |  |  |
| -   |                       |              |             | Prevalence Index worksheet:                               |               |               |  |  |  |
| 6   |                       |              |             | <u>Total % Cover of:</u>                                  | Multiply E    | <u>3y:</u>    |  |  |  |
| 7   |                       |              |             | OBL species 0   | x 1 =         | 0             |  |  |  |
| 500 6   | 85                    | = Total Cov  |             | FACW species 48   | x 2 =         | 96            |  |  |  |
| 50% of total cover: 42.5                            | _ 20% of to           | otal cover:  | <u>17</u>   | FAC species 165   | x 3 =         | 495           |  |  |  |
| Sapling/Shrub Stratum (Plot size:15)                | 45                    | V            | EAGN        | FACU species 20   | × 4 =         | 80            |  |  |  |
| 1. Fraxinus pennsylvanica                           | 15                    | Yes          | FACW        | - UPL species 0   | x 5 =         | 0             |  |  |  |
| 2.  |                       |              |             | - Column Totals 233                                       | (A)           | 671 (B)       |  |  |  |
| 3   |                       |              |             | Prevalence Index = B/A =                                  | 2.9           |               |  |  |  |
| 4   |                       |              |             | Hydrophytic Vegetation Indicators:                        |               |               |  |  |  |
| 5.  |                       |              |             | 1- Rapid Test for Hydrophytic                             | √egetation    |               |  |  |  |
| 6   |                       |              |             | ✓ 2 - Dominance Test is >50%                              |               |               |  |  |  |
| 7   |                       |              |             | ✓ 3 - Prevalence Index is ≤ 3.01                          |               |               |  |  |  |
| 8.  |                       |              |             | 4 - Morphological Adaptations                             | ¹ (Provide s  | supporting    |  |  |  |
| 9   |                       |              |             | data in Remarks or on a separate sheet)                   |               |               |  |  |  |
|   | 15                    | _= Total Cov | er          | Problematic Hydrophytic Vege                              | tation¹ (Ex   | plain)        |  |  |  |
| 50% of total cover: <u>7.5</u>                      | _ 20% of to           | otal cover:  | 3           | Indicators of hydric soil and wetlan                      | id hydrolog   | y must be     |  |  |  |
| Herb Stratum (Plot size: 5 )                        |                       |              |             | present, unless disturbed or proble                       | matic         |               |  |  |  |
| 1. Microstegium vimineum                            | 60                    | Yes          | FAC         | Definitions of Four Vegetation Strate                     | a:            |               |  |  |  |
| 2. Smilax rotundifolia                              | 15                    | No           | FAC         | -   |               |               |  |  |  |
| 3. Elymus virginicus                                | 8                     | No           | FACW        | Tr <b>ee</b> – Woody plants, excluding vine               | s, 3 in. (7.6 | cm) or more   |  |  |  |
| 4. Vitis vulpina                                    | 5                     | No           | FAC         | in diameter at breast height (DBH), regardless of height. |               |               |  |  |  |
| 5. Parthenocissus quinquefolia                      | 5                     | No           | FACU        | _   |               |               |  |  |  |
| 6.  |                       |              |             | Sapling/shrub – Woody plants, exclu                       | uding vines   | , less than 3 |  |  |  |
| 7.  |                       |              |             | in. DBH and greater than or equal to                      | ა 3.28 ft (1  | m) tall.      |  |  |  |
| 8.  |                       |              |             |   |               |               |  |  |  |
| 9.  |                       |              |             | Herb – All herbaceous (non-woody)                         |               | ardless of    |  |  |  |
| 10.   |                       |              |             | size, and woody plants less than 3.2                      | 8 ft tall.    |               |  |  |  |
| 11.   |                       |              |             |   |               |               |  |  |  |
|   | 93                    | = Total Cov  | er          | <b>Wo</b> od <b>y vine</b> s – All woody vines grea       | ter than 3.1  | 28 ft in      |  |  |  |
| 50% of total cover: <u>46.5</u>                     | 20% of to             | tal cover:   | 18.6        | height.   |               |               |  |  |  |
| Woody Vine Stratum (Plot size: 30 )                 | _                     |              |             |   |               |               |  |  |  |
| 1. Vitis vulpina                                    | 25                    | Yes          | FAC         |   |               |               |  |  |  |
| 2. Lonicera japonica                                | 15                    | Yes          | FACU        |   |               |               |  |  |  |
| 3.  |                       |              |             | Hydrophytic Vegetation Present? `                         | Yes ☑ No □    | ]             |  |  |  |
| 4.  |                       |              |             |   |               |               |  |  |  |
| 5.  |                       |              |             | -   |               |               |  |  |  |
|   | 40                    | = Total Cov  | er          | -   |               |               |  |  |  |
| 50% of total cover: 20                              |                       | tal cover:   | 8           |   |               |               |  |  |  |
| Remarks: (Include photo numbers here or on a separa |                       |              |             |   |               |               |  |  |  |
|   | ,                     |              |             |   |               |               |  |  |  |
|   |                       |              |             |   |               |               |  |  |  |

| Profile De         | scription: (Describe to          | the dept     | th n <b>eed</b> ed to do | cument the                    | in <b>dicator</b> ( | or confir        | m the absend              | ce of indicators.)              |  |
|--------------------|----------------------------------|--------------|--------------------------|-------------------------------|---------------------|------------------|---------------------------|---------------------------------|--|
| Depth              | <b>Ma</b> trix                   |              | R                        | edox Featur                   | es                  |                  |                           |                                 |  |
| (in <b>ches)</b>   | Color (moist)                    | %            | Color (moist)            | ) %                           | Type <sup>1</sup>   | Loc <sup>2</sup> |                           | Texture                         | Remarks  |
| 0 - 3              | 10YR 3/1                         | 100          |                          |                               |                     |                  |                           | Loam                            |  |
| 3 - 16             | 10YR 5/1                         | 80           | 10YR 4/2                 | 20                            | D                   | M                |                           | Loam                            |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    | _                                |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
| <u> </u>           |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               | - ——                |                  |                           |                                 |  |
| <u> </u>           |                                  |              |                          |                               |                     |                  |                           |                                 | _  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               | - ——                |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
| <u>¹</u> Type: C = | Concentration, D = D             | epletion,    | RM = Reduced N           | /latrix, MS =                 | Masked S            | and Gra          | ins. <sup>z</sup> Locatio | on: PL = Pore Lining, M         |  |
| Hydric Soi         | l Indicators:                    |              |                          |                               |                     |                  |                           | Indicators for Problem          | matic Hydric Soils³:                                       |
| _ Histosol         |                                  |              | _                        | ark Surface                   |                     |                  |                           | 2 cm Muck (A10)                 | (ML <b>RA 147)</b>   |
|                    | pipedon (A2)                     |              |                          | olyvalue Beld                 |                     |                  |                           |                                 | ox (A16) <b>(MLR</b> A 1 <b>47</b> , 1 <b>4</b> 8 <b>)</b> |
| _ Black Hi         | stic (A3)<br>en Sulfide (A4)     |              |                          | hin Dark Sur<br>oamy Gleyed   |                     |                  | , 148)                    |                                 | lain Soils (F19) (MLRA 136,                                |
|                    | d Layers (A5)                    |              | _                        | epleted Mat                   | •                   | <u>~</u> )       |                           |                                 |  |
|                    | ıck (A10) <b>(</b> LRR <b>N)</b> |              |                          | edox Dark Si                  |                     |                  |                           | Very Shallow Darl               | k Surface (TF12)   |
| _ Deplete          | d Below Dark Surface (A          | <b>\11</b> ) | _ D                      | epleted Darl                  | k Surface (I        | F7)              |                           | Other (Explain in               |  |
|                    | rk Surface (A12)                 |              | _ R                      | edox Depres                   | sions (F8)          |                  |                           |                                 |  |
|                    | lucky Mineral (S1) (LRR          | N, MLRA      | 147, 148) ir             | on-Mangane                    | se Masses           | 5 (F12) (LF      | RR N, MLRA 13             | <b>6)</b> ₃Indicators of hydrop | hytic vegetation and                                       |
|                    | leyed Matrix (S4)<br>edox (S5)   |              |                          | Imbric Surfac<br>iedmont Floc | (, (                |                  | ,                         | wetland hydrology m             | iust be present, unless                                    |
| _                  | l Matrix (S6)                    |              | _                        | ed Parent M                   |                     |                  |                           | disturbed or problem            | natic.   |
|                    | Layer (if observed):             |              |                          |                               |                     | Í I              | , ,                       |                                 |  |
|                    | Туре:                            |              | Rock layer               |                               |                     | Hydric 9         | Soil Present?             |                                 | Yes ☑ No □   |
|                    | Depth (inches):                  |              | 16                       |                               |                     | I Iyunc .        | oui rresent               |                                 | 162 E 110 E  |
|                    | Depti (inches).                  |              | 10                       |                               |                     |                  |                           |                                 |  |
| Remarks:           |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |
|                    |                                  |              |                          |                               |                     |                  |                           |                                 |  |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                     | City/County:                              |   | Sampling Date: 2018-June        | :-26                         |  |  |  |
|---|---|---|---------------------------------|------------------------------|--|--|--|
| Applicant/Owner: NextEra                        |   | State:  | Sampling Point: W-              | -E18-33_UPL-1                |  |  |  |
| Investigator(s): Janelle Bernos                 | ky, TS, JSF, ESN                          | Section, Township,                              | Range:                          |                              |  |  |  |
| Landform (hillslope, terrace, etc.)             | ): Valley                                 | Local relief (concave, conv                     | ex, none): Concave              | Slop <b>e (%</b> ): 10 to 15 |  |  |  |
| Su <b>bre</b> gion (LRR or MLRA):               | ALRA 136 of LRR P                         | Lat: 36.5657787                                 | Long: -79.6071926               | Datum:WGS84                  |  |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :23C |   |   | NWI classificat                 | t <b>ion</b> : None          |  |  |  |
| Are climatic/hydrologic condition               | ns on the site typical for this time of j | ye <b>ar?</b> Yes <u></u> ✓ No                  | (If no, explain in Remarks      | s.)                          |  |  |  |
| Are Vegetation, Soil,                           | or Hydrology significantly                | disturbed? Are "Norma                           | al Circumstances" present?      | Yes No                       |  |  |  |
| Are Vegetation, Soil,                           | or Hydrology naturally pro                | oblematic? (If needed,                          | explain any answers in Remarl   | ks.)                         |  |  |  |
|   |   |   |                                 |                              |  |  |  |
| SUMMARY OF FINDINGS – A                         | Attach site map showing samp              | ling point locations, tran                      | isects, important features      | s, etc.                      |  |  |  |
| Hydrophytic Vegetation Present                  | ? Yes 🗸 No                                |   |                                 |                              |  |  |  |
| Hydric Soil Present?                            | Yes No 🟒                                  |   |                                 |                              |  |  |  |
| Wetland Hydrology Present?                      | Yes No <b>_</b> ✓                         | is the Sampled Area withi                       | in a Wetland?                   | Yes <b>No/</b> _             |  |  |  |
| Remarks:  |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
| Covertype is UPL. Area is upland                | d, not all three wetland parameters a     | are present.                                    |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
| HYDROLOGY                                       |   |   |                                 |                              |  |  |  |
| Wetland Hydrology Indicators:                   |   |   |                                 |                              |  |  |  |
| Primary Indicators (minimum of                  | one is required; check all that apply     | <u>A</u>  | Secondary Indicators (minimu    | ım of two required)          |  |  |  |
|   |   |   | Surface Soil Cracks (B6)        |                              |  |  |  |
| Surface Water (A1)                              | True Aquatic P                            |   | Sparsely Vegetated Concar       | ve Surface (B8)              |  |  |  |
| High Water Table (A2)                           | Hydrogen Sulfi                            |   | Drainage Patterns (B10)         |                              |  |  |  |
| Saturation (A3)<br>Water Marks (B1)             |   | spheres on Living Roots (C3)<br>duced Iron (C4) |                                 |                              |  |  |  |
| Sediment Deposits (B2)                          |   | duction in Tilled Soils (C6)                    | Dry-Season Water Table (C2)     |                              |  |  |  |
| Drift Deposits (B3)                             | Thin Muck Surf                            |   | Crayfish Burrows (C8)           |                              |  |  |  |
| Algal Mat or Crust (B4)                         | Other (Explain                            |   | Saturation Visible on Aeria     | al Imagery (C9)              |  |  |  |
| Iron Deposits (B5)                              |   | ,   | Stunted or Stressed Plants      | s (D1)                       |  |  |  |
| Inundation Visible on Aerial                    | Imagery (B7)                              |   | Geomorphic Position (D2)        |                              |  |  |  |
| Water-Stained Leaves (B9)                       |   |   | Shallow Aquitard (D3)           |                              |  |  |  |
| Aquatic Fauna (B13)                             |   |   | Microtopographic Relief (C      | 04)                          |  |  |  |
|   |   |   | ✓ FAC-Neutral Test (D5)         |                              |  |  |  |
| Field Observations:                             |   |   |                                 |                              |  |  |  |
| Surface Water Present?                          | Yes No 🟒 Dept                             | th (inches):                                    |                                 |                              |  |  |  |
| Water Table Present?                            | Yes No/ Dept                              | :h (inches):                                    | <br> Wetland Hydrology Present? | Yes No                       |  |  |  |
| Saturation Present?                             | Yes No <u></u> ✓ Dept                     | th (inches):                                    |                                 | -                            |  |  |  |
| (includes capillary fringe)                     |   |   |                                 |                              |  |  |  |
|   | garage manifesting well appiel place      | tos province inspections) if s                  |                                 |                              |  |  |  |
| Describe Recorded Data (stream                  | n gauge, monitoring well, aerial phot     | tos, previous inspections), ir a                | valiable:                       |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
| Remarks:  |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |
|   |   |   |                                 |                              |  |  |  |

| <u> </u>   | •            |              |           |   |                   |             |  |  |  |
|--|--------------|--------------|-----------|---|-------------------|-------------|--|--|--|
| Tree Stratum (Plot size:30)  | Absolute     | Dominant     | Indicator | Dominance Test worksheet:                                 |                   |             |  |  |  |
|  |              | Species?     | Status    | Number of Dominant Species That                           | 6                 | (A)         |  |  |  |
| 1. Ulmus americana   | 35           | Yes          | FACW      | Are OBL, FACW, or FAC: Total Number of Dominant Species   |                   |             |  |  |  |
| 2. Platanus occidentalis   |              | Yes .        | FACW      | Across All Strata:  | 9                 | (B)         |  |  |  |
| 3. Fraxinus pennsylvanica  | 2            | No           | FACW      | Percent of Dominant Species That                          | 66.7              |             |  |  |  |
| 5.   |              |              |           | Are OBL, FACW, or FAC:                                    |                   | (A/B)       |  |  |  |
| 6.   |              |              |           | Prevalence Index worksheet:                               |                   |             |  |  |  |
| 7.   | ·            |              |           | Total % Cover of:   | <u>Multiply B</u> | <u>By:</u>  |  |  |  |
| /·   | 52           | = Total Cov  | or        | OBL species 0   | x 1 =             | 0           |  |  |  |
| 50% of total cover: <u>26</u>  |              | -            |           | FACW species 55   | x 2 =             | 110         |  |  |  |
| Sapling/Shrub Stratum (Plot size: 15_)                                       | _ 20% 01 ((  | otal cover.  | 10.4      | FAC species 83  | x 3 =             | 249         |  |  |  |
| 1. Diospyros virginiana  | 5            | Yes          | FAC       | FACU species 9  | x 4 =             | 36          |  |  |  |
| Cercis canadensis  | . <u> </u>   | Yes          | FACU      | UPL species 0   | x 5 =             | 0           |  |  |  |
| 3. Carya ovata   | 3            | Yes          | FACU      | Column Totals 147   | (A) _             | 395 (B)     |  |  |  |
| 4.   |              |              | TACO      | Prevalence Index = B/A =                                  | 2.7               |             |  |  |  |
| 5.   |              |              |           | Hydrophytic Vegetation Indicators:                        |                   |             |  |  |  |
| 6.   |              |              |           | 1- Rapid Test for Hydrophytic                             | /egetation        |             |  |  |  |
| 7.   |              |              |           | 2 - Dominance Test is >50%                                |                   |             |  |  |  |
|  | ·            |              |           | 3 - Prevalence Index is ≤ 3.01                            |                   |             |  |  |  |
| 8  |              |              |           | -  4 - Morphological Adaptations                          | ¹ (Provide s      | upporting   |  |  |  |
| 9  |              | - Tatal Cau  |           | - data in Remarks or on a separate sh                     | neet)             |             |  |  |  |
| FOR of total source. 6 F   | 13           | _= Total Cov |           | Problematic Hydrophytic Vege                              |                   |             |  |  |  |
| 50% of total cover: <u>6.5</u><br><u>Herb Stratum</u> (Plot size: <u>5</u> ) | _ 20% 01 (0  | otal cover:  | 2.6       | ¹Indicators of hydric soil and wetlan                     | , ,               | y must be   |  |  |  |
| 1. Fabaceae  | 50           | Yes          | NI        | present, unless disturbed or proble                       |                   |             |  |  |  |
| Microstegium vimineum  | 50           | Yes          | FAC       | Definitions of Four Vegetation Strat                      | a:                |             |  |  |  |
| Boehmeria cylindrica   | 3            | No           | FACW      | -   | a:                |             |  |  |  |
| 4. Smilax rotundifolia   | 1            | No No        | FAC       | Tree – Woody plants, excluding vine                       |                   |             |  |  |  |
| 5. Cercis canadensis   | · — <u>'</u> | No No        | FACU      | in diameter at breast height (DBH), regardless of height. |                   |             |  |  |  |
|  |              | NU           | FACU      | -  <br>  <b>Sapling/shrub</b> – Woody plants, exclu       | ıding vinos       | loss than 3 |  |  |  |
| 6  |              |              |           | in. DBH and greater than or equal to                      | _                 |             |  |  |  |
| 7  |              |              |           | - In a product that of equal t                            | 3 3.20 10(1       | my cam.     |  |  |  |
| 8.   |              |              |           | -<br>Herb – All herbaceous (non-woody)                    | plants, reg       | ardless of  |  |  |  |
| 9.   |              |              |           | size, and woody plants less than 3.2                      |                   |             |  |  |  |
| 10   |              |              |           | -   |                   |             |  |  |  |
| 11   |              |              |           | - Ness and a sign and All area abouting a great           | en a elemen O 1   | 00 ft la    |  |  |  |
| 500 500 500  |              | = Total Cov  |           | <b>Wo</b> od <b>y vine</b> s – All woody vines grea       | ter than 3.2      | 28 π in     |  |  |  |
| 50% of total cover: <u>52.5</u>  | _ 20% of to  | otal cover:  | 21        | height.   |                   |             |  |  |  |
| Woody Vine Stratum (Plot size: 30 )  |              | .,           | 51.5      |   |                   |             |  |  |  |
| 1. Toxicodendron radicans  |              | Yes .        | FAC       | -   |                   |             |  |  |  |
| 2. <u>Vitis vulpina</u>  |              | Yes          | FAC       |   |                   | ,           |  |  |  |
| 3  |              |              |           | Hydrophytic Vegetation Present?                           | res ☑ No ∟        |             |  |  |  |
| 4  |              |              |           |   |                   |             |  |  |  |
| 5  |              |              |           |   |                   |             |  |  |  |
|  | 27           | _= Total Cov |           |   |                   |             |  |  |  |
| 50% of total cover: <u>13.5</u>  | _ 20% of to  | otal cover:  | 5.4       |   |                   |             |  |  |  |
| Remarks: (Include photo numbers here or on a separa                          | te sheet.)   |              |           |   |                   |             |  |  |  |
|  |              |              |           |   |                   |             |  |  |  |

|                            | scription: (Describe to                      | the dept  |                 |                            |                   | or confir                         | m the absen               | ce of indicators.)      |                            |
|----------------------------|--|-----------|-----------------|----------------------------|-------------------|-----------------------------------|---------------------------|-------------------------|----------------------------|
| Depth _                    | <b>Ma</b> trix                               |           |                 | ox Feature                 |                   |                                   |                           |                         |                            |
| <u>(inches)</u>            | Color (moist)                                |           | Color (moist)   |                            | Type <sup>1</sup> | _Loc <sup>2</sup>                 |                           | T <b>ex</b> ture        | Remarks                    |
| 0 - 11                     | 10YR 4/3                                     | 100       |                 |                            |                   |                                   |                           | Loam                    |                            |
| 11 - 14                    | 10YR 5/4                                     | 80        | 10YR 4/4        | 20                         | C                 | M                                 |                           | Loam                    |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            | _  |           |                 | _                          |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            | _  |           |                 |                            |                   |                                   |                           |                         | _                          |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  | epletion, | RM = Reduced Ma | trix, MS =                 | Masked S          | and Gra                           | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M |                            |
| _                          | l Indicators:                                |           |                 |                            |                   |                                   |                           | Indicators for Probler  | natic Hydric Soils³:       |
| _ Histosol                 |  |           | _               | k Surface (                |                   | 1001 /44                          | DA 1/17 1/01              | 2 cm Muck (A10) (       | ML <b>RA 147)</b>          |
| _ Histic Ep<br>_ Black His | sipedon (A2)                                 |           |                 | /value Belo<br>n Dark Surf |                   |                                   | RA 147, 148)<br>7 148)    | Coast Prairie Rede      | ox (A16) (MLRA 147, 148)   |
|                            | en Sulfide (A4)                              |           |                 | my Gleyed                  |                   |                                   | , 140)                    | Piedmont Floodpl        | ain Soils (F19) (MLRA 136, |
|                            | d Layers (A5)                                |           | _               | leted Matr                 | •                 | _,                                |                           | 147)                    |                            |
| _ 2 cm Mu                  | ıck (A10) <b>(</b> LRR <b>N)</b>             |           | _ Rec           | lox Dark Su                | ırface (F6)       |                                   |                           | Very Shallow Dark       | k Surface (TF12)           |
|                            | d Below Dark Surface (/                      | A11)      |                 | leted Dark                 |                   | F7)                               |                           | Other (Explain in l     | Remarks)                   |
| _                          | ark Surface (A12)                            |           | Rec             | lox Depres                 | sions (F8)        | . (E40) (LE                       | DD N. A41 DA 47           |                         |                            |
|                            | lucky Mineral (S1) (LRR<br>leyed Matrix (S4) | N, MLKA   | 147, 148) Iron  | ı-Mangane<br>bric Surfac   | se Masses         | 5 (FTZ) (LF<br>II D <b>A 1</b> 36 | KR IN, MILKA 13<br>122)   | 6)₃Indicators of hydrop | hytic vegetation and       |
|                            | edox (S5)                                    |           | · · ·           |                            | _ ( , (           |                                   | MLRA 148)                 | wetland hydrology m     | ust be present, unless     |
| _                          | l Matrix (S6)                                |           | _               | Parent Ma                  |                   |                                   |                           | disturbed or problem    | natic.                     |
|                            | Layer (if observed):                         |           | <del></del>     |                            |                   | Ī                                 |                           |                         |                            |
|                            | Type:  |           | Gravel          |                            |                   | Hvdric:                           | Soil Present?             |                         | Yes □ No ☑                 |
|                            | Depth (inches):                              |           | 14              | _                          |                   | ,                                 |                           |                         |                            |
| Remarks:                   |  |           |                 |                            |                   |                                   |                           |                         |                            |
| Kemarks.                   |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |
|                            |  |           |                 |                            |                   |                                   |                           |                         |                            |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                                       | <u>City/Coun</u> ty: Danville, Pi          | ttsylvania Sam <b>p</b> lin <b>g</b>    | Date: 2018-July-30  |                            |
|---|--|---|---|----------------------------|
| Applicant/Owner: NextEra  |  | State: VA                               | Sampling Point: W   | -F18-60_PEM-1              |
| nvestigator(s): Beth Clements,                                    | , JDF, AJW                                 | Section, Township,                      | Range:  |                            |
| L <mark>andfo</mark> rm (hillsl <mark>ope, terrace, e</mark> tc.) | : Swale                                    | Local relief (concave, conv             | · · · · · · · · · · · · · · · · · · ·                                       | Slop <b>e (%</b> ):1 to 3  |
| Su <b>bre</b> gion (LRR or MLRA): <u>M</u>                        | ILRA 136 of LRR P                          | Lat: 36.5573158                         | Long: -79.616433  | Datum: WGS84               |
| Soil <b>Map</b> Unit Name: 23D                                    |  |   | NWI classifica  | tion: None                 |
| Are climatic/hydrologic condition                                 | is on the site typical for this time of ye |   | (If no, explain in Remark   | :s.)                       |
| Are Vegetation, Soil,   | or Hydrology significantly di              |   | al Circumstances" present?  | Yes 🟒 No                   |
| Are Vegetation, Soil,   | or Hydrology naturally prob                | lematic? (If needed,                    | explain any answers in Remar  | ·ks.)                      |
| SUMMARY OF FINDINGS – A   | Attach site map showing sampli             | ng noint locations, tran                | sects important feature   | s etc                      |
| Hydrophytic Vegetation Present                                    | · · · · ·                                  |   |   | <del></del>                |
| Hydric Soil Present?  | Yes 🟒 No                                   |   |   |                            |
| Wetland Hydrology Present?  | Yes No                                     | Is the Sampled Area withi               | n <b>a Wetlan</b> d?  | es No                      |
| Remarks:  |  |   |   |                            |
| Covertype is PEM. Area is wetlan                                  | nd, all three wetland parameters are រុ    | present.                                |   |                            |
| HYDROLOGY   |  |   |   |                            |
| Wetland Hydrology Indicators:                                     |  |   |   |                            |
| Primary indicators (minimum or                                    | one is required; check all that apply)     |   | Secondary Indicators (minimu  | <u>ım or two requirea)</u> |
| Surface Water (A1)  | True Aquatic Pla                           | nts (B14)                               | <ul><li>Surface Soil Cracks (B6)</li><li>Sparsely Vegetated Conca</li></ul> | ive Surface (B8)           |
| High Water Table (A2)   | Hydrogen Sulfid                            | e Odor (C1)                             | Drainage Patterns (B10)   | ve surrace (Bo)            |
| ✓ Saturation (A3)   | ·  | oheres on Living Roots (C3)             | Moss Trim Lines (B16)   |                            |
| Water Marks (B1)  | Presence of Red                            |   | Dry-Season Water Table (0   | <b>32</b> )                |
| Sediment Deposits (B2) Drift Deposits (B3)                        | Recent Iron Redi<br>Thin Muck Surfa        | uction in Tilled Soils (C6)             | Crayfish Burrows (C8)   |                            |
| Algal Mat or Crust (B4)   | Other (Explain in                          |   | Saturation Visible on Aeria   | al Imagery (C9)            |
| Iron Deposits (B5)  |  | , | Stunted or Stressed Plant   | s (D1)                     |
| Inundation Visible on Aerial                                      | Imagery (B7)                               |   | Geomorphic Position (D2)  |                            |
| Water-Stained Leaves (B9)   |  |   | Shallow Aquitard (D3)   |                            |
| Aquatic Fauna (B13)   |  |   | Microtopographic Relief (I  | <b>)4</b> )                |
|   |  |   | <u>✓</u> FAC-Neutral Test (D5)  |                            |
| Field Observations:   |  |   |   |                            |
| Surface Water Present?  | Yes No <u></u> ✓ Depth                     | (inches):                               |   |                            |
| Water Table Present?  | Yes No Depth                               | (inches):                               | Wetland Hydrology Present?  | Yes No                     |
| Saturation Present?   | Yes 🗸 No Depth                             | (inches): 0                             |   |                            |
| (includes capillary fringe)                                       |  |   |   |                            |
|   | n gauge, monitoring well, aerial photo     | s, previous inspections), if a          | available:  |                            |
| Remarks:  |  |   |   |                            |
| Remarks.  |  |   |   |                            |
|   |  |   |   |                            |
|   |  |   |   |                            |
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| · · · · · · · · · · · · · · · · · · ·               | •            |               |           |   |                |             |
|---|--------------|---------------|-----------|---|----------------|-------------|
| Troo Strature (Blot sizer 20v10)                    | Absolute     | Dominant      | Indicator | Dominance Test worksheet:                               |                |             |
| <u>Tree Stratum</u> (Plot size: <u>20x10)</u>       | % Cover      | Species?      | Status    | Number of Dominant Species That                         | 2              | (A)         |
| 1.  |              |               |           | Are OBL, FACW, or FAC:                                  |                | (A)         |
| 2.  |              |               |           | Total Number of Dominant Species Across All Strata:     | 2              | (B)         |
| 3   |              |               |           | Percent of Dominant Species That                        |                |             |
| 4   |              |               |           | - Are OBL, FACW, or FAC:                                | 100            | (A/B)       |
| 5   |              |               |           | Prevalence Index worksheet:                             |                |             |
| 6   |              |               |           | Total % Cover of:                                       | Multiply B     | v:          |
| 7   |              |               |           | - OBL species 80  | x 1 =          | 80          |
|   | 0            | _= Total Cove | er        | FACW species 51   | x 2 =          | 102         |
| 50% of total cover: <u>0</u>                        | _ 20% of to  | otal cover:   | 0         | FAC species 18  | x 3 =          | 54          |
| Sapling/Shrub Stratum (Plot size:10x5)              |              |               |           | FACU species 0  | × 4 =          | 0           |
| 1   |              |               |           | - UPL species 0   | x5=            | 0           |
| 2.  |              |               |           | Column Totals 149                                       | _              | 236 (B)     |
| 3.  |              |               |           |   |                | 230 (b)     |
| 4.  |              |               |           | Prevalence Index = B/A =                                | 1.6            |             |
| 5.  |              |               |           | Hydrophytic Vegetation Indicators:                      |                |             |
| 6.  |              |               |           | 1- Rapid Test for Hydrophytic \                         | /egetation     |             |
| 7.  |              |               |           | 2 - Dominance Test is >50%                              |                |             |
|   |              |               |           |   |                |             |
| 8.<br>9.  |              |               |           | -  4 - Morphological Adaptations                        | ¹ (Provide s   | upporting   |
| J   |              |               |           | - data in Remarks or on a separate sh                   | neet)          |             |
| 50% - francis                                       | -            | = Total Cove  |           | Problematic Hydrophytic Vege                            |                |             |
| 50% of total cover: 0                               | _ 20% of to  | otal cover:   | 0         | <sup>1</sup> Indicators of hydric soil and wetlan       | , 0.           | y must be   |
| Herb Stratum (Plot size: 5 )                        |              |               | 0.01      | present, unless disturbed or proble                     | matic          |             |
| 1. Carex lurida                                     | 80           | Yes           | OBL       | Definitions of Four Vegetation Strate                   | a:             |             |
| 2. Eupatorium perfoliatum                           | 35           | Yes           | FACW      | -   |                |             |
| 3. Parathelypteris noveboracensis                   | 15           | No            | FAC       | Tr <b>ee</b> – Woody plants, excluding vine             | s, 3 in. (7.6  | cm) or more |
| 4. Impatiens capensis                               | 15           | No_           | FACW      | in diameter at breast height (DBH),                     | regardless (   | of height.  |
| 5. <u>Dichanthelium clandestinum</u>                | 3            | No            | FAC       | _   |                |             |
| 6. <i>Phalaris arundinacea</i>                      | 1            | No            | FACW      | Sapling/shrub – Woody plants, exclu                     | uding vines,   | less than 3 |
| 7   |              |               |           | in. DBH and greater than or equal to                    | o 3.28 ft (1 i | m) tall.    |
| 8.  |              |               |           |   |                |             |
| 9.  |              |               |           | Herb – All herbaceous (non-woody)                       |                | ardless of  |
| 10.   |              |               |           | size, and woody plants less than 3.2                    | 8 ft tall.     |             |
| 11.   |              |               |           | -   |                |             |
|   | 149          | = Total Cove  | or .      | - <b>  Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.2   | 8 ft in     |
| 50% of total cover: 74.5                            |              | tal cover:    | 29.8      | height.   |                |             |
| Woody Vine Stratum (Plot size:20x10)                | _ 20 % 01 (0 | rai cover.    |           |   |                |             |
|   |              |               |           |   |                |             |
|   |              |               |           | -   |                |             |
| 2.  |              |               |           | -   | /              |             |
| 3   |              |               |           | Hydrophytic Vegetation Present?                         | yes ⊬ No ⊔     |             |
| 4   |              |               |           | -   |                |             |
| 5   |              |               |           | -   |                |             |
|   | 0            | = Total Cove  | er        |   |                |             |
| 50% of total cover: <u>0</u>                        | _ 20% of to  | otal cover:   |           |   |                |             |
| Remarks: (Include photo numbers here or on a separa | te sheet.)   |               |           |   |                |             |
| · · · · · · · · · · · · · · · · · · ·               | <b>,</b>     |               |           |   |                |             |
|   |              |               |           |   |                |             |
|   |              |               |           |   |                |             |
|   |              |               |           |   |                |             |
|   |              |               |           |   |                |             |
|   |              |               |           |   |                |             |
|   |              |               |           |   |                |             |
|   |              |               |           |   |                |             |

| Profile De<br>Depth | scription: (Describe )<br>Matrix                          | to t <b>he d</b> ep | th needed to docume<br>Redox | ent the i<br>Feature |                           | or confi   | rm the absenc    | ce of indicators.)                                |                                    |
|---------------------|---|---------------------|------------------------------|----------------------|---------------------------|------------|------------------|---|------------------------------------|
| (inches)            | Color (moist)   | %                   | Color (moist)                | %                    | Тур <b>е¹</b>             | Loc²       |                  | Te <b>xture</b>                                   | Remarks                            |
| 0 - 1               | 10YR 4/4  | 100                 |                              |                      |                           |            |                  | Clay Loam   | -                                  |
| 1 - 14              | 10YR 4/2  | 70                  | 7.5YR 3/4                    | 25                   | С С                       | M/PL       | -                | Clay  |                                    |
| 1 - 14              | 1011(4)2  |                     | 10YR 5/6                     | 5                    |                           | M          | ·                | ciay  | -                                  |
| l —— -              | 1.0VD 4/1   |                     |                              |                      | - —                       |            |                  |   |                                    |
| 14 - 18             | 10YR 4/1  | 93                  | 10YR 5/6                     | 5                    | . <u> </u>                | M_         |                  |   |                                    |
| 14 - 18             |   | · ——                | 7.5YR 3/4                    | 2                    | C                         | M          |                  | Clay  | . ———                              |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   | _                                  |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   | _                                  |
| -                   |   |                     |                              |                      |                           |            |                  |   |                                    |
| ¹Type: C =          | Concentration, D = I                                      | Depletion,          | RM = Reduced Matri:          | x, MS =              | Masked :                  | Sand Gra   | ains. ²Locatio   | on: PL = Pore Lining, M =                         | = Matrix.                          |
| Hydric Soi          | l Indicators:   |                     |                              |                      |                           |            |                  | Indicators for Problem                            | natic Hydric Soils³:               |
| _ Histosol          |   |                     | _ Dark S                     | urface (             | S7)                       |            |                  |   | -                                  |
| _                   | ipedon (A2)   |                     | Polyva                       | lue Belo             | w Surface                 |            | LRA 147, 148)    | 2 cm Muck (A10) (I                                |                                    |
| _ Black Hi          |   |                     |                              |                      | face (S9) <b>(</b>        |            | 7, 148)          |   | x (A16) (MLRA 147, 148)            |
|                     | en Sulfide (A4)   |                     |                              | -                    | Matrix (F                 | 2)         |                  |   | ain Soils (F19) <b>(MLRA 1</b> 36, |
| _                   | d Layers (A5)   |                     | <u> </u> Deple               |                      |                           | •          |                  | 147)  | E E (TE4.3)                        |
| _                   | ick (A10) <b>(</b> LR <b>R N)</b><br>d Below Dark Surface | (411)               |                              |                      | urface (F6)<br>«Surface ( |            |                  | Very Shallow Dark                                 |                                    |
|                     | ark Surface (A12)   | (A11)               |                              |                      | sions (F8)                |            |                  | Other (Explain in R                               | emarks)                            |
|                     | lucky Mineral (S1) <b>(</b> LR                            | R N, MLRA           | 147, 148) Iron-M             | langane              | se Masse                  | s (F12) (L | .RR N, MLRA 13   | <sup>6</sup> ) <sub>3</sub> Indicators of hydroph |                                    |
| _                   | leyed Matrix (S4)   |                     | Umbri                        | c Surfac             | e (F13) (N                | ILRA 136   | i, 122)          | andicators of nydropr                             | nytic vegetation and               |
| Sandy R             | edox (\$5)  |                     | Piedm                        | ont Floo             | dplain Sc                 | ils (F19)  | (MLRA 148)       | wetland hydrology mu                              |                                    |
| Stripped            | l Matrix (S6)   |                     | _ Red Pa                     | arent Ma             | aterial (F2               | 1) (MLRA   | <b>127, 147)</b> | disturbed or problem                              | atic.                              |
| Restrictive         | Layer (if observed):                                      | ;                   |                              |                      |                           |            |                  |   |                                    |
| -                   | Туре:   |                     | None                         |                      |                           | Hydric     | Soil Present?    |   | Yes ☑ No □                         |
|                     | Depth (inches):   |                     |                              |                      |                           |            |                  |   |                                    |
| Remarks:            |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
| 1                   |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |
|                     |   |                     |                              |                      |                           |            |                  |   |                                    |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                    | City/County:_ Danville, Pit               | tsylvania C Sam <b>p</b> lin <b>g</b>     | Date: 2018-July-30  |                            |
|--|---|---|---|----------------------------|
| Appl <b>ica</b> nt <b>/O</b> wner: NextEra     |   | State: VA                                 | Sampling Point: W   | -F18-60_UPL-1              |
| nvestigator(s): Beth Clements,                 | JDF                                       | Section, Township,                        | Range:  |                            |
| Landform (hillslope, terrace, etc.):           | : Hillslope                               | Local relief (concave, conve              | ex, none): Concave  | Slop <b>e (%</b> ):1 to 10 |
| Su <b>bre</b> gi <b>o</b> n (LRR or MLRA): M   | ILRA 136 of LRR P                         | <b>L</b> at: 36.5573446                   | Long: -79.616354  | D <b>atu</b> m: WGS84      |
| Soil <b>Map</b> Unit Name: <u>34B</u>          |   |   | NWI classifica  | tion: None                 |
| Are climatic/hydrologic conditions             | s on the site typical for this time of ye |   | (If no, explain in Remark   | s.)                        |
| Are Vegetation, Soil,                          | or Hydrology significantly dis            |   | al Circumstances" present?  | Yes 🟒 No                   |
| Are Vegetation, Soil,                          | or Hydrology naturally probl              | ematic? (If needed,                       | explain any answers in Remar  | ·ks.)                      |
| SUMMARY OF FINDINGS – A                        | ttach site map showing samplin            | ng point locations, tran                  | sects, important feature  | s, etc.                    |
| Hydrophytic Vegetation Present?                |   |   |   |                            |
| Hydric Soil Present?                           | Yes No _ <b>_/</b> _                      |   |   |                            |
| Wetland Hydrology Present?                     | Yes No _ <b>_∠</b>                        | Is the Sampled Area with                  | in a Wetland?   | Yes No/_                   |
| Covertype is UPL. Area is upland,              | , not all three wetland parameters are    | e present.                                |   |                            |
| HYDROLOGY                                      |   |   |   |                            |
| Wetland Hydrology Indicators:                  |   |   |   |                            |
| Primary indicators (minimum or                 | one is required; check all that apply)    |   | Secondary Indicators (minimu  | um ortwo requireaj         |
| Surface Water (A1)                             | True Aquatic Plar                         | nts (B14)                                 | <ul><li>Surface Soil Cracks (B6)</li><li>Sparsely Vegetated Conca</li></ul> | we Surface (B8)            |
| High Water Table (A2)                          | Hydrogen Sulfide                          |   | Drainage Patterns (B10)   | ive surface (50)           |
| Saturation (A3)                                |   | heres on Living Roots (C3)                | Moss Trim Lines (B16)   |                            |
| Water Marks (B1)                               | Presence of Redu                          |   | Dry-Season Water Table (G   | C2)                        |
| Sediment Deposits (B2)                         |   | iction in Tilled Soils (C6)               | Crayfish Burrows (C8)   |                            |
| Drift Deposits (B3)<br>Algal Mat or Crust (B4) | Thin Muck Surfac<br>Other (Explain in     |   | Saturation Visible on Aeria   | al Imagery (C9)            |
| Iron Deposits (B5)                             | Gener (Explain in                         | remarks                                   | Stunted or Stressed Plants  | s (D1)                     |
| Inundation Visible on Aerial                   | Imagery (B7)                              |   | Geomorphic Position (D2)  |                            |
| Water-Stained Leaves (B9)                      |   |   | Shallow Aquitard (D3)   |                            |
| Aquatic Fauna (B13)                            |   |   | Microtopographic Relief (I  | D <b>4</b> )               |
|  |   |   | FAC-Neutral Test (D5)   |                            |
| Field Observations:                            |   |   |   |                            |
| Surface Water Present?                         | Yes No Depth                              | (inches):                                 |   |                            |
| Water Table Present?                           | Yes No Depth                              | (inches):                                 | Wetland Hydrology Present?  | Yes No <b>∠</b>            |
| Saturation Present?                            | Yes No <u></u> ✓ Depth                    | (inches):                                 |   |                            |
| (includes capillary fringe)                    |   |   |   |                            |
|  | gauge, monitoring well, aerial photos     | s, previous inspections), if a            | vailable:   |                            |
| 00.000   | Sauge, Montes in great, and process       | , <b>p</b> . 201325 1115 pateron 15, 11 3 |   |                            |
| Remarks:                                       |   |   |   |                            |
|  |   |   |   |                            |
|  |   |   |   |                            |
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|  |   |   |   |                            |
|  |   |   |   |                            |
|  |   |   |   |                            |
|  |   |   |   |                            |

| ree Stratum (Plot size: <u>30)</u>  |             | Dominant<br>Species? | Indicator Status    | Dominance Test worksheet: Number of Dominant Species That     | 6               | (A)         |
|-------------------------------------|-------------|----------------------|---------------------|---|-----------------|-------------|
| Liriodendron tulipifera             | 15          | Yes                  | FACU                | Are OBL, FACW, or FAC:  |                 | (A)         |
| Salix nigra                         | 8           | Yes                  | OBL                 | Total Number of Dominant Species                              | 8               | (B)         |
|                                     |             |                      |                     | Across All Strata:  |                 |             |
|                                     |             |                      |                     | Percent of Dominant Species That                              | 75              | (A/B)       |
|                                     |             |                      |                     | Are OBL, FACW, or FAC:  |                 |             |
|                                     |             |                      |                     | Prevalence Index worksheet:                                   | B. B. Jahrele   | D           |
|                                     |             |                      |                     | Total % Cover of:   | <u>Multiply</u> | -           |
|                                     | 23          | = Total Cover        |                     | OBL species 18  | x 1 = _         | 18          |
| 50% of total cover:11.5             | 20% of to   | tal cover:           | 4.60000000000000005 | FACW species 30   | ×2= -           | 60          |
| apling/Shrub Stratum (Plot size:15_ |             |                      |                     | FAC species 123   | x3= -           | 369         |
| Ulmus rubra                         | 8           | Yes                  | FAC                 | FACU species 42   | × 4 =           | 168         |
|                                     |             |                      |                     | UPL species 0   | x5=_            | 0           |
|                                     |             |                      |                     | Column Totals 213   | (A) _           | 615 (B)     |
|                                     |             |                      |                     | Prevalence Index = B/A =                                      | 2.9             |             |
|                                     |             |                      |                     | Hydrophytic Vegetation Indicators:                            |                 |             |
|                                     |             |                      |                     | 1- Rapid Test for Hydrophytic \                               | egetation       | ı           |
|                                     |             |                      |                     | 2 - Dominance Test is >50%                                    |                 |             |
|                                     |             |                      |                     | 3 - Prevalence Index is ≤ 3.01                                |                 |             |
|                                     |             |                      |                     | -  4 - Morphological Adaptations                              | (Provide        | supporting  |
|                                     |             |                      |                     | – data in Remarks or on a separate sh                         | eet)            |             |
|                                     | 8           | = Total Cover        |                     | Problematic Hydrophytic Vege                                  | tation¹ (Ex     | (plain)     |
| 50% of total cover: <u>4</u>        | _ 20% of to | tal cover:           | 1.6                 | Indicators of hydric soil and wetlan                          | d hydrolo       | gy must be  |
| erb Stratum (Plot size: _ 5 _)      |             |                      |                     | present, unless disturbed or proble                           | matic           |             |
| Verbesina alternifolia              | 30          | <u>Yes</u>           | FAC                 | ■ Definitions of Four Vegetation Strata                       | a:              |             |
| Dichanthelium clandestinum          | 30          | Yes                  | FAC                 | -   |                 |             |
| Dichanthelium scoparium             | 25          | Yes                  | FACW                | Tr <b>ee</b> – Woody plants, excluding vine                   | s, 3 in. (7.6   | 5 cm) or mo |
| Carex lurida                        | 10          | No                   | OBL                 | in diameter at breast height (DBH), i                         | egardless       | of height.  |
| Dichanthelium dichotomum            | 10          | No                   | FAC                 | _   |                 |             |
| Euthamia graminifolia               | 10          | No                   | FAC                 | Sapling/shrub – Woody plants, exclu                           | •               |             |
| Eupatorium capillifolium            | 5           | No                   | FACU                | in. DBH and greater than or equal to                          | 3.28 ft (1      | m) tall.    |
| Oxalis stricta                      | 5           | No                   | FACU                | _   |                 |             |
| Hypericum mutilum                   | 3           | No                   | FACW                | Herb – All herbaceous (non-woody)                             |                 | gardless of |
| ). Eupatorium perfoliatum           | 2           | No No                | FACW                | size, and woody plants less than 3.2                          | 8 ft tall.      |             |
| 1 . Rubus argutus                   | 2           | No No                | FACU                | -   |                 |             |
|                                     | 132         | = Total Cover        |                     | -  <br>  <b>Wo</b> od <b>y vine</b> s – All woody vines great | er than 3       | .28 ft in   |
| 50% of total cover: <u>66</u>       |             | •                    | 26.4                | height.   |                 |             |
| /oody Vine Stratum (Plot size: 30 ) |             |                      |                     |   |                 |             |
| Smilax rotundifolia                 | 35          | Yes                  | FAC                 |   |                 |             |
| Lonicera japonica                   | 15          | Yes                  | FACU                | -   |                 |             |
| zomecra japomea                     |             | 165                  | 17.00               | <ul> <li>Hydrophytic Vegetation Present? \( \)</li> </ul>     | ∕es ☑ No [      | 7           |
|                                     |             |                      |                     | -   | 35 ± 110 l      | _           |
|                                     |             |                      |                     | -   |                 |             |
|                                     |             |                      |                     | -   |                 |             |
|                                     |             | - Total Cayou        |                     |   |                 |             |
|                                     |             | = Total Cover        | -<br>10             |   |                 |             |

| Profile Des<br>Depth | cription: (Describe to<br>Matrix           | o t <b>he d</b> ept | h n <b>eed</b> ed to | documer<br>Redox I     |           |                     | or confir        | m the absenc              | e of indicators.)               |   |
|----------------------|--|---------------------|----------------------|------------------------|-----------|---------------------|------------------|---------------------------|---------------------------------|---|
|                      |  |                     | Calan/m              |                        |           |                     | 17               |                           | Tardura                         | Domenica                                    |
| (inches)             | Color (moist)                              |                     | Color (mo            | oist)                  | _%_       | Type¹               | Loc²             |                           | Texture                         | Remarks                                     |
| 0 - 9                | 7.5YR 4/4                                  | <u> 100</u> -       |                      |                        |           |                     |                  |                           | Clay                            |   |
| 9 - 18               | 10YR 4/4                                   | 98                  | 10YR 4               | /6                     | 2         | C                   | <u>M</u>         |                           | Clay                            |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
| -                    |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 | _   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 | -   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 | . <del></del>                               |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
| ¹Type: C =           | Concentration, D = D                       | epletion,           | RM = Reduce          | ed Matrix,             | , MS = 1  | Masked S            | and Gra          | ins. <sup>z</sup> Locatio | on: PL = Pore Lining, M         | = Matrix.                                   |
| Hydric Soil          | Indicators:                                |                     |                      |                        |           |                     |                  |                           | Indicators for Probler          | natic Hydric Soils <sup>3</sup> :           |
| _ Histosol           |  |                     |                      | _ Dark Su              | ırface (S | 57)                 |                  |                           |                                 | •   |
| _                    | pedon (A2)                                 |                     |                      |                        |           |                     | (S8) <b>(M</b> L | RA 147, 148)              | 2 cm Muck (A10) (               |   |
| Black His            |  |                     |                      |                        |           | ace (S9) <b>(</b> N |                  |                           |                                 | ox (A16) (MLRA 147, 148)                    |
|                      | n Sulfide (A4)                             |                     | -                    | _                      | -         | Matrix (F2          | .)               |                           |                                 | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
|                      | Layers (A5)                                |                     |                      | _ Deplete              |           |                     |                  |                           | 147)                            | E 5 (TE40)                                  |
|                      | ck (A10) (LRR N)                           |                     | -                    | _ Redox [              |           |                     |                  |                           | Very Shallow Dark               |   |
|                      | l Below Dark Surface (<br>rk Surface (A12) | (ATT)               | -                    | _ Deplete<br>_ Redox [ |           | Surface (F          | -7)              |                           | Other (Explain in l             | Remarks)                                    |
|                      | ucky Mineral (S1) <b>(</b> LRF             | RN MIRA             | 147 148)             | _ Iron-Ma              | nganes    | se Masses           | (E12) (LE        | R N MIRA 13               | 6)                              |   |
|                      | eyed Matrix (S4)                           | tre, microt         | , 10,                | Umbric                 | Surface   | e (F13) ( <b>M</b>  | LR <b>A 136.</b> | 122)                      | <b>6)</b> ₃Indicators of hydrop | hytic vegetation and                        |
| Sandy Re             | •  |                     | -                    |                        |           |                     |                  | MLRA 148)                 |                                 | ust be present, unless                      |
| _                    | Matrix (S6)                                |                     | -                    |                        |           | terial (F21         |                  |                           | disturbed or problem            | natic.                                      |
| Restrictive          | Layer (if observed):                       |                     |                      |                        |           |                     |                  |                           |                                 |   |
| 7                    | ype:                                       |                     | None                 |                        |           |                     | Hydric :         | Soil <b>Present?</b>      |                                 | Yes □ No ☑                                  |
|                      | Depth (inches):                            |                     |                      |                        |           |                     | -                |                           |                                 |   |
| Remarks:             |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
| Kemarks.             |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |
|                      |  |                     |                      |                        |           |                     |                  |                           |                                 |   |

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                         | City/County:_ Cascade, F                 | Pittsylvania Sam <b>p</b> lii | n <b>g D</b> ate: 201 | 8-Aug-06                   |                             |
|---|--|-------------------------------|-----------------------|----------------------------|-----------------------------|
| Applicant/Owner: NextEra                            |  | State: Vir                    | ginia                 | Sampling Point: W-C1       | 8-87_PFO-2                  |
| Investigator(s): Don Lockwood,                      | , Simon King, Don Lockwood               | Section, Townsh               | ip, Range:            |                            |                             |
| Landform (hillslope, terrace, etc.):                | : Depression                             | Local relief (concave, co     | nvex, none):          | Concave                    | Slop <b>e (%</b> ): 1 to 10 |
| Subregion (LRR or MLRA): M                          | ILRA 136 of LRR P                        | Lat: 36.551315                | 55 Long               | : -79.6155317              | Datum: WGS84                |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> :Mayodan | ı fine sandy loam                        |                               |                       | NWI classification         | n:                          |
| Are climatic/hydrologic condition:                  | s on the site typical for this time of y | rear? Yes 🔽 i                 | No (If no             | o, explain in Remarks.)    |                             |
| Are Vegetation, Soil,                               | or Hydrology significantly d             | disturbed? Are "Nor           | mal Circumst          | tances" present?           | Yes 🟒 No                    |
| Are Vegetation, Soil,                               | or Hydrology naturally prob              | blematic? (If neede           | ed, explain an        | ny answers in Remarks.]    | )                           |
|   |  |                               |                       |                            |                             |
| SUMMARY OF FINDINGS – A                             | ttach site map showing sampl             | ling point locations, tr      | ansects, in           | ာportant features, ေ       | etc.                        |
| Hydrophytic Vegetation Present?                     | ? Yes _ <b>√</b> _ No                    |                               |                       |                            |                             |
| Hydric Soil Present?                                | Yes _ 🗸 No                               |                               |                       |                            |                             |
| Wetland Hydrology Present?                          | Yes No                                   | Is the Sampled Area wi        | thin a Wetlan         | nd? Yes                    | No                          |
| Remarks:  | 103 <u>y</u> 110                         | is the sampled in ca wi       | anna rreadn           | 165_                       | <u></u>                     |
| Remarks.  |  |                               |                       |                            |                             |
|   |  |                               |                       |                            |                             |
|   |  |                               |                       |                            |                             |
| Covertype is PFO. Area is wetland                   | d, all three wetland parameters are p    | present.                      |                       |                            |                             |
|   |  |                               |                       |                            |                             |
|   |  |                               |                       |                            |                             |
|   |  |                               |                       |                            |                             |
|   |  |                               |                       |                            |                             |
| HYDROLOGY   |  |                               |                       |                            |                             |
| Wetland Hydrology Indicators:                       |  |                               |                       |                            |                             |
| Primary Indicators (minimum of                      | one is required; check all that apply)   | )                             | Secondar              | y Indicators (minimum      | of two required)            |
|   |  |                               | Surfac                | ce Soil Cracks (B6)        |                             |
| Surface Water (A1)                                  | True Aquatic Pla                         |                               | Sparse                | ely Vegetated Concave :    | Surface (B8)                |
| High Water Table (A2)                               | Hydrogen Sulfic                          |                               | -31                   | age Patterns (B10)         |                             |
| Saturation (A3)<br>Water Marks (B1)                 | Oxidized Rhizos<br>Presence of Rec       | spheres on Living Roots (C    | 141033                | Trim Lines (B16)           |                             |
| Sediment Deposits (B2)                              |  | duction in Tilled Soils (C6)  | -                     | eason Water Table (C2)     |                             |
| Drift Deposits (B3)                                 | Thin Muck Surfa                          |                               | -                     | sh Burrows (C8)            |                             |
| Algal Mat or Crust (B4)                             | Other (Explain i                         |                               | Satura                | ation Visible on Aerial In | nagery (C9)                 |
| Iron Deposits (B5)                                  |  | ·                             | Stunte                | ed or Stressed Plants (D   | 1)                          |
| Inundation Visible on Aerial                        | Imagery (B7)                             |                               |                       | orphic Position (D2)       |                             |
| Water-Stained Leaves (B9)                           |  |                               | Shallo                | w Aquitard (D3)            |                             |
| Aquatic Fauna (B13)                                 |  |                               | Microt                | topographic Relief (D4)    |                             |
|   |  |                               | FAC-N                 | eutral Test (D5)           |                             |
| Field Observations:                                 |  |                               |                       |                            |                             |
| Surface Water Present?                              | Yes No 🟒 Depti                           | h (inches):                   |                       |                            |                             |
| Water Table Present?                                | Yes 🚣 No Dept                            | h (inches): 6                 | Wetland H             | Hydrology Present?         | Yes _ <b>∠</b> _ No         |
| Saturation Present?                                 | Yes <u></u> ✓ No Depti                   | h (inches): 0                 |                       |                            |                             |
| (includes capillary fringe)                         |  |                               |                       |                            |                             |
|   | gauge, monitoring well, aerial photo     | os previous inspections)      | if available          |                            |                             |
| best he recorded batta (se tall                     | Sassa, montes in grant, de la proce      | os, pravious inspuderons,     | ii draiiabia.         |                            |                             |
|   |  |                               |                       |                            |                             |
| Remarks:  |  |                               |                       |                            |                             |
| Kemarks.  |  |                               |                       |                            |                             |
|   |  |                               |                       |                            |                             |
|   |  |                               |                       |                            |                             |
| A positive indication of wetland b                  | hydrology was observed (primary an       | nd secondary indicators w     | ere present)          |                            |                             |
| 7. positive material of Wedana 1                    | iyarorogy was observed (primary ari      | ia secondary maleators w      | ere preserro.         |                            |                             |
|   |  |                               |                       |                            |                             |
|   |  |                               |                       |                            |                             |

|  | •               |              |            | 1  |              |             |
|--|-----------------|--------------|------------|--|--------------|-------------|
| Tree Stratum (Plot size:30)                          |                 | Dominant     |            | Dominance Test worksheet:                              |              |             |
|  |                 | Species?     | Status     | Number of Dominant Species That Are OBL, FACW, or FAC: | 3            | (A)         |
| Quercus phellos     Liquidambar styraciflua          | <u>60</u><br>20 | Yes Yes      | FAC<br>FAC | Total Number of Dominant Species                       |              | — (D)       |
| 3. Acer rubrum                                       | 5               | No No        | FAC        | Across All Strata:                                     | 3            | (B)         |
| 4.   |                 |              | 1710       | Percent of Dominant Species That                       | 100          | (A/B)       |
| 5.   |                 |              |            | Are OBL, FACW, or FAC:                                 |              |             |
| 6.   | -               |              |            | Prevalence Index worksheet:                            |              |             |
| 7.   |                 |              |            | Total % Cover of:                                      | Multiply B   | -           |
|  | 85              | = Total Cov  | er         | OBL species 0 FACW species 0                           | x1=          | 0 0         |
| 50% of total cover: <u>42.5</u>                      | _20% of to      | tal cover:   | 17         | FAC species 100  | x2= _<br>x3= | 300         |
| Sapling/Shrub Stratum (Plot size:15)                 |                 |              |            | FACU species 0   | ×4=          | 0           |
| 1. Liquidambar styraciflua                           | 15              | Yes          | FAC        | UPL species 0  | x5=          | 0           |
| 2  |                 |              |            | Column Totals 100                                      | (A)          | 300 (B)     |
| 3.   |                 |              |            | Prevalence Index = B/A =                               | · · · —      | 500 (B)     |
| 4  |                 |              |            | Hydrophytic Vegetation Indicators:                     |              |             |
| 5  |                 |              |            | 1- Rapid Test for Hydrophytic \                        | /egetation   |             |
| 6.   |                 |              |            | ✓ 2 - Dominance Test is >50%                           | regetation   |             |
| 7  |                 |              |            | 3 - Prevalence Index is ≤ 3.01                         |              |             |
| 8  |                 |              |            | 4 - Morphological Adaptations                          | ¹ (Provide s | upporting   |
| 9  |                 |              |            | data in Remarks or on a separate sh                    | neet)        |             |
|  |                 | = Total Cov  |            | Problematic Hydrophytic Vege                           | tation¹ (Exp | olain)      |
| 50% of total cover: <u>7.5</u>                       | _ 20% of to     | tal cover:   | 3          | ¹Indicators of hydric soil and wetlan                  | , 0          | y must be   |
| Herb Stratum (Plot size: 5 )                         |                 |              |            | present, unless disturbed or proble                    |              |             |
| 1.   |                 |              |            | Definitions of Four Vegetation Strate                  | 3:           |             |
| 2.   |                 |              |            | · <u> </u>   |              |             |
| 3.   |                 |              |            | Tree – Woody plants, excluding vine                    |              |             |
| 4<br>5.  |                 |              |            | in diameter at breast height (DBH),                    | egardiess    | or neight.  |
| -  |                 |              |            | .  <br>  <b>Sapling/shrub</b> – Woody plants, exclu    | ıding vinas  | lace than 3 |
| 7.   | -               |              |            | in. DBH and greater than or equal to                   | _            |             |
| 9  |                 |              |            | .  |              | ,           |
|  |                 |              |            | Herb – All herbaceous (non-woody)                      | plants, reg  | ardless of  |
| 10.  |                 |              |            | size, and woody plants less than 3.2                   | 8 ft tall.   |             |
| 11.  |                 |              |            |  |              |             |
| '  |                 | = Total Cove |            | <b>Wo</b> od <b>y vine</b> s – All woody vines grea    | ter than 3.2 | 28 ft in    |
| 50% of total cover: <u>0</u>                         | 20% of to       |              | 0          | height.  |              |             |
| Woody Vine Stratum (Plot size:30_)                   | _ 20 % 01 10    | car cover.   |            |  |              |             |
| 1  |                 |              |            |  |              |             |
| 2.   | -               |              |            | •  |              |             |
| 3.   |                 |              |            | Hydrophytic Vegetation Present?                        | ∕es ☑ No □   | ]           |
| 4.   |                 |              |            |  |              |             |
| 5.   |                 |              |            |  |              |             |
|  | 0               | = Total Cov  | er         | •  |              |             |
| 50% of total cover: <u>0</u>                         | 20% of to       | tal cover:   | 0          |  |              |             |
| Remarks: (Include photo numbers here or on a separat | e sheet )       |              |            |  |              |             |
|  | ,               |              |            |  |              |             |
|  |                 |              |            |  |              |             |
|  |                 |              |            |  |              |             |
|  |                 |              |            |  |              |             |
|  |                 |              |            |  |              |             |
|  |                 |              |            |  |              |             |
|  |                 |              |            |  |              |             |

|                     | scription: (Describe t                             | o t <b>he d</b> ep | th n <b>eeded to</b> d |                 |                                  | or confir          | m the absend              | ce of indicators.)                                |   |
|---------------------|--|--------------------|------------------------|-----------------|----------------------------------|--------------------|---------------------------|---|---|
| Depth _             | Matrix   |                    | C-l/                   | Redox Fea       |                                  | 17                 |                           | T-144.100   | Damanla                                     |
| (inches)            | Color (moist)                                      |                    | Color (moi             | st)             | % Type¹                          | Loc <sup>2</sup>   |                           | Texture   | Remarks                                     |
| 0-2                 | 10YR 2/1   | 100_               |                        |                 |                                  | - ——               |                           | Silt Loam   |   |
| 2 - 18              | 10YR 5/2   | 80                 | 7.5YR 5/6              | 5 _ 2           | 20 C                             | M                  |                           | Sandy Loam  |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
| <del></del>         |  | · —— ·             |                        |                 |                                  |                    |                           |   | -   |
|                     |  | · —— ·             |                        |                 |                                  |                    |                           |   | - <del> </del>                              |
|                     |  | · —— ·             |                        |                 |                                  | - ——               |                           |   | - <del> </del>                              |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
| ¹Type: C =          | Concentration, D = [                               | Depletion,         | RM = Reduced           | d Matrix, M     | iS = Masked                      | Sand Gra           | ins. <sup>2</sup> Locatio | on: PL = Pore Lining, M =                         | = Matrix.                                   |
| Hydric Soil         | Indicators:  |                    |                        |                 |                                  |                    |                           | Indicators for Problem                            | natic Hydric Soils³:                        |
| _ Histosol          |  |                    |                        | Dark Surfa      | ace (\$7)                        |                    |                           |   | -   |
| _                   | ipedon (A2)  |                    | _                      |                 | Below Surfac                     | e (S8) <b>(M</b> L | RA 147, 148)              | 2 cm Muck (A10) (N                                |   |
| Black His           |  |                    | _                      |                 | Surface (S9)                     |                    |                           |   | x (A16) (MLRA 147, 148)                     |
| Hydroge             | n Sulfide (A4)                                     |                    |                        |                 | yed Matrix (F                    |                    |                           |   | ain Soils (F19) <b>(ML</b> R <b>A 13</b> 6, |
| Stratified          | l Layers (A5)                                      |                    |                        | Depleted I      | Matrix (F3)                      |                    |                           | 147)  |   |
|                     | ck (A10) <b>(</b> LR <b>R N)</b>                   |                    |                        |                 | k Surface (F6                    |                    |                           | Very Shallow Dark                                 | Surface (TF12)                              |
|                     | Below Dark Surface                                 | (A11)              |                        |                 | Dark Surface                     |                    |                           | Other (Explain in R                               | temarks)                                    |
|                     | rk Surface (A12)                                   |                    | _                      | _Redox De       | oressions (F8)                   | )                  |                           |   |   |
|                     | ucky Mineral (S1) <b>(</b> LRI<br>eyed Matrix (S4) | R N, MLRA          | 147, 148)              | _ Iron-Mang     | ganese Masse                     | 'S (F1Z) (LI       | RR N, MLRA 13             | <sup>6</sup> ) <sub>3</sub> Indicators of hydroph | nytic vegetation and                        |
| Sandy G<br>Sandy Re |  |                    | _                      | _ 0             | ırface (F13) (N<br>Floodplain Sc |                    | ,                         | wetland hydrology mเ                              | ust be present, unless                      |
| _                   | Matrix (S6)  |                    | _                      |                 | t Material (F2                   |                    |                           | disturbed or problem                              | atic.                                       |
|                     |  |                    |                        | _ IXCU I di Cii | ic Maccillai (i z                |                    | 121, 171                  |   |   |
|                     | Layer (if observed):                               |                    | N. 1                   |                 |                                  | l                  |                           |   |   |
|                     | Гуре:  |                    | None                   |                 |                                  | Hydric             | Soil Present?             |   | Yes ☑ No □                                  |
|                     | Depth (inches):                                    |                    |                        |                 |                                  |                    |                           |   |   |
| Remarks:            |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |
|                     |  |                    |                        |                 |                                  |                    |                           |   |   |

Hydrology Photos



Vegetation Photos





Photo of Sample Plot North



Photo of Sample Plot East



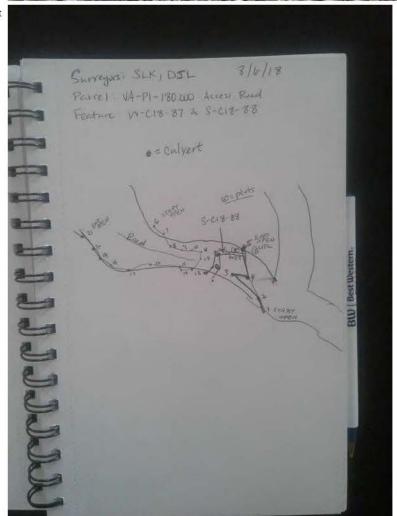
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                                 | City/County:_Cascade, Pi                | ttsylvania Sam <b>p</b> lin <b>g</b> | Date: 2018-Aug-06   |                             |  |  |
|---|---|--------------------------------------|---|-----------------------------|--|--|
| Applicant/Owner: NextEra                                    |   | State: Virgir                        | nia Sampling Point: \   | <i>N</i> -C18-87_UPL-1      |  |  |
| Investigator(s): Don Lockwood,                              | Simon King                              | Section, Township,                   | Range:  |                             |  |  |
| Landform (hillslope, terrace, etc.):                        | Foot slope                              | Local relief (concave, conv          | ex, none): Convex   | Slop <b>e (%</b> ): 1 to 10 |  |  |
| Subregion (LRR or MLRA): M                                  | LRA 136 of LRR P                        | Lat: 36.5513222                      | Long: -79.6155115   | Datum: WGS84                |  |  |
| Soil <b>Map</b> Unit Name: Bolling fin                      | ie sandy loam                           |                                      | NWI dassific  | ation:                      |  |  |
| Are climatic/hydrologic conditions                          | on the site typical for this time of ye | ear? Yes 🟒 No                        | (If no, explain in Remar  | ·ks.)                       |  |  |
| Are Vegetation, Soil,                                       | or Hydrology significantly di           | sturbed? Are "Norma                  | al Circumstances" present?  | Yes 🟒 No                    |  |  |
| Are Vegetation, Soil,                                       | or Hydrology naturally prob             | lematic? (If needed,                 | explain any answers in Rema   | arks.)                      |  |  |
|   |   |                                      |   |                             |  |  |
| SUMMARY OF FINDINGS – At                                    | ttach site map showing sampli           | ng point locations, trar             | nsects, important feature   | es, etc.                    |  |  |
| Hydrophytic Vegetation Present?                             |   | <br>                                 | <u> </u>  |                             |  |  |
| Hydric Soil Present?  | Yes No _ <b>_/</b> _                    |                                      |   |                             |  |  |
|   |   | Is the Carpoled Area within          | n a Motland?  | Voc. No. /                  |  |  |
| Wetland Hydrology Present?                                  | Yes No _ <b>✓</b>                       | Is the Sampled Area withi            | n a vveuano:  | Yes No/                     |  |  |
| Remarks:  |   |                                      |   |                             |  |  |
|   |   |                                      |   |                             |  |  |
|   |   |                                      |   |                             |  |  |
| Covertype is UPL. Area is upland,                           | not all three wetland parameters ar     | e present.                           |   |                             |  |  |
|   | ·                                       | ,                                    |   |                             |  |  |
|   |   |                                      |   |                             |  |  |
|   |   |                                      |   |                             |  |  |
|   |   |                                      |   |                             |  |  |
| HYDROLOGY   |   |                                      |   |                             |  |  |
| Wetland Hydrology Indicators:                               |   |                                      |   |                             |  |  |
|   | one is required; check all that apply)  |                                      | Secondary Indicators (minin   | num of two required)        |  |  |
| Frimaly indicators (minimum or c                            | one is required, check all chacappigs   |                                      | Surface Soil Cracks (B6)  | idili oi two required)      |  |  |
| Surface Water (A1)  | True Aquatic Pla                        | nts (B14)                            | Sparsely Vegetated Cond   | ave Surface (B8)            |  |  |
| High Water Table (A2)                                       | Hydrogen Sulfide                        | e Odor (C1)                          | Drainage Patterns (B10)   | .ave sarrace (bo)           |  |  |
| Saturation (A3)   | Oxidized Rhizos                         | oheres on Living Roots (C3)          | Moss Trim Lines (B16)   |                             |  |  |
| Water Marks (B1)  | Presence of Red                         | uced Iron (C4)                       | Dry-Season Water Table (C2)   |                             |  |  |
| Sediment Deposits (B2)                                      |   | uction in Tilled Soils (C6)          | Crayfish Burrows (C8)   |                             |  |  |
| Drift Deposits (B3)   | Thìn Muck Surfa                         |                                      | Saturation Visible on Aer   | ial Imagery (C9)            |  |  |
| Algal Mat or Crust (B4)                                     | Other (Explain ir                       | i Remarks)                           | e   | (D4)                        |  |  |
| Iron Deposits (B5)  | les (D7)                                |                                      | Stunted or Stressed Plan  |                             |  |  |
| Inundation Visible on Aerial I<br>Water-Stained Leaves (B9) | magery (B7)                             |                                      | <ul><li>Geomorphic Position (D2</li><li>Shallow Aquitard (D3)</li></ul> | 2)                          |  |  |
| Aguatic Fauna (B13)   |   |                                      | Microtopographic Relief   | (D4)                        |  |  |
|   |   |                                      | FAC-Neutral Test (D5)   | (5.7)                       |  |  |
| Field Observations:   |   |                                      |   |                             |  |  |
| Surface Water Present?                                      | Yes No <u></u> ✓ Depth                  | (inches):                            |   |                             |  |  |
| Water Table Present?  |   | (inches):                            | - <br> Wetland Hydrology Present  | ? Yes No <b>_</b>           |  |  |
|   | · ·                                     |                                      |   | . 165110                    |  |  |
| Saturation Present?   | Yes No Depth                            | (inches):                            |   |                             |  |  |
| (includes capillary fringe)                                 |   |                                      |   |                             |  |  |
| Describe Recorded Data (stream                              | gauge, monitoring well, aerial photo    | s, previous inspections), if a       | available:  |                             |  |  |
|   |   |                                      |   |                             |  |  |
|   |   |                                      |   |                             |  |  |
| Remarks:  |   |                                      |   |                             |  |  |
|   |   |                                      |   |                             |  |  |
|   |   |                                      |   |                             |  |  |
|   |   |                                      |   |                             |  |  |
| No positive indication of wetland                           | hydrology was observed.                 |                                      |   |                             |  |  |
|   |   |                                      |   |                             |  |  |
|   |   |                                      |   |                             |  |  |
|   |   |                                      |   |                             |  |  |

| Free Stratum (Plot size: _ 30)             | Absolute<br>% Cover | Dominant Species? | Indicator<br>Status | Dominance Test worksheet:<br>Number of Dominant Species That | 3                    | (4)        |
|--|---------------------|-------------------|---------------------|--|----------------------|------------|
| . Pinus virginiana                         | 40                  | Yes               | UPL                 | Are OBL, FACW, or FAC:                                       |                      | (A)        |
| . Quercus phellos                          | 20                  | Yes               | FAC                 | Total Number of Dominant Species                             | ; 7                  | (B)        |
| 3. Quercus alba                            | 20                  | Yes               | FACU                | Across All Strata:   |                      | (D)        |
| 1. Acer rubrum                             | 10                  | No                | FAC                 | Percent of Dominant Species That                             | <b>4</b> 2. <b>9</b> | (A/B)      |
| y Boy Yabyarri                             |                     | Percent cover     |                     | Are OBL, FACW, or FAC:                                       |                      |            |
|  |                     | cannot be greater |                     | Prevalence Index worksheet:                                  |                      |            |
| 5. Liquidambar styraciflua                 | 15                  | than a previous   | FAC                 | <u>Total % Cover of:</u>                                     | <u>Multiply B</u>    | <u>y:</u>  |
|  |                     | species           |                     | OBL species 0  | x 1 =                | 0          |
|  |                     |                   |                     | FACW species 0   | x 2 =                | 0          |
|  |                     |                   |                     | FAC species 70   | x 3 =                | 210        |
| •  | 105                 | = Total Cover     |                     | FACU species 50  | × 4 =                | 200        |
| 50% of total cover:52.5                    |                     | -                 | 21                  | UPL species 40   | x 5 =                | 200        |
| apling/Shrub Stratum (Plot size:15)        | 20 /0 01 00         | ital cover.       |                     | Column Totals 160  | (A)                  | 610 (B)    |
|  | 15                  | Voc               | EAC                 | Prevalence Index = B/A =                                     |                      | . ,        |
| . Acer rubrum                              | _ 15                | Yes               | FAC                 |  |                      |            |
| . Liquidambar styraciflua                  |                     | Yes               | FAC                 | Hydrophytic Vegetation Indicators:                           |                      |            |
| . Quercus alba                             | 10                  | Yes               | FACU                | 1- Rapid Test for Hydrophytic                                | vegetation           |            |
| . Carya ovata                              | 5                   | No                | FACU                | 2 - Dominance Test is > 50%                                  |                      |            |
| . Fagus grandifolia                        | 5                   | No                | FACU                | 3 - Prevalence Index is ≤ 3.01                               |                      |            |
| i  |                     |                   |                     | 4 - Morphological Adaptation:                                | •                    | upporting  |
| <u> </u>                                   |                     |                   |                     | data in Remarks or on a separate s                           |                      |            |
| l  |                     |                   |                     | Problematic Hydrophytic Veg                                  |                      |            |
| ).   |                     |                   |                     | Indicators of hydric soil and wetlar                         | ,                    | y must be  |
|  | 45                  | = Total Cover     |                     | present, unless disturbed or proble                          |                      |            |
| 50% of total cover:22.5                    |                     | -                 | 9                   | Definitions of Four Vegetation Strat                         | ta:                  |            |
| lerb Stratum (Plot size: 5 )               |                     |                   |                     |  |                      |            |
| . Parthenocissus quinquefolia              | 10                  | Yes               | FACU                | Tree – Woody plants, excluding vine                          |                      |            |
| . Turtirerroussus quiriqueronu             |                     | 165               | 17160               | in diameter at breast height (DBH),                          | regardless o         | of height. |
|  |                     |                   |                     |  |                      |            |
| ·  |                     |                   |                     | Sapling/shrub – Woody plants, excl                           | _                    |            |
| l  |                     |                   |                     | in. DBH and greater than or equal t                          | to 3.28 ft (1 i      | m) tall.   |
| ·  | - ——                |                   |                     |  |                      |            |
| i  |                     |                   |                     | Herb - All herbaceous (non-woody)                            |                      | ardless of |
| <b>7.</b>                                  |                     |                   |                     | size, and woody plants less than 3.                          | 28 ft tall.          |            |
|  |                     |                   |                     | 1  |                      |            |
| ··<br>).                                   |                     |                   |                     | <br>  <b>Wo</b> od <b>y vine</b> s – All woody vines grea    | ater than 3.2        | 8 ft in    |
| ·  | - —                 |                   |                     | height.  |                      |            |
| 1  |                     |                   |                     | .  |                      |            |
| 1  |                     |                   |                     |  |                      |            |
|  |                     | = Total Cover     |                     |  |                      |            |
| 50% of total cover:5_                      | 20% of to           | otal cover:       | 2                   | 1  |                      |            |
| Voody Vine Stratum (Plot size: <u>30</u> ) |                     |                   |                     | Hydrophytic Vegetation Present?                              | Yes ⊔ No 🛭           |            |
|  |                     |                   |                     |  |                      |            |
|  |                     |                   |                     |  |                      |            |
|  |                     |                   |                     |  |                      |            |
| ı. <del></del>                             |                     |                   |                     |  |                      |            |
|  |                     |                   |                     |  |                      |            |
| ··   |                     | = Total Cover     |                     | 1  |                      |            |
|  |                     | •                 |                     |  |                      |            |
| 50% of total cover: <u>0</u>               | 200/                |                   | 0                   |  |                      |            |

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

| Profile Des | scription: (Describe to                                     | t <b>he depth</b> n | eeded to docum  | ent the i        | in <b>dicator</b> d        | r confirm            | the absenc      | e of indicators.)                   |   |  |
|-------------|---|---------------------|-----------------|------------------|----------------------------|----------------------|-----------------|-------------------------------------|---|--|
| Depth       | Matrix  |                     | Redo            | <b>x Fea</b> tur | es                         |                      |                 |                                     |   |  |
| (inches)    | Color (moist)   | _%                  | Color (moist)   | %                | Type <sup>1</sup>          | Locz                 |                 | Texture                             | Remarks   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     | _   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
| ·           |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
| <u> </u>    |   |                     |                 |                  |                            |                      |                 |                                     | _   |  |
| ¹Type: C =  | Concentration, D = De                                       | epletion, RM        | = Reduced Matr  | ix, MS =         | Masked S                   | and Grain:           | s. ²Locatio     | n: PL = Pore Lining, M              | = Matrix.   |  |
| Hydric Soil | Indicators:   |                     |                 |                  |                            |                      |                 | Indicators for Proble               | matic Hydric Soils³:                              |  |
| _ Histosol  | (A1)  |                     |                 | Surface (        |                            |                      |                 | 2 cm Muck (A10)                     | (MI <b>RA 1</b> 47)                               |  |
|             | ipedon (A2)   |                     |                 |                  |                            | (S8) (MLRA           | -               |                                     | ox (A16) <b>(MLR</b> A 1 <b>47</b> , 1 <b>48)</b> |  |
| _ Black His |   |                     |                 |                  |                            | ILRA <b>14</b> 7, 1  | 148)            |                                     |   |  |
|             | n Sulfide (A4)  |                     |                 |                  | Matrix (F2                 | )                    |                 | Pleamont Floodp                     | lain Soils (F19) <b>(ML</b> R <b>A 1</b> 36,      |  |
|             | Layers (A5)   |                     |                 | ted Mati         |                            |                      |                 | •                                   | / Currings /TE10\                                 |  |
| _           | ck (A10) <b>(</b> LR <b>R N)</b><br>I Below Dark Surface (A | .11\                |                 |                  | ırface (F6)<br>«Surface (F | :7)                  |                 | Very Shallow Dar                    |   |  |
|             | rk Surface (A12)  | (11)                | Redo            | x Denres         | sions (F8)                 |                      |                 | Other (Explain in                   | •   |  |
| _           | ucky Mineral (S1) (LRR                                      | N. MLRA 147         | . 148)   Iron-N | viangane         | se Masses                  | (F12) (LRR           | N. MLRA 130     | <sup>6)</sup> ₃Indicators of hydrop |   |  |
| I           | eyed Matrix (S4)  | .,                  | Umbr            | ic Surfac        | e (F13) ( <b>M</b>         | LRA 136, 12          | 22)             | 13 Indicators of hydrop             | hytic vegetation and                              |  |
| Sandy Re    |   |                     |                 |                  |                            | ls (F19) <b>(M</b> l |                 |                                     | nust be present, unless                           |  |
| Stripped    | Matrix (S6)   |                     | _ Red P         | arent Ma         | aterial (F21               | ) <b>(M</b> LRA 12   | <b>27, 147)</b> | disturbed or problen                | natic.  |  |
| Restrictive | Layer (if observed):  |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             | Туре:   |                     | None            | _                |                            | Hydric Sc            | oil Present?    |                                     | Yes □ No ☑  |  |
|             | Depth (inches):   |                     |                 | _                |                            |                      |                 |                                     |   |  |
| Remarks:    |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
| No positive | e indication of hydric                                      | soils was ob        | served.         |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |
|             |   |                     |                 |                  |                            |                      |                 |                                     |   |  |

Hydrology Photos



Vegetation Photos





Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



| Project/Site: MVP Southgate                             | City/County: Cascade,                  | Pittsylvania Sampling   | Date: 2018-Aug-08                 |                            |
|---|--|---|-----------------------------------|----------------------------|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra     |  | State: Virgi  | nia Sampling Point: V             | /-C18-91_PEM-1             |
| Investigator(s): Simon King, Sin                        | non King, Don Lockwood                 | Section, Township,  | , Range:                          |                            |
| Landform (hillslope, terrace, etc.):                    | : Back slope                           | Local relief (concave, conv   | vex, none): Concave               | Slop <b>e (%</b> ): 1 to 3 |
| Subregion (LRR or MLRA): M                              | ILRA 136 of LRR P                      | <b>L</b> at: 36.5444596   | Long: -79.6301129                 | Datum: WGS84               |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : Mayodan    | i fine sandy loam                      |   | NWI classifica                    | ntion: None                |
| Are climatic/hydrologic condition:                      | s on the site typical for this time of | year? Yes ✓ No  | <br>(If no, explain in Remarl     | (S.)                       |
| Are Vegetation, Soil,                                   | or Hydrology significantly             | -   | al Circumstances" present?        | Yes _✓ No                  |
| Are Vegetation, Soil,                                   | or Hydrology naturally pro             |   | explain any answers in Rema       |                            |
|   | ttach site map showing samp            | oling point locations, trai   | nsects, important feature         | es, etc.                   |
| Hydrophytic Vegetation Present?<br>Hydric Soil Present? | ? Yes <u> </u>                         |   |                                   |                            |
| _ ·   |  | المنافرين عمل المعالم المعالم المعالم المعالم المعالم المعالم المعالم المعالم المعالم المعالم المعالم المعالم | '                                 | ( ē bi-                    |
| Wetland Hydrology Present?  Remarks:                    | Yes _ <b>✓</b> No                      | Is the Sampled Area with  | in a Wetiand?                     | ′es <b>∠_ No</b>           |
| Covertype is PEM. Area is wetlan                        | d, all three wetland parameters are    | e present.  |                                   |                            |
| HYDROLOGY Wetland Hydrology Indicators:                 |  |   |                                   |                            |
| , ,,  | one is required; check all that apply  | v)  | Secondary Indicators (minim       | um of two required)        |
| Tilliary marcacors (minima s.                           | OHE IS required, times an endespery    | μ   | Surface Soil Cracks (B6)          | uni or avoreganea;         |
| ∕_ Surface Water (A1)                                   | True Aquatic Pl                        | lants (B14)   | Sparsely Vegetated Conce          | ave Surface (B8)           |
| High Water Table (A2)                                   | Hydrogen Sulfi                         |   | ✓ Drainage Patterns (B10)         |                            |
| Saturation (A3)   | Oxidized Rhizo                         | spheres on Living Roots (C3)  | Moss Trim Lines (B16)             |                            |
| Water Marks (B1)  |  | educed Iron (C4)  | Dry-Season Water Table (          | C2)                        |
| Sediment Deposits (B2)                                  |  | duction in Tilled Soils (C6)  | Crayfish Burrows (C8)             |                            |
| Drift Deposits (B3)                                     | Thin Muck Surf                         |   | Saturation Visible on Aeri        | al Imagery (C9)            |
| Algal Mat or Crust (B4)                                 | Other (Explain                         | in Remarks)   |                                   |                            |
| Iron Deposits (B5)                                      |  |   | Stunted or Stressed Plant         |                            |
| Inundation Visible on Aerial                            | Imagery (B7)                           |   | ✓ Geomorphic Position (D2         | )                          |
| Water-Stained Leaves (B9)                               |  |   | Shallow Aquitard (D3)             |                            |
| Aquatic Fauna (B13)                                     |  |   | Microtopographic Relief (         | D4)                        |
| Field Observations:                                     |  |   | FAC-Neutral Test (D5)             |                            |
| Field Observations:                                     | Voc. / No. Down                        | the (inches)  |                                   |                            |
| Surface Water Present?                                  | · ·                                    | th (inches): 6  | -                                 | V N-                       |
| Water Table Present?                                    |  | th (inches): 0  | - Wetland Hydrology Present?<br>- | Yes No                     |
| Saturation Present?                                     | Yes <u>✓</u> No Dept                   | th (inches): 0  | -                                 |                            |
| (includes capillary fringe)                             |  |   |                                   |                            |
| Remarks:  | gauge, monitoring well, aerial phot    | tos, previous inspections, ir   | avallable:                        |                            |
| The criterion for wetland hydrolo                       | ogy is met.                            |   |                                   |                            |

| · · · · · · · · · · · · · · · · · · ·                   | •                |               |           | 1   |              |               |
|---|------------------|---------------|-----------|---|--------------|---------------|
| Tree Stratum (Plot size:30)                             | <b>A</b> bsolute | Dominant      | Indicator | Dominance Test worksheet:                                     |              |               |
| <u>Tree Stratum</u> (Plot Size. <u>Su)</u>              | % Cover          | Species?      | Status    | Number of Dominant Species That                               | 4            | (A)           |
| 1.  |                  |               |           | Are OBL, FACW, or FAC:  |              | (//)          |
| 2.  |                  |               |           | Total Number of Dominant Species Across All Strata:           | 4            | (B)           |
| 3.  |                  |               |           | Percent of Dominant Species That                              | 400          |               |
| 4   |                  |               |           | - Are OBL, FACW, or FAC:                                      | 100          | (A/B)         |
| 5   |                  |               |           | Prevalence Index worksheet:                                   |              |               |
| 6.  |                  |               |           | Total % Cover of:   | Multiply B   | By:           |
| 7   |                  |               |           | - OBL species 30  | x 1 =        | 30            |
|   | 0                | _= Total Cove | er        | FACW species 40   | x 2 =        | 80            |
| 50% of total cover: <u>0</u>                            | _ 20% of to      | otal cover:   | 0         | FAC species 0   | x 3 =        | 0             |
| Sapling/Shrub Stratum (Plot size:15)                    |                  |               |           | FACU species 0  | × 4 =        | 0             |
| 1   |                  |               |           | - UPL species 0   | x5=          | 0             |
| 2   |                  |               |           | Column Totals 70  | _            | 110 (B)       |
| 3.  |                  |               |           |   | -            | TTU (b)       |
| 4.  |                  |               |           | Prevalence Index = B/A =                                      | 0.1.0        |               |
| 5.  |                  |               |           | Hydrophytic Vegetation Indicators:                            |              |               |
| 6.  |                  |               |           | 1- Rapid Test for Hydrophytic                                 | √egetation   |               |
|   |                  |               |           | 2 - Dominance Test is >50%                                    |              |               |
| 7.<br>8.  |                  |               |           |   |              |               |
| 8.<br>9.  |                  |               |           | -  4 - Morphological Adaptations                              |              | upporting     |
| J   |                  |               |           | - data in Remarks or on a separate sh                         |              |               |
| 50% - francis   |                  | _= Total Cove |           | Problematic Hydrophytic Vege                                  | . ,          | -             |
| 50% of total cover: 0                                   | _ 20% or to      | otal cover:   | 0         | Indicators of hydric soil and wetlan                          | -            | y must be     |
| Herb Stratum (Plot size: 5)                             |                  |               | E. E      | present, unless disturbed or proble                           | matic        |               |
| 1. Eupatorium perfoliatum                               |                  | Yes           | FACW      | Definitions of Four Vegetation Strat                          | a:           |               |
| 2. Juncus effusus                                       |                  | Yes           | FACW      | -   |              |               |
| 3. Carex lurida   | 15               | Yes           | OBL       | Tr <b>ee</b> – Woody plants, excluding vine                   |              |               |
| 4. Sagittaria latifolia                                 | 15               | Yes           | OBL       | in diameter at breast height (DBH),                           | regardless   | of height.    |
| 5   |                  |               |           | _   |              |               |
| 6   |                  |               |           | Sapling/shrub – Woody plants, exclu                           | uding vines, | , less than 3 |
| 7   |                  |               |           | in. DBH and greater than or equal to                          | o 3.28 ft (1 | m) tall.      |
| 8.  |                  |               |           |   |              |               |
| 9.  |                  |               |           | Herb – All herbaceous (non-woody)                             | plants, reg  | ardless of    |
| 10.   |                  |               |           | size, and woody plants less than 3.2                          | 28 ft tall.  |               |
| 11.   |                  |               |           | -   |              |               |
|   | 70               | = Total Cove  | or .      | - <b> <br/>  Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3.2 | 28 ft in      |
| 50% of total cover: <u>35</u>                           |                  | tal cover:    | 14        | height.   |              |               |
| Woody Vine Stratum (Plot size:30)                       | _ 20% 01 ((      | otal cover.   |           |   |              |               |
|   |                  |               |           |   |              |               |
|   |                  |               |           | -   |              |               |
| 2.  |                  |               |           | -   |              | ,             |
| 3   |                  |               |           | Hydrophytic Vegetation Present? `                             | Yes ☑ No ∟   |               |
| 4   |                  |               |           | -   |              |               |
| 5   |                  |               |           | _   |              |               |
|   | 0                | _= Total Cove | er        |   |              |               |
| 50% of total cover: <u>0</u>                            | _ 20% of to      | otal cover:   | 0         |   |              |               |
| Remarks: (Include photo numbers here or on a separa     | te sheet )       |               |           | •   |              |               |
| Tremaines, (interded priocontambers here of on a separa | e snece,         |               |           |   |              |               |
|   |                  |               |           |   |              |               |
|   |                  |               |           |   |              |               |
|   |                  |               |           |   |              |               |
|   |                  |               |           |   |              |               |
|   |                  |               |           |   |              |               |
|   |                  |               |           |   |              |               |
|   |                  |               |           |   |              |               |

| D <b>ep</b> th _       | Matrix                                       | the department   | iea to aocumen<br>Redox F |            | icator c          | or commitme absenc     | e of indicators.)                   |   |
|------------------------|--|------------------|---------------------------|------------|-------------------|------------------------|-------------------------------------|---|
| (inches)               | Color (moist)                                |                  | or (moist)                |            | Type¹             | Loc²                   | T <b>ex</b> ture                    | Remarks   |
|                        |  |                  |                           |            |                   |                        |                                     | Remarks   |
| 0 - 10                 | 10YR 5/2                                     |                  | 5YR 4/6                   | 20         | <u> </u>          | M                      | Clay Loam                           | _   |
|                        |  |                  |                           |            |                   |                        |                                     | _   |
|                        |  |                  |                           |            |                   |                        |                                     | _   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     | _   |
|                        |  |                  |                           |            |                   |                        |                                     | _   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
| -                      |  |                  |                           |            |                   |                        |                                     |   |
| -                      |  |                  |                           |            |                   |                        |                                     |   |
| -                      |  |                  |                           |            |                   |                        |                                     |   |
| ¹Tvne <sup>,</sup> C = | Concentration D = De                         | enletion RM = F  | educed Matrix             | MS = Ma    | sked S            | and Grains 21 ocatio   | on: PL = Pore Lining, M             | – ————————————————————————————————————                    |
|                        | I Indicators:                                | aprecion, ruii   | readeda macing            |            | is it do s        | arra er arrib.         | Indicators for Probler              |   |
| Histosol               |  |                  | Dark Sur                  | face (\$7) |                   |                        |                                     | •   |
| _                      | ipedon (A2)                                  |                  |                           |            |                   | (S8) (MLRA 147, 148)   | 2 cm Muck (A10) (                   |   |
| Black His              |  |                  |                           |            |                   | ILRA 147, 148)         |                                     | ox (A16) <b>(ML</b> R <b>A</b> 1 <b>4</b> 7 <b>, 148)</b> |
| _ Hydroge              | n Sulfide (A4)                               |                  | Loamy C                   | leyed M    | atrix (F2         |                        |                                     | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b>               |
|                        | d Layers (A5)                                |                  | <u></u> Depleted          |            |                   |                        | 147)                                |   |
| _                      | ick (A10) (LRR N)                            |                  | _ Redox D                 |            |                   |                        | Very Shallow Dark                   |   |
|                        | d Below Dark Surface (A<br>irk Surface (A12) | (11)             | Depleted<br>Redox D       |            |                   | 7)                     | Other (Explain in I                 | Remarks)  |
|                        | lucky Mineral (S1) (LRR                      | N. MI RA 147. 14 | 8) Iron-Mai               | nganese    | Masses            | (E12) (LRR N. MLRA 13  | <b>6)</b> ₃Indicators of hydrop     |   |
|                        | leyed Matrix (S4)                            |                  | Umbric !                  | Surface (  | -13) ( <b>M</b> I | LR <b>A 136, 12</b> 2) | <sup>-</sup> 'alndicators of hydrop | hytic vegetation and                                      |
|                        | edox (S5)                                    |                  |                           |            |                   | s (F19) (MLRA 148)     |                                     | ust be present, unless                                    |
| Stripped               | Matrix (S6)                                  |                  | Red Pare                  | ent Mate   | rial (F21         | ) (MLRA 127, 147)      | disturbed or problem                | iatic.  |
| Restrictive            | Layer (if observed):                         |                  |                           |            |                   |                        |                                     |   |
|                        | Туре:  | No               | ne                        |            |                   | Hydric Soil Present?   |                                     | Yes ☑ No □  |
|                        | Depth (inches):                              |                  |                           |            |                   |                        |                                     |   |
| Remarks:               |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |
|                        |  |                  |                           |            |                   |                        |                                     |   |

Hydrology Photos



Vegetation Photos



Soil Photos



Photo of Sample Plot North



Photo of Sample Plot East



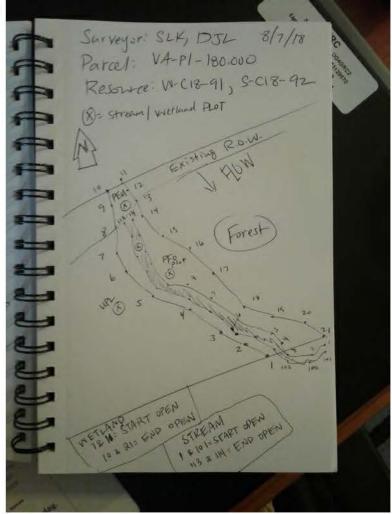
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                             | City/County:_C                 | ascade, Pittsylvania                    | Sampling D                     | ate: 2018-Aug-08  |                      | _                       |  |
|---|--------------------------------|---|--------------------------------|---|----------------------|-------------------------|--|
| Applicant/Owner: NextEra                                |                                |   | State: Virginia                | Sampling Po   | oint: W-C18-91_      | PFO-1                   |  |
| Investigator(s): Simon King, Sin                        | non King, Don Lockwood         | Section                                 | on, Tow <mark>nship</mark> , R | ange:   |                      |                         |  |
| Landform (hillslope, terrace, etc.)                     | : Back slope                   | Local relief (                          | concave, conve                 | k, none): Concave   | Slop                 | o <b>e (%</b> ): 1 to 3 |  |
| Subregion (LRR or MLRA): M                              | ILRA 136 of LRR P              | Lat:                                    | 36.5441985                     | Long: -79.6296891   | I Datu               | ım: WGS84               |  |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> :             |                                |   |                                | NWI da  | assification: No     | ne                      |  |
| Are climatic/hydrologic condition                       | s on the site typical for this | time of year?                           | Yes 🟒 No _                     | (If no, explain in F  | Remarks.)            |                         |  |
| Are Vegetation, Soil,                                   | or Hydrology signi             | ficantly disturbed?                     | Are "Normal                    | Circumstances" prese  | ent? Yes _           | <b>∠</b> No             |  |
| Are Vegetation, Soil,                                   | or Hydrology natu              | rally problematic?                      | (If needed, e:                 | xplain any answers in   | Remarks.)            |                         |  |
|   |                                |   |                                |   |                      |                         |  |
| SUMMARY OF FINDINGS – A                                 | ttach site map showing         | g sampling point lo                     | ations, trans                  | ects, important fe  | atures, etc.         |                         |  |
|   |                                | <del>.</del> .                          | ·                              | •   |                      |                         |  |
| Hydrophytic Vegetation Present?<br>Hydric Soil Present? | ? Yes <u> </u>                 | i                                       |                                |   |                      |                         |  |
| •   |                                | i                                       | aal Awaa wikhin                | a liketham da   | Voc. 6 I             | N.                      |  |
| Wetland Hydrology Present?                              | Yes _ <b>_∠</b> _ No           | is the Samp                             | ed Area within                 | a wetland?  | Yes _ <b>_∕_</b> _ I | NO                      |  |
| Remarks:  |                                |   |                                |   |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |
| Covertype is PFO. Area is wetland                       | d. all three wetland parame    | ters are present.                       |                                |   |                      |                         |  |
|   | -, <sub> </sub>                |   |                                |   |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |
| HYDROLOGY   |                                |   |                                |   |                      |                         |  |
| 382-41  |                                |   |                                |   |                      |                         |  |
| Wetland Hydrology Indicators:                           |                                |   | _                              |   |                      |                         |  |
| <u>Primary Indicators (minimum of</u>                   | one is required; check all tr  | nat apply)                              | <u>5</u>                       | econdary Indicators (   |                      | <u>o requirea)</u>      |  |
| ✓ Surface Water (A1)                                    | True A                         | quatic Plants (B14)                     | -                              | Surface Soil Cracks   |                      | co (D9)                 |  |
| ✓ High Water Table (A2)                                 |                                | gen Sulfide Odor (C1)                   |                                | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) |                      |                         |  |
| ✓ Saturation (A3)                                       |                                | ed Rhizospheres on Livi                 | ng Roots (C3)                  | <u> </u>  |                      |                         |  |
| Water Marks (B1)  | Presen                         | ce of Reduced Iron (C4                  | ·                              | Dry-Season Water Table (C2)                                     |                      |                         |  |
| Sediment Deposits (B2)                                  | Recent                         | : Iron Reduction in Tilled              | d Soils (C6)                   | Crayfish Burrows (C8)   |                      |                         |  |
| Drift Deposits (B3)                                     |                                | uck Surface (C7)                        |                                | Saturation Visible on Aerial Imagery (C9)                       |                      |                         |  |
| Algal Mat or Crust (B4)                                 | Other (                        | (Explain in Remarks)                    |                                |   |                      |                         |  |
| Iron Deposits (B5)                                      |                                |   |                                | Stunted or Stressed   |                      |                         |  |
| Inundation Visible on Aerial                            | Imagery (B7)                   |   |                                | ✓ Geomorphic Position   |                      |                         |  |
| ✓ Water-Stained Leaves (B9)                             |                                |   | _                              | Shallow Aquitard ([   |                      |                         |  |
| Aquatic Fauna (B13)                                     |                                |   | _                              | Microtopographic I  |                      |                         |  |
| Field Observations:                                     |                                |   | <u>_</u>                       | FAC-Neutral Test (D   | וכי                  |                         |  |
|   | Voc. 4 No                      | Donth (inches)                          |                                |   |                      |                         |  |
| Surface Water Present?                                  | Yes No                         | Depth (inches):                         |                                |   |                      |                         |  |
| Water Table Present?                                    | Yes No                         | Depth (inches):                         | 4V                             | Vetland Hydrology Pro   | esent? Yes           | 5 _ <b>∠</b> _ No       |  |
| Saturation Present?                                     | Yes 🔽 No                       | Depth (inches):                         | 0                              |   |                      |                         |  |
| (includes capillary fringe)                             |                                |   |                                |   |                      |                         |  |
| Describe Recorded Data (stream                          | gauge, monitoring well, ae     | rial <b>ph</b> otos, <b>previous in</b> | spections), if av              | ailable:  |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |
| Remarks:  |                                |   |                                |   |                      |                         |  |
| TO THE I WAS  |                                |   |                                |   |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |
| The criterion for wetland hydrolo                       | ogy is met.                    |   |                                |   |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |
|   |                                |   |                                |   |                      |                         |  |

| · · ·  | •                |              |           |   |              |             |
|--|------------------|--------------|-----------|---|--------------|-------------|
| Tree Stratum (Plot size:30)  | <b>A</b> bsolute | Dominant     | Indicator | Dominance Test worksheet:                               |              |             |
|  |                  | Species?     | Status    | Number of Dominant Species That                         | 5            | (A)         |
| 1. Liquidambar styraciflua   | 30               | Yes          | FAC       | Are OBL, FACW, or FAC: Total Number of Dominant Species |              |             |
| 2. Acer rubrum   |                  | Yes .        | FAC       | Across All Strata:                                      | 5            | (B)         |
| 3. Quercus phellos   | 15               | No           | FAC       | Percent of Dominant Species That                        | 400          |             |
| 4. Fagus grandifolia   | 10               | No No        | FACU      | Are OBL, FACW, or FAC:                                  | 100          | (A/B)       |
| 5. <i>Ulmus alata</i>  | 10               | No           | FACU      | Prevalence Index worksheet:                             |              |             |
| 6.   |                  |              |           | Total % Cover of:                                       | Multiply B   | <u>y:</u>   |
| 7  |                  | _ Tabal Care |           | OBL species 0   | x 1 =        | 0           |
| 500/ of total course 42.5  | 85               | = Total Cov  |           | FACW species 10   | x 2 =        | 20          |
| 50% of total cover: <u>42.5</u> Sapling/Shrub Stratum (Plot size: 15_) | _ 20% 0110       | itai cover:  | 17        | FAC species 185   | x 3 =        | 555         |
| 1. Liquidambar styraciflua   | 40               | Yes          | FAC       | FACU species 30   | x 4 =        | 120         |
| Eigurambal Styracina     Fagus grandifolia                             | 10               | No No        | FACU      | UPL species 0   | x 5 =        | 0           |
| 3. Quercus phellos   | 5                | No No        | FAC       | Column Totals 225                                       | (A)          | 695 (B)     |
| 4.   |                  |              | TAC       | Prevalence Index = B/A =                                | 3.1          |             |
| 5.   |                  |              |           | Hydrophytic Vegetation Indicators:                      |              |             |
| 6.   |                  |              |           | 1- Rapid Test for Hydrophytic \                         | /egetation   |             |
| 7.   |                  |              |           | 2 - Dominance Test is >50%                              |              |             |
|  |                  |              |           | 3 - Prevalence Index is $\leq 3.0^{\circ}$              |              |             |
| 9.   |                  |              |           | 4 - Morphological Adaptations                           | •            | upporting   |
| ·  | <br>55           | = Total Cov  |           | data in Remarks or on a separate sh                     |              |             |
| 50% of total cover: 27.5   |                  | •            | 11        | Problematic Hydrophytic Vege                            |              |             |
| Herb Stratum (Plot size: 5 )   | _ 20 % 01 00     | real cover.  |           | 'Indicators of hydric soil and wetlan                   | , 0.         | y must be   |
| 1. Microstegium vimineum   | 70               | Yes          | FAC       | present, unless disturbed or proble                     |              |             |
| 2. Juncus effusus  | 10               | No No        | FACW      | Definitions of Four Vegetation Strata                   | d.           |             |
| 3.   |                  |              |           | Tree – Woody plants, excluding vine                     | c 3 in (7.6  | cm) or more |
| 4.   |                  |              |           | in diameter at breast height (DBH),                     |              |             |
|  |                  |              |           | ar ar and ar ar ar ar ar ar ar ar ar ar ar ar ar        |              |             |
| 6.   |                  |              |           |   | uding vines, | less than 3 |
| 7.   |                  |              |           | in. DBH and greater than or equal to                    | _            |             |
| 8.   |                  |              |           |   |              |             |
| 9.   |                  |              |           | Herb – All herbaceous (non-woody)                       | plants, rega | ardless of  |
| 10.  |                  |              |           | size, and woody plants less than 3.2                    | .8 ft tall.  |             |
| 11.  |                  |              |           |   |              |             |
|  | 80               | = Total Cov  | er        | <b>Wo</b> od <b>y vine</b> s – All woody vines great    | ter than 3.2 | 28 ft in    |
| 50% of total cover: 40   |                  | tal cover:   | 16        | height.   |              |             |
| Woody Vine Stratum (Plot size: 30 )                                    | _                |              |           |   |              |             |
| 1. Smilax rotundifolia   | 5                | Yes          | FAC       |   |              |             |
| 2.   |                  |              |           |   |              |             |
| 3.   |                  |              |           | Hydrophytic Vegetation Present?                         | ∕es ☑ No □   |             |
| 4.   |                  |              |           |   |              |             |
| 5.   |                  |              |           |   |              |             |
|  | 5                | = Total Cov  | er        |   |              |             |
| 50% of total cover: <u>2.5</u>   |                  | tal cover:   | 1         |   |              |             |
| Remarks: (Include photo numbers here or on a separat                   | o shoot)         |              |           |   |              |             |
| Remarks. (include prioto flumbers fiere of off a separat               | e sneed.)        |              |           |   |              |             |
|  |                  |              |           |   |              |             |
|  |                  |              |           |   |              |             |
|  |                  |              |           |   |              |             |
|  |                  |              |           |   |              |             |
|  |                  |              |           |   |              |             |
|  |                  |              |           |   |              |             |

|                  | s <b>c</b> rip <b>tion: (De</b> s <b>c</b> ri <b>be</b> to   | the dept      | h n <b>eed</b> e <b>d to</b> d | ocument the                  | e indicator                 | or confirr         | n the absenc                   | e of indicators.)                     |   |
|------------------|--|---------------|--------------------------------|------------------------------|-----------------------------|--------------------|--------------------------------|---------------------------------------|---|
| D <b>ep</b> th   | ·  |               |                                | Redox Feat                   |                             |                    |                                |                                       |   |
| (inches)         | Color (moist)  | %             | Color (moi:                    | s <b>t)</b> %                | Type¹                       | Loc²               |                                | Te <b>xtu</b> r <b>e</b>              | Remarks                                     |
| 0 - 18           | 10YR 5/2   | 90_           | 10YR 3/6                       |                              | C                           | M                  | Sa                             | ndy Clay Loam                         |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       | -   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       | <u> </u>                                    |
| 1Tues of C =     | Consentration D - D  |               | Dodusod                        | L Námerik NAC                |                             | and Cupi           | na Zlasatia                    | na Di - Dava Lining M -               | Matrix                                      |
|                  |  | epredon, i    | KW = Reduced                   | Matrix, MS                   | = Masked S                  | sanu Grai          | ris. *Locatio                  | on: PL = Pore Lining, M =             |   |
| 1 -              | l Indicators:  |               |                                | David Confer                 | - (CT)                      |                    |                                | Indicators for Problem                | iatic Hydric Solis <sup>3</sup> :           |
| Histosol History | (AT)<br>sipedon (A2)   |               |                                | Dark Surface<br>Polyvalue Be |                             | 4(S8) (MI F        | 2 <u>A 1/</u> 17 1/ <b>9</b> } | 2 cm Muck (A10) <b>(N</b>             | /ILRA 147)                                  |
| Black Hi         |  |               |                                | Thin Dark Su                 |                             |                    |                                | Coast Prairie Redo                    | x (A16) (ML <b>RA 147, 148</b> )            |
|                  | en Sulfide (A4)  |               |                                | Loamy Gleye                  |                             |                    | ,                              | Piedmont Floodpla                     | ain Soils (F19) <b>(MLR</b> A 13 <b>6</b> , |
| Stratifie        | d Layers (A5)  |               |                                | Depleted Ma                  | atrix (F3)                  |                    |                                | 147)                                  |   |
|                  | ick (A10) (LRR N)  |               | _                              | Redox Dark                   | • •                         |                    |                                | Very Shallow Dark                     |   |
|                  | d Below Dark Surface (A                                      | (11)          |                                | Depleted Da                  |                             | F7)                |                                | Other (Explain in R                   | emarks)                                     |
|                  | irk Surface (A12)<br>Iucky Mineral (S1) <b>(</b> LR <b>R</b> | N MIRA 1      |                                | Redox Depre                  | essions (F8)<br>nece Macces | : (E12) (LD        | PN MIRA 13                     | 6)                                    |   |
| _                | leyed Matrix (S4)  | IV, IVICION I | <u>-</u>                       | Umbric Surf                  | ace (F13) ( <b>M</b>        | ILRA 136.          | 1 <b>2</b> 2)                  | 6) <sub>3</sub> Indicators of hydroph | ytic vegetation and                         |
|                  | edox (S5)  |               |                                | Piedmont Fl                  |                             |                    |                                | wetland hydrology mu                  |   |
| _ Stripped       | l Matrix (S6)  |               | _                              | Red Parent I                 | Material (F21               | 1) <b>(M</b> LRA 1 | 1 <b>27, 1</b> 47)             | disturbed or problema                 | atic.                                       |
| Restrictive      | Layer (if observed):   |               |                                |                              |                             |                    |                                |                                       |   |
|                  | ⊤ype:  |               | None                           |                              |                             | Hydric S           | ioil Present?                  |                                       | Yes ☑ No □                                  |
|                  | Depth (inches):  |               |                                |                              |                             |                    |                                |                                       |   |
| Remarks:         |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
| The criteri      | on for hydric soil is m                                      | et.           |                                |                              |                             |                    |                                |                                       |   |
| THE CHECK        | on to higarie som is m                                       |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |
|                  |  |               |                                |                              |                             |                    |                                |                                       |   |

Hydrology Photos



Vegetation Photos



Soil Photos



Photo of Sample Plot North



Photo of Sample Plot East



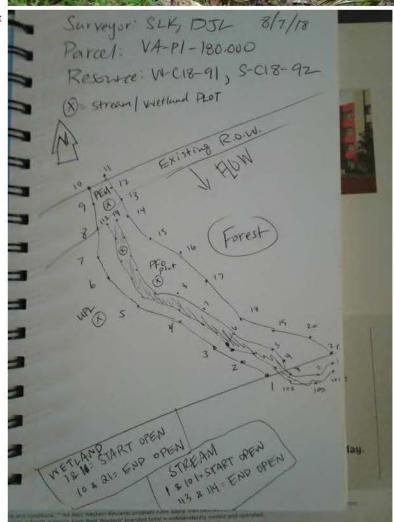
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



| Project/Site: MVP Southgate City/County: Cascade, Pittsylvania                    | Sampling Date: 2018-Aug-07                                  |
|---|---|
| A <b>p</b> pl <b>ica</b> nt <b>/O</b> wner: NextEra                               | State: Virginia Sampling Point: W-C18-91_UPL-1              |
| Investigator(s): Don Lockwood, Simon King, Don Lockwood Section                   | n, Township, Range:   |
| Landform (hillslope, terrace, etc.): Foot slope Local relief (c                   | concave, convex, none): Convex Slope (%): 1 to 10           |
| Subregion (LRR or MLRA): MLRA 136 of LRR P Lat:                                   | 36.5440853 Long: -79.6298686 Datum: WGS84                   |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> : Mayodan fine 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 <u>✓</u> No         |
| Are Vegetation, Soil, or Hydrology naturally problematic?                         | (If needed, explain any answers in Remarks.)                |
|   |   |
| SUMMARY OF FINDINGS – Attach site map showing sampling point loo                  | ations, transects, important features, etc.                 |
| Hydrophytic Vegetation Present? Yes No _✓   |   |
| Hydric Soil Present? Yes No _ <b>_</b> ✓  |   |
| i i   | ed Area within a Wetland? Yes No/                           |
| Remarks:  |   |
|   |   |
|   |   |
|   |   |
| Covertype is UPL. Area is upland, not all three wetland parameters are present.   |   |
|   |   |
|   |   |
|   |   |
| HYDROLOGY   |   |
|   |   |
| Wetland Hydrology Indicators:   |   |
| Primary Indicators (minimum of one is required; check all that apply)             | Secondary Indicators (minimum of two required)              |
| Surface Water (A1) True Aquatic Plants (B14)                                      | Surface Soil Cracks (B6)                                    |
| High Water Table (A2) Hydrogen Sulfide Odor (C1)                                  | Sparsely Vegetated Concave Surface (B8)                     |
| Saturation (A3) Oxidized Rhizospheres on Livi                                     | Drainage Patterns (B10) ng Roots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4)                                    |   |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled                            |   |
| Drift Deposits (B3) Thin Muck Surface (C7)  | Saturation Visible on Aerial Imagery (C9)                   |
| Algal Mat or Crust (B4) Other (Explain in Remarks)                                |   |
| Iron Deposits (B5)  | Stunted or Stressed Plants (D1)                             |
| Inundation Visible on Aerial Imagery (B7)   | Geomorphic Position (D2)                                    |
| Water-Stained Leaves (B9)   | Shallow Aquitard (D3)<br>Microtopographic Relief (D4)       |
| Aquatic Fauna (B13)   | FAC-Neutral Test (D5)                                       |
| Field Observations:   |   |
| Surface Water Present? Yes No _✓ Depth (inches):                                  |   |
| Water Table Present? Yes No _∠ Depth (inches):                                    | ————<br>Wetland Hydrology Present? Yes No✓                  |
|   |   |
| Saturation Present? Yes No _ <b>✓</b> Depth (inches):                             |   |
| (includes capillary fringe)   |   |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in | spections), if available:                                   |
|   |   |
|   |   |
| Remarks:  |   |
|   |   |
|   |   |
|   |   |
| No positive indication of wetland hydrology was observed.                         |   |
|   |   |
|   |   |

| Tree Stratum (Plot size:30)                         |   | Dominant    |        | Dominance Test works   |                |             |              |  |
|---|---|-------------|--------|--|----------------|-------------|--------------|--|
|   | <u> </u>  |             | Status | Number of Dominant Species That  |                |             |              |  |
| 1. Fagus grandifolia                                | 60  | Yes         | FACU   | Are OBL, FACW, or FAC  |                |             |              |  |
| 2. <i>Quercus alba</i>                              | 20  | Yes         | FACU   | Total Number of Domi   | nant Species   | 3           | (B)          |  |
| 3. <u>Liquidambar styraciflua</u>                   | 10  | No          | FAC    | Across All Strata:   | nasias That    |             |              |  |
| 4   |   |             |        | Percent of Dominant S<br>Are OBL, FACW, or FAC   |                | 0           | (A/B)        |  |
| 5   |   |             |        | Prevalence Index work  |                |             | <del></del>  |  |
| 6   |   |             |        | Total % Cover  |                | Multiply    | Bv.          |  |
| 7   |   |             |        | OBL species  | 0              | x 1 =       | 0            |  |
|   | 90  | = Total Cov | er     | FACW species   | 0              | x2=         | 0            |  |
| 50% of total cover: <u>45</u>                       | _ 20% of to   | tal cover:  | 18     | FAC species  | 10             | x3=         | 30           |  |
| Sapling/Shrub Stratum (Plot size:15)                |   |             |        | FACU species   | 90             | -           |              |  |
| 1. Fagus grandifolia                                | 10  | Yes         | FACU   | I  |                | x 4 =       | 360          |  |
| 2.  |   |             |        | UPL species  | 0              | x5= -       | 0            |  |
| 3.  |   |             |        | Column Totals  | 100            | (A) .       | 390 (B)      |  |
| 4.  |   |             |        | Prevalence Ir  | ndex = B/A =   | 3.9         |              |  |
| 5.  |   |             |        | Hydrophytic Vegetation   | n Indicators:  |             |              |  |
| 6.  |   |             |        | 1- Rapid Test for I  |                | egetation/  | า            |  |
| 7.  |   |             |        | 2 - Dominance Test is > 50%  |                |             |              |  |
| 8.  |   |             |        | 3 - Prevalence Inc   | lex is ≤ 3.01  |             |              |  |
| 9.  |   |             |        | 4 - Morphological  |                |             | supporting   |  |
| ·   | 10  | = Total Cov | or.    | data in Remarks or on a separate sheet)  |                |             |              |  |
| 50% of total cover: <u>5</u>                        |   | •           |        | Problematic Hydr   |                | •           |              |  |
| Herb Stratum (Plot size:5_)                         | _ 20% 01 (0   | itai tuver. |        | ¹Indicators of hydric so   |                | -           | gy must be   |  |
|   |   |             |        | present, unless disturb  |                |             |              |  |
| 1.  |   |             |        | Definitions of Four Veg  | etation Strata | a:          |              |  |
| 2.  |   |             |        |  |                |             |              |  |
| 3.  |   |             |        | Tr <b>ee</b> – Woody plants, e   | _              |             |              |  |
| 4.  |   |             |        | in diameter at breast h  | ieignt (DBH),  | regardies   | s or neight. |  |
| 5.  |   |             |        | 515(-bbb   |                | 0           |              |  |
| 6.  | Sapling/shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. |             |        |  |                |             |              |  |
| 7   |   |             |        | in. Don and greater th   | an or equal u  | J 3.20 IL ( | i mij tali.  |  |
| 8.<br>9.  |   |             |        | Horb All borbasoous  | (non woody)    | nlante re   | gardlagg of  |  |
|   |   |             |        | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |                |             |              |  |
| 10  |   |             |        | Size, and woody plants   | 1033 CIUII 3.2 | o re can.   |              |  |
| 11  |   |             |        |  |                |             |              |  |
|   | 0   | = Total Cov | er     | <b>Wo</b> od <b>y vine</b> s – All wood  | dy vines grea  | ter than 3  | 3.28 ft in   |  |
| 50% of total cover: <u>0</u>                        | _ 20% of to   | tal cover:  | 0      | height.  |                |             |              |  |
| Woody Vine Stratum (Plot size: 30 )                 |   |             |        |  |                |             |              |  |
| 1   |   |             |        |  |                |             |              |  |
| 2   |   |             |        |  |                |             |              |  |
| 3.  |   |             |        | Hydrophytic Vegetatio  | n Present? `   | ∕es □ No    | Ø            |  |
| 4   |   |             |        |  |                |             |              |  |
| 5   |   |             |        |  |                |             |              |  |
|   | 0   | = Total Cov | er     |  |                |             |              |  |
| 50% of total cover: 0                               | 20% of to   | tal cover:  | 0      |  |                |             |              |  |
| Remarks: (Include photo numbers here or on a separa | te sheet.)  |             |        |  |                |             |              |  |
|   |   |             |        |  |                |             |              |  |
|   |   |             |        |  |                |             |              |  |
|   |   |             |        |  |                |             |              |  |
|   |   |             |        |  |                |             |              |  |
|   |   |             |        |  |                |             |              |  |

|                    | scription: (Describe to  | the depti   | h n <b>eeded to</b> d <b>oc</b> ur | nent the i   | in <b>dicator</b> (  | or confir | m the absenc             | ce of indicators.)   |  |  |
|--------------------|--|-------------|------------------------------------|--|----------------------|-----------|--------------------------|--|--|--|
| D <b>ep</b> th     | <b>Ma</b> trix   |             | R <b>edo</b> x Features            |  |                      |           |                          |  |  |  |
| (inches)           | Color (moist)  | %           | Color (moist)                      | %  | Type¹                | Locz      |                          | T <b>extur</b> e   | Remarks                                      |  |
| 0 - 2              | 10YR 3/3   | 100         |                                    |  |                      |           |                          | Loam   |  |  |
| 2 - 8              | 10YR 4/6   | 100         |                                    |  |                      |           |                          | Silt Loam  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  | _  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  | _  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
| <u>¹</u> ⊤ype: C = | Concentration, $D = D$   | epletion, F | RM = Reduced Ma                    | rix, MS =  | Masked S             | and Grai  | ns. <sup>2</sup> Locatio | on: PL = Pore Lining, M :                                      | = Matrix.                                    |  |
| Hydric Soi         | il Indicators:   |             |                                    |  |                      |           |                          | Indicators for Probler   | natic Hydric Soils³:                         |  |
| _ Histosol         | (A1)   |             |                                    | k Surface (  |                      |           |                          | 2 cm Muck (A10) (  | MIRA 147)                                    |  |
|                    | oipedon (A2)   |             |                                    |  |                      |           | RA 147, 148)             |  | MLRA 147)<br>ox (A16) (MLRA 147, 148)        |  |
| _ Black Hi         |  |             |                                    |  | face (S9) <b>(</b> N |           | , 148)                   |  | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6</b> , |  |
|                    | en Sulfide (A4)  |             | _                                  | , ,  | Matrix (F2           | 2)        |                          | Pleamont Flooapi   | am sons (F19) (MLKA 130,                     |  |
|                    | d Layers (A5)  |             |                                    | leted Mati   |                      |           |                          | •  | (Surface (TE12)                              |  |
|                    | uck (A10) <b>(</b> LR <b>R N)</b><br>d Below Dark Surface ( <i>A</i> | 11)         |                                    | Redox Dark Surface (F6) Depleted Dark Surface (F7) |                      |           |                          | Very Shallow Dark Surface (TF12)<br>Other (Explain in Remarks) |  |  |
|                    | ark Surface (A12)  | X11)        | Red                                | ox Debres  | sions (F8)           |           |                          |  |  |  |
|                    | lucky Mineral (S1) (LRR  | N, MLRA 1   | <b>47, 148)</b> Iron               | -Mangane   | se Masses            | (F12) (LR | R N, MLRA 13             | <b>6)</b> ₃Indicators of hydrop                                | butic vocatation and                         |  |
| Sandy G            | leyed Matrix (S4)  |             | Um                                 | oric Surfac  | e (F13) ( <b>M</b>   | LRA 136,  | 122)                     | -indicators or nydrop  | ust be present, unless                       |  |
| _                  | edox (S5)  |             |                                    |  |                      |           | VILRA 148)               | disturbed or problem   |  |  |
| _ Stripped         | d Matrix (S6)  |             | Red                                | Parent Ma  | aterial (F21         | ) (MLRA   | 1 <b>27, 1</b> 47)       | aisturbed or problem   | lauc.  |  |
| Restrictive        | e Layer (if observed):   |             |                                    |  |                      |           |                          |  |  |  |
|                    | Type:  |             | None                               | _  |                      | Hydric 9  | Soil Present?            |  | Yes □ No ☑                                   |  |
|                    | Depth (inches):  |             |                                    | _  |                      |           |                          |  |  |  |
| Remarks:           |  |             |                                    |  |                      | •         |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |
|                    |  |             |                                    |  |                      |           |                          |  |  |  |

Hydrology Photos





Vegetation Photos



Soil Photos



Photo of Sample Plot North



Photo of Sample Plot East



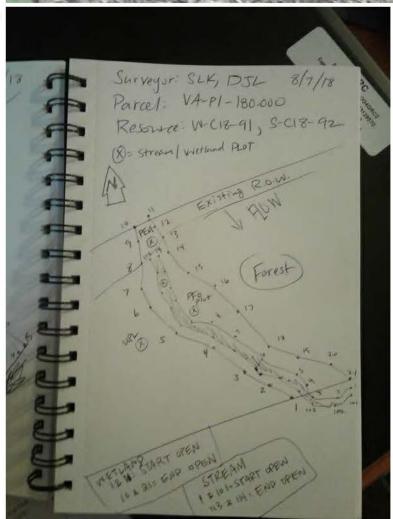
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



| Project/Site: MVP Southgate                                 | City/County:_Cascade,                    | Pittsylvania                                   | Sampling I  | Date: 201                               | 18-Aug-09                                 |                             |  |  |  |
|---|--|--|---|---|---|-----------------------------|--|--|--|
| Applicant/Owner: NextEra                                    |  | State: Virginia Sampling Point: W-C18-96_PEM-1 |   |   |   |                             |  |  |  |
| Investigator(s): Don Lockwood                               | , Simon King, Don Lockwood               | Sectio   | ction, Township, Range:                           |   |   |                             |  |  |  |
| Landform (hillslope, terrace, etc.)                         | : Hillslope                              | <b>Local re</b> lief (co                       | oncave, conv                                      | ex, none):                              | Concave                                   | Slop <b>e (%</b> ): 1 to 10 |  |  |  |
| Subregion (LRR or MLRA):                                    | /ILRA 136 of LRR P                       | Lat:   | 36.5418497  | Long                                    | g: -79.6326315                            | Datum:WGS84                 |  |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : <u>Mayodar</u> | າ fine sandy loam                        |  |   |   | NWI classificati                          | on:                         |  |  |  |
| Are climatic/hydrologic condition                           | s on the site typical for this time of y | year?  | Yes 🔽 No  | (If no                                  | o, explain in Remarks                     | .)                          |  |  |  |
| Are Vegetation, Soil,                                       | or Hydrology significantly o             |  | Are "Norma  | l Circums                               | tances" present?                          | Yes 🟒 No                    |  |  |  |
| Are Vegetation, Soil,                                       | or Hydrology naturally pro               | blematic?                                      | (If needed,                                       | explain ar                              | ny answers in Remark                      | s.)                         |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
| SUMMARY OF FINDINGS – A                                     | Attach site map showing samp             | ling point loca                                | ations, tran                                      | sects, in                               | nportant features                         | , etc.                      |  |  |  |
| Hydrophytic Vegetation Present                              | ? Yes _ 🗸 No                             | 1  |   |   |   |                             |  |  |  |
| Hydric Soil Present?  |  | İ  |   |   |   |                             |  |  |  |
| Wetland Hydrology Present?                                  | Yes _ <b>✓</b> _ No                      | Is the Sample                                  | ed Area within                                    | n a Wetlan                              | nd? Ye:                                   | s No                        |  |  |  |
| Remarks:  |  |  |   |   |   |                             |  |  |  |
| Remarks.  |  |  |   |   |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
| Covertype is PEM. Area is wetlar                            | nd, all three wetland parameters are     | e present.                                     |   |   |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
| INDROLOGY   |  |  |   |   |   |                             |  |  |  |
| HYDROLOGY   |  |  |   |   |   |                             |  |  |  |
| Wetland Hydrology Indicators:                               |  |  |   |   |   |                             |  |  |  |
| Primary Indicators (minimum of                              | one is required; check all that apply    | <u>y)</u>                                      |   | <u>Secondar</u>                         | y Indicators (minimur                     | n of two required)          |  |  |  |
| ( Curfore Mater (A1)  | Taura Assumble Di                        | lainta (D14)                                   |   |   | ce Soil Cracks (B6)                       |                             |  |  |  |
| Surface Water (A1)<br>High Water Table (A2)                 | True Aquatic Pl<br>Hydrogen Sulfi        |  |   | Sparsely Vegetated Concave Surface (B8) |   |                             |  |  |  |
| ✓ Fright Water Table (A2) ✓ Saturation (A3)                 |  | spheres on Livir                               | ✓ Drainage Patterns (B10)                         |   |   |                             |  |  |  |
| Water Marks (B1)  |  | duced Iron (C4)                                | W1033 H H I E H C3 (B TC)                         |   |   |                             |  |  |  |
| Sediment Deposits (B2)                                      |  | duction in Tilled                              | Dry-Season Water Table (C2) Crayfish Burrows (C8) |   |   |                             |  |  |  |
| Drift Deposits (B3)   | Thin Muck Surface (C7)                   |  |   |   | Saturation Visible on Aerial Imagery (C9) |                             |  |  |  |
| Algal Mat or Crust (B4)                                     | Other (Explain                           | in Remarks)                                    |   | 50.010                                  | acion visible on renai                    | imagery (co)                |  |  |  |
| Iron Deposits (B5)  |  |  |   | Stunte                                  | ed or Stressed Plants                     | (D1)                        |  |  |  |
| Inundation Visible on Aerial                                | Imagery (B7)                             |  | Geomorphic Position (D2)                          |   |   |                             |  |  |  |
| Water-Stained Leaves (B9)                                   |  |  |   |   | Shallow Aquitard (D3)                     |                             |  |  |  |
| Aquatic Fauna (B13)   |  |  |   |   | Microtopographic Relief (D4)              |                             |  |  |  |
| E. Hol  |  |  |   | <u></u> FAC-N<br>I                      | leutral Test (D5)                         |                             |  |  |  |
| Field Observations:   | Yes & Ne Danie                           | the Complete                                   | 2   |   |   |                             |  |  |  |
| Surface Water Present?                                      | ·  | th (inches):                                   | 3   | l                                       |   |                             |  |  |  |
| Water Table Present?  | ·  | th (inches):                                   | 0   | Wetland I                               | Hydrology Present?                        | Yes _ <b>∠</b> _ No         |  |  |  |
| Saturation Present?   | Yes <u></u> ✓ No Dept                    | th (inches):                                   | 0   |   |   |                             |  |  |  |
| (includes capillary fringe)                                 |  |  |   |   |   |                             |  |  |  |
| Describe Recorded Data (stream                              | n gauge, monitoring well, aerial phot    | tos, pre <mark>vious ins</mark>                | p <b>ections</b> ), if a                          | vailable:                               |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
| Remarks:  |  |  |   |   |   | _                           |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
| A positive indication of wetland                            | hydrology was observed (primary ar       | nd secondary inc                               | dicators were                                     | present).                               |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |
|   |  |  |   |   |   |                             |  |  |  |

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

| ,   |             |                  |        |  |                   |               |
|---|-------------|------------------|--------|--|-------------------|---------------|
| Tree Stratum (Plot size:30)                         |             | Dominant         |        | Dominance Test worksheet:  |                   |               |
|   |             | Species?         | Status | Number of Dominant Species That Are OBL, FACW, or FAC:                   | 5                 | (A)           |
| 1. Acer rubrum                                      | 45          | Yes .            | FACIN  | Total Number of Dominant Species   |                   |               |
| Fraxinus pennsylvanica     3.                       |             | No               | FACW   | Across All Strata:   | 5                 | (B)           |
| 4.  | ·           |                  |        | Percent of Dominant Species That   | 100               | ——<br>(A/B)   |
| 5.  |             |                  |        | Are OBL, FACW, or FAC:   |                   | (A/D)         |
| 6.  |             |                  |        | Prevalence Index worksheet:  |                   |               |
| 7.  | ·           |                  |        | - <u>Total % Cover of:</u>   | <u>Multiply B</u> | -             |
|   | 55          | = Total Cov      | er     | OBL species 40   | x 1 =             | 40            |
| 50% of total cover: <u>27.5</u>                     |             | -                | 11     | FACW species15   | x 2 =             | 30            |
| Sapling/Shrub Stratum (Plot size:15)                | _ 20% 01 00 | rear cover.      |        | FAC species 100  | x3= _             | 300           |
| 1. Acer rubrum                                      | 20          | Yes              | FAC    | FACU species 0   | × 4 =             |               |
| 2. Liquidambar styraciflua                          | 20          | Yes              | FAC    | UPL species 0  | x 5 =             | 0             |
| 3.  |             |                  |        | Column Totals 155  | (A)               | 370 (B)       |
| 4.  |             |                  |        | Prevalence Index = B/A =   | 2.4               |               |
| 5.  |             |                  |        | Hydrophytic Vegetation Indicators:                                       |                   |               |
| 6.  |             |                  |        | - Lapid Test for Hydrophytic \   | √egetation        |               |
| 7.  |             |                  |        | 2 - Dominance Test is >50%   |                   |               |
| 8.  |             |                  |        | $\sqrt{}$ 3 - Prevalence Index is ≤ 3.01                                 |                   |               |
| 9.  |             |                  |        | 4 - Morphological Adaptations  |                   | supporting    |
|   | 40          | = Total Cov      | er     | - data in Remarks or on a separate sh                                    |                   | -1-2-2        |
| 50% of total cover: 20                              |             | -                | 8      | Problematic Hydrophytic Vege   |                   | -             |
| Herb Stratum (Plot size: 5 )                        |             |                  |        | Indicators of hydric soil and wetlan present, unless disturbed or proble | , ,               | y must be     |
| 1. Carex lupulina                                   | 40          | Yes              | OBL    | Definitions of Four Vegetation Strate                                    |                   |               |
| 2. Microstegium vimineum                            | 15          | Yes              | FAC    | Definitions of Four Vegetation Strate                                    | ·                 |               |
| 3. Boehmeria cylindrica                             | 5           | No               | FACW   | -<br>  Tr <b>ee</b> – Woody plants, excluding vine                       | s. 3 in. (7.6     | cm) or more   |
| 4.  |             |                  |        | in diameter at breast height (DBH),                                      |                   |               |
| 5.  |             |                  |        |  | Ü                 | Ü             |
| 6.  |             |                  |        | Sapling/shrub – Woody plants, exclu                                      | uding vines       | , less than 3 |
| 7.  |             |                  |        | in. DBH and greater than or equal to                                     | o 3.28 ft (1      | m) tall.      |
| 8.  |             |                  |        |  |                   |               |
| 9.  |             |                  |        | Herb – All herbaceous (non-woody)  |                   | ardless of    |
| 10.   |             |                  |        | size, and woody plants less than 3.2                                     | :8 ft tall.       |               |
| 11.   |             |                  |        |  |                   |               |
|   | 60          | = Total Cov      | er     | <b>Wo</b> od <b>y vine</b> s – All woody vines grea                      | ter than 3.2      | 28 ft in      |
| 50% of total cover: <u>30</u>                       | 20% of to   | -<br>otal cover: | 12     | height.  |                   |               |
| Woody Vine Stratum (Plot size: 30 )                 | _           |                  |        |  |                   |               |
| 1.  |             |                  |        |  |                   |               |
| 2.  |             |                  |        |  |                   |               |
| 3.  |             |                  |        | Hydrophytic Vegetation Present? `  | Yes ☑ No □        | ]             |
| 4.  |             |                  |        |  |                   |               |
| 5.  |             |                  |        |  |                   |               |
|   | 0           | = Total Cov      | er     |  |                   |               |
| 50% of total cover: 0                               | 20% of to   | -<br>otal cover: | 0      |  |                   |               |
|   |             |                  |        |  |                   |               |
| Remarks: (Include photo numbers here or on a separa | e sneet.)   |                  |        |  |                   |               |
|   |             |                  |        |  |                   |               |
|   |             |                  |        |  |                   |               |
|   |             |                  |        |  |                   |               |
|   |             |                  |        |  |                   |               |
|   |             |                  |        |  |                   |               |
|   |             |                  |        |  |                   |               |
|   |             |                  |        |  |                   |               |

|                  | scription: (Describe to                      | the dept  | th needed to   |                    |           |                     | or confirm         | n the absenc             | e of indicators.)                    |   |
|------------------|--|-----------|----------------|--------------------|-----------|---------------------|--------------------|--------------------------|--------------------------------------|---|
| D <b>ep</b> th _ | Matrix                                       |           | Redox Features |                    |           |                     |                    |                          |                                      |   |
| (inches)         | Color (moist)                                |           | Color (m       | ois <b>t)</b>      | %         | Type¹               | _Loc²              |                          | Te <b>xtu</b> r <b>e</b>             | Remarks                                     |
| 0 - 10           | 10YR 4/1                                     | 90        | 10YR 4         | /6                 | _10       | C                   | M                  | Sa                       | ndy Clay Loam                        |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           | , ,                 |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
| l                |  |           |                |                    |           |                     |                    |                          |                                      |   |
| <u> </u>         |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      | _   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
| ¹⊤ype: C =       | Concentration, D = De                        | epletion, | RM = Reduc     | ed Matrix          | , MS = i  | Masked S            | and Grai           | ns. <sup>z</sup> Locatio | n: PL = Pore Lining, M =             | : Matrix.                                   |
| Hydric Soi       | l Indicators:                                |           |                |                    |           |                     |                    |                          | Indicators for Problem               | natic Hydric Soils³:                        |
| _ Histosol       | (A1)   |           |                | Dark Su            | urface (9 | 57)                 |                    |                          |                                      | -   |
| _ Histic Ep      | ipedon (A2)                                  |           |                | <br>Polyval        | ue Belo   | w Surface           | (S8) (MLF          | RA 147, 148)             | 2 cm Muck (A10) (F                   |   |
| _ Black Hi:      | stic (A3)                                    |           |                | _ Thin Da          | ark Surf  | ace (S9) <b>(</b> N | /ILRA <b>14</b> 7, | 148)                     |                                      | ox (A16) (ML <b>RA 147, 148</b> )           |
|                  | en Sulfide (A4)                              |           |                | _ ,                | -         | Matrix (F2          | 2)                 |                          |                                      | ain Soils (F19) <b>(MLR</b> A 1 <b>36</b> , |
|                  | d Layers (A5)                                |           |                | _∕ Deplete         |           |                     |                    |                          | 147)                                 |   |
|                  | ick (A10) (LRR N)                            | . 1.1)    |                | Redox              |           |                     | -71                |                          | Very Shallow Dark                    |   |
|                  | d Below Dark Surface (A<br>irk Surface (A12) | (11)      |                | Deplete<br>Redox l |           | Surface (F8)        | -7)                |                          | Other (Explain in R                  | Remarks)                                    |
|                  | lucky Mineral (S1) (LRR                      | N MIRA    |                | Iron-Ma            | anganes   | se Masses           | (E12) (LR          | R N MIRA 13              | <sup>6)</sup> ₃Indicators of hydroph |   |
| _ ,              | leyed Matrix (S4)                            | ,         |                | Umbrio             | Surface   | e (F13) ( <b>M</b>  | LRA 136.           | 122)                     | <sup>™3</sup> Indicators of hydroph  | nytic vegetation and                        |
|                  | edox (S5)                                    |           |                |                    |           |                     |                    | /ILRA 148)               | wetland hydrology mu                 |   |
| Stripped         | l Matrix (S6)                                |           |                | Red Pa             | rent Ma   | terial (F21         | ) (MLRA 1          | 1 <b>27, 1</b> 47)       | disturbed or problem                 | atic.                                       |
| Restrictive      | Layer (if observed):                         |           |                |                    |           |                     |                    |                          |                                      |   |
|                  | Type:  |           | None           |                    |           |                     | Hydric S           | oil Present?             |                                      | Yes ☑ No □                                  |
|                  | Depth (inches):                              |           |                |                    |           |                     | -                  |                          |                                      |   |
| Remarks:         |  |           |                |                    |           |                     | ·                  |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |
|                  |  |           |                |                    |           |                     |                    |                          |                                      |   |

Hydrology Photos





Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: MVP Southgate                         | City/County: Cascade,                   | , Pittsylvania               | Sampling Da             | te: 201                                       | 8-Aug-09                                   |                             |  |  |
|---|---|------------------------------|-------------------------|---|--|-----------------------------|--|--|
| Applicant/Owner: NextEra                            |   | S                            | itate: Virginia         | Sampling Point: W-C18-96_PFO-1                |  |                             |  |  |
| Investigator(s): Simon King, Sir                    | mon King, Don Lockwood                  | Section                      | , Tow <b>nship</b> , Ra | inge:   |  |                             |  |  |
| Landform (hillslope, terrace, etc.)                 | ): Hillslope                            | Local relief (co             | ncave, convex           | <br>, none):                                  | Concave                                    | Slop <b>e (%</b> ): 1 to 10 |  |  |
| Subregion (LRR or MLRA):                            | MLRA 136 of LRR P                       | <b>Lat:</b> 3                | 6.5418377               | Long:   | :-79.6324803                               | Datum: WGS84                |  |  |
| Soil <b>Map</b> U <b>nit</b> Nam <b>e</b> : Mayodar | n fine sandy loam                       |                              |                         |   | NWI classificatio                          | n: None                     |  |  |
| Are climatic/hydrologic condition                   | ns on the site typical for this time of | ye <b>ar?</b> Y              | ′es No                  | (If no  | —<br>o, explain in Remarks.                | )                           |  |  |
| Are Vegetation, Soil,                               | or Hydrology significantly              | disturbed?                   | Are "Normal (           | Circumst                                      | tances" present?                           | Yes 🟒 No                    |  |  |
| Are Vegetation, Soil,                               | or Hydrology naturally pro              | oblematic?                   | (If needed, ex          | plain an                                      | y answers in Remarks                       | i.)                         |  |  |
|   |   |                              |                         |   |  |                             |  |  |
| SUMMARY OF FINDINGS - A                             | Attach site map showing samp            | nling noint loca             | tions transe            | ects im                                       | nortant features                           | etc                         |  |  |
|   |   | 1                            |                         |   |  |                             |  |  |
| Hydrophytic Vegetation Present                      |   |                              |                         |   |  |                             |  |  |
| Hydric Soil Present?                                | Yes 🟒 No                                |                              |                         |   |  |                             |  |  |
| Wetland Hydrology Present?                          | Yes _ <b>_/</b> _ No                    | Is the Sampleo               | d Area within a         | Wetlan  | id? Yes                                    | No                          |  |  |
| Remarks:  |   |                              |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
| Covertype is PFO. Area is wetlan                    | d, all three wetland parameters are     | e present.                   |                         |   |  |                             |  |  |
|   | a, an en de necana parameters an e      | - p                          |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
| HYDROLOGY   |   |                              |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
| Wetland Hydrology Indicators:                       |   |                              | -                       |   |  |                             |  |  |
| Primary Indicators (minimum of                      | one is required; check all that appl    | <u>iy)</u>                   | <u>S6</u>               | -   | y Indicators (minimum                      | of two required)            |  |  |
| ✓ Surface Water (A1)                                | True Aquatic P                          | Plants (B14)                 | _                       |   | e Soil Cracks (B6)                         | Curfaco (D9)                |  |  |
| High Water Table (A2)                               | '<br>Hydrogen Sulf                      |                              |                         |   | ely Vegetated Concave                      | Surface (Do)                |  |  |
| ✓ Saturation (A3)                                   |   | ospheres on Living           | Roots (C3)              | Drainage Patterns (B10) Moss Trim Lines (B16) |  |                             |  |  |
| Water Marks (B1)                                    | Presence of Re                          | educed Iron (C4)             | _                       | Dry-Season Water Table (C2)                   |  |                             |  |  |
| Sediment Deposits (B2)                              | Recent Iron Re                          | eduction in Tilled S         | foile (C6)              | Crayfish Burrows (C8)                         |  |                             |  |  |
| Drift Deposits (B3)                                 | Thin Muck Sur                           |                              |                         | Saturation Visible on Aerial Imagery (C9)     |  |                             |  |  |
| Algal Mat or Crust (B4)                             | Other (Explain                          | in Remarks)                  |                         |   |  |                             |  |  |
| Iron Deposits (B5)                                  |   |                              |                         |   | d or Stressed Plants (                     | D1)                         |  |  |
| Inundation Visible on Aerial                        | Imagery (B7)                            |                              |                         | _   | orphic Position (D2)                       |                             |  |  |
| ✓ Water-Stained Leaves (B9)                         |   |                              | _                       |   | w Aquitard (D3)                            | <b>\</b>                    |  |  |
| Aquatic Fauna (B13)                                 |   |                              | _                       |   | :opographic Relief (D4<br>eutral Test (D5) | )                           |  |  |
| Field Observations:                                 |   |                              |                         | _ FAC-N                                       | eutrai rest (D3)                           |                             |  |  |
| Surface Water Present?                              | Yes <u>✓</u> No Dep                     | oth (inches):                | 1                       |   |  |                             |  |  |
|   | ·                                       |                              |                         |   | hadaa la ma Daa aa ma D                    | V N-                        |  |  |
| Water Table Present?                                | ·                                       | oth (inches):                | W                       | etiand F                                      | Hydrology Present?                         | Yes _ <b>∠</b> _ No         |  |  |
| Saturation Present?                                 | Yes 🗸 No Dep                            | oth (inches):                | 0                       |   |  |                             |  |  |
| (includes capillary fringe)                         |   |                              |                         |   |  |                             |  |  |
| Describe Recorded Data (stream                      | n gauge, monitoring well, aerial pho    | otos, pre <b>vious ins</b> p | ections), if ava        | ilable:                                       |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
| Remarks:  |   |                              |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
| _   | ogy is met. A positive indication of v  |                              | was observed            | d (at leas                                    | st one primary indicat                     | or). A positive             |  |  |
| indication of wetland hydrology                     | was observed (at least two seconda      | ary indicators).             |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |
|   |   |                              |                         |   |  |                             |  |  |

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

|   | · · · · · · · · · · · · · · · · · · ·                | •           |             |           | 1   |                   |            |
|---|--|-------------|-------------|-----------|---|-------------------|------------|
| Tree St   | ratum (Plot size: _ 30)                              |             | Dominant    | Indicator | Dominance Test worksheet:                               |                   |            |
|   |  |             | Species?    | Status    | Number of Dominant Species That                         | 8                 | (A)        |
|   | er rubrum  | 20          | Yes         | FAC       | Are OBL, FACW, or FAC: Total Number of Dominant Species |                   |            |
|   | us taeda   |             | Yes .       | FAC       | Across All Strata:                                      | 8                 | (B)        |
|   | ercus phellos  |             | Yes         | FAC       | Percent of Dominant Species That                        | 400               |            |
|   | uidambar styraciflua                                 |             | Yes .       | FAC       | - Are OBL, FACW, or FAC:                                | 100               | (A/B)      |
| 5   |  |             |             |           | Prevalence Index worksheet:                             |                   |            |
| 6   |  | ·           |             |           | <u>Total % Cover of:</u>                                | <u>Multiply B</u> | <u>by:</u> |
| <sup>7.</sup> —   |  |             |             |           | OBL species 0   | x 1 =             | 0          |
|   | FOR affectal seven 40                                | 80          | = Total Cov |           | FACW species 0  | x 2 =             | 0          |
| Capline   | 50% of total cover: 40                               | _ 20% 0110  | itai cover: | 16        | FAC species 130   | x 3 =             | 390        |
|   | z/Shrub Stratum (Plot size: <u>15</u> )<br>er rubrum | 15          | Yes         | FAC       | FACU species 0  | x 4 =             | 0          |
|   | ercus phellos  | 15          | Yes -       | FAC       | - UPL species 0   | x 5 =             | 0          |
|   | ssa sylvatica  | 15          | Yes         | FAC       | Column Totals 130                                       | (A)               | 390 (B)    |
| 4.  | ssa sylvatica  |             |             | TAC       | Prevalence Index = B/A =                                | 3                 |            |
| 5.  |  | ·           |             |           | Hydrophytic Vegetation Indicators:                      |                   |            |
| 6.  |  |             |             |           | 1- Rapid Test for Hydrophytic \                         | /egetation        |            |
|   |  |             |             |           | ✓ 2 - Dominance Test is >50%                            |                   |            |
| 7. —  |  |             |             |           | 3 - Prevalence Index is ≤ 3.01                          |                   |            |
|   |  |             |             |           | -  4 - Morphological Adaptations                        | ¹ (Provide s      | upporting  |
| 9. —  |  | 45          |             |           | - data in Remarks or on a separate sh                   | neet)             |            |
|   | 500/ - 65-5-1 33.5                                   | 45          | = Total Cov |           | Problematic Hydrophytic Vege                            | tation¹ (Exp      | olain)     |
|   | 50% of total cover: 22.5                             | _ 20% or to | ital cover: | 9         | ¹Indicators of hydric soil and wetlan                   | , ,               | y must be  |
|   | tratum (Plot size: <u>5</u> )                        |             |             |           | present, unless disturbed or proble                     | matic             |            |
| 1. —  |  |             |             |           | Definitions of Four Vegetation Strata                   | a:                |            |
|   |  |             |             |           |   |                   |            |
|   |  |             |             |           | Tr <b>ee</b> – Woody plants, excluding vine             |                   |            |
| 4. —  |  |             |             |           | - in diameter at breast height (DBH),                   | regardless        | of height. |
| 5   |  |             |             |           | -   |                   |            |
|   |  |             |             |           | Sapling/shrub – Woody plants, exclu                     | _                 |            |
| <sup>7.</sup> —   |  |             |             |           | in. DBH and greater than or equal to                    | J 3.20 IL (I      | m) tan.    |
|   |  |             |             |           | Herb – All herbaceous (non-woody)                       | plants rog        | ardless of |
|   |  |             |             |           | size, and woody plants less than 3.2                    |                   | aruless of |
| 10  |  |             |             |           | -   | o re com.         |            |
| 11  |  |             |             |           | -   |                   |            |
|   |  | 0           | = Total Cov | er        | <b>Wo</b> ody vines – All woody vines great             | ter than 3.2      | 28 ft in   |
|   | 50% of total cover: <u>0</u>                         | _ 20% of to | tal cover:  | 0         | height.   |                   |            |
| <u>Woody</u>  | <u>v Vine Stratum</u> (Plot size: <u>30</u> )        |             |             |           |   |                   |            |
| 1. <u>Sm</u> .  | ilax rotundifolia                                    | 5           | Yes         | FAC       |   |                   |            |
| 2   |  |             |             |           |   |                   |            |
| 3   |  |             |             |           | Hydrophytic Vegetation Present?                         | ∕es 🛭 No 🗆        | ]          |
| 4   |  |             |             |           |   |                   |            |
| 5   |  |             |             |           |   |                   |            |
|   |  | 5           | = Total Cov | er        |   |                   |            |
|   | 50% of total cover: <u>2.5</u>                       | _ 20% of to | tal cover:  | 1         |   |                   |            |
| Remar   | ks: (Include photo numbers here or on a separa       | te sheet.)  |             |           | •   |                   |            |
| A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). |  |             |             |           |   |                   |            |
|   |  |             |             |           |   |                   |            |

|                        |                                | o t <b>he d</b> ept | th needed to docume              |           |                                  | or confire      | m the absenc             | e of indicators.)                |   |
|------------------------|--------------------------------|---------------------|----------------------------------|-----------|----------------------------------|-----------------|--------------------------|----------------------------------|---|
| Depth _                | Matrix                         |                     |                                  | Feature   |                                  |                 |                          |                                  |   |
| (inches)               | Color (moist)                  | <u> </u>            | Color (moist)                    | %         | Type¹                            | _Loc²           |                          | T <b>e</b> xture                 | Remarks                                     |
| 0-2                    | 10YR 3/2                       | _100_               |                                  |           |                                  |                 |                          | Silt Loam                        |   |
| 2 - 18                 | 10YR 5/2                       | 90                  | 7.5YR 4/6                        | 10        | C                                | M               | Si                       | ilty Clay Loam                   |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  | · <del></del>                               |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  | -   |
|                        | Constanting B. B.              |                     | DAS Designed Market              |           |                                  |                 |                          |                                  | B. 0 - 4                                    |
|                        |                                | epletion,           | RM = Reduced Matrix              | (, MS = 1 | маѕкеа S                         | and Grai        | ns. <sup>2</sup> Locatio | on: PL = Pore Lining, M =        |   |
| _                      | I Indicators:                  |                     |                                  | _         |                                  |                 |                          | Indicators for Problem           | natic Hydric Soils <sup>3</sup> :           |
| _ Histosol             | •                              |                     |                                  | urface (S |                                  | (CO) (MILI      | DA 147 140)              | 2 cm Muck (A10) <b>(N</b>        | MLRA 147)                                   |
| HISCIC ED<br>Black His | ipedon (A2)                    |                     |                                  |           | w Suriace<br>ace (S9) <b>(</b> N |                 | RA 147, 148)             | Coast Prairie Redo               | x (A16) (MLRA 147, 148)                     |
|                        | n Sulfide (A4)                 |                     |                                  |           | Matrix (F2                       |                 | , 140)                   | Piedmont Floodpla                | ain Soils (F19) (M <b>LRA 1</b> 3 <b>6,</b> |
|                        | d Layers (A5)                  |                     | Loamy<br>_ <b>∠</b> Deplet       | _         |                                  | -,              |                          | 147)                             |   |
| _                      | ick (A10) (LRR N)              |                     |                                  |           | rface (F6)                       |                 |                          | Very Shallow Dark                | Surface (TF12)                              |
| _ Depleted             | d Below Dark Surface (         | A11)                | _ Deplet                         | ed Dark   | Surface (F                       | <del>-</del> 7) |                          | Other (Explain in R              | emarks)                                     |
|                        | rk Surface (A12)               |                     | Redox                            | Depress   | sions (F8)                       |                 |                          |                                  |   |
| _                      | ucky Mineral (S1) <b>(</b> LRF | R N, MLRA           | <b>147, 1</b> 4 <b>8)</b> Iron-M | anganes   | se Masses                        | (F12) (LR       | R N, MLRA 130            | <b>6)</b> ₃Indicators of hydroph | nytic vegetation and                        |
|                        | leyed Matrix (S4)              |                     | _ 0                              |           | c ( , (                          |                 | ,                        | wetland hydrology mu             | ist be present, unless                      |
| _                      | edox (S5)                      |                     | _                                |           |                                  |                 | MLRA 148)                | disturbed or problema            |   |
|                        | Matrix (S6)                    |                     | Ked Pa                           | irent Ma  | iterial (F21                     | ) (MLRA         | 127, 147)                |                                  |   |
|                        | Layer (if observed):           |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        | Туре:                          |                     | None                             |           |                                  | Hydric S        | Soil Present?            |                                  | Yes ☑ No □                                  |
|                        | Depth (inches):                |                     |                                  |           |                                  |                 |                          |                                  |   |
| Remarks:               |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
| A positive             | indication of hydric s         | soil was ob         | oserved. The criterior           | for hyd   | dric soil is                     | met.            |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |
|                        |                                |                     |                                  |           |                                  |                 |                          |                                  |   |

Hydrology Photos



Vegetation Photos



### Soil Photos



Photo of Sample Plot North



Photo of Sample Plot | East



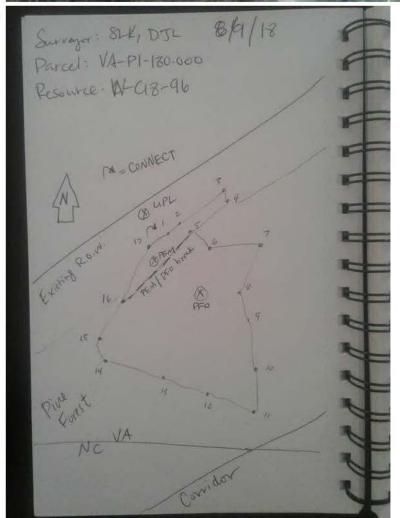
Photo of Sample Plot South



Photo of Sample Plot West



Photo of Sample Plot Sketch



# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: MVP Southgate                                 | City/County:_ Cascade, F                    | Pittsylvania Sam <b>p</b> ling | g Date: 2018-Aug-09   |                             |  |  |
|---|---|--------------------------------|---|-----------------------------|--|--|
| Applicant/Owner: NextEra                                    |   | State: Virg                    | inia Sampling Point:  | W-C18-96_UPL-1              |  |  |
| Investigator(s): Don Lockwood,                              | Simon King, Don Lockwood                    | Section, Township              | , Range:  |                             |  |  |
| Landform (hillslope, terrace, etc.):                        | Hillslope                                   | Local relief (concave, con     | vex, none): Convex  | Slop <b>e (%</b> ): 1 to 10 |  |  |
| Subregion (LRR or MLRA): M                                  | ILRA 136 of LRR P                           | Lat: 36.541799                 | Long: -79.6327328   | Datum:_WGS84                |  |  |
| Soil <b>Map</b> U <b>ni</b> t Nam <b>e</b> : <u>Mayodan</u> | fine sandy loam                             |                                | NWI classit   | ication:                    |  |  |
| Are climatic/hydrologic condition:                          | s on the site typical for this time of y    | rear? Yes 🟒 No                 | o (If no, explain in Rem  | arks.)                      |  |  |
| Are Vegetation, Soil,                                       | or Hydrology significantly d                |                                | nal Circumstances" present?                                       | Yes 🔽 No                    |  |  |
| Are Vegetation, Soil,                                       | or Hydrology naturally prob                 | olematic? (If needed           | , explain any answers in Rer                                      | marks.)                     |  |  |
|   |   |                                |   |                             |  |  |
| SU <b>M</b> M <b>ARY O</b> F FI <b>NDI</b> NGS – A          | ttach site ma <mark>p sho</mark> wing sampl | ing point locations, tra       | nsects, important featu   | ıres, etc.                  |  |  |
| Hydrophytic Vegetation Present?                             | Yes No <b>_</b> ✓_                          |                                |   |                             |  |  |
| Hydric Soil Present?  | Yes No                                      |                                |   |                             |  |  |
| Wetland Hydrology Present?                                  | Yes _ <b>✓</b> _ No                         | Is the Sampled Area with       | in a Wetland?   | Yes <b>∕_ No</b>            |  |  |
| Remarks:  |   |                                |   |                             |  |  |
| Remarks.  |   |                                |   |                             |  |  |
|   |   |                                |   |                             |  |  |
|   |   |                                |   |                             |  |  |
| Covertype is UPL. Area is upland,                           | , not all three wetland parameters a        | re present.                    |   |                             |  |  |
|   |   |                                |   |                             |  |  |
|   |   |                                |   |                             |  |  |
|   |   |                                |   |                             |  |  |
| HYDROLOGY   |   |                                |   |                             |  |  |
|   |   |                                |   |                             |  |  |
| Wetland Hydrology Indicators:                               |   |                                |   |                             |  |  |
| Primary Indicators (minimum of                              | one is required; check all that apply       | 1                              | Secondary Indicators (min   | ·                           |  |  |
| Surface Water (A1)  | True Aquatic Pla                            | ants (B14)                     | Surface Soil Cracks (B6   |                             |  |  |
| ✓ High Water Table (A2)                                     | Hydrogen Sulfic                             |                                | Sparsely Vegetated Co Drainage Patterns (B10)                     |                             |  |  |
| ✓ Saturation (A3)   |   | pheres on Living Roots (C3     |   |                             |  |  |
| Water Marks (B1)  | Presence of Rec                             | duced Iron (C4)                | Dry-Season Water Table (C2)                                       |                             |  |  |
| Sediment Deposits (B2)                                      | Recent Iron Rec                             | luction in Tilled Soils (C6)   | Crayfish Burrows (C8)   |                             |  |  |
| Drift Deposits (B3)   | Thin Muck Surfa                             |                                | Saturation Visible on Aerial Imagery (C9)                         |                             |  |  |
| Algal Mat or Crust (B4)                                     | Other (Explain i                            | n Remarks)                     |   |                             |  |  |
| Iron Deposits (B5)  |   |                                | Stunted or Stressed Pla   |                             |  |  |
| Inundation Visible on Aerial                                | Imagery (B7)                                |                                | Geomorphic Position (   | D2)                         |  |  |
| Water-Stained Leaves (B9)<br>Aquatic Fauna (B13)            |   |                                | Shallow Aquitard (D3)<br>Microtopographic Relic                   | of (D4)                     |  |  |
| Aquatic Faulia (BTS)  |   |                                | FAC-Neutral Test (D5)   | :i (D4)                     |  |  |
| Field Observations:   |   |                                |   |                             |  |  |
| Surface Water Present?                                      | Yes No <u></u> ✓ Depti                      | h (inches):                    |   |                             |  |  |
| Water Table Present?  |   | h (inches): 12                 | - <br>  <b>We</b> tla <b>nd</b> H <b>yd</b> rol <b>ogy</b> Preser | nt? Yes No                  |  |  |
| Saturation Present?   | ·   | h (inches):                    | -   |                             |  |  |
| (includes capillary fringe)                                 | <u> </u>                                    | 10                             | -   |                             |  |  |
|   | gauge manitoring well assist plant          | as province inspections) if    | nunilable:  |                             |  |  |
| Describe Recorded Data (stream                              | gauge, monitoring well, aerial photo        | os, previous irispections), ii | avallable:  |                             |  |  |
|   |   |                                |   |                             |  |  |
| D   |   |                                |   |                             |  |  |
| Remarks:  |   |                                |   |                             |  |  |
|   |   |                                |   |                             |  |  |
|   |   |                                |   |                             |  |  |
| A positive indication of wetland b                          | nydrology was observed (primary an          | d secondary indicators wer     | re present) recept heavy rai                                      | n                           |  |  |
| A positive indication of wedand i                           | lydrology was observed (primary an          | d secondary marcators wer      | e present). recent neavy rai                                      | l <b>I.</b>                 |  |  |
|   |   |                                |   |                             |  |  |
|   |   |                                |   |                             |  |  |

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

| · · · · · · · · · · · · · · · · · · ·               |                  |               |           | 1   |               |                |
|---|------------------|---------------|-----------|---|---------------|----------------|
| Trop Stratum (Blot size) 20)                        | <b>A</b> bsolute | Dominant      | Indicator | Dominance Test worksheet:                                     |               |                |
| Tree Stratum (Plot size: 30)                        | <b>%</b> Cover   | Species?      | Status    | Number of Dominant Species That                               | 0             | (A)            |
| 1.  |                  |               |           | Are OBL, FACW, or FAC:  |               | (A)            |
| 2.  |                  |               |           | Total Number of Dominant Species Across All Strata:           | 1             | (B)            |
| 3   |                  |               |           |   |               |                |
| 4   |                  |               |           | Percent of Dominant Species That Are OBL, FACW, or FAC:       | 0             | (A/B)          |
| 5   |                  |               |           | Prevalence Index worksheet:                                   |               |                |
| 6.  |                  |               |           | - Total % Cover of:   | Multiply      | D. rr          |
| 7.  |                  |               |           | OBL species 0   | x 1 =         | <b></b><br>О   |
|   | 0                | = Total Cove  | er        |   | -             |                |
| 50% of total cover: <u>0</u>                        | 20% of to        | tal cover:    | 0         | FACW species 0  | x 2 = _       | 0              |
| Sapling/Shrub Stratum (Plot size:15)                | ="               |               |           | FAC species 20  | x3=           | 60             |
| 1.  |                  |               |           | FACU species 90   | × 4 =         | 360            |
| 2.  |                  |               |           | UPL species 0   | x 5 = _       | 0              |
| 3.  |                  |               |           | Column Totals110  | (A) _         | 420 (B)        |
| 4.  |                  |               |           | Prevalence Index = B/A =                                      | 3.8           |                |
| 5.  |                  |               |           | Hydrophytic Vegetation Indicators:                            |               |                |
| 6.  |                  |               |           | 1- Rapid Test for Hydrophytic                                 | √egetatior    | ı              |
|   | . ——             |               |           | 2 - Dominance Test is > 50%                                   |               |                |
| /   |                  |               |           | 3 - Prevalence Index is ≤ 3.01                                |               |                |
| 8.  |                  |               |           | -  4 - Morphological Adaptations                              | ¹ (Provide    | supporting     |
| 9   |                  |               |           | data in Remarks or on a separate sl                           | neet)         |                |
|   | 0                | _= Total Cove | er        | Problematic Hydrophytic Vege                                  | tation¹ (E:   | (plain)        |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:   | 0         | <sup>1</sup> Indicators of hydric soil and wetlan             | id hydrolo    | gy must be     |
| Herb Stratum (Plot size: 5)                         |                  |               |           | present, unless disturbed or proble                           | matic         |                |
| 1. Melilotus indicus                                | 60               | Yes           | FACU      | Definitions of Four Vegetation Strat                          | a:            |                |
| 2. <i>Panicum capillare</i>                         | 20               | No            | FAC       | _   |               |                |
| 3. Prunella vulgaris                                | 20               | No            | FACU      | Tree – Woody plants, excluding vine                           | ıs, 3 in. (7. | 6 cm) or more  |
| 4. Solanum carolinense                              | 10               | No            | FACU      | in diameter at breast height (DBH),                           |               |                |
| 5.  |                  |               |           |   |               |                |
| 6.  |                  |               |           | Sapling/shrub – Woody plants, exclu                           | uding vine    | s, less than 3 |
| 7.  |                  |               |           | in. DBH and greater than or equal to                          | o 3.28 ft (1  | l m) tall.     |
| 8.  |                  |               |           |   |               |                |
| 9.  |                  |               |           | Herb – All herbaceous (non-woody)                             | plants, re    | gardless of    |
| 10  |                  |               |           | size, and woody plants less than 3.2                          | 8 ft tall.    |                |
| 11.   | · ——             |               |           | -   |               |                |
|   | 110              | = Total Cove  | nr.       | - <b> <br/>  Wo</b> od <b>y vine</b> s – All woody vines grea | ter than 3    | 28 ft in       |
| 50% of total cover: <u>55</u>                       |                  | -             | 22        | height.   | cer chairs    | .20 10 111     |
|   | _ 20% 01 ((      | itai cover.   |           | 110.8.10  |               |                |
| Woody Vine Stratum (Plot size: 30 )                 |                  |               |           |   |               |                |
| 1   |                  |               |           | -   |               |                |
| 2.  | ·                |               |           | -   |               |                |
| 3.  |                  |               |           | Hydrophytic Vegetation Present? `                             | res ⊔ No I    | <b>4</b>       |
| 4   |                  |               |           | -   |               |                |
| 5   |                  |               |           | -   |               |                |
|   | 0                | = Total Cove  | er        |   |               |                |
| 50% of total cover: <u>0</u>                        | _ 20% of to      | otal cover:   | 0         |   |               |                |
| Remarks: (Include photo numbers here or on a separa | te sheet.)       |               |           | •   |               |                |
| Trainer to the same prior to the same as a separa   | a sincery        |               |           |   |               |                |
|   |                  |               |           |   |               |                |
|   |                  |               |           |   |               |                |
|   |                  |               |           |   |               |                |
|   |                  |               |           |   |               |                |
|   |                  |               |           |   |               |                |
|   |                  |               |           |   |               |                |
|   |                  |               |           |   |               |                |

| Profile Description: (De  | escribe to the dep | oth needed to docum  | ent the i             | n <b>dicator</b> o               | or confir            | m the absence of                       | findicators.)               |   |
|---|--------------------|----------------------|-----------------------|----------------------------------|----------------------|--|-----------------------------|---|
| Depth M   | latrix             | Redox Features       |                       |                                  |                      |  |                             |   |
| (inches) Color (m   | oist) %            | Color (moist)        | %                     | Type¹                            | Loc²                 | Te                                     | exture                      | Remarks                                     |
| 0 - 2 10YR 4  | /3 100             |                      |                       |                                  |                      | Sandy                                  | Clay Loam                   |   |
| 2 - 12 10YR 4   | /3 90              | 7.5YR 5/6            | 10                    | С                                | M                    | Sandy                                  | Clay Loam                   |   |
|   |                    |                      |                       |                                  |                      |  |                             |   |
|   |                    |                      |                       |                                  |                      |  |                             |   |
|   |                    |                      |                       |                                  |                      |  |                             | -   |
|   |                    |                      |                       |                                  |                      |  |                             | -   |
|   |                    |                      |                       |                                  |                      |  |                             |   |
|   |                    |                      |                       |                                  |                      |  |                             |   |
|   |                    |                      |                       |                                  |                      | -                                      |                             |   |
|   |                    |                      |                       |                                  |                      |  |                             |   |
|   |                    |                      |                       |                                  |                      |  |                             |   |
| ¹Type: C = Concentrati  | on, D = Depletion  | i, RM = Reduced Matr | x, MS = 1             | Masked S                         | and Gra              |  |                             |   |
| Hydric Soil Indicators:   |                    |                      |                       |                                  |                      | In                                     | dicators for Problem        | atic Hydric Soils3:                         |
| _ Histosol (A1)   |                    | _                    | Surface (S            |                                  | (00) (0.0)           | D. 447 4401 —                          | _ 2 cm Muck (A10) <b>(N</b> | ILRA 147)                                   |
| Histic Epipedon (A2)<br>Black Histic (A3)                         |                    |                      |                       | w Surтасе<br>ace (S9) <b>(</b> N |                      | RA 147, 148) —                         | _ Coast Prairie Redox       | k (A16) (MLRA 147, 148)                     |
| Hydrogen Sulfide (A4  | )                  |                      |                       | Matrix (F2                       |                      |  | _ Piedmont Floodpla         | in Soils (F19) (ML <b>RA 1</b> 3 <b>6</b> , |
| _ Stratified Layers (A5)  | ,                  |                      | ted Matr              |                                  | -,                   | 14                                     | 17)                         |   |
| 2 cm Muck (A10) <b>(</b> LRF                                      | RN)                |                      |                       | ırface (F6)                      |                      | _                                      | _ Very Shallow Dark :       | Surface (TF12)                              |
| Depleted Below Dark   |                    |                      |                       | Surface (F                       | 7)                   | _                                      | _ Other (Explain in R       | emarks)                                     |
| Thick Dark Surface (A   | •                  | Redox                | Depress               | sions (F8)                       | /E40) // E           | D N ANDA 4065                          |                             |   |
| <ul><li>Sandy Mucky Mineral</li><li>Sandy Gleyed Matrix</li></ul> |                    | 147, 148)  ron-n     | nangane:<br>ic Surfac | se Masses<br>e (F13) ( <b>M</b>  | (FTZ) (LF<br>LDA 136 | (K N, MLKA 136) <sub>3 r</sub><br>122\ | ndicators of hydroph        | ytic vegetation and                         |
| Sandy Redox (S5)  | (34)               |                      |                       | c ( , (                          |                      | MLRA 148)                              | etland hydrology mu         | st be present, unless                       |
| Stripped Matrix (S6)  |                    |                      |                       | iterial (F21                     |                      | الم                                    | sturbed or problema         | itic.                                       |
| Restrictive Layer (if ob  | served):           |                      |                       |                                  |                      |  |                             |   |
| Туре:   |                    | None                 |                       |                                  | Hydric:              | Soil <b>Pres</b> ent?                  |                             | Yes □ No ☑                                  |
| Depth (inche  | <u></u>            |                      |                       |                                  | 1                    |  |                             |   |
| Remarks:  |                    |                      | •                     |                                  | <u> </u>             |  |                             |   |
| Traine.   |                    |                      |                       |                                  |                      |  |                             |   |
|   |                    |                      |                       |                                  |                      |  |                             |   |
|   |                    |                      |                       |                                  |                      |  |                             |   |
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| NI NA NA - IN NA  | - E                |                      |                       |                                  |                      |  |                             |   |
| No positive indication  | ot nyaric soils wa | is observed.         |                       |                                  |                      |  |                             |   |
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Hydrology Photos



Vegetation Photos





Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West

